

UC San Diego

UC San Diego Electronic Theses and Dissertations

Title

Plastics! Histories, Theories and Practices to Rethink the Concept of the 'Plastic,' between Plasticity and Plasticism

Permalink

<https://escholarship.org/uc/item/9vc0t6x2>

Author

Bovino, Emily Verla

Publication Date

2017

Peer reviewed|Thesis/dissertation

UNIVERSITY OF CALIFORNIA, SAN DIEGO

Plastics!
Histories, Theories and Practices to Rethink the Concept of the 'Plastic,'
between Plasticity and Plasticism

A dissertation submitted in partial satisfaction of the
Requirements for the degree Doctor of Philosophy

in

Art History, Theory and Criticism
Concentration in Art Practice
Specialization in Anthropogeny

by

Emily Verla Bovino

Committee in charge:

Professor Jack Greenstein, Chair
Professor Sheldon Nodelman, Co-Chair
Professor Norman Bryson
Professor Ricardo Dominguez
Professor Bennetta Jules-Rosette
Professor William Tronzo

2017

Copyright

Emily Verla Bovino, 2017

All rights reserved.

The Dissertation of Emily Verla Bovino is approved, and it is acceptable in quality and form for publication on microfilm and electronically:

Co-Chair

Chair

University of California, San Diego

2017

DEDICATION

To my parents,
Rosmarie Tortorello Bovino and Arthur Benedict Bovino, Jr.,
for their patience and unwavering support (and
for their help as editors and advisers).

To my grandparents,
Verla Jean Whadford and John Anthony Tortorello,
Helen Niedzwiecki and Arthur Benedict Bovino,
for their love, creativity, and story-telling.

EPIGRAPH

Mr. McGuire: I just want to say one word to you. Just one word.

Benjamin: Yes, sir.

Mr. McGuire: Are you listening?

Benjamin: Yes, I am.

Mr McGuire: Plastics.

Benjamin: Exactly, how do you mean?

The Graduate (1967)

The cerebellum and the cerbrum are respectively our human Senate and House where the body is the People, the senses are the Cabinet, and the nerves are the Federal Administration. In the body's democracy the soul is appointed President for life but without authority to dissolve Congress. All social democracies originate in the body's democracy and model themselves on it, with one difference: in its social form the individual matters most; in its physical form the only thing that ever matters is the common interest.

Water meanders on a completely smooth surface and toboggans down the glossiness of leaves.

Malcolm de Chazal in *Sens-Plastique* (1948)

TABLE OF CONTENTS

Signature Page.....	iii
Dedication.....	iv
Epigraph.....	v
Table of Contents.....	vi
List of Supplemental Files.....	ix
List of Figures.....	x
Acknowledgements.....	xxix
Vita.....	xxxii
Abstract of the Dissertation.....	xxxii
Introduction.....	1
PART ONE Plastic Beginnings.....	15
Prologue / Encountering the ‘Plastic’ in the Practice of Maria Hassabi.....	17
How a Transitional Space Becomes a Place of Pause.....	17
The ‘Plastic’ as Torment – What is the ‘Plastic’?.....	26
Chapter One / Plastic Sense and Plastic Automatism.....	32
Sensing the ‘Plastic’: Malcolm de Chazal and Robert Motherwell	32
The ‘Plastic Weapon’: Motherwell, Andre Breton and Pablo Picasso.....	35
Plastic Automatism in Motherwell’s <i>Papier Collé</i>	43
The ‘Plastic’ Hovers in the Aura of Main Themes.....	46
Chapter Two / What <i>is</i> the Difference between Sculpture and the ‘Plastic’?.....	52
Watching the ‘Plastic’ in Action’.....	52
Sculpture as Life, the ‘Plastic’ as Death (or the As-of-Yet-Unborn).....	56
‘Plastic’ Venus – The <i>Lespugue</i> , Picasso and Constantin Brancusi.....	58
Chapter Three / The ‘Plastic’ in Art Historiography: Aby Warburg in Context....	69
A ‘Plastic’ Inheritance from G.W.F. Hegel to Alois Riegl.....	69
The Plasticity of Aby Warburg’s <i>Kulturwissenschaft</i> (Cultural Science)..	74
A Friendship of ‘Plastic’ Values: Warburg and Adolf von Hildebrand....	80
From Hildebrand to Robert Vischer: Warburg and ‘Corporealization’....	85
‘Plastic Reading’ and Warburg’s <i>Mnemosyne Bilderreihen</i>	99
Chapter Four / The ‘Plastic’ in a Pathos-formula of Falling (Endymion).....	122
The Endymion-Type from Antiquity to the Contemporary.....	122
In Afterlife? The ‘New Plastic’ in Bas Jan Ader and Piet Mondrian.....	125
Diagonal Destruction: Training the ‘New Plastic’ Body.....	138
Chapter Five / The ‘Plastic’ in Futurism.....	144
Piet Mondrian’s Neo-Plasticist Critique of the Futurist ‘Plastic’.....	144
‘Plastic Foundations’: Umberto Boccioni.....	149
‘Plastic Analogies’: Gino Severini.....	160

‘Plastic Complexes’: Giacomo Balla and Fortunato Depero.....	167
The ‘Plastic Art’ of <i>Métachorie</i> : Valentine de Saint-Point.....	176
The Staircase and a ‘Fantastically Slow Unfolding’.....	185
Chapter Six / ‘Try to Argue for the Plastic Duration’.....	197
Marcel Duchamp’s ‘Plastic’: Aesthetic Category or Aesthetic Pleasure?	197
The ‘Plastic’ in ‘Plastic Duration’: Duchamp and Fernand Léger.....	201
‘Plastic Duration’ in Practice in Duchamp’s <i>À l’Infinifif</i> Fragments.....	209
‘I Mean Space into Time’: The ‘Plastic’ between Dimensions.....	217
Coupling and Doubling in Plastic Poems: Man Ray and Sherrie Levine..	221
Invent and Experiment: Duchamp with Jacques Lebel and J.W. Dunne...	227
Chapter Seven / <i>PLASTIQUE</i> between Surrealism and Abstraction.....	234
<i>The Man Who Lost His Skeleton</i> in the Magazine <i>PLASTIQUE</i>	234
<i>PLASTIQUE</i> curator Sophie Taeuber-Arp’s Kinesthetic ‘Plastic’.....	242
Salvador Dali’s <i>Plastiques-Figuratifs</i> and Delirious <i>Plastiques</i>	258
Chapter Eight / ‘Dialogues,’ ‘Cracks,’ Theses, and ‘Quasi-Surveys’ on the ‘Plastic’	270
Carl Andre and Hollis Frampton on Plasticity in <i>12 Dialogues</i>	270
Rosemarie Castoro’s ‘Cracks’ in the Andre and Frampton’s <i>12 Dialogues</i>	282
Mutation or Niche Construction? Mark Rothko on Plasticity.....	286
The ‘Plastic’ in Post-Conceptualism: Warren Neidich and Maria Hassabi	310
Defining ‘Plastic Art,’ from the <i>Encyclopédie</i> to Lord Shaftesbury.....	317
Movement-as-Object in Minimal, Post-Minimal and Post-Conceptual Art	324
Chapter Nine / The ‘Plastic Body’ and the ‘Plastic-Pictorial’ in the Artistic Act..	333
The ‘Plastic Body’: Carolee Schneeman and Andy Warhol.....	333
The ‘Plastic-Pictorial’ in Mikhail Bakhtin’s Theory of ‘Aesthetic Activity’	336
The ‘Plastic Inevitable’ or ‘Warhol’s Success Depends on his Failure’....	342
Chapter Ten / Plastic Value as a Destructive Principle.....	352
...from Kitasono Katue and Andy Warhol to the magazine <i>Valori Plastici</i>	352
An Ambiguous ‘Return to Order’ in <i>Valori Plastici</i> ’s <i>PLASTICITY</i>	358
‘Plastic Values’ in Hanne Darboven’s <i>Cultural History 1880-1983</i>	369
Chapter Eleven / Plastic Exercises towards <i>Plastes et Fictor</i>	397
Jerzy Grotowski’s <i>Exercices Plastiques</i> and Aby Warburg’s ‘Plastic’ <i>Atlas</i>	397
Warburg’s Prologue Plates to the <i>Mnemosyne Atlas (Tafeln A, B and C)</i>	399
<i>Plastes et Fictor</i> : Pico della Mirandola’s ‘Free and Extraordinary Shaper’	420
‘I am Plastic’: From Jackson Pollock to Maria Hassabi.....	424
PART TWO Plastic Endings.....	432
Chapter One / Figuring out the Roundabout.....	434
Chapter Two / What is Manamaism? An Urbanistic Doctrine of Momentum.....	456
The Arab Spring: Reform-Minded Protest to Revolutionary Re-forming..	461
Momentum in Momentous Scenes Never Scene.....	471
Chapter Three / A Monument to Bad Memory beyond Iconoclasm and Vandalism	495
The Withdrawal of Tradition Past a Surpassing Disaster.....	500
Chapter Four / Clone or Replication? From Splintered Image to Plastic Activism	527
On Production, Reproduction, and Replication in Plastic Scale.....	537
Porosity and Percolation: The Lesson of Plastic Scale.....	549
Chapter Five / Scrolling Back through the History of Roundabout Revolutions....	557
Infra-Political Momentum: The Extra-territorial Roundabout.....	578
Looking West: Rounding-Off Traffic Systems from Paris to Indianapolis	590
A Magic Roundabout: The ‘Pearl’ at the Core of Roundabout Revolutions	608

Chapter Six / To Yield: Withdrawing and Producing.....	638
Engaging by Disengaging: Art-as-a-Function-of-Yield.....	650
Chapter Seven / A ‘Round’ About Plastic Activism in <i>52 Weeks</i>	687
From Micro to Macro: Incorporating Pearl Roundabout Replications.....	703
Chapter Eight / Plastic Activism as Tactical Urbanism in Urban Scenography.....	713
Rounding-Off: From Viennese Actionism to Manama’s Plastic Activism	719
Chapter Nine / Swerving and Pinching, Compressing and Closing Up.....	742
 PART THREE Plastic Thresholds.....	 758
A Middle Voice in Art History.....	760
To Speak is a Verb of Middle Voice.....	767
A Tale of Three Objects, or <i>Better to Lose Your Head than Use It</i>	773
 Appendices.....	 817
 References.....	 1185

LIST OF SUPPLEMENTAL FILES

PART ONE Plastic Beginnings / PDF Document

File name: Bovino_PART1_PREZI_PATHS_2017

Description: PDF of paths in Prezi animated image configuration (PDF).

PART TWO Plastic Endings / PDF Document

File name: Bovino_PART2_MIV_PERP_LTR_3ED_SEPT2015_2017

Description: PDF of the self-published chapbook *On the Pearl Interpolation (PERP) in a Monument to Bad Memory or how to add a perp to the herp, the lerp and the berp already present in the library of things* (PDF).

PART THREE Plastic Thresholds / PDF Document, Sound Files, and Video Files

File name: Bovino_PART3_AbbrPortfolio_2017_SM_PRINT.pdf

Description: PDF of abbreviated artist portfolio.

File name: Bovino_PART3_RKLOG_EPISODE1_16MMPRINT.mov

Description: Video file of RKLOG Episode One Trailer 16mm film (MOV).

Shown as part of RADIANT BARRIER + PLASTIC THRESHOLD (see portfolio)

File name: Bovino_PART3_RKLOG_EPISODE1_APosthumousGesture.wav

Description: Sound file of RKLOG Episode One (WAV).

Folder name: Bovino_PART3_RKLOG_EPISODE2_BetterToLoseYourHead_MP3

Description: Sound files of RKLOG Episode Two Audio-Drama (MP3).

Screened for RADIANT BARRIER + PLASTIC THRESHOLD (see portfolio).

File name: Bovino_PART3_RKLOG_SUSSTUDIOStudioExperiment.mov

Description: Video file of RKLOG Episode Two studio experiment (MOV).

Shown as part of RADIANT BARRIER + PLASTIC THRESHOLD (see portfolio).

Folder name: Bovino_PART3_RKLOG_ProcessSculptureVideo_TomatoSpindleSilicone_MP4

Description: Video files of RKLOG process sculpture experiments (MP4).

Shown as part of RADIANT BARRIER + PLASTIC THRESHOLD (see portfolio).

LIST OF FIGURES

List of Figures for PART ONE Plastic Beginnings

All figures are in an animated image configuration included with the dissertation as a supplemental file. Print-outs of ‘paths’ of the animated image configuration are provided in the Appendix.

List of Figures for PART TWO Plastic Endings

Figure 1 Screenshot configuration by the author: (left, foreground) "Don't Be So Square," a 2009 Slate article on roundabouts (source: *Slate*); (center, background) the standard icon for roundabouts (source: public domain). Image by the author..... 436

Figure 2 Screenshot configuration by the author: (left, foreground) "Don't Be So Square," a 2009 article on roundabouts (source: *Slate*); (right, foreground) Valie Export, *Abrundung (Rounding-Off, 1976)* (source: medienkunstnetz.de and VG Bild-Kunst 2004; photo: Hermann Hendrich); (center, background) the standard icon for roundabouts [...].....440

Figure 3 Screenshot configuration by the author: (center, foreground) the term “formula” shifts art historical discourse from “form and content” to a focus on “property and vital dimension”; (left, background) "Don't Be So Square," a 2009 *Slate* article on roundabouts (source: *Slate*); (right, background) Valie Export, *Abrundung (Rounding-Off, 1976)* [...]..... 443

Figure 4 Screenshot configuration by the author: (left, foreground) Ebenezer Howard’s *Garden City* plan from *Garden Cities of To-morrow*, 1898 (source: urbanplanning.library.cornell.edu; figure: *Garden Cities of Tomorrow*, 1898); (right, foreground) Bab Al-Bahrain (Gateway of Bahrain, built 1949) [...]..... 447

Figure 5 Screenshot configuration by the author: (left, foreground) the Lea Bridge Roundabout in West London’s Hackney, UK (source: Google Maps, 2017); (left, background) photograph of banner used at “neo-nazi” protests held at the Lea Bridge Roundabout (source: The Guardian); (right, foreground) Capital Avenue Roundabout in Frankfort, Kentucky, USA [...]..... 448

Figure 6 Screenshot configuration by the author: (left, foreground) aerial view of the Pearl Roundabout (*Dowar Al-Lulu*) in Manama Bahrain before its demolition in 2011 (source: *Bahrain Observer*); (right bottom, background) aerial view of the fallen Pearl Roundabout in the aftermath of its government-sanctioned destruction (source: Creative Commons) [...]..... 452

Figure 7 Screenshot configuration by the author: (center, foreground) map of Manama, Bahrain (source: weather-forecast.com); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.....456

Figure 8 Screenshot configuration by the author: (center, foreground) protesters gathering around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain at the request of Bahraini officials (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons); (center, background) the standard icon for roundabouts [...]..... 458

Figure 9 Screenshot configuration by the author: (center, background) protesters gathering around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain to suppress protests (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons); the standard icon for hubs [...]..... 462

Figure 10 Screenshot configuration by the author: (left, foreground) Map of the Persian Gulf (source: public domain); (center, background) map of Manama, Bahrain (source: weather-forecast.com); (right, foreground) the standard icon for hubs, which can also serve as a topological diagram for the Pearl Roundabout design [...].....464

Figure 11 Screenshot configuration by the author: (left, foreground) the last Google Earth satellite image (March 3, 2011) taken of the occupied Pearl Roundabout before its destruction by a government-ordered demolition crew (source: Google Earth, 2011); (center, background) the standard icon for roundabouts (source: public domain). Image by the author..... 469

Figure 12 Screenshot configuration by the author: (top: left, background) the last Google Earth satellite image (March 3, 2011) taken of the occupied Pearl Roundabout before its demolition (source: Google Earth, 2011); (top: right, foreground) satellite image of the Pearl Roundabout before Arab Spring protests (June 16, 2010; source: Google Earth, 2011). [...]..... 470

Figure 13 Screenshot configuration by the author: (center, background) satellite view of the Bahrain Financial Harbor including Reef Island and Farooq Junction (the former Pearl Roundabout site) (source: Google Maps, 2017); (left, background) aerial photograph of the Pearl Roundabout before 2011 (source: *Bahrain Observer*) [...]..... 471

Figure 14 Screenshot configuration by the author: (left, background) aerial photograph of the Pearl Roundabout before 2011 (source: *Bahrain Observer*); (center, background) protesters gathering around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain (March 14, 2011) [...].....474

Figure 15 Screenshot configuration by the author: (left, foreground) the rotating fall of the Pearl Roundabout monument in official documentation of its destruction (as circulated on Youtube) (source: Bahrain News Agency; teyeodg jytsneb and Youtube.com); (right, background) a jump cut from the shot on the left sends the edited documentation [...].....476

Figure 16 Screenshot configuration by the author: (top center and bottom center) footage of a press conference held after the destruction of the monument; attendees waiting to hear Bahrain’s Foreign Minister address the public, study pamphlets emblazoned with the word “REFORM” in red type-face [...]..... 477

Figure 17 Screenshot configuration by the author: (left top, foreground) video-still from the beginning of documentation of the Pearl Roundabout demolition. (Right top, foreground) Video-still of the rotating fall; a jump cut from the shot of the rotating fall sends the edited documentation directly to (left bottom, background) the aftermath of the collapse [...]..... 478

Figure 18 Screenshot configuration by the author: (left top, foreground) the 14FebTV video montage begins with official Bahrain News Agency (BNA) documentation of the Pearl

Roundabout demolition; (left bottom, background) it also includes footage of a press conference with international media [...]	481
Figure 19 Screenshot configuration by the author: (left, foreground) photograph of activists and protesters gathered around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons) [...]	483
Figure 20 Screenshot configuration by the author: (clockwise from top left to bottom left) photograph of a Bahraini burial in 2013 with Pearl Roundabout spray-graffiti in the background (source: <i>The Nation</i> ; photo: Sharif Abdel Kouddous); explicitly anthropomorphic Pearl Roundabout spray-graffiti on the side of a wall in Manama [...]	489
Figure 21 Screenshot configuration by the author: (clockwise, top left to bottom left): Pearl Roundabout miniatures at a protest before the 2011 razing of the roundabout (source: Khalaf, “The Many Afterlives of Lulu,” photo: Ahlam Oun); stock photograph of a Pearl Roundabout assemblage at a demonstration in Manama (2012) [...]	493
Figure 22 Screenshot configuration by the author: (clockwise, top left to bottom left): masked pro-reform protesters with a Pearl Roundabout replication at a rally on Budaiya highway (2012) (source: alamy.com; photo: EPA/Mazen Mahdi); protestors setting up a Pearl Roundabout replication in a roundabout in Aali, south of Manama (2011) [...]	494
Figure 23 Screenshot configuration by the author: (top left) Bamiyan Buddhas of Afghanistan, before and after they were ordered destroyed in 2001 by Taliban commanders (source: BBC); (top right) the Babri Masjid, or Babri Mosque, of Ayodha in Northern India during its destruction by a violent Hindu rally in 1992 [...]	495
Figure 24 Screenshot configuration by the author: (counter-clockwise, left to right) (top left) Jalal Toufic with Selim Kuru as Ottomoan Translator, <i>How to Read an Image/Text Past a Surpassing Disaster?</i> photographs and text, 2010, inspired by Toufic’s book <i>The Withdrawal of Tradition Past a Surpassing Disaster</i> (2009) [...]	502
Figure 25 Screenshot configuration by the author: (far left and far right) stills from Bahrain News Agency footage of the Pearl Roundabout destruction (source: Bahrain News Agency; 24x7 News and Youtube.com); (center cluster, clockwise from top center to top left) ‘re-animating’ 3D-animation of the Pearl Roundabout created by operators of 14FebTV [...]	507
Figure 26 Screenshot configuration by the author: (left to right) simulation of Abraj al-Lulu (Pearl Towers) overlooking the iconic Pearl Roundabout (source: Ian Banham & Associates); the planned project under construction (source: Ministry of Works, Bahrain); the destroyed Pearl Roundabout in the shadow of the Pearl Towers (source: public domain). [...]	510
Figure 27 Screenshot configuration by the author: Marcel Duchamp, <i>Boite-en-valise (de ou par Marcel Duchamp ou Rose Selavy, 1935-1941, leather valise containing 69 items including miniature replicas, photographs and color reproductions of works by Duchamp and one “original” (the Large Glass, a collotype on celluloid [...]</i>	512

Figure 28 Screenshot configuration by the author: (left) video of security forces dismantling a large Pearl Roundabout replication left in a roundabout in Aali village near Manama (source: AaliNews and Youtube.com); (right) Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march [...].	515
Figure 29 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of the annual Ashura march in the village of Karzakan (source: abo22yousif and Youtube); Ashura marches are islamic religious processions that are often also occasions for political statements. [...].	516
Figure 30 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.	518
Figure 31 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.	522
Figure 32 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.	524
Figure 33 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.	531
Figure 34 Screenshot configuration by the author: (staggered left to right) Google Images search figures of linear interpolations, bezier interpolations and hermite interpolations (source: Google Images). Image by the author.	533
Figure 35 Screenshot configuration by the author: (left) Google Images search for “tank man” image from Tiananmen Square massacre (1989) in Beijing (source: Google Images); (right) the demolished Pearl Roundabout in Manama, Bahrain (2011) (source: public domain); (center background) standard icon for roundabouts (source: Creative Commons). [...].	538
Figure 36 Screenshot configuration by the author: (left, top) Wages for Housework poster (source: Silvia Federici / Google Image search); (left, bottom) philosopher Silvia Federici (source: public domain). (right, middle) Laszlo Moholy-Nagy (source: Bauhaus100); (right) cover of issue of <i>De Stijl</i> that published Moholy-Nagy’s essay [...].	540
Figure 37 Screenshot configuration by the author: (left) Makerbot 3D printer, model Replicator 2 (source: Google Images); (right) Star Trek replicator (source: Google Images). Image by the author.	542

Figure 38 Screenshot configuration by the author: (left) A 2012 stock photograph of a Pearl Roundabout replication held by a protestor who appears to be covering his nose and mouth with a cloth, preparing for tear gas (source: Reuters / Alamy); (right) a stock photograph of Bahraini human rights activist and opposition leader Nabeel Rajab [...].....545

Figure 39 Screenshot configuration by the author: Youtube user basboos1001’s video post “Bahrain Pearl is every where” featuring footage of a Pearl Roundabout replication document sculptures left in streets and squares, as well as the mobilization of security forces ordered to dismantle and discard them (source: Youtube). Image by the author..... 547

Figure 40 Screenshot configuration by the author: a Youtube user’s video-post mocks Pearl replication dismantlings by security forces with the title, “Bahrain:regime mercenaries scared of mini-pearl monument in Iskan AAli 15-8-2011” (source: Youtube). Image by the author..... 548

Figure 41 Screenshot configuration by the author: (left) images from my Pearl Roundabout replication project, *PERP*; (top middle) a virtual-fictional Southern California iteration of a Pearl Roundabout replication in the video game Grand Theft Auto (source: Grand Theft Auto); (right) my physical-actual iteration of the *PERP* project [...].....552

Figure 42 Screenshot configuration by the author: image folios from the essay “Towards a Plastic Conception of Scale” by architect El Hadi Jazairy (source: New Geographies, Harvard University Press). Image by the author..... 554

Figure 43 Screenshot configuration by the author: screenshot of the blog peddlers-and-bandits where the PERP project is accessible online (source: the author). Image by the author..... 556

Figure 44 Screenshot configuration by the author: a photograph of the May 1980 Gwangju uprising in South Korea from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 559

Figure 45 Screenshot configuration by the author: photograph of the May 1980 Gwangju uprising in South Korea from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 560

Figure 46 Screenshot configuration by the author: a photograph of Tunis’s Place 14 janvier 2011 (formerly Place du 7 Novembre 1987, Place Bourguiba, and Place d’Afrique), the principal site of Arab Spring protests in Tunisia, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 562

Figure 47 Screenshot configuration by the author: photographs of Cairo’s Tahrir Square, the principle site of Arab Spring protests in Egypt, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015) [...]..... 563

Figure 48 Screenshot configuration by the author: photographs of Manama’s Pearl Roundabout, the principle site of Arab Spring protests in Bahrain, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015) [...]..... 564

Figure 49 Screenshot configuration by the author: photographs of Tehran’s Azadi Square, the principal site for demonstrations in Iran’s capital, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015) [...]..... 565

Figure 50 Screenshot configuration by the author: Eyal Weizman’s *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 567

Figure 51 Screenshot configuration by the author: detail of Eyal Weizman’s *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 567

Figure 52 Screenshot configuration by the author: (left) plans for Eyal Weizman’s *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015); (right) an 18th-century Chinoiserie Folly (source: The New York Times). Image by the author..... 568

Figure 53 Screenshot configuration by the author: the steel-and-glass pavillion in Eyal Weizman’s *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 569

Figure 54 Screenshot configuration by the author: (top) the round-table with rotating camera inside of the pavillion (bottom) in Eyal Weizman’s *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author..... 570

Figure 55 Screenshot configuration by the author: Weizman associates (left) the concentric circles of roundabout circumferences in his *Gwangju Folly* (2013) with (middle) the Florentine Renaissance image of *The City of Dis, Circles 6 to 9 of Hell* from Dante’s *The Divine Comedy* (c. 1320) (source: Weizman, *The Roundabout Revolutions*, 2013) [...]..... 571

Figure 56 Screenshot configuration by the author: a photograph of a miniature roundabout in a Jewish settlement in Jerusalem, from Eyal Weizman’s *The Roundabout Revolutions*, 2013 (image: Weizman, *The Roundabout Revolutions*, 2013). Image by the author..... 573

Figure 57 Screenshot configuration by the author: photographs of Gwangju’s Jeollanamdo Provincial Office (Gwangju Provincial Square) (source: Google Images). Image by the author..... 576

Figure 58 Screenshot configuration by the author: an image from Eyal Weizman’s “speculative urban fantasy,” *Yellow Rhythms: A Roundabout for London*, his 1997-1998 graduation project at the Architectural Association School of Architecture (source: Weizman, *The Roundabout Revolutions*, 2013). Image by the author..... 578

Figure 59 Screenshot configuration by the author: stills from the ‘roundabout’ scene in Place Denfert-Rochereau, Paris, in the film *Pont du Nord* (1981) by Jacques Rivette (source: Kino Lober) Image by the author..... 579

Figure 60 Screenshot configuration by the author: (left) stills from the ‘roundabout’ scene in Place Denfert-Rochereau, Paris, in the film *Pont du Nord* (1981) by Jacques Rivette (source: Kino Lober); (right) still of the spiral map superimposed on Paris’s rings of arrondissements (source: Kino Lober). Image by the author..... 582

Figure 61 Screenshot configuration by the author: (left, top) a drawing of the Place d’Étoile before it was instituted as an officially ‘gyratory crossroad’; (left, bottom) Eugène Hénard’s plans to make the Place d’Étoile into a *carrefour à gyrations* (‘gyratory crossroad’). (source: Weizman, *The Roundabout Revolutions*, 2013). [...].....585

Figure 62 Screenshot configuration by the author: (left, top) a satellite view of the Place Denfert-Rochereau, Paris (source: Google Maps); (left, bottom) the sculpture at the center of the Place Denfert-Rochereau, Frédéric-Auguste Bartholdi’s copper replica of his famous colossal limestone sculpture, the *Lion de Belfort* (source: Google Images); (right) a zoom-in Google satellite view of the Place Denfert-Rochereau (source: Google Maps). Image by the author..... 587

Figure 63 Screenshot configuration by the author: (center) the spiral map/gameboard used by the characters to navigate the outskirts of the city of Paris in Jacques Rivette’s film *Pont du Nord* (1981) (source: Kino Lober); (left, top) a satellite view of the Place Denfert-Rochereau, Paris (source: Google Maps); [...]..... 590

Figure 64 Screenshot configuration by the author: (left) contemporary photograph of Ludgate Circus, London (source: Google Images); (right) satellite image of Ludgate Circus, London where Holroyd Smith proposed the first priority rules that define the “modern roundabout” (source: Google Maps). Image by the author..... 592

Figure 65 Screenshot configuration by the author: (left) a contemporary aerial photograph of Indianapolis’ Monument Circle (source: Google Images); (right) satellite image of the site (source: Google Maps). Image by the author..... 593

Figure 66 Screenshot configuration by the author: (left) contemporary photograph of Columbus Circle in New York where, in 1905, William Phillips Eno advocated for use of what he called a “rotary” system (source: Google Images); (right) contemporary aerial photograph of Monument Circle in Indianapolis (source: Google Images). Image by the author..... 594

Figure 67 Screenshot configuration by the author: (left) contemporary photograph of Columbus Circle in New York where, in 1905, William Phillips Eno advocated for his “rotary” system to ease traffic congestion, also known as the “traffic whirl” (source: Google Images); (right) early 20th-century plans and photographs of Columbus Circle [...]..... 596

Figure 68 Screenshot configuration by the author: (top) early twentieth-century plans and photographs for Sollershot Circus in Letchworth (source: Weizman, *The Roundabout Revolutions*, 2013); (bottom left) early twentieth-century plan for Sollershot Circus by Raymond Unwin and Richard Parker (source: Google Images); [...]..... 599

Figure 69 Screenshot configuration by the author: newspaper articles (top and bottom) and promotional material (right) about roundabouts in Southern California (sources: La Jolla Light; San Diego Reader; and Torus Roundabouts). Image by the author..... 603

Figure 70 Screenshot configuration by the author: the site of a rounding-off into a pseudo-roundabout around Wielandplatz in Weimar, East Germany (source: author's photographs). Image by the author.....	605
Figure 71 Screenshot configuration by the author: (left) replanning of Wielandplatz in Weimar; (right top) international reports about anti-migrant protests in East Germany and local reports about reactions to increased use of the Wielandplatz site by international student; (right bottom) documentation of the the author's <i>PERP</i> project [.....]	608
Figure 72 Screenshot configuration by the author: a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images). Image by the author.....	609
Figure 73 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio). Image by the author.....	610
Figure 74 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); [.....]	613
Figure 75 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); [.....]	616
Figure 76 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); [.....]	619
Figure 77 Screenshot configuration by the author: (middle, background, not visible) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); [.....]	622
Figure 78 Screenshot configuration by the author: (top, left) the Pearl Roundabout before it was destroyed in 2011; (bottom, left) the Pearl Roundabout during its demolition in 2011; current satellite image of the former Pearl Roundabout site, now Farooq Junction (source: Google Maps). Image by the author.....	627
Figure 79 Screenshot configuration by the author: (left, top and bottom) while in Bahrain, Manama's monumental Pearl Roundabout, its landmark of bureaucratic urbanism and colonial inheritance, was being destroyed by the ruling regime in response to Arab Spring protests, the city of Abu Dhabi across the gulf in the United Arab Emirates [.....]	630
Figure 80 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier	

2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d’Afrique) (source: Panoramio); [...]	634
Figure 81 Screenshot configuration by the author: (left) Abu Dhabi’s Frank Gehry-designed mega-project, a franchise installment of the Guggenheim Museum (source: Google Images); (right) the Pearl Roundabout in Manama, Bahrain during Arab Spring protests (top) and after demolition (bottom). (source: Google Images); Image by the author	636
Figure 82 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon’s Magic Roundabout, designed by Frank Blackmore, the same engineer who came up with the priority rules that define the “modern roundabout.” (source: Google Images)	645
Figure 83 Screenshot configuration by the author: mid-20th century photographs of Martha Graham’s <i>Errand into the Maze</i> with sculptures and set design by Isamu Noguchi (source: Google Images)	650
Figure 84 Screenshot configuration by the author: images of the Gulf Labor Artist Coalition platform <i>52 Weeks</i> (2013-2014) with artist Thomas Hirschhorn’s contribution, <i>Week 2. My Guggenheim Dilemma</i> (2013) (source: gulflabor.org). Image by the author	654
Figure 85 Screenshot configuration by the author: images of the Gulf Labor Artist Coalition platform <i>52 Weeks</i> (2013-2014) with artist Thomas Hirschhorn’s contribution, <i>Week 2. My Guggenheim Dilemma</i> (2013) (source: gulflabor.org). Image by the author	656
Figure 86 Screenshot configuration by the author: artist Thomas Hirschhorn and his installation <i>Cavemanman</i> (2002), a part of the collection of the Guggenheim Museum Bilbao (source: Guggenheim Museum, Bilbao); Walid Raad and his installation <i>Scratching on Things I Could Disavow</i> during a performance of <i>Walkthrough</i> (2015-2016) [...]	662
Figure 87 Screenshot configuration by the author: (foreground) a Gulf Ultra Luxury Faction (G.U.L.F) action at Frank Lloyd Wright’s Guggenheim Museum in New York; (background) artist Thomas Hirschhorn and his installation <i>Cavemanman</i> (2002), a part of the collection of the Guggenheim Museum Bilbao (source: Guggenheim Museum, Bilbao) [...]	663
Figure 88 Screenshot configuration by the author: (left) Frank Gehry’s design for the Guggenheim Museum in Abu Dhabi (UAE) (source: Google Images); Manama’s Pearl Roundabout (Bahrain) during Arab Spring protests (2011) and after demolition (2011) (source: Google Images). Image by the author	664
Figure 89 Screenshot configuration by the author: the author’s contribution to the Gulf Labor Artist Coalition’s initiative <i>52 Weeks</i> (2014) (source: gulflabor.org). Image by the author	666
Figure 90 Screenshot configuration by the author: <i>Week 17. Cultural [En]richment</i> (2014) by artists Charles Gaines and Ashley Hunt for the Gulf Labor Artist Coalition’s <i>52 Weeks</i> (2013-2014) (source: gulflabor.org). Image by the author	670
Figure 91 Screenshot configuration by the author: <i>Week 51. Guggenheim Appetizer</i> (2014) by artist Suha Traboulsi for the Gulf Labor Artist Coalition’s <i>52 Weeks</i> (2013-2014) (source: gulflabor.org). Image by the author	671

Figure 92 Screenshot configuration by the author: *Week 11. 50° Celsius* (2013) by Lynn Love and Ann Sappenfield for the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2013-2014). (source: gulflabor.org). Image by the author.....672

Figure 93 Screenshot configuration by the author: *Saadiyat Island Workers Quarters Collectable* (2013) by Matt Greco and Greg Sholette for the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2013-2014) (source: gulflabor.org). Image by the author.....673

Figure 94 Screenshot configuration by the author: (left) *Guggenheim Abu Dhabi Labor Camp for Guest Workers* (2013) by artist Sam Durant for the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org); (right) Emory Douglas’ poster *Whatever is Good for the Oppressor has got to be Bad for Us* (1968) (source: Google Images). Image by the author.....674

Figure 95 Screenshot configuration by the author: *Week 42. Gulf Labor West* (2014) by the artist movement Gulf Labor West for the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.....675

Figure 96 Screenshot configuration by the author: *Organizing Tool Kit in Solidarity with Gulf Laborers* (2014) by *Labor of Art/Art of Labor* for the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.....675

Figure 97 Screenshot configuration by the author: fabricated screenshot from *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), an image introducing the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.....677

Figure 98 Screenshot configuration by the author: (bottom) 3D printed objects created using the tutorial circulated through *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org); (top, left) the virtual model [...].....678

Figure 99 Screenshot of the blog post that was part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. [...].....680

Figure 100 Screenshot of the blog post that was posted as part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. [...].....681

Figure 101 Screenshot of the blog post that was posted as part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. [...].....683

Figure 102 Screenshot of the blog post that was posted as part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf

Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. [...]..... 684

Figure 103 Screenshot configuration by the author: (right) the PDF chapbook was part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org); (middle) the *PERP* blog post with two-channel video [...]..... 685

Figure 104 Screenshot configuration by the author: (top, left) Gulf Ultra Luxury Faction (G.U.L.F.) action outside of Frank Lloyd Wright’s Guggenheim Museum in New York (source: gulflabor.org); (middle and background) components of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014) [...]..... 696

Figure 105 Screenshot configuration by the author: (top, left) screenshot from *PERP* 3D animation exercises; (top, right) screenshot from *PERP* 3D printing preview; (bottom, left) detail of *PERP* 3D printing preview; (bottom, left) 3D printed *PERP* object created using the *PERP* tutorial; (background) screenshot of the blog where the *PERP* project is accessible [...]..... 697

Figure 106 Screenshot configuration by the author: (foreground) 3D printed *PERP* object created using the *PERP* tutorial. Image by the author..... 697

Figure 107 Screenshot configuration by the author: (foreground) images documenting the use of the *PERP* tutorial in a course on tactical urbanisms and urban planning taught by the author in the Urban Studies and Planning Program at the University of California, San Diego (UCSD). Image by the author..... 698

Figure 108 Screenshot configuration by the author: (left) images documenting the use of the *PERP* tutorial in a course on tactical urbanisms and urban planning taught by the author in the Urban Studies and Planning Program at the University of California, San Diego (UCSD) (source: the author); (right) works from UCSD’s official collection of public art [...]..... 700

Figure 109 Screenshot configuration by the author: (left) San Francisco-based artist Sadie Barnette’s *Martin Luther King Street & 37th Street* (2011) at Thurgood Marshall College, University of California, San Diego (UCSD) (source: Thurgood Marshall College); (right) works from UCSD’s official collection of public art, the Stuart Collection [...]..... 702

Figure 110 Screenshot configuration by the author: (left) images documenting the use of the *PERP* tutorial in a course on tactical urbanisms and urban planning taught by the author in the Urban Studies and Planning Program at the University of California, San Diego (UCSD) (source: the author); (right) Robert Irwin’s *Two Running Violet V Forms* [...]..... 703

Figure 111 Screenshot configuration by the author: (left) a large Pearl Roundabout replication in Sanabis, a Manama suburb, recreated the original monument’s ‘sails’ with six red-splashed cut-outs in wood that resemble swords (image: EAWorldView); (right) gamers playing Grand Theft Auto character Carl Johnson can discover a virtual mini-roundabout [...]..... 704

Figure 112 Screenshot configuration by the author: (top) a *PERP* movement-research workshop at the Bauhaus-Universitat Weimar in which participants inadvertently reproduced the image of

the collapsing Pearl Roundabout around the central sculpture in Weimar’s Wielandplatz; (below) images of the redesign of Wielandplatz [...]	706
Figure 113 Screenshot configuration by the author: (right, middle) the <i>Hafiz-Goethe</i> monument in Weimar (source: photograph by the author); (top and bottom) a <i>PERP</i> movement-research workshop at the Bauhaus Universität-Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout [...]	709
Figure 114 Screenshot configuration by the author: (right) early 20th-century photograph of Bauhaus modernist Oskar Schlemmer’s movement-research exercises (source: Google Images); (left) a <i>PERP</i> movement-research workshop at the Bauhaus Universität-Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout [...]	710
Figure 115 Screenshot configuration by the author: (left) a <i>PERP</i> movement-research workshop at the BauhausUniversität-Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout around the central sculpture in Weimar’s Wielandplatz (source: the author); (middle) the Youtube video post “Bahrain Pearl is everywhere,” [...]	710
Figure 116 Screenshot configuration by the author: (left) the Situationist artist and architect Constant Nieuwenhuys in his studio (source: Google Images); (right) a recent publication with an introduction featuring a photograph of the Situationist philosopher Guy Debord alongside the quote, “We don’t want to work anymore for the spectacle.” [...]	717
Figure 117 Screenshot configuration by the author: (left) the Situationist artist Jacqueline de Jong wearing her drawings in front of a panel of other configured drawings (source: Google Images); (middle) Jong’s <i>Critique</i> of Guy Debord written in spiralling loops and published in the magazine of the Situationist International [...]	719
Figure 118 Screenshot configuration by the author: (left) work by Situationist artist Jacqueline de Jong who resigned from the Situationist International after writing a critique of fellow Situationist Guy Debord (source: Google Images); (right) Guy Debord (left) and writer Alice Becker-Ho (right), author of <i>The Essence of Jargon</i> [...]	722
Figure 119 Screenshot configuration by the author: (left, background) the standard icon for a roundabout; (right) Valie Export’s <i>Abrundung</i> (Rounding-off, 1976) from the <i>Körper-Konfigurationen series</i> (Body Configurations, 1972-1982) (source: Medienkunstnetz.de). Image by the author.	724
Figure 120 Screenshot configuration by the author: (left) Valie Export and Hermann Hendrich’s <i>Stadt: Visuelle Strukturen</i> (City: Visual Structures) (source: achtung.photography); (left, background) the standard icon for a roundabout; (right) Valie Export’s <i>Abrundung</i> (Rounding-off, 1976) from the <i>Körper-Konfigurationen series</i> (Body Configurations, 1972-1982) [...]	725
Figure 121 Screenshot configuration by the author: (left) contemporary photograph of the circular grass field in Seoul Gwangjang (Seoul Plaza) (source: kojects.com); (left, background) the standard icon for a roundabout; (right) Valie Export’s <i>Abrundung</i> (Rounding-off, 1976) from the <i>Körper-Konfigurationen series</i> (Body Configurations, 1972-1982) [...]	727

- Figure 122 Screenshot configuration by the author: (left) Valie Export's, *Encirclement* from *Body Configurations* (1972-1982) (source: Museum of Modern Art, New York); (left, background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author..... 728
- Figure 123 Screenshot configuration by the author: (left) blown-out rubber tire treads on a highway (source: Google Images); (left, background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author..... 730
- Figure 124 Screenshot configuration by the author: (left) spirit photography featured in the Metropolitan Museum of Art exhibition, *The Perfect Medium: Photography and the Occult* (2005) (source: Metropolitan Museum of Art); (background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) [...]..... 732
- Figure 125 Screenshot configuration by the author: (left) Rudolf Schwarzkogler's *3. Aktion* (3rd Action, 1965) (source: Artnet); (background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author..... 733
- Figure 126 Screenshot configuration by the author: (left) Valie Export, *TAPP und TASTKINO Cinema* (Tap and Touch Cinema, (source: Pomeranz Collection); (background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author..... 737
- Figure 127 Screenshot configuration by the author: (left) a still from the end of Valie Export's feature film *Menschenfrauen* (Manwoman, 1980) in a scene where one of the film's four female characters commits suicide on an electrical pole (source: Facets Video); (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) [...]..... 740
- Figure 128 Screenshot configuration by the author: (bottom, left) the aftermath of the Pearl Roundabout demolition in a photograph that shows one of the monument's 'sails' crushing a Manama demolition crane, killing a Pakistani crane operator; (top, left) a still from the end of Valie Export's *Manwoman* (1980) [...]..... 742
- Figure 129 Screenshot configuration by the author: (middle, background, not visible) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio) [...]..... 743
- Figure 130 Screenshot configuration by the author: (top) satellite images of the Pearl Roundabout site in Manama before the Arab Spring protests (source: Google Earth); (left), during the Arab Spring protests (middle) and after demolition (right); (middle, left) the aftermath of the Pearl Roundabout demolition in a photograph [...]..... 748
- Figure 131 Screenshot configuration by the author: (top middle and bottom left) *PERP* objects printed by animating a 3D reconstruction of the Pearl Roundabout to collapse and pausing a moment in the monument's fall to be exported as a 3D object; (middle) a detail from video of the demolition of the Pearl Roundabout showing the crushing of the monument's 'pearl' [...]..... 751

Figure 132 Screenshot configuration by the author: (top) satellite images of the Pearl Roundabout site in Manama before the Arab Spring protests (top), during the Arab Spring protests (middle), and after demolition (right) (source: Google Earth), (bottom) the Inman Square ‘Peanutabout’ (source: Boston Cyclists Union). Image by the author..... 755

Figure 133 Screenshot configuration by the author: (bottom right) the ‘Pearl Roundabout’ monument at *Midan Al-Ittihad* (Union Square), in the center of a circular plat in Al-Ittihad Park in Sharjah (UAE); (top) Google Image search for the query ‘Pearl Roundabout’ (source: Google Images); (top left) the Inman Square ‘Peanutabout’ [...]...... 756

Figure 134 Screenshot configuration by the author: (foreground) Walid Raad’s *Walkthrough* performance in *Scratching on Things I Could Disavow* (source: Museum of Modern Art, New York); (background) standard icon for the roundabout (source: Public Domain). Image by the author..... 758

List of Figures for PART THREE Plastic Thresholds

Figure 1 All of the figures in this paper are screenshots of slides from a PowerPoint presentation created by the author. Postcards of the three objects of evidence that are discussed in the essay. The postcards are from a limited edition created by the author. Image by the author..... 774

Figure 2 Screenshot of a Powerpoint Presentation by the author: Donald Judd and his artist museum, *The Chinati Foundation/La Fundación Chinati* (1979 – 1985) (photo: The Chinati Foundation). Image by the author..... 777

Figure 3 (top) Objects and environments created during the scripting and editing of the RK-LOG ethno-fiction episode *Better to Lose Your Head Than Use It* based on research in Marfa, Texas; (bottom) digital painting sketch created to accompany the audio-drama installments from the episode. Images by the author..... 779

Figure 4 (top) Images of Marfa from 1946 to the present: (upper left) Marfa Army Airfield circa 1945 (photo: Marfa Historical Society and airfields-freeman.com); (upper right) greenhouses for hydroponic tomato farming (photo by the author); (lower left) art tourists at *Chinati* (photo: jumpinginartmuseums.blogspot.com); [...]...... 781

Figure 5 Digital painting sketch of critical stages in Marfa gentrification: (1) 2000s: Houston lawyer, Tim Crowley; (2)1980s-1990s: New York artist, Donald Judd. Image by the author... 782

Figure 6 The plastic threshold: map of the Presidio-Chihuahua borderlands region (photo: Google maps). *The Chinati Foundation/La Fundación Chinati* (upper right; photo: The Chinati Foundation) is named for the region’s Chinati Mountains (lower left; photo: tpwd.texas.gov). Image by the author..... 783

Figure 7 Marfa as Judd’s “Magic Town”: (top) promotional poster for the Hollywood film *Magic Town* (1947) (image: Internet Movie Database); (bottom) aerial view of Judd’s *Chinati*, which he called his “strict measure” of the “contemporary” (photo: The Chinati Foundation). Images by the author..... 784

- Figure 8 Judd’s print for the portfolio *Artists Against Torture*, 1993 (photo: artdiscover.com). Text bubble with quote from architectural theorist Joe Day’s *Corrections & Collections* (2013). Image by the author..... 787
- Figure 9 (top) One of the fifteen configurations in Judd’s *15 Untitled Works in Concrete* (1980 – 1984) (photo: pinterest.com); (bottom) diagram of a standard prison cell (image: ada.gov). Text bubble with quote from architectural theorist Joe Day’s *Corrections & Collections* (2013). Image by the author..... 788
- Figure 10 (top) Aerial view of the two artillery sheds where Judd’s *100 Untitled Works in Mill Aluminum* (1982 – 1986) is installed (photos: *The Chinati Foundation*); (bottom) One of the one hundred works in mill aluminum installed inside the two artillery sheds (photo: *The Chinati Foundation*). Images by the author..... 789
- Figure 11 (top) Aerial view of Judd’s *15 Untitled Works in Concrete* (photos: *The Chinati Foundation*). Image by the author; (bottom) aerial view of seven of the installation’s fifteen “works” (left, photo: pinterest.com) and a diagram of their planned configurations (right, photo by the author). Image by the author..... 790
- Figure 12 (top) Dimensions of one work in *100 Untitled Works in Mill Aluminum* (photo: chinati.org); (bottom) Comparison between the dimensions of one concrete unit in *15 Untitled Works in Concrete* (photo: pinterest.com) with the dimensions of the standard size Solitary Housing Unit (SHU) (photo: ada.gov). Images by the author..... 792
- Figure 13 Judd, minimalism, and specific objects. Judd referred to himself as an “empiricist.” Image by the author..... 794
- Figure 14 Postcards of the three objects I discovered between 2011 and 2012. Images by the author. (From right to left, counter-clockwise) World War II-era sign inside the artillery sheds where Judd’s *100 Untitled Works in Mill Aluminum* is installed (image of the sign as it appears in the monograph *Chinati: The Vision of Donald Judd*, 2010; [...])..... 796
- Figure 15 (top) The WWII-era German sign inside one of the artillery sheds where Judd’s *100 Untitled Works in Mill Aluminum* is installed (photos: chinati.org and *Chinati: The Vision of Donald Judd*, 2010). Image by the author; (bottom) (lower right) Inside the artillery shed during a tour; (lower left) outside the artillery shed [...]...... 798
- Figure 16 Postcard of the War II-era German sign inside the artillery sheds where Judd’s *100 Untitled Works in Mill Aluminum* is installed (image: *Chinati: The Vision of Donald Judd*, 2010; photo by the author). Image by the author..... 799
- Figure 17 (upper left) Postcard of the Marfa graffiti “FUCH 4 CHINITI” (photo by the author); (lower left) detail of a promotional poster produced by Judd for a 1991 show at Galeria Theospacio, Madrid (photo: Donald Judd Foundation; from Raskin, “The Shiny Illusionism of Krauss and Judd,” 20). Image by the author..... 804
- Figure 18 (upper left) Postcard of the Marfa graffiti “FUCH 4 CHINITI” (photo by the author); (bottom) panoramic photograph of The Get Go grocery store referred to as a “chi-NAZI” haunt by some Marfa residents (photo: deananewcomb.com). Image by the author..... 80F

Figure 19 (upper left) A 1920s postcard of the Teapot Rock on federal lands in Wyoming (image: wyohistory.org); (upper right) author’s postcard of the Presidio-Chihuahua borderlands grave of “Assyrian peddler” Ramon Karam (photo by the author). Image by the author..... 806

Figure 20 (upper left) Photograph of the Karam family in Shafter, Texas circa 1916 (photo: Karam Family); (upper right) title page of the *Investigation of Mexican Affairs* preliminary report and hearings (photo by the author). Image by the author..... 808

Figure 21 (top) Digital painting sketch by the author: the grave of Ramon Karam; (bottom) screenshot of audio-drama screening website (<http://www.mobile-irony-valve.net/index.php/rk-log/rk/>). Images by the author..... 809

Figure 22 Stills from silent video clips that accompany the multi-installment audio-drama (photos by the author): (upper left) salt cedar trees burnt in a brush fire; (upper right) visualization of spiking neurotransmitters in a cockroach leg; (lower left) a remote-controlled cockroach crossing the border in a dried up bend of the Rio Grande River; [...]..... 810

Figure 23 Two Donalds: 2016 U.S. President-elect Donald Trump (b. 1946) and American minimalist Donald Judd (1928 – 1994). Image by the author..... 812

ACKNOWLEDGEMENTS

I would like to acknowledge all committee members for their thoughtful readership over the years. I would especially like to thank Professors Jack M. Greenstein and Sheldon Nodelman for their support as chair and co-chair of my committee. Their contributions to my term of doctoral study are too numerous to list. They are valued friends and mentors. I would also like to thank Professor Norman Bryson for his extensive knowledge and for many wonderful conversations.

I am grateful to Professor Bennetta Jules-Rosette for her guidance, her invitation to present as a panelist at two annual meetings of the American Anthropological Association (AAA), and her assistance in securing funding for two years of research through the Italian Club of San Diego. Professor Jules-Rosette also invited me to become a member of the Arts Culture and Knowledge (ACK) research group, and I would like to acknowledge my ACK colleagues for our stimulating discussions. Part Three, in part, has been submitted for publication with the *Journal of Museum Anthropology* as part of a collection of papers curated by Professor Jules-Rosette. This dissertation author was the primary investigator and author of the material.

I would like to acknowledge Professor William Tronzo for guidance and conversation, and for his invitation to publish in *California Italian Studies*. Lastly, I would like to thank Professor Ricardo Dominguez for his encouragement, in particular for inviting me to attend the Open Borders Congress in Munich with him in 2015.

Though retirement prevented her from remaining on my dissertation committee after I qualified, Professor Rae Armantrout contributed greatly to the shaping of *Better to Lose Your Head Than Use It*, Episode Two in my epic ethno-fiction RK-LOG discussed here in Part Three. Her feedback and that of colleagues in the poetry workshop I took as part of my coursework to qualify, helped me rework poetry I wrote for the log of the fictional specimen RK.

Professor Amelia Glaser was not part of my committee, but has been a valued mentor who provided me with many occasions to share work with colleagues, including at research group meetings of *Socialism in Contexts* and *Revolutions and Rebellions* in the Literature Department. A section in Part One on the writings of philosopher Mikhail Bakhtin was inspired by my work in Professor Glaser's Bakhtin seminar.

In 2011, I went to see Professor Ajit Varki speak on human-specific changes in siglec genes. At the end of his talk, Professor Varki discussed his work with the Center for Academic Research and Training in Anthropogeny (CARTA), a UCSD research center he leads in the study of human evolution. He talked about CARTA's cross-disciplinary work with faculty and student-fellows from the biological sciences, engineering and computing sciences, social sciences, biomedical sciences, physical and chemical sciences, and humanities. I approached him at his conclusion and introduced myself as a PhD student in the humanities, asking if he could share which students and faculty from the humanities were working with CARTA. He said, "well, how about you?" Three years later I became the first student-fellow from the humanities to train with CARTA. The support and guidance of CARTA Assistant Director Professor Pascal Gagneux has been invaluable to my dissertation research, and studying with CARTA has greatly enriched my understanding of the concept of the 'plastic' by providing me with opportunities to learn more about the way scientists from a variety of fields work with the notion in posing hypotheses, establishing theories, and in developing experiments. Three years of fellowship funding from CARTA supported dissertation writing and was fundamental to dissertation completion. In July, I will travel to Ethiopia and Tanzania as part of a CARTA field course.

I would be remiss not to acknowledge my mentors and friends from the Urban Studies and Planning (USP) Program in the Division of Social Sciences where I worked as a Teaching Assistant and as an Associate Instructor during dissertation research and writing. Special thanks is extended to Professors Sue Peerson and Mirle Bussell for valued teaching apprenticeships.

Professor Bussell generously shared her syllabus for Introduction to Urban Planning with me and allowed me to make it my own, reshaping it and redesigning it for a USP course I taught as Associate Instructor in Winter 2016. Professor Bussell has written many letters of recommendation on my behalf, and has been a valued source of support and advice throughout the past few years of my doctoral work. I would also like to acknowledge Professors Peerson and Bussell for asking me to be a faculty mentor on the Bauhaus Universitat-Weimar exchange trip in October 2015. The trip provided me with the opportunity to further develop the *PERP* project discussed here in Part Two of the dissertation.

I would like to acknowledge the support of several sources of funding including the UCSD Goodman Scholarship, the UCSD Pre-Doctoral Fellowship in the Humanities, the San Diego Italian Club, the University of California Institute for Research in the Arts (UCIRA) and the UCSD Frontiers of Innovation Scholars Program (FISP). I would also like to thank Fieldwork:Marfa in Marfa, Texas (ENSBA-Nantes, HEAD-Geneva and Gerrit Rietveld Academie) and the SommerAkademie at the Zentrum Paul Klee in Bern, Switzerland. Viafarini in Milan, Italy, in particular director Patrizia Brusarosco and former head curator Milovan Farronato provided support including exhibition opportunities and residencies. I would also like to acknowledge my friends and colleagues from the Warburg Studies journal and research group *Engramma*, Professors Monica Centanni and Daniela Sacco of the Istituto Universitario di Architettura di Venezia (IUAV). I look forward to continuing collaborating with them as part of the Editorial Board of the journal and to being more involved as a member of the research group.

Lastly, I must acknowledge friends and family. I would like to thank Marfa Justice of the Peace David Beebe for his enthusiasm, encouragement, and friendship, and for his assistance in moving and finding a ‘docking’ location for the ‘land yacht’ I used for post-production of *RK-LOG*, featured in Part Three of the dissertation. I would like to thank historian Lonn Taylor for his friendship and assistance in locating the grandson of Ramon Karam, featured as a character in

RK-LOG. Finally, but most importantly, I would like to thank Andras Blazsek for his care and support. Our conversations and collaborations have contributed to my growth as a person and an artist in ways I cannot account for here. As always, my love and thanks go to my mother and father whose encouraging words and unwavering support are the source of strength behind everything I ever achieve.

VITA

- 2002 Bachelor of Arts, Barnard College, Columbia University, New York
- 2005 – 2006 Research Assistant, Citigroup Art Advisory Services, New York
- 2008 Diploma, Accademia di Belle Arti di Roma, La Sapienza, Rome, Italy
- 2010 Instructor, Italian Language, Department of Language and Linguistics, University of California, San Diego
- 2011 Fellow, Fieldwork:Marfa, Marfa, Texas
- 2011 – 2012 Teaching Assistant, Sixth College Writing Program, University of California, San Diego
- 2012 Grantee, University of California Institute for Research in the Arts (UCIRA)
- 2012 Fellow, SommerAkademie, Zentrum Paul Klee, Bern, Switzerland
- 2012 – 2014 Teaching Assistant, Department of Visual Arts, Division of Arts and Humanities, University of California, San Diego
- 2014 Master of Arts, University of California, San Diego
- 2014 – 2017 Fellow, Center for Academic Research and Training in Anthropogeny (CARTA), University of California, San Diego
- 2015 – 2016 Teaching Assistant, Urban Studies and Planning, Division of Social Sciences, University of California, San Diego
- 2016 Associate Instructor, Urban Studies and Planning, Division of Social Sciences, University of California, San Diego
- 2017 Doctor of Philosophy, University of California, San Diego

PUBLICATIONS

- 2007 – 2015 Long-form reviews for *Frieze Magazine*, London, UK
- 2007 – 2010 Short-form reviews for *Artforum International*, New York, NY
- 2008 Long and short-form reviews for *ART PAPERS*, Atlanta, GA
- “On Rotation” in *Mai Hofstad Gunnes. Baby Snakes Hatching. Ruins. Ruins*. Torpedo Press, June 2012.

Curator, Editor and Contributor, “Staging Mnemosyne: Aby Warburg and the Theatre,” *Engramma*, October-November, 2015.

“Wanting to See Duse, or On Goshka Macuga’s Preparatory Notes for a Chicago Comedy, inspired by Aby Warburg-as-amateur-Playwright” in “Staging Mnemosyne: Aby Warburg and the Theatre,” *Engramma*, October-November, 2015.

“A Ghost Dance in the Ripples of a Well Cradle.” Extended introduction to “Extracts from Jun Tanaka’s Aby Warburg: The Labyrinth of Memory (2001)” in “Staging Mnemosyne: Aby Warburg and the Theatre,” *Engramma*, October-November, 2015.

Introduction to “Pathosformeln de lo comico en el grabado europeo de la modernidad temprana.” Selected extracts from José Emilio Burucua’s *Imagen y la Risa* (2007) in “Staging Mnemosyne: Aby Warburg and the Theatre,” *Engramma*, October-November, 2015.

“On Irons, Bones and Stones, or an Experiment in California-Italian Thinking on the ‘Plastic’ between Aby Warburg’s ‘Plastic Art,’ Gelett Burgess’ ‘Goops’ and Piet Mondrian’s ‘Plasticism.’” *California Italian Studies*, Vol. 6. December 2016

In preparation, “*Better to Lose Your Head than Use It: Working with Ethnographic Fiction at and around Minimalist Donald Judd’s Borderlands Artist Museum, The Chinati Foundation (1979-1985).*” *Journal of Museum Anthropology*. 2017

FIELDS OF STUDY

Major Field:

Art History, Theory and Criticism (concentration in Art Practice, specialization in Anthropogeny)

Studies in Art History, Theory and Criticism

Professors Jack M. Greenstein, Sheldon Nodelman, William Tronzo and Norman Bryson

Studies in Sociology of Art and Semiotics

Professor Bennetta Jules-Rosette

Studies in Literature

Professors Rae Armantrout and Amelia Glaser

Studies in Visual Arts

Professor Riccardo Dominguez

Studies in Anthropogeny

Professors Pascal Gagneux and Ajit Varki

Studies in Urban Studies and Planning

Professor Mirle Bussell

ABSTRACT OF THE DISSERTATION

Plastics!
Histories, Theories and Practices to Rethink the Concept of the ‘Plastic,’
between Plasticity and Plasticism

by

Emily Verla Bovino

Doctor of Philosophy
in
Art History, Theory and Criticism
Concentration in Art Practice
Specialization in Anthropogeny

University of California, San Diego, 2017

Professor Jack Greenstein, Chair
Professor Sheldon Nodelman, Co-Chair

The dissertation studies experiments with the concept of the ‘plastic’ across art history, art practice, and artist writings, and attends to intersections in the way the concept has been used across the arts, philosophy, neuroscience, and evolutionary biology. Typically understood as a designation for sculpture and three-dimensionality, as the capacity to shape or mold, to change, or to purify in a contrast of opposites, the ‘plastic,’ as well as its root terms (Greek, *plastikós* and *plássein*) and its derivatives (‘plasticity’ and ‘plasticism’) have a history of an abundance of uses revelatory of epochal shifts in human perception and in the ways bodies and objects interact.

In addition to providing a rigorous survey of the ‘plastic,’ the dissertation presents its own theory of the concept, combining historical writing and philosophical inquiry with art practice, digital humanities projects, and fellowship-supported research in human deep history

with the Center for Academic Research and Training in Anthropogeny (CARTA). The dissertation practices *being* ‘plastic’ while being *about* the ‘plastic.’

In Part One, writing moves from often-cited art historical references like artist-writer Piet Mondrian’s essays on “neo-plasticism” (1918-20), to lesser-known theories like those elaborated in a dialogue on “plasticity” (1962-63) between artists Hollis Frampton and Carl Andre. It discusses the ‘plastic’ in evolutionary biology, emphasizing important distinctions between ecological plasticity in niche construction and neuro-plasticity in the brain sciences, and explores similar distinctions in the work of post-conceptual artists who have experimented with the “plastic” in their projects. In Part Two, a digital humanities tutorial in environmental psychology and urban design (PERP) demonstrates the ‘plastic’ at work in the traffic roundabout, with a focus on the roundabout as the principle site of Arab Spring protests.

Part Three concludes with the digital humanities core of the dissertation, RK-LOG, a serialized audio-drama of art historical ethno-fiction on ‘plastic’ perception in minimalist Donald Judd’s *The Chinati Foundation/La Fundación Chinati* (1981-86). Dissertation readers experience plastic thresholds by listening to the RK-LOG audio-drama online, or in a road-trip itinerary of the Presidio-Chihuahua borderlands. RK-LOG puts theories of the ‘plastic’ into practice, and in practice, re-conceptualizes the ‘plastic.’

Philosopher Catherine Malabou claims that, “in art, (...) connotations of the term “plasticity” are always positive.” The dissertation confirms this generalization but questions Malabou’s assertion that “when it comes to the possibility of explosion, the annihilation of equilibrium, (...) no one calls it “plasticity” anymore.” It responds to critiques of the “neuro-turn” in the humanities and suggests the next move in thinking about interactions among bodies, space and time is integrated art history and artistic research on the concept of the ‘plastic’ between ‘plasticity’ and ‘plasticism.’

PART ONE

Plastic Beginnings

The Concept of the 'Plastic' Across Art History, Artist Writings and Art Practice



The images for *Part One, Plastic Beginnings* have been prepared for viewing by in the online program *Prezi*. The *Prezi* software is a presentation platform that allows users to create vast configurations of images using motion, zoom, and spatial relationships.

The *Prezi* presentation is included with the dissertation on a USB drive and can also be viewed by visiting:

http://prezi.com/mp7_hd8gf51x/?utm_campaign=share&utm_medium=copy

All of the path steps in the animated *Prezi* have been included as part of the dissertation's Appendix. The reader who consults the printed version of the *Prezi* should treat each mention of a figure (i.e., fig. 1, fig. 2, etc.) as a prompt to turn the page to view a *Prezi* path step. When references to figures are repeated (i.e., fig. 1, fig. 1), the reader should still turn the page for a new *Prezi* path step, because repeated figures provide new views of image configurations in the *Prezi*.

Prologue / Encountering the ‘Plastic’ in the Practice of Maria Hassabi

How a Transitional Space Becomes a Place of Pause

The voice of the dancer floats deep through damp croaking wrinkles of throat, falling from smoky low, to long airy breaths of thickened tone.¹ To describe the voice, the appropriate words are metaphors of textured surfaces: raspy, gravelly, even husky.² The dry outer covering of a seed: the ‘husk’ in a ‘husky’ low pitch—slightly hoarse. A loose aggregation of tiny water-worn stones: the ‘gravel’ of a ‘gravelly’ superficiality—a certain lightness. Coarse-cut teeth on half-rounded steel: the ‘rasp’ in a ‘raspy’ scratching that refines.

Recorded and edited to accompany online video-documentation of the dancer’s collapsed body slowly pulling itself down a museum staircase, the voice fingers its way to the ears through the screen. In the visual information that the video provides on the distant body’s achingly slow fall down a stairway, the sound of the voice makes “tactile connections.”³ These connections form between a “viewing subject and image” that would otherwise be separated by the optic visuality of screen vision.⁴ A “haptic visuality” of motion and surface texture overcomes the separation between image and viewer by combining the dancer’s voice and movement.⁵ The moving image feels like surfaces to peel in hand (husk); like surfaces to crunch under foot

¹ Museum of Modern Art, New York, “Maria Hassabi | PLASTIC,” Online video clip, *Youtube.com*. February 4, 2016. Accessed February 2016. https://www.youtube.com/watch?list=PLfYVzk0sNiGH029oSQMwJHEqOjeVdEd6W&time_continue=22&v=1bKuXZ0iYVs

² “Words Used to Describe Someone’s Voice,” *Macmillan Dictionary*. Published 2009-2017. Accessed September 2017. <http://www.macmillandictionary.com/us/thesaurus-category/american/words-used-to-describe-someone-s-voice>

³ “Haptic visuality (embodied spectatorship),” *A Dictionary of Film Studies*, ed. Annette Kuhn and Guy Westewell (Oxford, UK: Oxford University Press, 2012), 201.

⁴ “Haptic visuality (embodied spectatorship),” *A Dictionary of Film Studies*, 201. Film theorist Laura U. Marks works with the terms “haptic visuality” and “optical visuality” in her writings on cinema inspired by art historian Alois Riegl. “Haptic visuality [...] proposes tactile connections,” whereas “optical visuality [...] depends solely on vision and on a separation between viewing subject and image that positions the onlooker as all-perceiving.” See Laura U. Marks, *The Skin of Film: Intercultural Cinema, Embodiment and the Senses* (Durham: Duke University Press, 2000).

⁵ Marks, *The Skin of Film*, 162. “Haptic perception is usually defined by psychologists as the combination of tactile, kinesthetic and proprioceptive functions, the way we experience touch both on the surface and inside our bodies. In haptic visuality, the eyes themselves function like organs of touch.”

(gravel); like surfaces to apply to other surfaces in smoothing, shaving, and shaping (the rasp); like surfaces to move across with a momentum that pulls dancing bodies to the floor the way Jackson Pollock's action painting⁶ moved the canvas from easel to ground.⁷

In the late winter months of February and March 2016, visitors to the Museum of Modern Art, New York (MoMA), would have found it difficult to avoid dancer Maria Hassabi's "live installation" titled *PLASTIC* (2015).⁸ During the period when the installation ran daily for the full course of the museum's open hours, bodies of two dancers regularly occupied the Gund Garden Lobby staircase, the main straight stairway between the museum's lobby and atrium. Dancing bodies also occupied other interstitial spaces for passage, other circulating spaces of varied character, like a coiling set of half-landing stairs in the stairwell between the museum's fourth and fifth floors, and the open space of the museum's first-floor Marron atrium, an area often used as a project space for contemporary art.⁹ Before Hassabi's *PLASTIC*, three other projects had recently experimented with using the Marron atrium for dance: Marina Abramovic's *The Artist is Present* (2010),¹⁰ Ralph Lemon's *Some Sweet Day*,¹¹ and Boris Charmatz's *Musée de la danse*:

⁶ Jackson Pollock (Wyoming, USA 1912 – New York 1956) was an American painter who is known for his "drip paintings": "flinging and dripping thinned enamel paint onto [...] unstretched canvas laid on the floor of his studio," a "physical engagement with [...] materials [that] welcomed gravity, velocity and improvisation into the artistic process [...] allow[ing] line and color to stand alone, functioning entirely independently of form." Jackson Pollock," Artists. Museum of Modern Art, New York. *Moma.org*. Published 2017. Accessed January 2017. <https://www.moma.org/artists/4675>.

⁷ William Rubin, "Jackson Pollock and the Modern Tradition," *Artforum* (February – May 1967), as republished in *Jackson Pollock: Interviews, Articles and Reviews*, ed. Pepe Karmel. (New York: Museum of Modern Art, New York, 1999), 119. Curator Thomas J. Lax makes this same association during a question and answer period in a Museum of Modern Art, New York (MoMA) interview with Hassabi. See Museum of Modern Art, New York, "Maria Hassabi in Conversation with Philip Bither," Online video clip, *Youtube.com*. February 24, 2016. Accessed February 2016, www.youtube.com/watch?vDq_pEXSHFVU&t=6s

⁸ *PLASTIC* is referred to as a "live installation" in Museum of Modern Art, New York, "Maria Hassabi in Conversation with Philip Bither," op. cit.; *Maria Hassabi: Plastic*, curated by Thomas J. Lax with Martha Joseph. February 21 – March 20, 2016. Museum of Modern Art, New York. "Maria Hassabi: Plastic," *Museum of Modern Art, New York. Calendar*. Published 2016. Accessed February 2016. <https://www.moma.org/calendar/exhibitions/1611>.

⁹ Tim Griffin, "Living Contradiction," *Museum of Modern Art, New York (MoMA) Documents*, (February 2015): 4. https://www.moma.org/docs/calendar/MariaHassabi_FINAL_V5.pdf

¹⁰ The show *Marina Abramović: The Artist Is Present* was MoMA's "first performance retrospective." According to the museum's website, "Abramović performed in the Donald B. and Catherine C. Marron

Three Collective Gestures (2013).¹² Hassabi's *PLASTIC* was a co-commission of the MoMA (in collaboration with the Hammer Museum in Los Angeles and the Stedelijk Museum in Amsterdam) that MoMA curators conceived to continue the inquiry into 'dance in the museum' pursued in the previous three atrium projects.¹³

While *PLASTIC* was on view, any virtual visitor to the museum's website could also watch and listen to the artist introduce her work in both the short video introduction described above and a fifty-minute interview posted by the museum on internet video-sharing platforms.¹⁴ In the interview, Hassabi admits that though she values the importance of performance documentation, she is not "good" at planning documentation, or even remembering to plan for it.¹⁵ For the MoMA installation, she expressed her interest in the possibility of using surveillance video from the museum as performance documentation—this was something "different" that the museum's facilities offered, and also reflected some of the conceptual concerns that had informed her previous work.¹⁶ While dancing during the museum's formal documentation of the

Atrium every day the Museum was open between March 14 and May 31, 2010. Visitors were encouraged to sit silently across from the artist for a duration of their choosing, becoming participants in the artwork." A "comprehensive photo gallery" kept by the museum "contains a record of each participant." *The Artist Is Present* is said to have been "Abramovic's longest performance to date." Jason Persse, "Marina Abramović: The Artist Is Present," *Interactives. Museum of Modern Art, New York*. Published 2010. Accessed February 2016. <https://www.moma.org/interactives/exhibitions/2010/marinaabramovic/>

¹¹ Ralph Lemon's *Some Sweet Day* was "a three-week program of dance performances by contemporary choreographers." Each week of the exhibition, the two choreographers were paired in "an intergenerational and cross-cultural dialogue about each other's work." The series "argue[d] for the expanded potentials and possibilities of the museum space" as a space for dance. The program paired Steve Paxton and Jerome Bel, Faustin Linyekula and Dean Moss, and Deborah Hay and Sarah Michelson. Museum of Modern Art, New York, "Some Sweet Day (2012)," Exhibitions. Museum of Modern Art, New York. *Moma.org*. Published 2012. Accessed February 2016. <https://www.moma.org/calendar/performance/1292>

¹² Boris Charmatz is the author of *Manifesto for the Dancing Museum* (2009) and the director of the Centre choréographique national de Rennes et de Bretagne in northwestern France. This "three-week dance program" was designed to showcase Charmatz's work on "the museum [...] as a dancing institution—replete with exuberance, surprise, affective response, and shifting forms and margins, all firmly rooted in the present tense and available for critical inquiry and revision." Museum of Modern Art, New York, "Musée de la Danse: Three Collective Gestures," Exhibitions. Museum of Modern Art, New York. *Moma.org*. Published 2013. Accessed February 2016. <https://www.moma.org/calendar/performance/1385>

¹³ See Thomas J. Lax's introductory comments in Museum of Modern Art, New York, "Maria Hassabi in Conversation with Philip Bither," op. cit.

¹⁴ Museum of Modern Art, New York, "Maria Hassabi | PLASTIC," op. cit.

¹⁵ Museum of Modern Art, New York, "Maria Hassabi in Conversation with Philip Bither," op. cit.

¹⁶ Ibid.

installation, Hassabi had noticed that the presence of the camera—a third body between viewers and dancers—had changed the dynamic and “ma[d]e the work about something else”: the work became about “the relation of this other viewer [...], the camera, and the visitors [...] looking at the camera looking at us [...].”¹⁷ “The surveillance cameras,” she commented, “are the ones that are going to really give you the real stuff.”¹⁸

In this “something else”—this other version of Hassabi’s live installation created by the museum in its documentation of the work—*PLASTIC* begins with a dancer on the museum’s main stairway. Video captures Hassabi’s body lying across the lobby steps in a shot filmed from outside the museum in MoMA’s Rockefeller Sculpture Garden (fig. 1). Through a triple screen—the virtual viewer’s computer screen, the camera lens, and the glass of floor-to-ceiling windows in front of the camera—the video viewer looks into the open grey-green lobby from the sculpture garden and—peering into the museum and over the lobby staircase—watches museum visitors make the transition from lobby to upper atrium.¹⁹ Museum visitors move up and down the intermediary staircase in the video frame, with erect support columns on the right of the shot, and the dancer’s fallen body on the left.

Another dancer’s body faces up, her right arm outstretched horizontally along one staircase step, and her left arm thrown over head (fig. 1). Her left leg, sheathed in tight light-grey denim, extends straight over three Vermont green slate steps; her right leg bends back along the nosing of a step that extends in line with her knee. “We use stairs as a place of just going up, getting somewhere or leaving from something and not spending any time,” the artist’s voice explains in the post-produced voice-over (fig. 1).²⁰ “[The staircase is] not a place that usually artworks are presented [in],” the voice reasserts: “This is a space of transition. I was interested in

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Museum of Modern Art, New York, “Maria Hassabi | *PLASTIC*,” op. cit.

²⁰ Ibid.

placing works there for this reason: how can a transitional space become a place of pause.”²¹ In this transitional space that becomes a place of pause, a flight of stairs is a dynamic pedestal where the bodies of dancers put the “tension” among space, time and the body—along with some “empathy” with, some “desire” for staircase steps—on display.²² *PLASTIC* is a strange Pygmalion: the Cypriot dancer, Hassabi, embraces the slate-surfaced poured cement staircase like the legendary artist of Cyprus carried his sculpted ivory woman in Ovid’s *Metamorphoses* (c. 8 AD).²³

In her MoMA interview about *PLASTIC*, Hassabi directly associates the title of the live installation with both the “plastic arts” and with an “abandoned” quality she describes as “something like garbage”; over the course of the interview, she indirectly associates the ‘plastic’ with “tension,” “empathy” and “desire;” with the sense of a “forgotten body,” an “abandoned body”—a “physicality” that is “twisted;” with a “paradox of stillness,” and a “think[ing] in antitheses” under a “grey” that is “neutral.”²⁴ In 1945, the French-Mauritian writer, painter and engineer Malcolm de Chazal²⁵ defined the plastic, which he called “*sens-plastique*” (French for “plastic sense”), as a “sixth sense” (fig. 2).²⁶ This outlying intermediary sense, this critical sixth of five senses, produced its own place of pause for Chazal. It was an interstice of in-betweenness in which colors fell ill and suffered congestion; in which eyes and mouths were forms of architecture; in which wrists revealed man to be both animal and machine; in which the descent of a leaf proved it to both machinic and human (something between an aircraft and a swimmer); it

²¹ Ibid.

²² Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

²³ Victor Stoichita, *The Pygmalion Effect: From Ovid to Hitchcock*, trans. Alison Anderson (Chicago: The University of Chicago Press, 2008), 7-8.

²⁴ Ibid.

²⁵ Malcolm de Chazal (Mauritius 1902 – 1981) was a French-Mauritian writer and painter, whose writings were, for a time, promoted by the surrealist Andre Breton but “was later disowned because of his interest in the occult.” Mary Ann Caws, *The Yale Anthology of Twentieth-Century French Poetry* (New Haven: Yale University Press, 2004), 157.

²⁶ Malcolm de Chazal, “Preface to Volume I” of the Mauritian edition of *Sens-Plastique* as reprinted in Malcolm de Chazal, *Sens-Plastique*, ed. and trans. Irving Weiss (New York, NY: SUN, 1979), 158.

was an interstice in which the color mauve had hints of shoulder, and the color yellow had hints of hip.²⁷ As Chazal writes in a passage from his collection of fragments:

Blue catches cold in blue-green and sneezes in grey

We know the halls of the eye like welcome visitors but we live in our mouth.

The wrist is the leg of the hand and the neck of the arm—the extremes touching like an animal lying down with its legs in its neck. The wrist is the most “doublable” of our jointures, in terms of its length proportionately the most powerful of all known or imaginable levers.

The leaf that falls from the tree in a dead calm is an airplane steering by its tail. Leaves thrown in the wind by human hands swim through the air

Mauve is full of shoulder movement, yellow full of hip movement. A mauve blouse worn to a yellow skirt makes the waist spiral sidewise like a cork being unscrewed.²⁸

For Chazal—whose work inspired André Breton’s essay *The Lamp in the Clock* (1948)²⁹—the term “plastic” designated “the fact that [...] everything on earth is sensuously connected to everything else”³⁰: “we all belong to the same mold,” explains Chazal in his preface to the 1947 Mauritian edition of his celebrated work, *Sens-Plastique* (Plastic Sense).³¹ Echoing Hassabi, he contends “‘plastic’ suggests art in all its forms.”³² What Chazal called “*sens-plastique*” is thus a separate, not synesthetic-combinatory, but synaptic-conjoining sense (from Greek *synaptein*, “to clasp, join,” “tie or bind”)³³; “*sens-plastique*” allows Chazal to “examine each sense by means of every other one along their underground connections, until they actively

²⁷ Malcolm de Chazal, *Sens-Plastique*, ed. and trans. Irving Weiss (New York, NY: SUN, 1979), 29-30.

²⁸ Chazal, *Sens-Plastique*, 29-30.

²⁹ André Breton (Tinchebray, France 1896 - Paris 1966) was the leader of the Surrealist movement in France. It is alleged that one of the reasons why he became interested in the work of De Chazal was because Chazal was “a descendent of one of [the mystic Emanuel] Swedenborg’s disciples.” André Breton, “The Lamp in the Clock (1948),” *Free Rein* (La Clé des Champs, 1953), trans. Michel Parmentier and Jacqueline D’Amboise (Lincoln, NE: University of Nebraska Press, 1995), 108-121.

³⁰ Chazal, “Preface to Volume I,” *Sens-Plastique*, 158.

³¹ *Ibid.*

³² *Ibid.*

³³ “synapse (n.),” *Online Etymological Dictionary*, ed. Douglas Harper. Published 2001 – 2017. Accessed February 2017. <http://www.etymonline.com/index.php?term=synapse>

symbolize each other.”³⁴ The effect of this process of ‘symbolization’ is that “abstractions turn concrete, and [...] conflicting meanings are resolved.”³⁵

The new materialist philosopher Catherine Malabou—who has written extensively on the concept of “plasticity”—writes that in art, as in “science, medicine, [...] and education, the connotations of the term ‘plasticity’ are always positive.”³⁶ In these contexts, she argues, “plasticity refers to an equilibrium between the receiving and giving of form.”³⁷ Chazal’s description of “plastic sense” as a process of symbolization by way of which “conflicting meanings are resolved”³⁸ appears to confirm Malabou’s claim. However, this “plastic art” that at first seems to have no relationship to what Malabou calls “the power of ontological and existential explosive plasticity”—“a plasticity that does not repair, a plasticity without recompense or scar, one that cuts the thread of life in two or more segments that no longer meet”³⁹—proves in a second moment, to be more complex, more akin to “the logic and the economy of [...] alterity without transcendence” (“a ‘way out’ in the absence of a ‘way out’”)⁴⁰ that Malabou calls “destructive plasticity.”⁴¹

Malabou writes that “destructive plasticity enables the appearance or formation of alterity where the other is absolutely lacking”—“the other that exists in this circumstance is being other to the self.”⁴² It is “a mutation that produces a new form of identity and makes the former one explode.”⁴³ “No one,” writes Malabou, “thinks spontaneously” about this kind of “plastic art of

³⁴ Chazal, “Preface to Volume I,” *Sens-Plastique*, 158.

³⁵ Ibid.

³⁶ Catherine Malabou, *Ontology of the Accident: An Essay on Destructive Plasticity* (Cambridge, UK: Polity, 2012), 3.

³⁷ Ibid.

³⁸ Ibid., 5.

³⁹ Ibid., 6.

⁴⁰ Catherine Malabou, *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction*. Trans. Carolyn Shread (New York, NY: Columbia University Press, 2010), 66.

⁴¹ Malabou, *Ontology of the Accident*, 6.

⁴² Ibid., 11.

⁴³ Malabou, *Plasticity at the Dusk of Writing*, 67.

destruction,” but, “destruction too is formative,” she insists.⁴⁴ “The very significance of plasticity itself appears to be plastic,” Malabou comments, reflecting on both the etymological root of the term in the Greek *plassein*, and its current usage to refer to both the “putty-like” substances of material plastics and the “‘plastic’ explosive for a bomb [also *plastique* in French].”⁴⁵ Like Hassabi’s *PLASTIC* reference to “plastic art” and “garbage,”⁴⁶ Malabou’s destructive plasticity is “mapped somewhere between two extremes” she calls “the crystallization of form” or “the concretization of shape,” and “the very annihilation of all form.”⁴⁷

The fulcrum of Chazal’s “*sens-plastique*” is what the poet calls “sexual pleasure.” He defines “sexual pleasure” as the “locus-state where birth and death meet halfway, and where the whole man ‘converges’ upon himself.”⁴⁸ This convergence upon oneself described by Chazal is the same kind of alterity, of “being other to the self,” that Malabou describes with the concept “destructive plasticity,” the “ontological and existential explosive plasticity” she claims has never been part of how the ‘plastic’ is conceived in art practice or theory. In the “pleasure” of Chazal’s “plastic sense”—a “pleasure” that joins “birth and death” as “the opposite sides of one and the same experience”—Breton had seen the “incarnat[ion]” of a “spiritual torment and a shift in direction” that he claimed as “steadily becom[ing] more acute and more demanding” in the mid 20th-century.⁴⁹ Breton describes this “torment” and “shift” as a mission “to bring man back to a higher level of awareness of his destiny” through “sexual pleasure,” which he defines in Chazal’s words as “the universal junction of the senses [...] where the whole man converges upon himself.”⁵⁰

⁴⁴ Malabou, *Ontology of the Accident*, 6.

⁴⁵ Malabou, *Plasticity at the Dusk of Writing*, 67.

⁴⁶ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

⁴⁷ Malabou, *Plasticity at the Dusk of Writing*, 67.

⁴⁸ Malcolm de Chazal as quoted in Breton, “The Lamp in the Clock (1948),” 119.

⁴⁹ Breton, “The Lamp in the Clock (1948),” 120.

⁵⁰ Chazal as quoted in Breton, “The Lamp in the Clock (1948),” 119.

In *Sens-Plastique*, Chazal describes the change he underwent through his sixth sense of “junction,” as a transmutation into a lobster-like creature (fig. 2).⁵¹ Endowed with *sens-plastique*, he describes himself as “seiz[ing] humanity and nature with the claws of a pair of pincers, one arm being the five senses, the other my sixth sense.”⁵² With humanity and nature in his “pincers,” he “scrutinized the senses themselves, two at a time, using the sixth sense as a lens,”⁵³ “subdividing [...] perceptions and impressions to achieve total unity.”⁵⁴ In this “subdividing” towards “total unity,” Chazal writes of “sensationally kneading each natural form” to “press” himself “into every flower, fruit, and tree,” and to “fold” his “integrated self into [his] primary self.”⁵⁵ “To put it another way,” Chazal wrote, once more returning to the lobster, “I forced all objects and things in my experience to yield their secrets to the pressure applied by the pincers of my double self. [...] The result [...] was a *triple vision* of man and nature.”⁵⁶ Malabou posits the following question at the core of her research on plasticity: “where there is no outside, how can one reach toward the other, how can one respond to the other?” Though she denies the possibility for an answer from art, Chazal’s “*sens-plastique*” responds with its “triple vision” of “sixth sense” that presses and folds, subdivides and kneads, pinches and compresses what Malabou calls “the form of an alterity without transcendence.”⁵⁷

⁵¹ Malcolm de Chazal, *Languste* (N.d.), gouache, 29.9 in x 21.9 in (76 cm x 55.5 cm), *Artnet Price Database*, artnet.com, Artnet Worldwide Corporation, N.d. http://www.artnet.com/artists/malcolm-de-chazal/languste-5_J77wuGHruvjqPm0ad68Q2

⁵² Historian of plastic Jeffrey Meikle paraphrasing Marshall McLuhan’s *Understanding Media. The Extensions of Man* (1964) in Jeffrey Meikle, *American Plastic: A Cultural History* (New Brunswick, NJ: Rutgers University Press, 1995, 73), 74 and n.23 on 330.

⁵³ Chazal, “Preface to Volume I,” *Sens-Plastique*, 158.

⁵⁴ Malcolm de Chazal, “Preface to Volume II (1946)” of the Mauritian edition of *Sens-Plastique* as reprinted in Malcolm de Chazal, *Sens-Plastique*, ed. and trans. Irving Weiss (New York, NY: SUN, 1979), 161.

⁵⁵ Malcolm de Chazal, “Afterword to Volume II (1948)” of the French Gallimard edition of *Sens-Plastique* as reprinted in Malcolm de Chazal, *Sens-Plastique*, ed. and trans. Irving Weiss (New York, NY: SUN, 1979), 161.

⁵⁶ Chazal, “Afterword to Volume II (1948)” *Sens-Plastique*, 161.

⁵⁷ Malabou, *Plasticity at the Dusk of Writing*, 66.

What Breton identifies as “remarkable and highly significant”⁵⁸ about Chazal’s writings are their commitment to using *sens-plastique* to experiment with “sexual pleasure” without—as Chazal writes—“intellectualiz[ing], [...] pornographizing, or sentimentalizing it to excess.”⁵⁹ However, while Breton’s emphasis remains with the principle of “sexual pleasure,”⁶⁰ in Chazal’s writing about his work he foregrounds the “faculty” of the plastic, or rather, the approach to the “hyperactive subconscious” that allows this pleasure to be achieved: his “*sens-plastique*.”⁶¹ The 20th-century “torment” and “shift in direction”⁶² that Breton felt Chazal “incarnat[ed]”⁶³ was actually more about this erotic energetics in the concept of the plastic than it was about sexual pleasure *per se*. The argument that the present Part One of the dissertation sets out to make is that this “torment,” this “shift” in the human body’s conceptualization of its own transformational capacity through energetic exchanges with objects, images, the environment, and other bodies, is what reemerged at MoMA in Hassabi’s *PLASTIC* in 2016.

The ‘Plastic’ as Torment —What is the ‘Plastic’?

In the early 20th-century, with reference to the phenomenon of material plastics, trade industry magazines pondered if the century was a “plastic age.”⁶⁴ As plastics proliferated, the “tactile or physical exposure” to “subconscious, experiencing of real plastics” (the century’s new material) led to concerns over the creation of a cultural disturbance that, by “elevating one sense over the others,” threatened to be force “destroying a balanced sensory ratio.”⁶⁵ However, this “balanced sensory ratio” had, in fact, already been disturbed. Increased interest in the haptic

⁵⁸ Breton, “The Lamp in the Clock,” 120.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Chazal, “Preface to Volume I,” *Sens-Plastique*, 157.

⁶² Ibid.

⁶³ Ibid.

⁶⁴ The trade journal *Plastics* asked “Is it a Plastic Age?” in 1927. Meikle, *American Plastic*, 2-3.

⁶⁵ Marshall McLuhan as discussed in Meikle, *American Plastic*, 74.

(tactility), in kinesthesia (an “inner sense of movement”)⁶⁶, and in proprioception (“a sense of the body’s position achieved via responses to stimuli from inside the body”)⁶⁷ had already moved the scales of the sensory ratio. In the 1980s, a popular cultural critic in Germany reflected on the general enthusiasm for this mid-century disturbance as *Plastikoptimismus* (plastic optimism)⁶⁸. The critic’s use of the term in a popular context is an indication that the dual meaning that the *Plastik* (plastic) had come to acquire over time was not esoteric, but common knowledge: the critic used it to extrapolate on the way “future visions [...] mirror [...] the present,”⁶⁹ combining the word *Plastik*, intended as material plastics, with the *Plastik* intended as the property of a “vivid” (i.e. *plastisch*) vital dimension.⁷⁰ The term *Plastikoptimismus* thus combined the qualities of material plastics—their glossy, artificial material transcendence—with notions inherited from older uses of the term—notions that by designating the three-dimensional and the sculptural, had come to be associated with vivification, enlivening, or animation.

Historians of material plastics have described mid-century *Plastikoptimismus* as an attitude built up from the 20th-century’s early decades of “plastic utopianism,” which saw material plastics as “a vehicle of controlled social stability.”⁷¹ This “dream of equilibrium,” however, had an opposite “pole,” “a more radical vision [that] considered plastic a vehicle of proliferating transformations, of continuous transcendence” that would eventually become a “vision of endless disruption” and crisis.⁷² Roland Barthes described this in his essay “Plastic” in

⁶⁶ “Haptic visuality (embodied spectatorship),” op. cit., 201.

⁶⁷ Ibid.

⁶⁸ Der Spiegel cultural critic Wolfgang Limmer used the term *plastikoptimismus* in 1982 to describe Stanley Kubrick’s *2001: A Space Odyssey*, 230 – 231, n. 98 on 366. “Future visions are mirror images of the present, brought forth. Orwell’s 1984 was created under the impression of Stalinism, Kubrick’s *2001: A Space Odyssey* is characterized by the description of the beautiful new world of that plastic optimism that prevailed in the sixties [...]” Wolfgang Limmer, “Böse neue Welt,” *Der Spiegel*, no. 43, October 25, 1982. N.d. Accessed January 3, 2017. <http://www.spiegel.de/spiegel/print/d-14352715.html>. Meikle, *American Plastic*, 230-231.

⁶⁹ Limmer, “Böse neue Welt,” op. cit. and Meikle, *American Plastic*, 230-231.

⁷⁰ “plastisch,” *PONS German-English Dictionary*, Version 7.7 (Stuttgart, Germany: PONS GmbH, 2012).

⁷¹ Meikle, *American Plastic*, 67-74.

⁷² Ibid.

Mythologies (1957), first published in France while the country was “undergoing an economic boom, a social shift and a political crisis.”⁷³ Barthes anachronistically characterizes plastic—the ultimate material of scientific innovation—as “alchemical,” describing the mechanics of a trade show demonstration:

the public waits in a long line to see accomplished the magical operation par excellence: the conversion of substance. An ideally shaped machine, tubulated and oblong [...], effortlessly draws from a heap of greenish crystals a series of gleaming fluted pin trays. At one end the raw telluric substance, and at the other the perfect human object; nothing but a trajectory [...].⁷⁴

In Barthes’ plastic, like Hassabi’s *PLASTIC*, every apparent pause—any fixed form—is actually transitional. Birth and death are not combined in a synthesis or equated with each other, but experienced as conjoined by the delay that is life.

While the present essay must necessarily touch on the relationship of material plastics to the notion of the 20th-century as the “Plastic age”⁷⁵—the age of plastic and “plastic optimism”⁷⁶—it takes a different perspective on the phenomenon: it sees the development of material plastics not as a determining factor of a post-humanist “plastic man,”⁷⁷ but rather as an outcome of an overdetermined “circle of circles.”⁷⁸ This circle of circles was spiraling through increased interest in the haptic, kinesthetics, and proprioception, as well as through deeper engagement with the tension between the transplanar impulse for complex surfaces transgressing surface and phenomenologies of planocentric vision dominated by the the flat surface of the plane. Evidence of both the increased sense of self-conscious engagement with the body’s perception of itself and

⁷³ Richard Brody, “The Uses of Mythologies,” *The New Yorker*, April 19, 2012. Accessed January 3, 2017. <http://www.newyorker.com/culture/richard-brody/the-uses-of-mythologies>

⁷⁴ Roland Barthes, “Plastic,” *Mythologies* (1957), trans. Annette Lavers (New York, NY: Hill and Wang, 1972), 193.

⁷⁵ Meikle, *American Plastic*, 230-231.

⁷⁶ *Ibid.*, 67-74.

⁷⁷ *Ibid.*, 68.

⁷⁸ Louis Althusser uses this phrase to describe “overdetermination” in Louis Althusser, “Contradiction and Overdetermination,” *For Marx, Part III: Notes for an Investigation*, trans. Ben Brewster. Penguin Press, 1962. N.d. Accessed January 3, 2017. <https://www.marxists.org/reference/archive/althusser/1962/overdetermination.htm>

with the tension between the planocentric and the transplanar can be found in popular new technologies like stereoscopy,⁷⁹ and in interest in the fourth dimension.⁸⁰

In Chazal's writing about his work, he describes sexual pleasure as the quintessential field of observation and action for "*sens-plastique*"—a "superlaboratory of the senses."⁸¹ For him, sexual pleasure is not reduced to the sexual between two human bodies; it is the merging of colors and body parts, plant parts and machine components, architectural elements and facial features, the organic and the inorganic, the biotic and the abiotic. Sexuality was the "total unity"⁸² Chazal sought to achieve through a combusive picking apart, or "subdividing" of his "perceptions and impressions"—microcosmic explosions that resolved themselves in a visioary activity that was able to simulatneously quell and preserve the tension of initial fracturing to achieve "*sens-plastique*."⁸³

The present introductory chapter has aimed to immediately immerse the reader in the concept of the plastic in artist writings, art practice and art history. Rather than approach the topic in a linear fashion by seeking an origin and tracing its development, Part One recounts use of the concept through a web of interconnected discourses across time and space. For example, rather than search for a philological source of Chazal's use of the term "*plastique*" (plastic) in the theory and practice of "*sens-plastique*," it has thus far taken an associative approach that, with future chapters, will continue its accretive build-up. It began observing resonances between Chazal's mid-20th-century poetry in *Sens-Plastique* and contemporary dancer Maria Hassabi's early 21st-century live installation, *PLASTIC*. It then commented on how *Sens-Plastique* was received as representative of a general plastic "torment" by surrealist leader, Breton, and will now

⁷⁹ Jens Schröter, *3D: History, Theory and Aesthetics of the Transplane Image* (2009), trans. Brigitte Pichon and Dorian Rudnytsky. International Texts in Critical Media Aesthetics. Vol. 6 (New York, NY: Bloomsbury, 2014).

⁸⁰ Linda Dalrymple Henderson, *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* (Princeton, NJ: Princeton University Press, 1983).

⁸¹ Chazal as quoted in Breton, "The Lamp in the Clock," 119.

⁸² Chazal, "Preface to Volume I," *Sens-Plastique*, 158.

⁸³ Chazal, "Preface to Volume II," *Sens-Plastique*, 159.

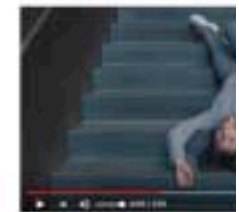
proceed to explore sympathetic and divergent manifestation. By building up a response to the question, “what is the plastic?” –using an accretive process to show that the “plastic art of destruction” is indeed (contrary to contemporary philosopher Catherine Malabou’s assertion) fundamental to the way artists, art writers and art historians have thought about the plastic and plasticity in art—the chapter guides the reader through a journey of rediscovery and reinvention of the ‘plastic.’



Fig. 3 Robert Motherwell, Pancho Villa, Dead and Alive (1943), cut-and-pasted printed and painted papers, wood veneer, gouache, oil, and ink on board, 71.7 cm by 91.1 cm (28 1/4 in x 35 7/8 in). Image: Dedalus Foundation, Inc.



Fig. 6 Arthur Young, Bel (1964), 9 ft 2 3/4 in x 7 ft 11 in x 42 in. Image: Museum of Modern Art



349.3 x 776.6 cm (11 ft 6 in by 25 ft 5 in). Museo Nacional Centro de Arte Reina Sofía, Madrid, Spain.

Chapter One / Plastic Sense and Plastic Automatism

Sensing the ‘Plastic’: Malcolm de Chazal and Robert Motherwell

Chazal’s use of the term “plastic” in 1948 was at once a reflection of, as well as a departure from, ideas about the “plastic” that were in heavy circulation mid-century. In 1944, the American painter Robert Motherwell (fig. 3) presented a talk at a historically important conference at Massachusetts’s Mount Holyoke college—an American conference organized and attended by French expatriate surrealists and abstractionists, and their American hosts.¹ At the session “Arts Plastique” (Plastic Arts)—organized by the French surrealist André Masson—Motherwell underscored what he considered to be an imperative: the need to redefine automatism. Breton had made automatism the very definition of Surrealism when, in his 1924 *Manifesto of Surrealism*, he wrote: “SURREALISM, n. m. Pure psychic automatism *by which one proposes to express—verbally, by means of the written word, or in any other manner—the real functioning of thought.*”² However, by 1933, Breton had already described automatism as the “victim of ‘continuing misfortune,’”³ reflecting a “gradual disillusionment with automatic practices.”⁴

In his 1944 talk, Motherwell insisted on the distinction between two kinds of automatism, Breton’s “verbal automatism” and another automatism that he chose to call “plastic

¹ Robert Motherwell (Washington, USA 1915 – Provincetown, 1991) is considered a “major figure of the Abstract Expressionist generation” and named as a member of the “New York School,” (an identifying phrase that he is said to have “coined”). The latter included Philip Guston, Willem de Kooning, Jackson Pollock and Mark Rothko. His work is generally understood as combining “the automatism of the Surrealists, the expressive brushwork of action painting, and the saturated hues of field painting.” “Robert Motherwell,” Artists. Museum of Modern Art, New York. *Moma.org*. Published 2017. Accessed February 2017. <https://www.moma.org/artists/4126>

² Breton as quoted in Barnaby Dicker, “André Breton, Rodolphe Topffer and the Automatic Message,” *Surrealism, Science Fiction and Comics*, ed. Gavin Parkinson (Liverpool: Liverpool University Press, 2015), 51.

³ André Breton as quoted in Dicker, “André Breton, Rodolphe Topffer and the Automatic Message,” 51.

⁴ Dicker, “André Breton, Rodolphe Topffer and the Automatic Message,” 51.

automatism.”⁵ The imperative for a “plastic automatism” was Motherwell’s response to what he described as the “fundamental criticism of automatism”: the critique of surrealist attempts to use automatic actions to manipulate the unconscious.⁶ “The unconscious cannot be *directed*,” insisted Motherwell, “it presents none of the possible choices which, when taken, constitute any expression’s form.”⁷ In this context, Motherwell asserted that “plastic automatism [...] is actually very little a question of the unconscious. It is much more a plastic weapon with which to invent new forms. As such it is one of the twentieth century’s greatest formal inventions.”⁸ Motherwell’s “plastic weapon” emphasized the role of the relationship between body and form in automatism, rather than the “psychic”⁹ verbal dimension stressed by Breton.

In an essay on Motherwell’s thinking about surrealism’s psychic automatism, philosopher and critic Arthur Danto struggles with what Motherwell intended to achieve with his use of the term “plastic” in his 1944 talk.¹⁰ By juxtaposing Chazal’s use of the term with Motherwell’s, it is possible to illuminate points of convergence and divergence that clarify what Motherwell accomplished by opposing “verbal automatism” with “plastic automatism.”¹¹ Like Chazal’s conjoining of birth and death in “sexual pleasure,” Motherwell also aimed at a “unity,” one he called “body-and-mind.”¹² “Body-and-mind,” as Motherwell defined it, was also an eternally

⁵ Robert Motherwell, “The Modern Painter’s World (1944)” *The Writings of Robert Motherwell*, ed. Dore Ashton with Joan Banach (Berkeley, CA: University of California Press, 2007), 35. This talk was written in August 1944 and was presented as a lecture titled “The Place of the Spiritual in a World of Property” at the “Pontigny en Amérique” conference at Mount Holyoke College, South Hadley, Massachusetts, on August 10, 1944. It was part of the session “Arts Plastique” moderated by André Masson. The text of the lecture was published as Robert Motherwell, “The Modern Painter’s World,” *Dyn* I, no. 6 (November 1944): 9-14.

⁶ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 34.

⁷ *Ibid.*

⁸ *Ibid.*, 35.

⁹ André Breton as quoted in Dicker, “André Breton, Rodolphe Topffer and the Automatic Message,” 51.

¹⁰ Arthur Danto, “The ‘Original Creative Principle’: Motherwell and Psychic Automatism,” *Philosophizing Art* (Berkeley, CA: University of California Press, 1999), 26.

¹¹ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 35.

¹² *Ibid.*, 32.

transitional space, “an event in [...] the interplay of a sentient being and the external world”—“the interaction of the animal self and the external world.”¹³

However, for Motherwell, who cites Hegel and Marx, it was important to remember that “reality” also had “a historical character [...] coupled with the feeling of how *material* [it] is.”¹⁴ Thus, for Motherwell, the crisis of mid-century—what Breton called the century’s “torment” and “shift” over “sexual pleasure”¹⁵—was a more abstract take on sexuality as a relationship between interiority and exteriority: a fundamental problem of “identification.”¹⁶ “The artist’s problem is with what to identify himself,” Motherwell declared self-assuredly.¹⁷ Thus the problem of the artist is not just what, in Malabou’s words, can be described as “crossing thresholds” to an outside, but a “crossing thresholds without changing ground, being able neither to transgress nor to shut oneself in”¹⁸—it is indeed about a relationship to what Motherwell calls the “external world,” but this external world is not what Malabou calls the “possibility of an exit,” it is not “an alterity [...] from younder,” but a “form of flight toward the other from within the closure of the world”¹⁹—in Motherwell’s case, this closure of the world is the ‘plastic’ “body-and-mind” world of the painter. In what Motherwell described as an era in which “the materialism of the middle-class and the inertness of the working-class [had left] the modern artist without any vital connection to society, save that of the opposition,” Motherwell saw Surrealism and Abstractionism as the two options for artists who, under the World War II era threat of totalitarianism and authoritarianism, found themselves having “to replace other social values with

¹³ Ibid.

¹⁴ Ibid., 28.

¹⁵ Breton, “The Lamp in the Clock,” 120.

¹⁶ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 31.

¹⁷ Ibid.

¹⁸ Malabou, *Plasticity at the Dusk of Writing*, 70.

¹⁹ Ibid., 67.

the strictly aesthetic.”²⁰ This problem of identification—what Chazal and Breton called “sexual pleasure”—was described in similar terms by Motherwell as a problem of “vital connection.”²¹

Whereas Chazal’s “plastic” operates within a universalist deep history—a human evolutionary history focused on a kind of ecological plasticity— Motherwell emphasizes class struggle within a broader crisis of artist identification that he outlines as manifesting in self-expression, self-objectification, and self-annihilation.²² As Motherwell defines it, “form [...] comes from the outside, the world,” therefore, “formalization” is one of the ways the “ego can draw from itself,” not making itself the “subject of its own expression,” but instead “socializ[ing] itself.”²³ The form coming from the outside is being drawn from the inside—this self-contradictory plastic that Motherwell attempts to describe in his talk, shares much by way of resemblance with the “plasticity” Malabou writes about as “designat[ing] the form of a world without any exteriority, a world in which the other appears as utterly other precisely because she is not someone else,”²⁴ but oneself.

The ‘Plastic Weapon’: Motherwell, Andre Breton and Pablo Picasso

When Motherwell defines “plastic automatism” as “a plastic weapon with which to invent new forms,”²⁵ it is clear his interest is in foregrounding the historical and material dimensions of psycho-physiological morphogenesis, rather than its evolutionary manifestations. Whereas Chazal describes his *sens-plastique* as “pincers” on the “hyperactive subconscious” (“the faculty that enables us to sweep through the darkness of our ignorance with all five senses fanned out at the tips and unified at the base”)²⁶— and the surrealists aligned with Breton

²⁰ Ibid., 35.

²¹ Ibid., 35.

²² Ibid., 33, 35.

²³ Ibid., 33.

²⁴ Malabou, *Plasticity at the Dusk of Writing*, 67.

²⁵ Ibid., 35.

²⁶ Chazal, “Preface to Volume I,” *Sens-Plastique*, 157.

“thought to use ‘psychic automatism’ in order to reveal the underlying structure and contents of the unconscious mind”²⁷—Motherwell conceived of the plastic as critical to a new American “creative principle.”²⁸ This principle, as the philosopher and critic Danto describes it, was designed to help in “putting painting at a certain distance.”²⁹ For Danto, this is a reflection of Motherwell’s university training at Stanford where he received a Bachelor of Arts in Philosophy.³⁰

The principle of plastic automatism was an automatism of “body-and-mind”³¹ that Motherwell used to oppose surrealist “verbal”³² or “psychic automatism.”³³ In the latter, the body and mind were not united, but were driving each other either unconsciously (in the case of the body), or imperialistically (in the case of the mind). As Danto explains, automatism, intended as actions in behavior that are without “consciousness and premeditation,” is contradictory: the very decision to strive for automatism is a decision to act, and action necessarily “excludes mere reflex motor responses” that come automatically.³⁴ Thus automatism is more about working with what has “become habituated through repetition” than it is about immediate reflex.³⁵ Danto sees Motherwell’s use of the term “plastic” to put his own spin on automatism, as evidence of a philosophically “criticalist”³⁶ position against surrealist romanticization of the automatic: the

²⁷ Danto, “The ‘Original Creative Principle,’” 16.

²⁸ *Ibid.*, 14.

²⁹ *Ibid.*

³⁰ “Robert Motherwell,” *op. cit.*

³¹ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 35.

³² *Ibid.*, 32.

³³ Danto, “The ‘Original Creative Principle,’” 16.

³⁴ *Ibid.*, 17.

³⁵ *Ibid.*, 17.

³⁶ *Ibid.*, 17. With the term “criticalist,” Danto refers to what he calls “philosophical structure.” In “philosophical structure,” the “criticalist” is opposed to the “dogmatist” and has no “theses to which he is committed about the nature of reality or of the mind.” As Danto explains, Motherwell was a “criticalist” because he had no “specific commitment to content,” but was “a pure painter in the Kantian sense of being interested purely in the act of painting.” Danto, “The ‘Original Creative Principle,’” 15-16.

paradox of the automatic is that once it occurs, its subsequent “modification [...] is not itself a further piece of automatism [...] consciousness [...] must come in at this point.”³⁷

Danto’s claim that Motherwell used the term “plastic” to show that automatism required a necessary disruption by consciousness, is important; however, there is also a simpler more intuitive explanation for Motherwell’s use of the word. The use of the term “plastic” to qualify “automatism”³⁸ reflects Motherwell’s sensitivity to a literal “feeling for form,” for “physical familiarity with forms held by the hand or surrounding the body.”³⁹ In 1913, German art historian Richard Streiter had used the terms *Formgefühl* (“feeling for form”)⁴⁰ and *Lebensgefühl* (“feeling for life”)⁴¹ in his *Ausgewählte Schriften* (Selected Writings) in what has been characterized as a new “application of [mid-19th century] empathy theory.”⁴² Streiter theorized that “the body does not recognize itself through similarity, nor yet through apperception; instead, the layers enveloping it engender a habit and sensual appreciation” which, “in time,” generates “a need for [...] new forms and surface finishes.”⁴³ Thirty-years later, Motherwell’s American insistence on plastic automatism is posited as a similar claim. Whether the young Motherwell knew of Streiter’s work or had ever read any of the late 19th-century German literature on empathy theory, would be interesting to explore, but is not important to determine here. Acknowledging resonances with the way Motherwell makes use of the term “plastic” illuminates his kindred

³⁷ Ibid., 30.

³⁸ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 35.

³⁹ This perspective on “habitual form,” the late 19th-century notion of “feeling for form” or *Formgefühl*, is discussed in relation to Richard Streiter in Alina Payne, *From Ornament to Object: Genealogies of Architectural Modernism* (New Haven, CT: Yale University Press, 2012), 171 and 185.

⁴⁰ Payne, *From Ornament to Object*, 185.

⁴¹ Payne references *Lebensgefühl* in the footnote to a passage on Streiter’s use of the term *Formgefühl*. Richard Streiter, *Ausgewählte Schriften* (Munich: Delphin, 1913), 115 as cited in Payne, *From Ornament to Object*, 186 and n. 73 on 298. The English translation of the German term is mine and follows Alina Payne’s translation of *Formgefühl* as “feeling for form.” *Lebensgefühl* can also be translated as “awareness of life.” “Lebensgefühl,” PONS German-English Dictionary, Version 7.7 (Stuttgart, Germany: PONS GmbH, 2012).

⁴² Payne, *From Ornament to Object*, 171 and 185.

⁴³ Streiter’s position as paraphrased in Payne, *From Ornament to Object*, 171 and 185.

sensitivity to the notion of an “unself-conscious education of the body through daily contact with objects.”⁴⁴

Motherwell’s 1944 talk directly references the “aesthetics of the *papier collé*”—the aesthetics of collage—as an aesthetics of “the eternal and the formal.” He positions this aesthetics in opposition to the aesthetics of an “uneasy equilibrium between now disappearing values” that he identifies with Pablo Picasso’s *Guernica* (1937) (fig. 4).⁴⁵ As Motherwell describes it, Picasso’s monumental painting—inspired by an Italian and German bombing campaign of Basque Gernika that was aimed at annihilating the resistance to Francoist Spanish maneuvers⁴⁶—expresses “moral indignation at the character of modern life.” Though, as Motherwell writes, “we admire Picasso for having created *Guernica* [...] moved by its intent, here a contradiction exists.”⁴⁷ For Motherwell, *Guernica* is an example of “what Mondrian called the *tragic*,” in the sense that in “so long as the artist does not belong, in the most concrete sense, to one of the great historical classes of humanity, so long he cannot realize a social expression in all its public fullness.”⁴⁸

As a “modern” artist, Picasso is necessarily a bourgeois who refuses his own class position; as such he is alienated and cannot accomplish full social expression, even if he tries to identify with the proletariat. In an English text written three years before Motherwell’s talk (a text which Motherwell helped to publish in the Documents of Modern Art series he contributed to editing)—Mondrian had described this same phenomenon, explaining that “art has been used for

⁴⁴ This idea did not belong to the empathy theory or *Einfühlung* “school of thought,” but is attributed to German architect and author Hermann Muthesius (1861 – 1927) in Payne, *From Ornament to Object*, 200.

⁴⁵ Motherwell, “The Modern Painter’s World (1944),” 30. The monumental painting *Guernica* (1937) by Pablo Picasso (Málaga, Spain 1881 – Mougins, France, 1973) is considered one of the most famous paintings of 20th-century modernism. Pablo Picasso, *Guernica* (1937), oil on canvas, 11 feet 6 in x 25 feet 6 in (349.3 x 776.6 cm), Museo Nacional Centro de Arte Reina Sofia, Madrid, Spain. “Guernica,” *Museo Nacional Centro de Arte Reina Sofia*. N.d. Accessed March 2, 2017. <http://www.museo-reinasofia.es/en/collection/artwork/guernica>

⁴⁶ Gijs van Hensbergen, *Guernica: The Biography of a Twentieth-Century Icon* (London, UK: Bloomsbury, 2004), 3.

⁴⁷ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 30.

⁴⁸ *Ibid.*

immediate and personal purposes: it described events, persons, battlefields,” and “deeply explored the facts and the causes of the tragic realities created by oppression;”⁴⁹ however,

the function of plastic art is neither descriptive nor cinematic [;] it is [...] the aesthetic establishment of complete life—unity and equilibrium—free from all oppression. [...] [I]ts primary function is to “show,” not to describe. [...] When we view the tragic events of war, pessimism overtakes us and makes it difficult to think of culture. [...] If we are able to understand the culture of plastic art as a continuous growth toward the full utilization of its freedom to express pure life, then one way to optimism is open to humanity. The culture of art reveals to us that life is a continual growth, an irresistible progress. In spite of all, human culture must manifest what the culture of art demonstrates: continual progress. But subjective factors prevent this from being seen. It is seen only as continual change. Through its culture, plastic art shows a growth toward the culmination of limited form, then a *dissolution of this form and a determination of the freed constructive elements* [...]. We can conclude that plastic art shows a double action manifested in life and in art: an action of decay and an action of growth, a progress of intensification and determination of the fundamental aspect of forms, and a decay through the reduction of their external aspect. Art and human life show that this reciprocal action does not destroy but manifests the intrinsic value of form. By establishing greater equivalence of the opposing factors, a possibility of approaching equilibrium is created.⁵⁰

The plastic is “dissolution” and “determination of [...] freed constructive elements”; it is “growth” and intensification,” as well as “decay” and “reduction.”⁵¹ Its destruction is not an absolute end, but a means for the creation of a new identity that makes the former explode. Following Mondrian, Motherwell sees *Guernica* as a contradiction because it operates within the realm of “unequivalence” Mondrian referred to as the source of the “tragic”⁵²—Picasso the painter insists that “his effort not [...] be limited to the strictly aesthetic” so as “not to strip his art

⁴⁹ Piet Mondrian, “Liberation from Oppression in Art and Life,” *Plastic Art and Pure Plastic Art (1937) and other essays, 1941-1943*, The Documents of Modern Art, ed. Robert Motherwell. San Francisco: Wittenborn Art Books, Inc, 2008), 41. The book *Plastic Art and Pure Plastic Art (1937) and other essays, 1941-1943* comprises “the complete essays written by Mondrian in English.” Robert Motherwell, “Preface,” in Piet Mondrian, *Plastic Art and Pure Plastic Art (1937) and other essays, 1941-1943*, The Documents of Modern Art, ed. Robert Motherwell (San Francisco: Wittenborn Art Books, Inc, 2008), 7.

⁵⁰ Mondrian, “Liberation from Oppression in Art and Life,” *Plastic Art and Pure Plastic Art*, 41.

⁵¹ *Ibid.*

⁵² For the “tragic” as “created by unequivalence,” see Piet Mondrian, “Toward the True Vision of Reality,” *Plastic Art and Pure Plastic Art (1937) and other essays, 1941-1943*, The Documents of Modern Art, ed. Robert Motherwell. San Francisco: Wittenborn Art Books, Inc, 2008), 15. For Motherwell’s association of Picasso’s *Guernica* with what Mondrian called the “tragic,” see Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 30.

bare of a full social content,” he, therefore, “wills [...] the retention of social values at any cost”⁵³; however, “since Picasso, no more than any artist, can accept the values of a middle-class world, he must, in retaining them, treat them with savage mockery [...]”⁵⁴ Motherwell compares Picasso to Mondrian, asserting that

it was the late Piet Mondrian who accepted the impoverishment of his art involved by the rejection of social values. He was perhaps less opposed to ordinary life than indifferent to its drama. It was the eternal, the “universal,” in his terminology, which preoccupied him.⁵⁵

Mondrian did not fear that the annihilation necessary for the production of a new identity would be perceived as indifferent. This indifference was an indifference to the illusion of subjective vision. To put this back in the exact words Mondrian used to describe it, he had discovered that the only way to “create unity” was

to follow not nature’s aspect but what nature really is. Appearing in oppositions, nature is unity: form is limited space concrete only through its determination. Art has to *determine space as well as form and to create the equivalence of these two factors*.⁵⁶

“Equilibrium,” writes Mondrian, “rests on the equivalence of [...] opposites. I felt that the tragic is created by unequivalence. I saw the tragic in a wide horizon or a high cathedral.”⁵⁷

Reading through these passages renders it evident that, from under Mondrian’s influence, Motherwell’s appeal for “plastic automatism” is not an appeal for a three-dimensional automatism to contrast with surrealism’s “verbal automatism.”⁵⁸ The unequivalence that concerns Motherwell in automatism is not between word and physical form, it is the unequivalence between body and mind that he intuited in the surrealist aim to use automatism to “retreat into the unconscious,” “to renounce the conscious ego altogether, to abandon the social

⁵³ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 30.

⁵⁴ *Ibid.*, 30.

⁵⁵ *Ibid.*

⁵⁶ Mondrian, “Toward the True Vision of Reality,” *Plastic Art and Pure Plastic Art*, 15.

⁵⁷ *Ibid.*

⁵⁸ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 35.

and the biological, the superego and the id.”⁵⁹ The latter was a desire to “maintain a “pure ego””⁶⁰ that Motherwell saw in direct contrast to the “formalization,”⁶¹ which, in the context of his 1944 talk, he associates with Mondrian’s conception of the “plastic.”⁶² Motherwell’s “plastic automatism” was a process by way of which he could experiment with what Mondrian called “a more dynamic expression[,] [...] test[ing] the value of destroying particularities of form and thus opening the way to a more universal construction.”⁶³ “Plastic automatism” did not renounce consciousness; instead, it used consciousness to challenge what Mondrian called the “subjective vision and determined position which makes us suffer”⁶⁴—the exact kind of subjective vision illustrated in Picasso’s *Guernica*: “we can escape the oppression through a clear vision of true reality [the plastic], which exists, but which is veiled. If we cannot free ourselves, we can free our vision.”⁶⁵

Whereas what Motherwell called surrealism’s “verbal automatism”⁶⁶ aimed at freeing the individual unconscious, Motherwell’s own “plastic automatism”⁶⁷ aimed at freeing what Mondrian would have called “vision.”⁶⁸ This vision denies the subjective position that understands itself as an internal world in contrast with an external world. Though there is a subjective perception of internality and externality there is no outside—there is no escape—only the universal. For Motherwell, no matter how noble its intent, Picasso’s *Guernica* takes on the impression of a caricature, of “savage mockery.”⁶⁹

⁵⁹ Ibid., 34.

⁶⁰ Ibid.

⁶¹ Ibid., 33.

⁶² Motherwell does not make this attribute his use of the term “plastic” directly to Mondrian but his extended discussion of Mondrian’s writings make it clear that it is to Mondrian’s famous use of the term that is he refers.

⁶³ Mondrian, “Toward the True Vision of Reality,” *Plastic Art and Pure Plastic Art*, 15.

⁶⁴ Ibid., 17.

⁶⁵ Ibid.

⁶⁶ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 35.

⁶⁷ Ibid.

⁶⁸ Mondrian, “Toward the True Vision of Reality,” *Plastic Art and Pure Plastic Art*, 17.

⁶⁹ Motherwell, “The Modern Painter’s World (1944),” 30.

Motherwell contrasts his modest *papiers collés* collage experiments with Picasso's *Guernica* as two different responses arising from the same sense of mid 20th-century tragedy: unlike *Guernica* which “by virtue of its size and public character, must speak for a whole society; or at the very least, a whole class,” the *papiers collé* (fig. 3) is fragile, ephemeral, and works within what Motherwell saw as the artist's class limitations.⁷⁰ It does not aim to “experience reality through fantastic feelings”—which Mondrian's writings explicitly warned against—rather its objective is to “free our vision” by following “only those intuitions relating to true reality”: the plastic.⁷¹

In the process of *papier collé*, as Motherwell describes it, “the sensation of physically operating on the world is very strong”:

various kinds of paper are pasted to the canvas [or other support]. One cuts and chooses and shifts and pastes, and sometimes tears off and begins again. [...] [S]haping and arranging such a relational structure obliterates the need, and often the awareness of representation. Without reference to likenesses, it possesses feeling because all the decisions in regard to it are ultimately made on the grounds of feeling.⁷²

The automatic in plastic automatism worked with what Motherwell called the “preconscious”⁷³ of body memory—what specifically in his case, he has been quoted as identifying with the openness of ocean scenes and the ochre of the California hills⁷⁴—or what the philosopher and critic Danto has called “psychic compost.”⁷⁵ This is not the “psychic compost” of “surrealist monsters and irrational fears,” but a compost from a “complex of causes, of influences, experiences and circumstances,”⁷⁶ in particular, as they occur between the body and landscape. When Danto writes that this “psychic compost” is what “make[s] each of us the person we uniquely are: our

⁷⁰ Motherwell, “The Modern Painter's World (1944),” *The Writings of Robert Motherwell*, 30.

⁷¹ Mondrian, “Toward the True Vision of Reality,” *Plastic Art and Pure Plastic Art*, 17.

⁷² Robert Motherwell, “Beyond the Aesthetic (1946),” *The Writings of Robert Motherwell*, ed. Dore Ashton with Joan Banach (Berkeley, CA: University of California Press, 2007) 55.

⁷³ Robert Motherwell quoted in Danto, “The ‘Original Creative Principle,’” 23.

⁷⁴ Motherwell himself makes reference to both. See Motherwell quoted in Danto, “The ‘Original Creative Principle,’” 24.

⁷⁵ Danto, “The ‘Original Creative Principle,’” 23-24.

⁷⁶ *Ibid.*

selves,” he only tacitly refers to corporeal memory and the body’s interactions with its surroundings. He does so through word-use and the choice to refer to abstract “influences, experiences and circumstance” with the term “compost,”⁷⁷ evoking organic, decomposed material. When Motherwell describes the activity of *papier collé* as a series of “decisions [...] ultimately made on the grounds of feelings” rather than the “awareness of representation,”⁷⁸ it is the combination of haptic visuality, kinesthesia and proprioception—the “body-and-mind” complex⁷⁹—that he is emphasizing.

Plastic Automatism in Motherwell’s *Papier Collé*

In *Pancho Villa, Dead and Alive* (1943) (fig. 3), a *papier collé* that Motherwell created the year before his Mount Holyoke talk, he cut and pasted printed German papers and painted Japanese papers on paperboard along with a small slat of wood veneer, then intervened on the variegated surface with gouache, oil and ink.⁸⁰ Two oval shapes painted with a dynamic black line of varying calligraphic thickness dominate the top half of the composition. The round forms contrast with four tapered and triangular extensions that extend in pairs from the respective ovals like thin legs from bloated bellies. The dynamic printed splotches of dots in crimson and black on the beige paper ground under the oval on the right, contrasts sharply with the flat beige and gray fields of color in the paper on the left. In a plate caption that Motherwell wrote for the catalogue *Abstract and Surrealist Art in America* (1944), he described his oil on canvas, *Spanish Prison* (1944, later retitled *Spanish Prison [Window]*) as “like all my works, [...] a dialectic between the conscious (straight lines, designed shapes, weighed color, abstract language) and the

⁷⁷ Ibid.

⁷⁸ Motherwell, “Beyond the Aesthetic (1946),” *The Writings of Robert Motherwell*, 55.

⁷⁹ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 32.

⁸⁰ Robert S. Mattison, *Robert Motherwell: Early Collages*, curated by Susan Davidson, Megan Fontanella, Brandon Taylor and Jeffrey Warda. Peggy Guggenheim Collection, Venice, May 26 – September 8, 2013; Solomon R. Guggenheim Museum, New York, September 27, 2013-January 5, 2014.” [caa.reviews.collegeartassociation.org](http://caa.reviews.collegeartassociation.org/reviews/2184#.WHVKjIU7Vvt). July 17, 2014. Accessed January 9, 2017. <http://www.caareviews.org/reviews/2184#.WHVKjIU7Vvt>

unconscious (soft lines, obscured shapes, *automatism*) resolved into a synthesis which differs as a whole from either.”⁸¹ *Pancho Villa, Dead and Alive* can, in fact, be described in the same dialectical terms, only with more emphasis on automatism: the medium being used is *papier collé*, not oil on canvas, and Motherwell directly identified the materials of *papier collé*, and its associated gestures of choosing and cutting; shifting and pasting; tearing, shaping, and arranging, with his “creative principle”⁸² of plastic automatism.

According to accounts described by Motherwell, this particular experiment with plastic automatism was executed during a period in which he made several trips to Mexico, between 1941 and in 1943.⁸³ The collage associates Motherwell’s interest in the Northern Mexican revolutionary Pancho Villa (José Doroteo Arango Arámbula, 1878 – 1923), with corporeal memories of his own U.S.-Mexico borderlands struggle for liberation from severe childhood asthma in Southern California.⁸⁴ As a child, Motherwell’s parents had travelled south with him from San Francisco at the suggestion of doctors. He does not reference this experience in the collage as subjective vision, but rather works with it as an affect of the landscape that allows him to access the universal.

Motherwell pointed out to a critic “that a sweeping brushstroke connects the two figures and that their order, dead and then alive again, robs death of its finality and suggests that death is a condition to be dwelt upon in life.”⁸⁵ The two small circles with two extending vertical lines attached to the left-side of the oval on the left of the composition, contrast with a similar pair of small circles painted light pink with an elongated form between them. The latter strongly resembles the kind of ideographic drawing of a penis often found scrawled on walls and

⁸¹ Robert Motherwell, “Plate Caption in Abstract and Surrealist Art in America (1944),” *The Writings of Robert Motherwell*, ed. Dore Ashton with Joan Banach (Berkeley, CA: University of California Press, 2007), 36.

⁸² Danto, “The ‘Original Creative Principle,’” 23.

⁸³ Mattison, “Robert Motherwell: Early Collages,” op. cit.

⁸⁴ Ibid.

⁸⁵ Ibid.

bathroom stalls; the association leads to the idea that perhaps the non-descript lines and shapes on the left are also ideographs for male genitalia, in this case, erect (fig. 3). A case could be made for either oval figure being the bottom half of Pancho Villa dead or Pancho Villa alive. The oval on the left is painted over a beige ground stained with dark pink spots; its tapered extensions stretch down over grey interrupted with bright red marks, triangular and linear. The dark pink ‘bruising’ and bright ‘red’ bleeding could be the fatal injuries sustained by the assassinated revolutionary who retains his heroic virility even in death. A patch of yellow under the oval on the right draws attention to the irregular black line between the two figures. The line seems almost to suggest the wall of a coffin enclosing stiff triangular leg-like extensions that in their geometrical absoluteness seem fixed in rigor mortis. Is the dynamic background dirt, or the electric sparks of resurrection? It is neither and both. Motherwell plays with the plastic interstice between what is recognizable or resemblant, and pure shape, the irreverently non-referential.

Philosopher and art critic Arthur Danto has called Motherwell’s “creative principle”⁸⁶ of plastic automatism the area where “Motherwell’s philosophical training shows up with particular vividness”:⁸⁷ painting is a problem approached through overcoming “the distinction between being and doing.”⁸⁸ And, indeed, in Motherwell’s plastic automatism, “one is what one does.”⁸⁹ The “modern painter’s world” is a world without exteriority, in which the struggle in the “body-and-mind”—this “event” that perceives itself as “the interplay of a sentient being and the external world,” “the interaction of the animal self and the external world”⁹⁰—has to (as Malabou writes about “destructive plasticity”) “endure the constant pressure” of a “call without exteriority or transcendence.”⁹¹

⁸⁶ Danto, “The ‘Original Creative Principle,’” 23.

⁸⁷ *Ibid.*, 14.

⁸⁸ *Ibid.*, 29.

⁸⁹ *Ibid.*

⁹⁰ *Ibid.*, 32.

⁹¹ Malabou, *Plasticity at the Dusk of Writing*, 66.

The ‘Plastic’ Hovers in the Aura of Main Themes

This initial chapter on the ‘plastic’ has deliberately foregrounded the concept’s more obscure instantiations. Rather than begin with common usage—i.e., the plastic being employed as a term to designate sculpture, the three-dimensional, or haptic visuality and tactility—it has immediately demonstrated how, by the mid 20th-century, a more cryptic use of the term ‘plastic’ emerged at the center of debates and disputes among artists. What is interesting about the centrality that the term gained in artist-writings is that the definition of the ‘plastic’ was rarely itself the explicit topic of discussion; instead, the word is regularly evoked in key moments of contention, hovering in the aura of other main themes. For example, the poet Chazal acknowledged that after searching for a term to describe his poetics, the notion of art-in-general inspired him to use the term “plastic.” Nonetheless, Chazal did relatively little to provide a precise definition of the word. Through association, it is easily deduced that Motherwell’s source for his thinking about the ‘plastic’ are the essays of artist and writer Piet Mondrian; yet Motherwell also does not make this explicit. Motherwell wrote about Mondrian’s work as “among the twentieth century’s strongest plastic expressions”⁹² and in 1945, as director of the series *The Documents of Modern Art*, he facilitated the publication of several of Mondrian’s later English writings (1937-1943). Though Mondrian’s definition of the “plastic” (in the original Dutch, *Beeldung*, but “plastic” in Mondrian’s own English writings) is not referenced directly in Motherwell’s 1944 talk, the commitment to “pure” and “objective” values, and the “eternal” quality of the “universal”⁹³ that Mondrian associated with the “new plastic” or “neo-plasticism” in his early writings, is invoked.⁹⁴ Mondrian’s name is also invoked in a compositional position

⁹² Motherwell, “Preface,” *Plastic Art and Pure Plastic Art*, 6.

⁹³ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 30.

⁹⁴ Piet Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G. K. Hall & Co., 1986), 27-74; Piet Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920)” *The New Art-The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G. K. Hall & Co., 1986), 132-147.

of particular importance in Motherwell's talk, as it was transcribed for publication: Mondrian's name is invoked midway through the Mount Holyoke address and as such serves as a nucleus for the talk.

Future chapters will continue on the trajectory this chapter has initiated, showing how—in a historical moment that witnessed what has been called the “embodiment of the observer”⁹⁵—the “plastic” was a term that came to be used to describe the corporealization of the object. As Motherwell's “plastic automatism” illustrates, the term “plastic” was used to describe processes of identification between human bodies and objects by way of which a new kind of autonomy of the object from the human will was perceived as allowing new forms to take shape. Motherwell's “plastic automatism” emerged from the struggle between “individualism and objectivism”⁹⁶ that was the focus of his 1944 Mount Holyoke talk. This talk can be considered Motherwell's ‘position paper’ on a new conception of the ‘plastic’ arrived at through the practice of automatism. Not coincidentally, it was given the same year Motherwell presented the *papier collé* titled *Pancho Villa, Dead and Alive*, part of his first solo exhibition, *Robert Motherwell: Paintings, Papiers Collés, Drawings* at New York's Art of This Century.⁹⁷ Meanwhile, Chazal's *sens-plastique* was working to make the “death-birth moment of climax in the act of love”—a moment “always [...] exaggerated [...] as a thing apart”—“fit into life as the crossroads of the senses, the mind, the heart, and the soul, a time and place in one, where life and death pass into

⁹⁵ Jonathan Crary, *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century* (Cambridge, MA: MIT Press, 1992), 139.

⁹⁶ Mary Anne Caws, “Robert Motherwell and the Modern Painter's World,” *Artists and Intellectuals, and World War II: the Pontigny Encounters at Mount Holyoke College, 1942-1944*, ed. Christopher E. G. Benfrey and Karen Remmler (Amherst, MA: University of Massachusetts Press, 2006), 115.

⁹⁷ “Chronology: October 24 – November 11, 1944,” *Dedalus*. N.d. Accessed December 3, 2013. http://dedalusfoundation.org/motherwell/chronology/detail?field_chronology_period_tid=28&page=1. *Robert Motherwell*. Art of this Century. Gallery catalog, essay by James Johnson Sweeney (1944). “Art of this century gallery catalog for Robert Motherwell exhibition,” *Smithsonian Archives of American Art*. N.d. Accessed March 3, 2017. <https://www.aaa.si.edu/collections/items/detail/art-century-gallery-catalog-robert-motherwell-exhibition-17884>. “Robert Motherwell is an authentic painter. He thinks directly in the materials of his art. With him a picture grows, not in the head, but on the easel—from a collage, through a series of drawings, to an oil. A sensual interest in materials comes first.” The *papiers collés* featured in the exhibition included *Joy of Living*, 1943; *The Displaced Table*, 1943; *Pancho Villa, Dead and Alive*, 1944; *The Painter*, 1944; *Personnage (Autoportrait)*, 1944; and *Jeune Fille*, 1944.

each other and we pass into ourselves.”⁹⁸ In this process, “the real radical change in my thinking,” Chazal explained,

was that I stopped treating nature as the object of my perceptions; instead, it became the *subject* itself, and not only of my perceptions but of my thoughts. I was *thinking through* and *by means of* life exterior to my own rather than thinking *of* it or *about* it. The exterior world was turning into my own psychic substance as I wove the design of my selfhood into its fabric...I was no longer thinking. I was letting myself be thought.⁹⁹

This description of a state of no longer thinking—of letting oneself be thought, of weaving the design of one’s selfhood into the fabric of an exterior world, only to discover that there is no external form bringing change, only change wrought from substance itself—is also the perfect description of the dancer’s experience in Maria Hassabi’s *PLASTIC*. In particular, it helps to describe the choreography of falling created for *PLASTIC* on MoMA’s Gund Garden Lobby staircase. As Hassabi recounts,

the movement on the stairs has a very forward direction to it, this falling forward. The choreography goes back and forth from this very secure place to completely falling down and apart because it has so much to do about this transferring from one place to the other, and how it gets articulated, so [...] even just turning the head becomes a movement. You hold positions for a long time, that makes the physicality also more fragile, your muscles start waking and shaking and all of that so you’re constantly dealing with this, it’s not fear, but, chance of falling, chance of everything getting destroyed in a way, your body, the choreography, the aesthetics and all of that.¹⁰⁰

In the online video documentation of the performance, the virtual viewer listens to this description while watching a sequences of shots of different dancers (including Hassabi) on the stairs (fig. 5). In one sequence, there is a close-up of the bottom-half of Hassabi’s body seated self-assuredly but leisurely midway up the staircase (fig. 5). Her feet in white tennis shoes are firmly planted on two steps; her right hand with red-painted fingernails dangles matter-of-factly from its relaxed wrist (fig. 5). The shot jump-cuts to what appears to be a later moment of the dance: the camera looks down at Hassabi who is now upside-down with her head on the floor at

⁹⁸ Chazal, “Preface to Volume II,” *Sens-Plastique*, 159.

⁹⁹ Chazal, “Afterword to Sens-Plastique (1948),” *Sens-Plastique*, 162.

¹⁰⁰ Museum of Modern Art, New York, “Maria Hassabi | PLASTIC,” op. cit.

the bottom of the steps (fig. 5). The long white sleeve covering her left arm is covered with metallic studs (fig. 5). The ornament emphasizes the pressure she needs to apply through the muscles in the back of her arm to turn her head from her contorted neck and move smoothly, slowly, down and across the floor. It is a crystallization that seems to appear with a concretization of form in the dance.

This practically impossible perspective on Hassabi's dance provided by the museum's online video-documentation, is less that of a passing museum-goer, and more that of a spectral presence looking down from the green *Bell-47D1 Helicopter* (1945)¹⁰¹ just outside the video frame, permanently installed above the Gund staircase (fig. 6). If, from the dead, Chazal was summoned to the scene, the only appropriate place for his ghost to appear would be in this silent hovering bubble, this "utilitarian craft" designed by a poet and painter—this "bug-eyed helicopter" used for "pest control in crop-dusting and spraying," for mail delivery, for "traffic surveillance," and as an "aerial ambulance" in the Korean War.¹⁰² If asked to select a passage from *Sens-Plastique* to describe the event before him, he would certainly highlight the following lines:

[...] If we suddenly came upon an angel with his wings on crooked, not even the ghost of a smile would cross our lips or twinkle in our eyes. No laugh can survive in the extra-human stratospheres of life.

A cake of ice creaks like a metal machine: ice cracking sounds like wood clacking. Water flowing sounds like the wind, fire, or other liquid noises. From animal through vegetable, including the human voice; but the sound made by *solid water* has no connection with anything else in life except the clicking and clanking of the last agony.

Those parts of the skin that are insentient are the blinkers of our sense of touch. The only time we touch with the complete abandon—in total awareness—is at the moment of expulsion from the uterus.

¹⁰¹ Arthur Young, *Bell-47D1 Helicopter* (1945), aluminum, steel and acrylic plastic. 9 ft 2 ¾ x 7ft 11 in x 42 ft 8 ¾ in (281.3 x 302 x 1271 cm). Museum of Modern Art, New York. "Arthur Young, Bell-47D1 Helicopter, 1945," Artists. Museum of Modern Art, New York. *Moma.org*. Published 1999. Accessed January 20, 2017. <https://www.moma.org/collection/works/2234?locale=en>

¹⁰² "Arthur Young, Bell-47D1 Helicopter, 1945," op. cit.

The movement of our hips is the most generous of all our bodily movements. [...] Hip movement is life in action—whether we want to or not, we express ourselves completely in our hips. [...] The hips are the mainspring of the body-clock.¹⁰³

Citing Martin Heidegger, the philosopher of change, of time and being, philosopher Catherine Malabou writes of “destructive plasticity” in relation to the task of “put[ting] the world in touch with the absence of any outside-of-the-world.”¹⁰⁴ “Being-in-the-world, existing,” explains Malabou, “amounts to experiencing an absence of exteriority, which is equally an absence of interiority. There is neither an inside nor an outside of the world.”¹⁰⁵ In this context, Malabou references the expressive formula of “falling” which she describes as a state in which “nothing other than our potentiality for being-in-the-world is the issue”: it is “neither to enter nor to leave but rather to cross thresholds of transformation.”¹⁰⁶ These thresholds of transformation that constitute being-in-the-world are what the bodies in the choreographies of Hassabi’s *PLASTIC* engender, each its own answer to the question how “can a transitional space become a place of pause.”¹⁰⁷

¹⁰³ Chazal, *Sens-Plastique*, 128-129.

¹⁰⁴ Malabou, *Plasticity at the Dusk of Writing*, 68.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

2

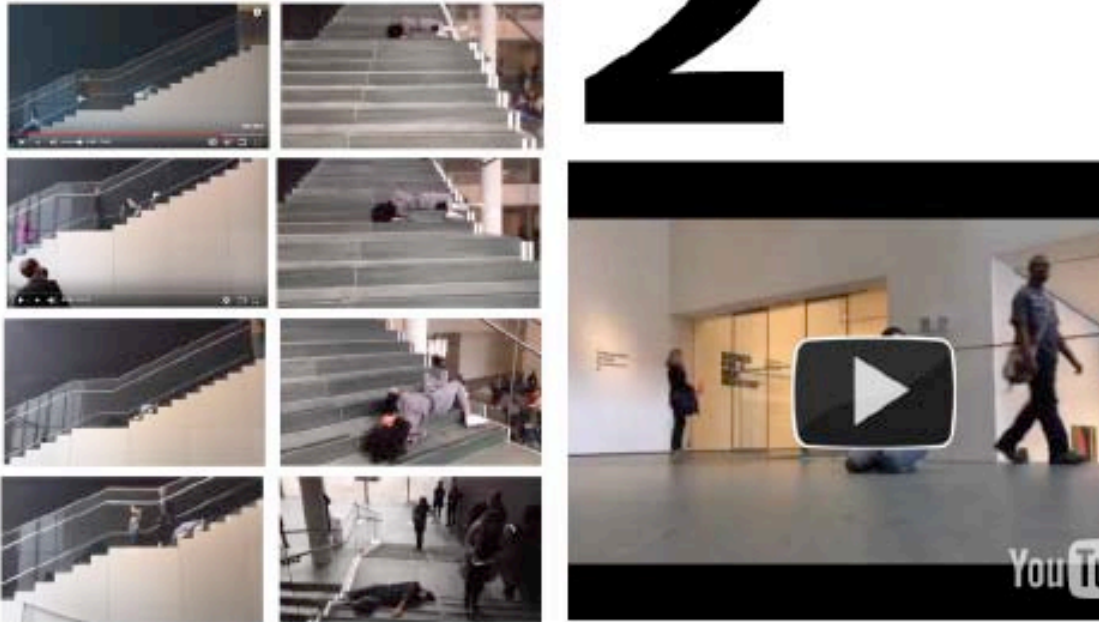


Fig. 7. Maria Hassabi, PLASTIC (2016), like installation, Museum of Modern Art, New York (MoMA), Grand Lobby Staircase. Screenshots from video documentation posted by YouTube user Special Collection (March 20, 2016). Video: YouTube/Special Collection.



Chapter Two / What is the Difference between Sculpture and the 'Plastic'?

Watching the 'Plastic' in Action

The prologue began with a virtual visitor watching MoMA's official video documentation of artist and dancer Maria Hassabi's live installation, *PLASTIC*, on the museum's website. Moving through queuing crowds in real time, the virtual visitor is now imagined as an actual visitor, one who navigates the mass of bodies inside the museum. The actual visitor is not clicking a mouse, but being bumped by the bodies that bustle around her in preparation for museum entrance. There is a lot of waiting among bodies in the museum lobby: some wait for membership; others wait for friends; others wait to purchase tickets. Some just seem to enjoy loitering aimlessly among the other bodies that wait with purpose. As the visitor now waits to check her coat, she nods her head up and down to the regular whoosh-and-rub of the museum's revolving doors. She keeps her ear-buds muted and makes up a tune to the beat of the same turning that had, just moments ago, pushed her own body into the hall through a crisp envelope of cold air. Her nose and fingertips are still red from the cold.

Once free of her heavy coat and bag, the visitor approaches the ticket checkpoint with an aching left shoulder, sore from an overloaded tote. Her ticket is scanned and she is waved to pass. She walks towards the floor-to-ceiling windows of the garden lobby that as a 'virtual visitor' she had experienced from outside. She finds herself identifying with the camera that recorded the video documentation, and half expects to catch a glimpse of herself peering into the museum from the sculpture garden. Just barely acknowledging the four green slate steps in front of her, she climbs to the low platform that overlooks the garden. When she turns to the right, she catches an obstructed view of two bodies collapsed across the zig-zagging steps of the tall staircase above her.

She stops in front of one of the building's support columns, and teeters back on her heels along the platform's top step. She watches the bodies. She watches them through reflections in a glass wall which refracts a projection of what is behind her, beyond her. Seen from the other side of the glass panes that separate the space of the staircase from the platform space on which she stands, the bodies appear to hold still poses. As seconds pass, however, she notices that the sluggish line of abandoned limbs in the two bodies is shifting slower than slowly. Framed under the rigid diagonal of a metal banister fixed to the low glass wall, the bodies change configuration in stillness.

A hollow tinny droning resonates around the visitor from speakers she cannot locate; the silent ear-buds in her ears dampen the buzz of voices. She is unsure if the droning comes from the space surrounding her or from inside her head. Her ear lobes and fingertips are still numb from the cold but prickle with the new warmth of the interior space. A flyer she had picked up at the ticket desk reads: “[r]emoving the physical distance between audience and performer, [the] sustained movement [in *PLASTIC*] encourages visitors to closely observe the small shifts in the performers’ motions over time.”¹ From her present perspective, the bodies of performers still appear on stage as objects performing suspension in a fall from a pyramidal plinth. In this “physical distance” between audience and performer – where the visitor stood watching performers on the staircase behind a glass ‘screen’ that reflected her own image back at her – the “sustained movement” had an additional effect: she was also beginning to closely observe the small shifts in her own motions over time.

She turns and climbs back down the four steps to the platform from which she just came, almost tripping. From this lower position, she takes out her phone, turns on the camera and

¹ Museum of Modern Art, New York. “Maria Hassabi: Plastic,” *MoMA Press*. June 2015. Accessed March 3, 2016 <http://press.moma.org/2015/06/maria-hassabi-plastic/>

begins watching the dancer through two screens² (fig. 7): the screen on her phone and the screen of reflections on the staircase's glass wall. Other visitors ascend and descend the staircase, some briskly skipping down, others climbing with care. Some ignore the two bodies; others anticipate them, pass them, then glance back at them. Under the flash of the camera's red recording light, the visitor notices that while she had been watching other visitors, one of the bodies had extended its two bent legs into the air (fig. 7). The two legs tremble in stillness over the zig-zag of the steps; there is something horrific, almost repulsive, about the thick flesh weeds sheathed in gray denim, these bent stems sprouted from the staircase itself. The visitor's own arms begin to tremble from trying to steady the frame in her phone-camera. Between the visitor's own quaking and the video frame shaking, the legs of the performer begin to give way to a barely perceptible sway; the weight of feet in white sneakers pulls the body into curled constriction with one leg easing into a fold over the other (fig. 7).

The visitor recalls the words from the flyer: “[e]xploring the tension between stillness and sustained movement, *PLASTIC* addresses the interface between artistic object and human subject.”³ However, *PLASTIC* was also doing something else to this visitor: it was opening an interface between the human-as-object and the object-as-subject (“I stopped treating nature as the *object of my perceptions*; instead, it became the *subject* itself, and not only of my perceptions but of my thoughts [...]. I was no longer thinking. I was letting myself be thought”).⁴ Her urge to watch the scene through the video screen on her phone was not just the urge to document the dance: in the interaction among digital video, the interior architecture of the museum, the “live installation” titled *PLASTIC*, and the visitor, the human visitor actualized becoming the human

² This description is written as ethnographic fiction. It was created through my own recollections of previous experiences at the MoMA, and imagined through a visitor's Youtube post featuring video of Maria Hassabi's *PLASTIC*. Special Collection, “Performance of Maria Hassabi *PLASTIC* at MoMA – Periscope [20/03/2016],” Online video clip. *Youtube*. June 30, 2016. Accessed August 8, 2016. <https://www.youtube.com/watch?v=DGCwiDQTbU8>

³ “Maria Hassabi: Plastic,” op. cit.

⁴ Chazal, “Afterword to *Sens-Plastique* (1948),” *Sens-Plastique*, 162.

object-tripod for a subject-object 'eye' that she already felt she was. A human object-tripod holds a subject-object eye watching a human-object performer become an object-subject body-as-work on a massive pedestal of poured concrete and green slate.

The visitor keeps her gaze fixed on the legs in the video frame and blindly finds the steps under her with an awkward gait. She knows there are four stairs, but her body remembers the intervals of space between them being shorter. When she steadies the frame on her new perspective, the visitor notices the body of the body is actually curved back, rather than curled forward as she had previously perceived it. The body has become more than just a pair of legs. It hugs one step with its left arm folded under, and balances on an active left leg bent over the reposing right. The visitor moves forward, momentarily moving the video frame of her smartphone off of the body of the dancer and into a blur. She approaches the staircase. With confidence, she begins the ascent towards the dancer while simultaneously reframing the body on the flat screen of her phone. With her back to the floor-to-ceiling windows overlooking the sculpture garden, the staircase now appears to offer the grey-denimed body to her on its pleated green folds (fig.7).

The body's skeleton is a scaffold for warm flesh that it holds on display over the stone surface of the staircase. This plinth is highly irregular: it is a dynamic set of bellows frozen to petrification. The breathing body extended over its concertina expansion is only an assemblage of disparate parts: the torso is a rhomboid box that stands on the ledge of a step; the left arm is a folded cylinder, compressed to support the weight of the rhomboid above; the pelvis is a sphere in precarious equilibrium, ready to bounce down the steps with the slightest disruption; the white foot is a rectangular brick that stabilizes a leg, a tube bent into a triangle.

Sculpture as Life, the ‘Plastic’ as Death (or the As-of-Yet-Unborn)

In *The Sculptural Imagination*, art historian Alex Potts introduces a chapter on “modernist objects and plastic form” with what he calls “the odd situation of early modernist sculpture in a present-day context.”⁵ He recounts a visit to Washington D.C.’s Hirshhorn Museum in a gallery of the museum which, like the MoMA lobby stairway in Hassabi’s New York version of *PLASTIC*, “functioned as a circulation area connecting the more conventional galleries.”⁶ In this gallery, museum curators had placed “a few sculptures of exceptional interest, such as Louise Bourgeois’s lumbering eloquent and disturbing painted wood construction, *The Blind Leading the Blind* [1947-1949], and Barbara Hepworth’s seemingly simple, curiously scooped out, wooden object *Pendour* [1947-1948]” (fig. 8).⁷ Potts recalls,

sinking into a state of vaguely irritated boredom as I scanned the various lumps and tangles of metal and bits of stone sitting on pedestals or in display cases. [...] It was as if most of the artists had fiddled away industriously to give solid form to some possibly intriguing looking plastic shape but had failed to take into account what the resulting object would look like as sculpture.⁸

“Congealed into lumps of matter,” Potts critiques, these “tangles” of “plastic shape” “went dead” “too readily” in the Hirschhorn’s contemporary space.⁹ Potts uses this accidental incident of observing the ‘ready death’ of modernist objects in a contemporary setting, to argue that the lack of any sense of animation in the works is a result of the fact that “many of the items that now are seen to be among the more significant sculptural works of early modernism would not at the time have been envisaged as sculpture, often even by their makers.”¹⁰

With the Hirschhorn gallery anecdote, the “plastic” and “sculpture” are contrasted as states of objects between death and life, with the plastic being somehow closer to death or the as-

⁵ Alex Potts, *The Sculptural Imagination: Figurative, Modernist, Minimalist* (New Haven: Yale University Press, 2000), 104.

⁶ Potts, *The Sculptural Imagination*, 104.

⁷ Ibid.

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

of-yet-unborn, and sculpture being closer to life; Potts, however, also circles back on these definitions with further discussion that flips the dialectic. He opposes the dynamic “informality” of what he calls “plastic shape” with the cumbersome formality of “sculpture.” The former is, what he calls, one of the “main strengths” of modern “experiments”: “it enabled them to be true to the deconstructive and dematerialising imperatives of a modern aesthetic.”¹¹

Within this “aesthetic,” Potts insists there is an important distinction to be made between a “shift from painting to work in three dimensions,” and “a fascination with imagining depicted forms taking shape in three dimensions.”¹² The latter, which Potts aligns with the plastic, “relates less to sculpture than to the preoccupation with represented depth central to modern Western painting.”¹³ The examples Potts gives to demonstrate the distinction between sculpture and the plastic, are Umberto Boccioni’s bronze, *Unique Forms of Continuity in Space* (1913) (fig. 9) and Aleksandr Rodchenko’s *Oval Hanging Construction No. 12*, (c. 1920) (fig. 10).¹⁴ For Potts, Boccioni’s “foiled dynamism caught up in a heavy, awkward yet exuberant disarray” never quite manages to emerge from “the limits of the sculptural.”¹⁵ Meanwhile, though Rodchenko’s *Oval* was “devised as a laboratory experiment in the possibilities of ‘light reflective surfaces,’” when it, and other experiments like it, are “put on display,” they “questioned the formal constitution of sculpture as plastic shape much more radically than anything the Italian futurists [like Boccioni] produced.”¹⁶

In these descriptions, the “plastic” always seems to be posed as a question of life or death in form—a kind of inanimate animation—while the designation “sculpture” is used principally as

¹¹ Ibid., 105

¹² Ibid.

¹³ Ibid.

¹⁴ Umberto Boccioni, *Unique Forms of Continuity in Space* (1913, cast 1931), bronze, 43 7/8 x 34 7/8 x 15 3/4 in (111.2 x 88.5 x 40 cm), Museum of Modern Art, New York; Aleksander Rodchenko, *Spatial Construction No. 12* (c. 1920), plywood, open construction partially painted with aluminum paint and wire. 24 x 33 x 18 1/2 in (61 x 83.7 x 47 cm). Museum of Modern Art, New York.

¹⁵ Ibid.

¹⁶ Ibid.

a category. To use Motherwell's terms, there is an energetics of "vital connection"¹⁷ in Pott's "plastic" that is not present in what he calls "sculpture."¹⁸ It is this energetics of "vital connection"—not three-dimensionality—that compelled Motherwell to oppose Surrealism's verbal and psychic automatism with the "plastic," rather than simply the formal or the tactile.¹⁹

'Plastic' Venus – The Lespugue, Picasso and Constantin Brancusi

This energetics of vital connection in a plastic formula for shaping objects as "congealed [...] lumps of matter"²⁰ is precisely the dimension one might identify with the difficult to classify *Venus of Lespugue* (c. 23,000 BCE) (fig. 11),²¹ that object which archeologist André Leroi-Gourhan, in his seminal *Gesture and Speech (Le Geste et la Parole, 1964)*, proclaimed to be "one of the great plastic works of all time." This great "plastic work" is written about by Leroi-Gourhan as one of "the most conventional" of all the paleolithic "'Aurignacian Venuses' or 'Steatopygous figures'."²² The term "steatopyga" derives from the Ancient Greek terms for "fat, tallow" and "rump, buttocks"²³ and was used by physiologists in the late 19th-century to characterize body-types that presented "a protuberance of the buttocks due to an [...] an accumulation of fat in the hips and thighs."²⁴ The allegedly Upper Paleolithic *Venus of Lespugue* was discovered in 1922, two years after similar protuberances and accumulations in Constantin Brancusi's²⁵ *Princess X* (1916) (fig. 12)²⁶ had roused "public controversy" over the "feminine-as-

¹⁷ Motherwell, "The Modern Painter's World," *The Writings of Robert Motherwell*, 35.

¹⁸ Potts, *The Sculptural Imagination*, 105.

¹⁹ Motherwell, "The Modern Painter's World," *The Writings of Robert Motherwell*, 35.

²⁰ Potts, *The Sculptural Imagination*, 104.

²¹ *Venus of Lespugue* (c. 23,000 BCE), mammoth tusk, height 6 in (15.24 cm), Musée de l'Homme, Paris, France.

²² André Leroi-Gourhan, *Gesture and Speech* (1964), trans. Anna Bostock Berger (Cambridge: MIT Press, 1993) 376.

²³ "Steatopyga," *Oxford English Dictionary*. Oxford University Press, 2017. Accessed January 17, 2017. <http://www.oed.com/view/Entry/189514?redirectedFrom=steatopyga#eid>

²⁴ Ibid.

²⁵ Constantin Brancusi (Hobița, Romania 1876 – Paris, France 1957). Brancusi is considered to be "the most influential sculptor of the 20th-century." Anna Chave, *Constantin Brancusi: Shifting the Bases of Art* (New Haven: Yale University Press, 1993), blurb. Brancusi bequeathed his entire studio at 11 Impasse Ronsin in Paris's 15th arrondissement to the French state and, in 1997, an exact reproduction was made on

phallic” at Paris’ Salon des Indépendants.²⁷ As Hal Foster writes in *Prosthetic Gods* (2004), “Brancusi had designated this oblong curve of polished marble (another was executed in bronze) ‘the Eternal Feminine’ [...] but everyone else—from Picasso to the police who came to remove the sculpture—seemed to see it for what it was: a phallus. Neither party was wrong; or rather, both were right.”²⁸ Brancusi was allegedly so “disgusted” by the charge of “phallic obscenity” brought against him, that he “refused to show work in Paris for the next six years.”²⁹

The artist and director of the Modern Gallery in New York, where *Princess X* was also shown, claimed Brancusi had told him the sitter was Princess Marie Bonaparte.³⁰ Princess Bonaparte was a “Freudian thinker,”³¹ a “disciple of [the founder of psychoanalysis Sigmund] Freud” and writer on frigidity and female anorgasmia, the inability to achieve an orgasm during sexual intercourse.³² At the time, Bonaparte was working with a Viennese surgeon on a surgical approach that—based on her theories about female loss of sexual libido—“moved the clitoris closer to the urethral passage” in order to resolve the psycho-physical affliction.³³ Under the pseudonym A.E. Narjani, she published a study on the results of the surgeries of five women in 1924.³⁴ Notably, certain photographs of Brancusi’s sculpture emphasize the fact that the two

the plaza opposite the Centre Pompidou. It is housed in a structure designed by architect Renzo Piano. “Brancusi’s Studio,” *Collections. Centre Pompidou*. Accessed February 10, 2017. <https://www.centrepompidou.fr/en/Collections/Brancusi-s-Studio>

²⁶ Constantin Brancusi, *Princess X* (1916), marble (base not included in dimensions), 22 x 11 x 9 in (55.88 x 27.94 x 22.86 cm), Sheldon Museum of Art, University of Nebraska-Lincoln; Constantin Brancusi, *Princess X* (1915-1916), polished bronze with three-part base of limestone and plaster (not included in dimensions), 24.29 x 15.94 x 8.74 in (61.7 x 40.5 x 22.2 cm), Musée National d’Art Moderne, Centre Georges Pompidou, Paris, France. There are other versions of the sculpture, as well.

²⁷ Basarab Nicolescu, *From Modernity to Cosmodernity: Science, Culture and Sprituality* (Albany, NY: State University of New York Press, 2015), 16.

²⁸ Hal Foster, *Prosthetic Gods* (Cambridge: MIT Press, 2004), 249.

²⁹ Michael R. Taylor, “Princess X,” *Sculpture at the Sheldon Memorial Art Gallery*, ed. Karen O. Janovy and Daniel A. Siedell (Lincoln, NE: University of Nebraska, 2005), 27-29.

³⁰ Sanda Miller, *Constantin Brancusi* (London, UK: Reaktion Books, 2010), 61.

³¹ Peter Cryle and Allison Moore, *Frigidity: An Intellectual History* (Basingstoke: Palgrave Macmillan, 2011), 222-247.

³² Arthur Danto, *The Madonna of the Future* (New York: Farrar, Straus and Giroux, 2000), 182.

³³ Leslie Dick, “The Skull of Charlotte Corday,” *The Politics of Everyday Fear*, ed. Brian Massumi (Minneapolis: University of Minneapolis Press, 1993), 195.

³⁴ Dick, “The Skull of Charlotte Corday,” 195.

bulbous forms on the bottom of the sculpture are asymmetrical:³⁵ one is rounded into what many have interpreted as the abstraction of a testicle, the other—to which far less attention has been given—is a flattened flap with striations like a wing, a collar, or even abstracted labia. Here, the feminine-as-phallic-plastic morphs into a vagina with an enlarged clitoris, something akin to the genitalia of a female spotted hyena.³⁶ Brancusi's ambiguous intersexual plastic object not only exhibits an “uncanny degree of prescience”³⁷ with regards to the rising currency of psychoanalytical theory including “Bonaparte's endorsement of Freud's idea of woman as lack,”³⁸ but also shows that, like the 1506 unearthing in Rome of the Ancient Roman *Laocoön* sculptural group, the 1922 discovery of the *Venus of Lespugue* in the French Haute-Garonne was “an outward symptom of an inward historical process.”³⁹ Just as in 1905, German art historian Aby Warburg had written that “the event” of the *Laocoön*'s “unearthing” had “marked the climax, not the birth of [what he called] the ‘Baroque aberration’—‘extremes of gestural and physiognomic expression, stylized in tragic sublimity’” thought non-existent in the ancient world—so did the discovery of the *Venus of Lespugue* mark the climax not the birth of Modernism's plastic aberration, its own “revelation of something [...] long sought”—that something that art historian Alex Potts characterizes as congealed lumps of matter gone dead.

In her 1993 book *Constantin Brancusi: Shifting the Bases of Art*, feminist art historian Anna Chave wrote about *Princess X* as an example of “confusion in [...] sexual identity”⁴⁰ where “the repression of the evident, and evidently complex, sexual imagery in [Brancusi's] work” is actually “the repression of something more subtle and abstract: the ways [Brancusi] articulates

³⁵ Constantin Brancusi, *Princess X* (1915-1916), op. cit.

³⁶ Alan F. Dixson, *Primate Sexuality: Comparative Studies of the Prosimians, Monkeys, Apes* (Oxford, UK: Oxford University Press, 2012), 365.

³⁷ Danto, *The Madonna of the Future*, 182-183.

³⁸ Ibid.

³⁹ Aby Warburg, “Dürer and Italian Antiquity (1905),” *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*, trans. David Britt. (Los Angeles, CA: Getty Research Institute for the History of Art and the Humanities, 1999), 558.

⁴⁰ Anna Chave, *Constantin Brancusi*, 16.

difference.”⁴¹ This way of articulating difference is, in fact, Brancusi’s conception of the plastic. This repression of the plastic, of the articulation of difference, can also be seen in the repression of the *Venus of Lespugue* as a figure of a similar feminine-as-phallic-plastic. In fact, the *Venus of Lespugue* only ever emerges as such in historical ephemera of avant-garde art practice. In *Picasso’s Mask* (1976), novelist and art theorist André Malraux⁴² recounts an incident that occurred during an extended conversation with Pablo Picasso at the artist’s studio.⁴³ He tells of being led to a metal cupboard in a small room and shown a cast of the object. “I could make her by taking a tomato and piercing it through with a spindle, right?” Picasso had proclaimed.⁴⁴ The gesture suggests seeing the sculpture as a hybrid mass of male and female genitalia: the male in the spindle, a slender round rod with tapered ends (though a tool typically associated with woman’s work through weaving), and the female in the tomato, best seen in the fleshy folds of what is now known as the heirloom variety (fig. 13).

In the 1970s, the same tactile appeal that Picasso’s tomato-spindle gesture intuited in the *Venus of Lespugue*— a portable object carved from mammoth ivory⁴⁵—inspired art historians to dismiss notions that the Upper Paleolithic object had been connected to “shamanism, totemism, magical rites, or initiations,” speculating instead that enlarged areas of “rounded perfection” corresponded to areas of the body “most important in the preliminary phases of lovemaking”: “this explains why the woman is so important in art,” one art historian concluded.⁴⁶ Many took exception to this theory as “Paleolithic pornography” and rejected its claim that “no philosophy,

⁴¹ Chave, *Constantin Brancusi*, xii.

⁴² André Malraux (Paris, France 1901 – Creteil, 1976).

⁴³ André Malraux, *Picasso’s Mask* (1976), trans. June Guicharnaud with Jacques Guicharnaud (New York, NY: Da Capo Press, 1994), 124-125.

⁴⁴ Malraux, *Picasso’s Mask* (1976), 125.

⁴⁵ John Onians, *Atlas of World Art* (Oxford: Oxford University Press, 2004), 17.

⁴⁶ John Onians as quoted in Beth Hagens, “‘Venuses,’ Turtles and other Hand-Held Cosmic Models,” *On Semiotic Modeling*, ed. Myrdene Anderson and Floyd Merrell (Berlin, Germany: Mouton de Gruyter, 1991), 49-50.

no questions of the beginning of life, birth and death, resurrection” were relevant to the object’s form.⁴⁷

One of the studies that challenged the so-called ‘pornographic’ interpretation of the *Venus of Lespugue* challenged “the ascription to ancient humanity of Freudian attributes” with its own projection of neurologically-defined ones. In a “neuronal man”⁴⁸ inflected hypothesis, the *Venus of Lespugue* became the Brain of Lespugue, and neuroscience—which by the early 1990s was a burgeoning academic field—was employed to help in “imagining” Upper Paleolithic *Homo* as “an ancient, fully modern, *different-thinking* human being.”⁴⁹ In the new theories, this “different-thinking” human ancestor was, nonetheless, much like its late 21st-century descendents, in that it was obsessed with the organ of the brain. The brain-based theory against the fertility model of the Venus and its “pornographic” rereading, explored morphological similarity between the paleolithic objects—called “Venuses” since the late 19th-century⁵⁰--and the shape of animal brains, from turtle to trout (fig. 14). The theory now became that “Venuses” were not actually “Venuses” at all but “brain replicas” traded among Paleolithic peoples.⁵¹ According to this analysis, the generally accepted theory that the objects are “female icons” was not completely discarded; instead, it was combined with the hypothesis that the *Venuses* may also be “variations on a ‘brain theme’.”⁵² The *Venus of Lespugue* was not a “meditative icon,” it was a “recipe” for “ancient spiritual technicians” who might have intended to “incorporate the relative size and development of brain parts believed necessary to perform various physical activities (e.g. prolonged existence in hibernation, superb smell, visual acuity, and so forth).” The *Venus of*

⁴⁷ Marija Gimbutas as quoted in Hagens, “‘Venuses,’ Turtles and other Hand-Held Cosmic Models,” 49.

⁴⁸ The book *Neuronal Man* was published in its first English translation in 1983 and popularized the notion that human beings are defined by the unique capacities of the human brain’s neuronal networks. Jean-Paul Changeux, *Neuronal Man: The Biology of Mind*, trans. Laurence Garey (Princeton, NJ: Princeton University Press, 1997).

⁴⁹ Beth Hagens, “‘Venuses,’ Turtles and other Hand-Held Cosmic Models,” 47.

⁵⁰ Randall White, *Prehistoric Art: The Symbolic Journey of Humankind* (New York, NY: Harry N. Abrams, 2003).

⁵¹ Beth Hagens, “‘Venuses,’ Turtles and other Hand-Held Cosmic Models,” 57.

⁵² *Ibid.*, 57.

Lespugue was a series of instructions for treatment of organs of the body like the Ancient Egyptian *Book of the Dead* (c. 1550 BCE), with the difference that its writing was not verbal but figural.⁵³

Thus, while scientists were popularizing the notion of the “plastic brain”—i.e., the human brain characterized by the capacity for change in its neural networks—Leroi-Gourhan’s description of the *Venus of Lespugue* as “one of the great plastic works of all time” would have resonated with both the sex-based and brain-based theories of its plastic form.⁵⁴ Leroi-Gourhan, however, uses the *Venus* to conjecture about the plastic in a different direction: he uses the object to support his ideas about relationships among language, the image, and realism in Paleolithic life. His brief mention of the *Venus of Lespugue* in *Gesture and Speech* does not lead him back to exploring ideas from earlier chapters on the relationship between the brain and the hand, and on the close connection between “trends of the nervous system and of mechanical adaptation,” i.e., the idea that “for each species a cycle is established between its technical ability (its body) and its ability to organize itself (its brain).”⁵⁵ Instead, Leroi-Gourhan only mentions the French *Venus of Lespugue* to compare it to the Ukrainian *Kostienki Venus*, with the intention of showing that “it is hard to find a more [...] stereotyped art” than these steatopygous figures. This stereotyping fits what Leroi-Gourhan asserts was confirmed with fossil research at the time, “namely that in the Upper Paleolithic the fragmentation of cultures was as yet little advanced. No movement is perceptible in either animals or human figures, except in the arabesque lines which often have admirable vigor. Detail is practically non-existent or barely hinted at.”⁵⁶

And yet, for Pablo Picasso, a certain kind of detail and movement was indeed perceptible in the *Venus of Lespugue*. Picasso—who had seen the phallus in Brancusi’s *Princess X* (but whose identification of the phallus was always penile, never clitoridal)—sees a spindle

⁵³ Ibid.

⁵⁴ Leroi-Gourhan, *Gesture and Speech* (1964), 376.

⁵⁵ Ibid., 60.

⁵⁶ Ibid.

puncturing a tomato in the Upper Paleolithic's great plastic work. After describing this movement, its detail, and its vigor to Malraux, he proceeded to show him other sculptures inspired by pre-historic objects. "Ageless sculpture..." Malraux responded, inspiring Picasso's agreement: "that's just what we need. [...] Modern art must be killed. So that another form may come into being."⁵⁷ Picasso's imagined gesture of taking a soft tomato and "piercing it through" with a hard spindle can be seen as an artist formula for the same plastic that the art historian Potts describes as "congealed into lumps of matter"—and it is, in fact, less related to sculpture than it is focused on "a fascination with imagining depicted forms taking shape."⁵⁸ Rather than recreate the *Venus of Lespugue* by casting a copy, Picasso suggests creating form through a process of destruction: impaling a soft tomato with a hard spindle. It was perhaps not the contemporary display context that Potts saw them in that deadened the art objects he viewed: the contemporary display context only emphasizes that these are objects that contain within them a kernel of death, a desire for timelessness and self-annihilation, a destructive plasticity. Picasso associates this destructive plasticity with the impulse for a more modern "modern art" that he finds in the pre-historic *Venus of Lespugue*. The plastic is timeless; sculpture is time-bound.

A similar distinction between the concept of the plastic and sculpture can also be found in comparing two current works, Hassabi's *PLASTIC* and Prinz Gholam's *FMCAeKD* (2008) (fig. 15). Prinz Gholam is the German-Lebanese performance duo of Wolfgang Prinz (b. 1969, Germany) and Michel Gholam (b. 1963, Lebanon). Prinz Gholam use their bodies to create *tableaux vivants* that have been described as "degree zero"⁵⁹ experiments with dance—experiments that, as a press release for the Swiss 2014 Biel Biennial *Le Mouvement* explained, explore "the way we experience and negotiate the world through images the mind already

⁵⁷ Malraux, *Picasso's Mask* (1976), 124-125.

⁵⁸ *Ibid.*

⁵⁹ Claire Bishop, *Artificial Hells: Participatory Art and the Politics of Spectatorship* (New York, NY: Verso Books, 2012), 232.

contains, from art history, films, and the media.”⁶⁰ They do this in performances that they present in various spaces from public spaces with foot traffic like the Robert-Walser Platz in Biel and the vast lobby of the London Tate,⁶¹ to isolated often post-industrial landscapes where they appear to perform without an audience.⁶² The duo present the cryptically-titled *FMCAeKD*—an acronym for the array of visual sources the dance references⁶³—as emblematic of their production, using video documentation of it to introduce their website (fig. 16).⁶⁴ The performance works with an incipit of resonance between a pose in a broken marble body of the famous Ancient Greek Aeginetan group (5th century BC)⁶⁵ and a pose from a performance photograph of a dancer in Sergei Dhiagilev’s *Ballets Russes* (1908-1929) (fig. 17).⁶⁶ In Prinz Gholam’s performances, peak poses and transition sequences are very different entities. Peak poses are highly controlled; transition sequences, though carefully planned and deliberate, are more matter-of-fact, making use of casual movements. In their conception of these performances, the duo is intent on not just replicating the gestures of source images, but reimagining them in combination; in other words, allowing for the encounter among disparate gestures from varied sources and temporalities to generate new expressive formulas or hybrids through unconscious association.

⁶⁰ “Prinz Gholam,” *Le Mouvement: Performing The City*. Biel/Bienne 2014. Published 2014. Accessed February 10, 2017. <http://www.lemouvement.ch/gholam.html>

⁶¹ Prinz Gholam, *Ein Ding mehr*, 2006 as part of the exhibition Living Currency, Tate Modern, London, 2008.

⁶² Prinz Gholam, *FMCAEKD* (2008) as presented at Galerie Jocelyn Wolff in 2008. See Emily Verla Bovino, “Prinz Gholam at Galerie Jocelyn Wolff,” *Artforum*. December 2008. Accessed February 26, 2017. <https://www.artforum.com/picks/id=21540>

⁶³ Bovino, “Prinz Gholam at Galerie Jocelyn Wolff,” op. cit.

⁶⁴ Prinz Gholam shuffle videos intermittently on their website. *FMCAeKD* introduced their website in February 2017; however, the video introduction changed in March 2017. Prinz Gholam. N.d. Accessed February 25, 2017. <http://www.prinzgholam.com/aegineten-diaghilev/>

⁶⁵ Ancient Greek pedimental sculptures that once adorned Aegina’s Temple of Aphaia in Greece, and that have been conserved in Munich since 1827. “The Pedimental Sculptures from the Temple of Aegina,” *Antike am Königsplatz: Antikensammlungen und Glyptothek*. N.d. Accessed January 12, 2016. <http://www.antike-am-koenigsplatz.mwn.de/en/ancient-masterpieces/museum-highlights/archive-of-museum-highlights/aeginetans.html>

⁶⁶ “Aegineten-Diaghilev,” *PrinzGholam*. N.d. Accessed January 12, 2016, <http://www.prinzgholam.com/aegineten-diaghilev/> Click on the screen to watch the video of the performance or go directly to “Prinz Gholam, FMCAEKD, 2008, video performance excerpt, 5”<http://www.prinzgholam.com/prinz-gholam-fmcaekd-2008-video-performance-excerpt-5/>

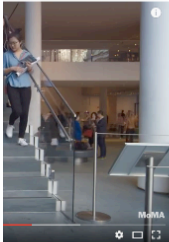
For example, in the online excerpt of the performance-video *FMCAeKD*, the two men take a series of poses that begin with the recognizable reclined and slightly elevated side pose from the Aeginaten-Dhiagalev combination, to then move into variations independent of classical sculpture and modern dance. These variations draw instead on popular forms of calisthenics, contemporary body culture, and even the surrounding environment. In *FMCAeKD*, the surrounding environment is a peripheral riverside area where the duo has chosen the top of a concrete wall under a steel bridge to serve as their performance pedestal (fig. 16). A fly buzzes in the background as one of the two bald men holds a tenuous tripod headstand (fig. 16). In Prinz Gholam's *FMCAeKD*, the body becomes the dynamic post-industrial adornment for otherwise decaying, undervalued architecture. In Hassabi's *PLASTIC* (fig. 18), on the other hand, it is as if the body is imagining the equivalent of a neo-classicist Pygmalion's dream for the modernist art object, becoming what, using Pott's words, could be called "congealed lumps of matter," lumps that play with "readily" going "dead"⁶⁷ in order to be reborn. In *PLASTIC*, the sense of the body in eternal transition shares something of the spirit of Picasso's instructions for copying the *Venus of Lespugue*, his spindle-plus-tomato formula for plastic transmutation in forms becoming flesh. Prinz Gholam's concern seems more focused on externalizing a psychic imprinting of images, on formalizing these haunting specters in the only suitable media for them to be sculpted: the body.

In *Ornament and Crime*, architectural modernism's position paper *par excellence*, architect Adolf Loos connected the urge to ornament with the concept of the 'plastic' and eroticism. As Loos writes, "the urge to ornament [...] everything within reach is the start of plastic art. It is the baby talk of painting. All art is erotic."⁶⁸ Indeed, both Hassabi's *PLASTIC* and Prinz Gholam's *FMCAeKD* play with the erotic dimension between the plastic and sculpture, an element also emphasized by Chazal's writing on "*sens-plastique*" in relation to what he called

⁶⁷ Potts, *The Sculptural Imagination*, 114.

⁶⁸ Adolf Loos, "Ornament and Crime (1908)," *Programs and Manifestoes on 20th-Century Architecture*, ed. Ulrich Conrads (Cambridge: MIT Press, 1971), 19.

“sexual pleasure,” and by Motherwell in his energetics of “vital connection” in the plastic. However, whereas Hassabi’s choreographies emphasize movement and morphogenesis that is empathetic with architecture’s relationship to the body, Prinz Gholam’s configurations seem to emphasize the human body’s desire to be figural ornament, to fuse itself with the surrounding architecture as adornment. Hassabi’s *PLASTIC* is true to its title in that it is, indeed, more about “plastic form”—a fascination with a kind of corporeal grammar, or the way the body takes shape through various dimensions of time and space—than it is about sculpture’s language of the pose, a dimension that Prinz Gholam capture to perfection.



Installation, Museum of Modern Art, New York, (bottom) Gund Lobby station (performance excerpts) New York.

3



Images for FMCAeKD (2008), screenshot Aeginetan group (5th-century BC); (right) Diaghilev's Ballets Russes (1908-1929).



Fig. 20 Haida Transformation Mask, Haida Gwaii (collected 1879), Northwest Coast, Canada. Canadian Museum of History, Quebec, Canada.



Fig. 19 (left) Aby Warburg, Tafel 79 (Plate 79) from the Mnemosyne Bilderreihen (Mnemosyne Image-Series, 1924-1929, also known as the Mnemosyne Atlas). The Mnemosyne Atlas version (1929) of the Mnemosyne Bilderreihen comprises 63 plates (i.e., glass slides of image configurations). Image: Warburg Institute, London, UK; (right) Aby Warburg wearing a Hopi Hemis Kachina mask in Oraibi, Arizona (May 1896). Image: Warburg Institute, London.



Chapter Three / The ‘Plastic’ in Art Historiography: Aby Warburg in Context

A ‘Plastic’ Inheritance from G.W.F. Hegel to Alois Riegl

In English translations of Georg W. F. Hegel’s lectures on art (1818 – 1831), the German philosopher is interpreted as writing that it is the “freedom” of “productive and plastic energy” that is “what we enjoy” when we appreciate what is called “beauty” in art.¹ Philosopher Catherine Malabou has shown how Hegel does not explicitly define the “plastic” in his lectures, but rather demonstrates its effect by using it to modify the character of a series of objects in his thinking. The most prevalent of these objects are “art” [*plastische Kunst*], “individuals” [*plastischen individuellen*], “discourse” [*plastischer Vortrag*] and “sense” [*plastischen Sinn*].² Interestingly, English translations of Hegel’s lectures on art and aesthetics often use the qualifier “plastic” and “plasticity” in instances where Hegel does not choose to employ the German terms *plastisch* and *Plastizität*.³ Hegel’s description of the “freedom of [art’s] productive and plastic energy” as “what we enjoy in the beauty of art” is a particularly notable example. In this case, the qualifier “plastic” and the substantive “energy” are used to translate what, in the original German, Hegel uses the German substantive *Gestaltungen* to describe.⁴ In the original German, Hegel writes, “[...] *ist es gerade die Freiheit der Produktion und der Gestaltungen, welche wir in der Kunstschönheit genießen*” (“what we enjoy in the beauty of art is precisely the *freedom* of its

¹ G.W.F. Hegel, *On Art, Religion, Philosophy: Introductory Lectures to the Realm of Absolute Spirit*, ed. J. Glenn Gray (New York: Harper Torchbooks, 1970), 27. This translation is from G.W.F. Hegel, *Werke*, Zehnter Band. Erste Abtheilung G.W.F. Hegel’s *Vorlesungen über die Aesthetik Erster Band*, (Berlin, Germany: Duncker und Humblot, 1835), translated in English by Bernard Bosanquet in *The Introduction to Hegel’s Philosophy of Fine Art*, originally published in 1905 by Routledge & Kegan Paul, Ltd., London. It was reprinted by Harper Torchbooks with permission from Routledge & Kegan Paul, Ltd.

² Catherine Malabou, *The Future of Hegel: Plasticity, Temporality, and Dialectic* (New York, NY: Routledge, 2005), 118, 180, 188, 116, 201 and 227.

³ For example, see “productive and plastic energy,” “plastic shape,” “plasticity” and “natural, plastic and formative tendency,” “Hegel, On Art, Religion, Philosophy,” 27, 37, 69 and 70.

⁴ G.W. F. Hegel, *On Art, Religion, Philosophy*, 27. The original German is from Georg Friedrich Wilhelm Hegel, *Einleitung in die Ästhetik*, ed. Heinrich Gustav Hotho (München, Deutschland: Wilhelm Fink Verlag, 1967), 24.

production and structuring.”)⁵ In their translation of Hegel’s use of the modifying term *Produktion* (production) alongside *Gestaltungen* (structuring by shaping or forming),⁶ it is evident that German language scholars and scholars of Hegel have learned to conceive of the Hegelian “plastic” as something other than “productive”: in Hegel’s thinking, the “plastic” is both more and less than “productive,” thus it is considered an appropriate term in the context. This more-and-less-than-productive is not just the destructive—typically taken in common language as a binary opposite of productive—rather it is a non-redemptive reformulating deformation: a kind of destructive production that verges on what philosopher Catherine Malabou calls “destructive plasticity.”⁷ Hegel describes what his English translators interpret as an “energy”—both “productive *and* plastic”—as an “escape” into both “repose and animation” that can be found in “the origination, as in the contemplation,” of art.⁸ Interestingly, the artist Maria Hassabi describes the choreography for the MoMA stairs in *PLASTIC* in similar terms—as “go[ing] back and forth from [a] very secure place to completely falling down and apart;” it is a choreography that is so much about “transferring from one place to the other, and how it gets articulated,” that “even just turning the head becomes a movement.”⁹ *PLASTIC* can be seen as affecting a performed conceptualization of art as “productive and plastic energy,” a “repose and animation” that offers an “escape” in the realms of “origination” and “contemplation.”¹⁰

The moment that Hegel “designated architecture, sculpture, painting, music and poetry (in ascending order)” as the ultimate teleology of art—a teleology “‘proceeding from the absolute idea’ [...]” to the “sensuous representation of the absolute itself”¹¹—scholars began working to break his idealist hierarchy. Rather than seeing this teleology as progressive and uni-directional,

⁵ Hegel, *Einleitung in die Ästhetik*, 24.

⁶ “Gestaltung (genitive), Gestaltungen (plural),” *Collins German-English Dictionary*. Published 2017. Accessed February 2, 2017. <https://www.collinsdictionary.com/dictionary/german-english/gestaltung>

⁷ Malabou, *Ontology of the Accident*, 6.

⁸ Hegel, *On Art, Religion, Philosophy*, 27.

⁹ Museum of Modern Art, “Maria Hassabi | PLASTIC,” op. cit.

¹⁰ Hegel, *On Art, Religion, Philosophy*, 27.

¹¹ Payne, *From Ornament to Object*, 35.

they envisioned it with folds and fissures, as the product of its own ‘productive and plastic energy.’ In these challenges to Hegel’s philosophy of art, the actual term “plastic”—both the substantive *Plastik* and the qualifier *plastisch*—played an important role.

In the case of architect and architectural theorist Gottfried Semper, challenging Hegelian teleology meant refusing to conform to an inclination among architects eager to “align their work with poets and philosophers.”¹² Rather than climb the Hegelian ladder, Semper preferred to stay on its bottom rungs, willfully “connect[ing] architecture to the crafts.”¹³ As architectural historian Alina Payne has explained, the “challenge” that this approach set was not in “bringing together architecture and the decorative arts into one discussion” (a connection that was “no longer a novelty”) but in the “decided view” that “architecture had evolved its formal vocabulary and meaning from the objects of daily use.”¹⁴ The relationship between the body and its everyday objects was the source of Semper’s thinking about “artistic drive,”¹⁵ and an important moment in the genealogy of the ‘plastic’ can be found in this relationship.

Philosophers Immanuel Kant and F. W. Schelling had both made architecture a “branch of sculpture” using the German term *Plastik* (plastic), a designation which “also included household objects” in particular, “the work of the carpenter.”¹⁶ These objects were assigned the quality of “being an art of “truth to the senses (*Sinneswahrheit*) rather than [an art of] appearance (*Schein*).”¹⁷ Whereas the arts of appearance were “painting, wallpaper, makeup, clothes and wall painting,”¹⁸ in the mid-19th century, Schelling included objects like “sarcophagi, urns, candelabra, vases, goblets, drapery and clothes” within the “plastic” rubric of arts of “truth to the senses.”¹⁹ This practice of bracketing among arts “remained operative” with Semper; however, objects like

¹² Ibid.

¹³ Ibid.

¹⁴ Ibid., 36.

¹⁵ Ibid.

¹⁶ Ibid., 32.

¹⁷ Ibid.

¹⁸ Ibid.

¹⁹ Ibid.

“clothes or hairstyles” were no longer thought to represent “a lower level of taste expression,” but were instead placed at “the center of [...] art historical inquiry.”²⁰

Art historian Alois Riegl also worked to contest Hegel’s particular instantiation of the ancient philosophical practice of instituting prejudices to separate “minor arts” from “more noble sisters.”²¹ The artistic drive, as Riegl conceived it in his term “*Kunstwollen*” (“will to art”), actually “privilege[s] anonymous artifacts,” which are seen as “the true and best indices of *Kunstwollen*.”²² Riegl’s theory of *Kunstwollen* also calls attention to the fact that hierarchies of the arts were always accompanied by hierarchies of the senses each art served to exemplify, with both being ordered according to their alleged proximity to truth. In his search for “patterns” in “the artistic production of specific historical periods,” Riegl positioned the typically privileged organ of the eye alongside corporeality, a broader field of sensorial impressions in the body, making both submit to his theory of a “basic human drive toward art”²³ In *Die Entstehung der Barockkunst in Rom (The Origins of Baroque Art in Rome, 1908)*, Riegl describes the will (*wollen*) in *Kunstwollen* as “an ‘isolating, tactile (self-containing) element’ in contrast with emotion (*Empfindung*) which he defines “as an ‘interconnecting, optic (self-dissolving) element.”²⁴ In the first type of *Kunstwollen* dominated by will, the drive is “to subordinate the world to will” while in the other type of *Kunstwollen* presided over by emotion, the drive is “to receive the world.”²⁵ Whereas “the optic ideal [...] involves a degree of passivity, a relaxing of

²⁰ Ibid.

²¹ Ibid., 135.

²² Ibid.

²³ Payne, *From Ornament to Object*, 135. As Margaret Iversen has shown, in this work, Riegl “was in accord with what he saw as the character of his age; he seemed to have valued highly what might be called an aesthetic of disintegration. He used a variety of terms to describe this aesthetic: “tactile disintegration,” the “optic” or “subjective” style. His choice of this stylistic type, was, so to speak, overdetermined. It has partly do do with his rich inheritance of German idealist philosophy, particularly that of Hegel.” Margaret Iversen, *Alois Riegl: Art History and Theory* (Cambridge, MA: MIT Press, 1993), 34.

²⁴ Alois Riegl quoted in Iversen, *Alois Riegl*, 47.

²⁵ Iversen, *Alois Riegl*, 47.

control, even a partial loss of self,”²⁶ the “tactile” or “constructive” ideal is a “command of material, composing and controlling pre-existent elements, absorbing them into [a different] formulation.”²⁷

Thus, what would become Riegl’s renowned optic/haptic (*optisch/haptisch*) paradigm emphasized the connection not only between sight and touch,²⁸ but sight, touch, and the movement of the body in space. In order to make this clearer, Riegl distinguished the tactile from the “‘haptic’ (from *haptēin-fasten*),” a term he took from physiology.²⁹ Similarly, the ‘plastic’ was no longer a “sculptural term”³⁰ as it had been with Kant, Schelling and Semper, rather it became more specific. The plastic “designated the densely textured, opaque two-dimensional shape that distinguished itself from the relative emptiness of the visual field surrounding it when the perceptual apparatus differentiated figure from ground.”³¹ This kind of shape was “defined by a haptic [...] way of seeing.”³² “The plastic form of an object” was understood as “that view of it which presented its overall shape with greatest clarity”³³: it was a form that permitted for the totality of the object to be perceived as a unity rather than part by part. As occurred in the later English translations of Hegel, the ‘plastic’ was associated with *Gestaltungen*, that structuring through forming or modeling that privileges the whole over a sum of parts. The plastic and the haptic were intimately interconnected: whereas the plastic was a property of the object, the haptic was the complex of sensorial impressions that, in the case of art, both produced this property in the art object, and made its perception possible.

²⁶ Ibid.

²⁷ Michael Podro cited in Iversen, *Alois Riegl*, 47.

²⁸ Payne, *From Ornament to Object*, 136. Walter Benjamin appropriated Riegl’s theory of optic and tactile perception and reversed the historical paradigm Riegl had established by associating modern perception with the tactile – the “desire of the contemporary masses to bring things ‘closer’ spatially and humanly” — rather than with the optic, as Riegl had. Iversen, *Alois Riegl*, 15-16.

²⁹ Abbie Garrington, *Haptic Modernism: Touch and the Tactile in Modernist Writing* (Edinburg, Edinburg University Press, 2013), 21.

³⁰ Potts, *The Sculptural Imagination*, 125.

³¹ Ibid.

³² Ibid., 125.

³³ Ibid.

The Plasticity of Aby Warburg's *Kulturwissenschaft* (Cultural Science)

In *The Origins of Baroque Art in Rome*, Riegl comments that the “plastic” had shown itself to be a “notion” that when “not generally agreed upon,” creates divergences in the most “basic conceptions.”³⁴ The early theoretical manuscripts of one of Riegl’s contemporaries, Hamburg historian Aby Warburg (1866 – 1929)—the “obscurely famous” once marginal, yet increasingly central figure in contemporary art history—is here proposed as the ideal guide for the study of the ‘plastic,’ a once central, now increasingly marginalized notion in art history.³⁵ But aside from this parallelism in marginality, why should the obscure fragmentary notes of an “obscurely famous” art historian be of significant importance to an inquiry into equally obscure experiments with the ‘plastic’ in art history, art practice and artist writings? After all, the plastic is not among those lists of terms that scholars tend to identify as critical to Warburg’s writings.

Renewed interest in Warburg’s work—in particular his often cited project, the *Mnemosyne Atlas*, (what he called his *Mnemosyne Bilderreihen* [Mnemosyne Image-Series, 1924-1927]) (fig. 19) —is perhaps symptomatic of the need to re-conceptualize the relationship between touch and sight—between the eye, the nervous system, and the body—in the digital age of zero-dimensional binary code and n-dimensional hyperspace. Warburg’s early thinking about the ‘plastic’ is particularly helpful to reflecting on this needed reconceptualization because his notes bring together the many uses of the term that were in circulation during his youth. As a young scholar, Warburg eagerly absorbed these uses, but not without a sense of critical distance. In addition, Warburg’s historiography has itself been associated with the “plastic” and the quality of “plasticity”: art historian Georges Didi-Huberman’s definitive study of Warburg, *L’Image*

³⁴ Alois Riegl, *The Origins of Baroque Art in Rome*, (Los Angeles, CA: Getty Research Institute, 2010), 102.

³⁵ The reference to Warburg as “obscurely famous” is from Kurt Forster, “Introduction,” in Aby Warburg, *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*, trans. David Britt (Los Angeles, CA: Getty Research Institute, 1999), 1.

Survivante (*The Surviving Image*, 2002; 2016)³⁶ dedicates a section to Warburg's "plasticity," discussing the scholar's posthumously renowned *Mnemosyne Bilderreihen* project as the tangible materialization of his philosophy of history³⁷—a philosophy in which, as Didi-Huberman writes, "the plasticity of becoming" is not only "accompanied by fractures in history" but "creates a fracture in the [very] discourse of history."³⁸

Warburg's fragment on "plastic art" (*plastische Kunst*) is from a collection of notes³⁹ whose chronology (1888-1912) overlaps with a period he spent in Florence preparing his dissertation.⁴⁰ During this period he also established an acquaintanceship with Florence-based Munich sculptor and art theorist of the 'plastic,' Adolf von Hildebrand (1847-1921).⁴¹ Between 1888 and 1903, Warburg authored, selected, ordered and edited these fragmentary notes as his *Grundlegende Bruchstücke zu einer monistischen Kunstpsychologie* (*Foundational Fragments on*

³⁶ Recently translated as Georges Didi-Huberman, *The Surviving Image: Phantoms of Time and Time of Phantoms*, Aby Warburg's History of Art (University Park, PA: Penn State University Press, 2016).

³⁷ Didi-Huberman, *The Surviving Image*, 95.

³⁸ *Ibid.*, 92-103.

³⁹ Aby Warburg, "306 25.III 96. S Frico Public Libr<ary>" in Aby Warburg, "Grundlegende Bruchstücke [1888/1896-1905/1912]," *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 150.

⁴⁰ "Sandro Botticellis 'Geburt der Venus' und 'Frühling'" (Sandro Botticelli's Birth of Venus and Spring, 1893) submitted to the Faculty in Strasbourg on December 8, 1891 and accepted for the degree of Doctor of Philosophy on March 5, 1892. Aby Warburg, "Sandro Botticelli's Birth of Venus and Spring (1893)" in Aby Warburg, *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*, trans. David Britt (Los Angeles, CA: Getty Research Institute, 1999), 405.

⁴¹ "Warburg war nicht selten Gast in Hildebrands Haus" ("Warburg was not an infrequent guest in Hildebrand's house"). My translation. Bernd Roeck, *Florenz 1900: die Suche nach Arkadien* (München, Deutschland: Verlag C.H. Beck, 2003), 212. In 1898, "Warburg championed one of Hildebrand's architectural projects for Hamburg, but in vain." Mark Russell, *Between Tradition and Modernity: Aby Warburg and the Public Purposes of Art in Hamburg* (1896-1918) (New York, NY: Berghahn Books, 2007), 118. The project appears to have been a plan to widen Hamburg's *Jungfernstiege* (the city's principle promenade) and to create a second pavilion on the banks of the Amstel river. "Letter from Adolf [von] Hildebrand to Aby Warburg, May 2, 1898," Warburg Institute Archive, General Correspondence, WIA GC/364 and "Letter from Aby Warburg to Moritz Warburg, February 15, 1898," Warburg Institute Archive, General Correspondence, WIA GC/369. Warburg supported the Hildebrand's commission for a monument to Hamburg mayor Heinrich Burchard, a sculpture which was unveiled in 1914. It was allegedly criticized because "the portrait's facial expression did not match personal recollections of [the mayor]." Russell, *Between Tradition and Modernity*, 110. Warburg "characterized Hildebrand's work in Nietzschean terms as "Apollonian," or "restraining," and situated it in a polarity with the work of Arnold Böcklin whose "accent of movement" he characterized as "Dionysian" or "enhancing." Russell, *Between Tradition and Modernity*, 118.

a *Monistic Psychology of Art*, 1888-1905).⁴² In 1912, he changed the title of the collection to *Grundlegende Bruchstücke zu einer pragmatischen Ausdruckskunde* (Foundational Fragments on a Pragmatic Theory of Expression).⁴³ He was still writing about the foundational importance of these fragments to his various projects as late as 1929, two months before his death.⁴⁴ The *Foundational Fragments* were also included as the fourth volume of the *Gesammelte Schriften* (*Collected Writings of A. Warburg*) as this project was outlined in 1933 when its inaugural volume—the writings Warburg published in his lifetime—was first printed.⁴⁵ Though they were planned as part of Warburg’s *Collected Writings*, they were only recently published, first in a bilingual Italian-German edition (2011),⁴⁶ then in an expanded German edition (2016).⁴⁷ Though there are several notes relevant to the concept of the ‘plastic,’ the two notes focused on here are numbered 305 and 306 in the manuscripts.⁴⁸ Both were written while Warburg was travelling in Northern California. They read:

⁴² It appears that Warburg retroactively changed the title of the *Foundational Fragments* twice, once in 1901 and then again in 1912. *The Foundational Fragments* appear to have been divided into two parts, one from 1888-1895 and the other dated beginning 1896 (with the last note dated 1903). In 1901, he changed Part I from *Grundlegende Bruchstücke zu einer psychologischen Kunstphilosophie* (Foundational Fragments for a Psychological Philosophy of Art) to *Grundlegende Bruchstücke zu einer monistischen Kunstpsychologie* (Foundational Fragments for a Monistic Psychology of Art), which was originally the title of Part II. In 1912, he changed Part II from *Foundational Fragments for a Monistic Psychology of Art* to *Grundlegende Bruchstücke zu einer pragmatischen Ausdruckskunde* (*Foundational Fragments on a Pragmatic Theory of Expression*), which he then seems to have used as the title for the entire collection of notes. As a result of Warburg’s continuous editing and retitling of the notes, Warburg scholars refer to them as the *Grundlegende Bruchstücke* and date them as 1888/1896 – 1905/1912. Aby Warburg, “Grundlegende Bruchstücke [1888/1896 – 1905/1912],” *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 1.

⁴³ Warburg, “Grundlegende Bruchstücke [1888/1896 – 1905/1912],” *Fragmente zur Ausdruckskunde*, 145.

⁴⁴ Maurizio Ghelardi, *Aby Warburg: La Lotta per lo Stile* (Torino, Italy: Nino Aragno Editore, 2012), 47

⁴⁵ Fritz Saxl, “Plan of the Collected Edition,” in Aby Warburg, *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*, trans. David Britt. (Los Angeles, CA: Getty Research Institute, 1999), 80.

⁴⁶ Aby Warburg, *Frammenti sull’Espressione = Grundlegende Bruchstücke zu einer pragmatischen Ausdruckskunde*, ed. Susanne Müller, trans. Maurizio Ghelardi and Giovanna Targia (Pisa, Italia: Edizioni della Normale, 2011).

⁴⁷ Warburg, “Grundlegende Bruchstücke [1888/1896 – 1905/1912],” *Fragmente zur Ausdruckskunde*, op. cit.

⁴⁸ Warburg, “Grundlegende Bruchstücke [1888/1896 – 1905/1912],” *Fragmente zur Ausdruckskunde*, 150.

305

23.III 96

Der "künstlerische" Act ist ein auf das Objekt bezuglicher "Entfernungsversuch" mit nachfolgender abtastender umschreibender Beführung.⁴⁹

[305

23.III 96

The "artistic" act is a "distancing attempt" related to the object, with successive palpating (*abtastender*) circumscribing visuo-haptic feeling (*Beführung*).⁵⁰

306

S Frico

Public Libr<ary>.

*Subj<ek> als Trager**Obj<ekt> der zeichnenden Kunst die Linie**Obj. als getragenes**Die plastische Kunst**der Umfang⁵¹*

[306

San Francisco

Public Library.

Subject as carrier (vector; wearer)

Object as graphic art, line

Object as being-carried (worn)

plastic art

extension

The contraposition that Warburg establishes between "graphic art" [*zeichnenden Kunst*] and "plastic art" [*plastische Kunst*] is one that Malabou also writes about in her work on "plasticity," citing Claude Levi-Strauss' *Voie des Masques (The Way of Masks, 1975; 1982)* on Native American masks from the Pacific Northwest.⁵² The contraposition is in no way obvious. As will be shown by the end of this section, other thinkers have chosen to focus instead on counterposing the pictorial and the plastic. Interestingly, both Warburg and Levi-Strauss' reflect on the graphic and the plastic in relation to research on Native American practices on the North American west coast. Warburg's notes were written in the late 19th-century after a period of visiting Hopi sites to

⁴⁹ Aby Warburg, "305 23.III 96" in Aby Warburg "Grundlegende Bruchstücke [1888/1896-1905/1912]," *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 150.

⁵⁰ My translation. Since *Beführung* is derived from *befühlen* meaning "to feel," "to palpate," "to finger," I have translated it as "visuo-haptic feeling." "*Befühlen*," *Collins German-English Dictionary*. Published 2017. Accessed February 2, 2017. <https://www.collinsdictionary.com/dictionary/german-english/bef%C3%BChlen>

⁵¹ My translation. Warburg, "306 25.III 96. S Frico Public Libr," *Fragmente zur Ausdruckskunde*, 150.

⁵² Malabou, *Plasticity at the Dusk of Writing*, 3.

observe masked animal dances in the southwest; Levi-Strauss's book was written in the late 20th-century after examining artifacts at the American Museum of Natural History in New York. Through Lévi-Strauss' writing about the "ambivalent relationship" between the "plastic and graphic components" in the composite hinged masks he calls "articulated masks"⁵³ (fig. 20), Malabou defines her own work on "plasticity" as "a single continuous attempt to situate the symbolic rupture between the plastic and the graphic component of thought [...]"⁵⁴ The "conceptual portrait" she writes for herself is like one of Levi-Strauss' "articulated masks": it includes her writing about change, deconstruction, and plasticity in "a transformational mask" that closes and opens on itself.⁵⁵ "I am trying to understand," she explains, "[...] the *transformational relations* between *figure and writing* and the reason why the dialogue between *form and writing* presents itself as *structure*."⁵⁶

Malabou associates "figure" with the plastic and "writing" with the graphic.⁵⁷ In what she calls Levi Strauss' "transformational masks," she is interested in the "interchangeability or conversion relation between plastic and graphic, image and sign, body and inscription."⁵⁸ In order to focus on this "conversion relation," Malabou asserts it is necessary to move beyond the "restricted definition of the aesthetic and art," a definition which she claims,

takes it for granted that the artistic event as thought by traditional philosophers is purely and simply a mode of presentation, that the mission of form would always be to convene the thing to presence, to rip it away from the secret, to make it say or incarnate, to assign it to residence in the light.⁵⁹

For Malabou, form and figure must not be treated as "modes of presentation."⁶⁰ Plasticity "confers [...] visibility [...] without this being confused with [...] presence."⁶¹ Malabou wants

⁵³ Ibid., 2.

⁵⁴ Ibid., 3.

⁵⁵ Ibid., 3-4.

⁵⁶ Ibid., 3.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid., 55.

⁶⁰ Ibid.

the “figural” to be understood as a phenomenon that draws attention to an “open gap”—in this case the “open gap in philosophical discourse between its traditional or ‘metaphysical’ form [a notion of form that goes beyond what is immediately perceivable as presence by the senses] and its ‘deconstructed’ form [the notion of form that remains when the various ways metaphysical form is reliant on arbitrary signifiers is outlined].”⁶²

For Levi-Strauss, the plastic component of the mask is, as Malabou explains, “everything that refers [...] the face and body [of the mask] to its referent, [the actual face and body],” whereas the “graphic [...] offers ornament or decoration (painting or tattoo) on the same face or body”⁶³ (fig. 20). This ornament or decoration has a relationship to the face or body, but does not immediately refer to it. The result of interplay between the plastic and the graphic is an “aesthetic process” that Levi Strauss calls “split representation.”⁶⁴ Thus the masks are not only split because they literally comprise two different faces, one shuttered over the other, but because each mask has its own “double aspect”⁶⁵ of components—plastic components referencing the facial features (i.e., eyes, nose, lips, etc.) and graphic components that take shape over facial features, but move beyond these features to create new shapes.

It is precisely the ‘plastic’ conferring visibility without being confused as presence that appears to be at the center of Warburg’s thinking about the plastic in his early theoretical manuscripts when they are read closely. This becomes especially evident when the notes are read in the context of the *milieu* that informed them. This *milieu* includes not only the books Warburg was reading but the conversations he was having and the image cultures that he was choosing to immerse himself in. The Part One discussion that follows in the next sections

⁶¹ Ibid., 56.

⁶² Ibid.

⁶³ Ibid., 3.

⁶⁴ Ibid., 3.

⁶⁵ Ibid., 3.

focuses on readings and intellectual exchanges in Warburg's *milieu* relevant to a broader conceptual history of the 'plastic' in theory and practice.

A Friendship of 'Plastic' Values: Warburg and Adolf von Hildebrand

The young Aby Warburg's friendship with Adolf von Hildebrand—a neo-classical sculptor who became a renowned art theorist—was critical to his early thinking about the 'plastic.' It appears that Warburg met Hildebrand during his first extended stay in Florence between 1888 and 1889, while doing research for his doctoral dissertation, *Sandro Botticelli's 'Geburt der Venus' und 'Frühling,'* (*Sandro Botticelli's Birth of Venus and Primavera*, 1893).⁶⁶ Hildebrand's book *Das Probleme der Form in der bildenden Kunst* (The Problem of Form in the Plastic Arts, 1893) is understood to be "the most widely read work of art theory before the first World War."⁶⁷ Art historians describe its theoretical position as based on a "post-Herbartian psychology of perception," thus situated in relation to the "conception of mental activity" that was theorized by German philosopher Johann Friedrich Herbart, "a founding figure of modern psychology."⁶⁸ In this conception, popular in the 19th-century, "the mind receives individual disparate presentations (*Vorstellungen*) that must be either assimilated with past or contiguous presentations or else suppressed."⁶⁹ These assimilations and suppressions occur so that "the mind constructs a coherent picture of the world and, at the same time, maintains its own unity."⁷⁰ The post-Herbartian psychology of perception with which Hildebrand is aligned, translated these theories into physiology, asserting that "the eye projects a plane image on the retina and that a three-dimensional image is constructed out of a number of these individual, two-dimensional

⁶⁶ Andrea Pinotti, *Memorie del Neutro: Morfologia dell'Immagine in Aby Warburg* (Milano, Italia: Mimesis, 2001), 93.

⁶⁷ Russell, *Between Tradition and Modernity*, 108.

⁶⁸ Margaret Iversen, *Alois Riegl*, 73. Alan Kim, "Johann Friedrich Herbart," *Stanford Encyclopedia of Philosophy*. Published 2015. Accessed February 10, 2017. <https://plato.stanford.edu/entries/johann-herbart/#BioSke>

⁶⁹ Iversen, *Alois Riegl*, 62-64.

⁷⁰ *Ibid.*, 62.

perceptions.”⁷¹ In this psychological iteration of Herbartian conceptions, vision “moves around the object” like touch, and “the mind synthesizes [its] disparate, partial sensations.”⁷²

In his widely read work of art theory, Hildebrand introduces the concept of the ‘plastic’ explaining:

all our knowledge concerning the plastic nature of objects is derived originally from movements which we make either with eyes or with hands. And it is through a complex of such movements, or by so-called “kinesthetic ideas” of them, that we are able to imagine three-dimensional or solid form.⁷³

In order to clarify the complex German terms of Hildebrand’s discussion, the first English edition of Hildebrand’s work (1907) not only includes images like a diagram of stereoscopic vision (not originally included in the German version), but also, like the English translations of Hegel, makes significant interpretative changes to the original text. These changes are important enough to justify drawing the reader’s attention to the full original German passage of the above-cited English translation here. Close reading of the translation alongside the original helps to illuminate how the “traditional philosophers”⁷⁴ cited by Malabou may have arrived at their restricted definitions of form and figure through misconceptions about the ‘plastic.’

Between the original and the translation, much of the particularity and peculiarity of the concept of the plastic—notably absent from the English translation, but present in the German—is obscured. The German original reads:

Alle unsere Erfahrungen uber die plastische Form der Objekte sind ursprunglich durch Abtasten zustande gekommen. Sei es nun ein Abtasten mit der Hand oder mit dem Auge. Tastend führen wir der Form entsprechende Bewegungen aus

⁷¹ Ibid., 73.

⁷² Ibid.

⁷³ Adolf von Hildebrand, *The Problem of Form in Painting and Sculpture*, trans. Max Meyer and Robert Morris Ogden (New York, NY: G. E. Stechert & Co., 1907), 23. In the most recent translation, this passage is stripped down to the absolute basics: “seeing becomes scanning, and the resulting ideas are not visual [Gesichtsvorstellungen] but kinesthetic [Bewegungsvorstellungen]; they supply the material for an abstract vision and idea of form.” Adolf [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), *Empathy, Form, and Space: Problems in German Aesthetics (1873-1893)*, trans. Harry Francis Mallgrave and Eleftherios Ikononou (Los Angeles, CA: Getty Center for the History of Art and the Humanities, 1994), 229.

⁷⁴ Malabou, *Plasticity at the Dusk of Writing*, 55.

*und die Vorstellungen bestimmter Bewegungen, oder anders gesagt, ein Komplex bestimmter Bewegungsvorstellungen heißt eine plastische Vorstellung.*⁷⁵

A number of differences between the two versions are important to consider in relation to the loss of nuance in the concept of the ‘plastic’. First, in German, the English phrase “kinesthetic ideas” would be literally translated *kinästhetischen Vorstellungen*.⁷⁶ In Hildebrand’s original German, however, the phrase translated as “kinesthetic ideas” is instead presented to the reader as “*Bewegungsvorstellungen*” (movement-ideas).⁷⁷ This may be because it was only in the 1880s that the neurophysiologist who “named kinesthesia”—Henry Charlton Bastian—came up with the term after being “able to synthesize investigations of [...] specialized receptors”—the “various neural sensors located in the joinings, the muscles, the skin and the inner ear”—with his own work on their connections to the cerebral cortex [...].”⁷⁸ The specific term *Bewegungsvorstellungen* is also important in Hildebrand’s text as part of a distinction he elaborates between “seeing (or looking)” (*Schauen*) and “scanning” (*Abtasten*).⁷⁹ The “ideas” that result from seeing are ideas about appearance, “appearance-ideas” (*Gesichtsvorstellungen*), whereas the “ideas” that result from scanning are “movement-ideas” (*Bewegungsvorstellungen*).⁸⁰ These two different kinds of “sight-activity” (*Sehtätigkeit*) are distinguished by “distance or nearness.”⁸¹ As Hildebrand explains: “if the observer steps closer to the object, he will cease taking in the overall appearance at one glance and can compose the image only by moving the eyes back and forth and making various accommodations.”⁸² This is “scanning” and produces

⁷⁵ Adolf [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst* (Strassburg, Austria: Heitz & Mondel, 1918), 6.

⁷⁶ Experimental psychologist Johannes Lindworsky uses this term in Johannes Lindworsky, *Experimentelle Psychologie* (1923), (München, Kösel & Pustet, 1927), 22.

⁷⁷ [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁷⁸ Susan Leigh Foster, *Choreographing Empathy: Kinesthesia in Performance* (New York, NY: Routledge, 2011), 74.

⁷⁹ [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), 229. For the original German, see [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁸⁰ My translation. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁸¹ My translation. *Ibid.*, 7.

⁸² [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), 229.

“movement-ideas”⁸³: the overall appearance of the object is divided into “several visual impressions that are connected by the movements of his eyes.”⁸⁴ If, on the other hand, the viewer’s “vantage point is distant, the eyes no longer converge at an angle but view the object in parallel lines.”⁸⁵ This is “seeing” and produces “appearance ideas”:⁸⁶ the overall image is two-dimensional” and “the third dimension [...] or the modeled object can be perceived only by surface [*Fläche*] contrasts.”⁸⁷ According to Hildebrand, “all modes of perception between these extremes [i.e., between seeing and scanning] combine impressions from appearance (*Gesichtseindrücken*) and movement-activity (*Bewegungstätigkeit*).”⁸⁸ It is interaction between the two modes that is what produces the “plastic idea” (*plastische Vorstellung*).⁸⁹

In Warburg’s *Foundational Fragments*, the note numbered “305”—which prepares groundwork for the following note on “plastic art” (“306”)—describes the “artistic act,” and uses the verb *abtastender* to describe the “distancing attempt” (*Entfernungsversuch*) the artist seeks to achieve through art in relation to the object.⁹⁰ The word *abtastender* is derived from the root verb *abtasten*—which can mean both “to scan” and “to palpate.”⁹¹ Warburg’s note exemplifies the way he combines studies of the physiology and philosophy of perception with the psychology of art: the “distancing” in Warburg’s notes is both a physical distancing and a psychological distancing that takes advantage of the double-meaning of the German verb *abtasten*.

Hildebrand’s original German also plays with the dual meaning of *Abtasten* as scanning and palpating; however, both the 1907 English edition of Hildebrand’s famous book and a more recent translation remove the concept of the ‘plastic’ from Hildebrand’s “*plastische Vorstellung*”

⁸³ My translation. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁸⁴ [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), 229.

⁸⁵ Ibid.

⁸⁶ My translation. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁸⁷ My translation. Ibid., 7.

⁸⁸ [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), 229.

⁸⁹ My translation. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁹⁰ Warburg, “305 23.III 96,” 150.

⁹¹ “Abtasten,” *Collins German-English Dictionary*. Published 2017. Accessed January 15, 2017. <https://www.collinsdictionary.com/dictionary/german-english/abtasten>

(plastic idea).⁹² The 1907 English edition narrows the concept of the ‘plastic’ by substituting it with “three-dimensional or solid form,”⁹³ while the more recent 1994 Getty translation of excerpted selections from Hildebrand’s famous book, translates “*plastische Vorstellung*” with the phrase “abstract vision and idea of form.”⁹⁴ In Hildebrand’s original German, it is the two motions implied by the verb *abtastender* that are the specific kinds of “movements” that give us “knowledge” about the “plastic” in objects: translated literally from the original German, Hildebrand’s passage reads, “all our experiences of the plastic form of objects is derived originally from *Abtasten*, be it *Abtasten* with the hand [palpating] or with the eye [scanning].”⁹⁵

The distinction between *tasten* (touch) and *abtasten* (palpation) in relation to tactile sense specific to the hand, can be considered similar to the distinction that Riegl would eventually make—influenced by his readings of Hildebrand⁹⁶—between the “haptic” and the “tactile”: Riegl’s term “haptic” included the broader sense of touch involved in the body’s sense of its own movement and made reference to the fact that even the more restricted sense of touch—touch with the hand—relies on motion in the arm to perceive the qualities of surfaces. Similarly, Hildebrand’s *abtasten* not only refers to touch with the fingertips, but to the practice of grasping, molding and feeling out the contours of an object. The latter is a sensorial impression critical to the way the ‘plastic’ was being understood, not as a simple designation for sculpture, but as that “densely textured, opaque two-dimensional shape,”⁹⁷ or as Warburg wrote about it in his *Foundational Fragments*, as a circumferential extension produced by the interaction between the object and the viewing subject. This is not a shape of pure presence, but one of a peculiar kind of visibility—this peculiar visibility is not vision through sight but what Warburg calls *Beführung*,

⁹² [von] Hildebrand, *The Problem of Form in Painting and Sculpture*, 24.

⁹³ [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), 229.

⁹⁴ Ibid.

⁹⁵ [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

⁹⁶ Margaret Iversen asserts that Riegl’s “haptic” and “optic” are variations on Hildebrand’s “near” and “distant” views. Iversen, *Alois Riegl*, 9.

⁹⁷ Potts, *The Sculptural Imagination*, 125.

and what Hildebrand calls *plastische Vorstellung*. It is a visibility rendered possible through conflict among the senses, or what the poet Malcolm de Chazal later called “*sens-plastique*” in the 1940s.

From Hildebrand to Robert Vischer: Warburg and ‘Corporealization’

In Italian philosopher Andrea Pinotti’s *Il Corpo Dello Stile (The Body of Style, 1998)*—a “history of art [written] as the history of aesthetics”—the first mention of the ‘plastic’ appears in an introduction to this “aesthetics of eye and hand” as it first emerged in eighteenth century philosophies of perception.⁹⁸ Pinotti locates the foundations for these philosophies in Johann Gottfried Herder’s (1744 – 1803) essay *Plastik: einige Wahrnehmungen über Form und Gestalt aus Pygmalions bildendem Traume* (Plastic: Some Observations on Shape and Form from Pygmalion’s Creative Dream), calling Herder the “renowned spiritual father” of the philosopher of perception, Robert Vischer (1847-1933), and his famous theory of “empathy” [*Einfühlung*].⁹⁹ Indeed, the last sentence of the prefatory note to Warburg’s 1893 dissertation completed three years before his notes on the plastic, is an indication of his desire to situate his work in relation to this “aesthetics of eye and hand”¹⁰⁰: Warburg had asserted that the “evidence” he presented in his dissertation on Botticelli was of “value for psychological aesthetics in that it enables us to observe, within a milieu of working artists, *an emerging sense of the aesthetic act of “empathy” as a determinant of style* [my emphasis].”¹⁰¹

In the chapter “Eye and Hand” [*Occhio e Mano*], Pinotti outlines Vischer’s distinction between two modalities of visual perception:

the first, a tracing of lines, in which, with the maximum precision, I fix contours with the fingertips; the second – the natural, or that upon which one reflects less –

⁹⁸ Andrea Pinotti, *Il Corpo dello Stile: Storia dell’Arte come Storia dell’Estetica a Partire da Semper, Riegl, Wolfflin* (Palermo, Italia: Centro Internazionale Studi di Estetica, 1998), 11. This volume has not been published in English translation. All English translations are mine.

⁹⁹ Ibid.

¹⁰⁰ Pinotti, *Il Corpo dello Stile*, 11.

¹⁰¹ Warburg, “Sandro Botticelli’s Birth of Venus and Spring (1893),” 89.

is instead a concentration on masses, for which I retrace surfaces, convexities and concavities of an object, the light rays, the slopes, the backbones and the valleys of mountains, in a certain way with the open hand.¹⁰²

This passage indirectly repeats the same distinction between *tasten* (touch) and *abtasten* (palpation) outlined in Hildebrand's work: Vischer's account is explicit about explaining that whereas touch is immediately associated with the fingertips, palpation has to involve the "open hand." Vischer then specifies in his notes that "the first attitude [that of "fix[ing] contours with the fingertips"] is that of the graphic (*zeichnerisch*), while the second [that of "retrac[ing] surfaces, convexities and concavities of an object [...] with the open hand"] is that of the plastic-pictorial (*plastisch-malerisch*)."¹⁰³ In an attempt to clarify, he offers "examples of interest": "the silhouette [*Silhouette*] and the relief [*Relief*]."¹⁰⁴ In order to better contextualize these examples, Pinotti quotes Vischer's defense of the legitimacy of defining vision in terms of touch. Vischer asserts that "the sensitive and mobile hand" is the "indispensable partner and corrector of the eye (...)": as Pinotti writes, intermittently quoting Vischer,

in reality there exists a very peculiar and intimate relationship among sensorial organs, their functions are of an allied nature: touching is "a sort of approximating looking at an immediate closeness" while seeing is a "more refined touching at a distance." But neither of the two can complete its task without the help of the other: if I were unable to see, I would be missing not only distance but light and color; and without the information transmitted by touch, I would be missing all of the points on tangible form. (...) "By means of the hand we detach the flat visual field from the body. And in this way, the basis for the third dimension of space is established: depth."¹⁰⁵

And, in fact, it is precisely the latter process—that which produces "depth," both a sense of distance in perception and a psychological distancing-attempt—that Warburg's own note on "plastic art" privileges.¹⁰⁶ He accomplishes this by writing about the graphic and the plastic, not only in relation to line and extension, but through a subject-object exchange that explores the

¹⁰² My translation. Robert Vischer quoted in Pinotti, *Il Corpo dello Stile*, 173-174.

¹⁰³ My translation. Robert Vischer quoted in Pinotti, *Il Corpo dello Stile*, 174.

¹⁰⁴ My translation. Ibid.

¹⁰⁵ My translation. Ibid.

¹⁰⁶ My translation. Warburg, "306 25.III 96. S Frico Public Libr," *Fragmente zur Ausdruckskunde*, 150.

process of artist and object exchanging subject and object roles, forming and deforming each other as subjects playing objects and objects playing subjects in the artistic act.¹⁰⁷

Pinotti does not mention Warburg in the sub-section of the chapter titled “Touching at a Distance” (*Il “toccare a distanza”*) where this discussion of Vischer appears. Instead, Pinotti dedicates the penultimate sub-section of the chapter under the heading “Space and Angst” (*Spazio e Angoscia*) to discussion of both Warburg and Hildebrand. Pinotti links Warburg and Hildebrand through Hildebrand’s notion that the “plastic has the task of (...) removing the tormenting [*quälend*] character” from “three-dimensionality.”¹⁰⁸ It is by “acting like something that is flat, even though it is three-dimensional” that Hildebrand’s art theory claimed that “artistic form” is achieved.¹⁰⁹ Pinotti does not discuss Warburg’s notes on “plastic art,” instead he uses the three concluding paragraphs of his sub-section on Warburg and Hildebrand to focus on what he calls Warburg’s “abstraction-ornament-angst” [*astrazione-ornamento-angoscia*] triangulation, citing an earlier 1890 note the young Warburg included in the *Foundational Fragments*: “Ornamental. It presumes that the art work has to do with something hostile that moves towards the observer (...) the flourish [*Schnorkel*] as stable point of departure [*Ausgangspunkt*] which moves without scope and turns on itself – pleasure for a movement that does not inspire fear.”¹¹⁰

Pinotti links this note (numbered “69”)—this dense web of reflections on the ornamental, the hostile object, the flourish, and an attempt at distancing described as a spiraling movement (i.e., “moves without scope and turns on itself” (*ziellos oder in sich zurückkehrend*)¹¹¹—with

¹⁰⁷ Warburg, “306 25.III.96. S Frico Public Libr.,” *Fragmente zur Ausdruckskunde*, 150.

¹⁰⁸ Pinotti, *Il Corpo dello Stile*, 182

¹⁰⁹ *Ibid.*

¹¹⁰ Pinotti, *Il Corpo dello Stile*, 185. My translation is from the original note rather than from Pinotti’s Italian translation. Aby Warburg, “69 27.VIII.90 Sylt” in Aby Warburg, “Grundlegende Bruchstücke [1888/1896-1905/1912],” *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 40.

¹¹¹ My translation. Aby Warburg, “69 27.VIII.90 Sylt” in Aby Warburg, “Grundlegende Bruchstücke [1888/1896-1905/1912],” *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 40.

another note written four months later (numbered “/112”).¹¹² This note is a fragment pulled from a letter Warburg wrote to his artist-friend and future wife, Mary Hertz. In it Warburg asks Hertz:

Why does the flourish [*Schnorke*] please us? Why do we speak of decline [*Verfall*] when art becomes ‘ornamental’ [*ornamental*]? Perhaps it is all rooted in the way in which we try to come to terms with the external world, hypothesizing motives and causes, a process in which the creation of art is only a particular phase in the attempt to bring order among the phenomena of the external world?¹¹³

For Pinotti, these notes are significant to Warburg’s later 1923 thinking about a phenomenon he called the “tragedy of corporalization” (*Tragödie der Verleibung*).¹¹⁴ Through Hildebrand, Pinotti links to Warburg’s thinking about the psycho-physiological function of plastic. In his later writings, Warburg explicitly links the “hypothesizing motives and causes,” and object-exchange processes of symbolization that, as a young scholar, he had attempted to map out in his *Foundational Fragments*, with his older understanding of the “ornamental” as a symptom of anxiety. Quoting the 1923 lecture (*Reise – Erinnerungen aus dem Gebiet der Pueblos*, or “Travel-Memories of the Pueblo Region”) that the older Warburg gave at the Kreuzlingen sanatorium to demonstrate he was recovering from his own diagnosed manic-depressive symptoms, Pinotti interprets his readings of Warburg’s writings as follows:

processes of symbolization that reveal themselves in ”ornaments, of purely decorative appearance, should be interpreted symbolically and cosmologically” as illuminating gestures intended to ensure [what Warburg called] the *Denkraum* [literally translated in English as “room for thought” or “thought room”] between man and the hostile natural forces.”¹¹⁵

¹¹² Aby Warburg, “/112 15.XII.90. B<rie>f. an M<ary> H<ertz> (Wbg)” in Aby Warburg, “Grundlegende Bruchstücke [1888/1896-1905/1912],” *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 60.

¹¹³ Ibid.

¹¹⁴ Pinotti does not directly cite Warburg’s term, but he refers to the phenomenon in *Il Corpo dello Stile*, 184-185. “Tragedy of corporalization” is my translation of the term. It appears translated as “tragedy of incorporation” in Aby Warburg, “Memories of a Journey through the Pueblo Region: Unpublished Notes for the Kreuzlingen Lecture on the Serpent Ritual (1923),” *Appendix Three* in Philippe-Alain Michaud, *Aby Warburg and the Image in Motion*, trans. Sophie Hawkes (New York, NY: Zone Books, 2004), 312. For more on this concept of Warburg’s see Sabine Mainberger “‘Tragödie der Verleibung’: zu Aby Warburgs Variante der Einfühlungstheorie,” *Gefühl und Genauigkeit*, ed. Jutta Müller-Tamm, Henning Schmidgen and Tobias Wilke (Paderborn, Deutschland: Wilhelm Fink, 2014), 105-135.

¹¹⁵ My translation. Pinotti, *Il Corpo dello Stile*, 185.

For Pinotti, Warburg's abstraction-ornament-angst triangulation is a combination of content-focused and formalist, psychological and biological, analyses of art. He describes it as such when he profiles Warburg as a misunderstood figure in art history: in 1998, when Pinotti wrote *Il Corpo dello Stile*, art history still tended to align Warburg with strict opposition to the formalism typically associated with Riegl and another Warburg contemporary, Heinrich Wölfflin,¹¹⁶ whose writings Warburg studied and took notes on between 1889 and 1891.¹¹⁷ Warburg was originally placed alongside representatives of a content-focused approach despite the fact that his work shows affinities with formalist inquiries into the dynamics of perception. Pinotti used the occasion of his book on the history of art history, to contest this alignment, citing the influence of empathy theory on Warburg's abstraction-ornament-angst triangulation, in particular the versions of empathy theory articulated by the architect Gottfried Semper, the philosopher Robert Vischer and the theorist/sculptor Adolf von Hildebrand that have been discussed here.

Warburg's note on "plastic art" from the *Foundational Fragments* supports Pinotti's critique of the content-based bias associated with Warburg's work. What Pinotti describes as Vischer's graphic and plastic-pictorial dual-modalities of vision, recalls the graphic and plastic polarity that the young Warburg outlined in his notes on "plastic art"; Vischer's examples of the silhouette (*Silhouette*) and relief (*Relief*) also recall Warburg's examples of line (*die Linie*) and extension (*Umfang*). Warburg's "plastic art" and "graphic art" polarity further resounds with his friend Hildebrand's definition of the "plastic" as that "*Komplex*" (complex) of "*Gesichtseindrucken*" (impressions about appearance) and "*Bewegungstatigkeit*" (movement activities)—between nearness and distance; flatness and three-dimensionality; sight, scanning and palpating—through which an object expands and contracts perceptually to achieve the status of

¹¹⁶ My translation. Pinotti, *Il Corpo dello Stile*, 10.

¹¹⁷ Aby Warburg, "Bemerkungen zu Heinrich Wölfflin, Renaissance und Barock, 1888 [1889-1891]," *Fragmente zur Ausdruckkunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 273-284.

art.¹¹⁸ Warburg's writes about "plastic art" (*plastische Kunst*) in terms that are similar to what Hildebrand called the "plastic figure" (*plastische Figur*):¹¹⁹

It is not the task of the plastic [*Plastik*] to leave the viewer in an unfinished and uncomfortable frame of mind with regard to the three-dimensional [*dem Dreidimensionalen*] or cubic nature of the impression—striving to form a clear visual image. Its task, rather, is to provide that visual image and thus to remove what is disturbing from the cubic form. So long as a plastic figure [*plastische Figur*] is seen primarily as cubic, it is still in the initial stages of its formation. Only when it works as a plane, although still cubic, does it acquire artistic form, that is, only then does it mean something to the visual imagination.¹²⁰

Like Hildebrand's "plastic figure," Warburg's "plastic art" only achieves the status of artwork by fulfilling its plastic "task" of remaining suspended between the flat and the three-dimensional, or what Warburg calls "line" and "extension". Once again, this is not exactly presence, but another kind of visibility, a visibility produced by a gap. Though the perspectives seem similar, they differ from the tension between dual visual modalities Vischer proposed: to put it simply, Warburg's plastic [*plastisch*] is not Vischer's plastic-pictorial [*plastisch-malerisch*]. Vischer's silhouette is not exactly Warburg's "line," and Vischer's "relief" is not exactly Warburg's "extension." Warburg's terms are abstractions of Vischer's: they are not just about the mechanics of vision, but rather they attempt to combine the mechanics of vision with the psychological

¹¹⁸ My translations, adapted from the Getty edition. [von] Hildebrand, *The Problem of Form in the Fine Arts* (1893), 229. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6, 7.

¹¹⁹ Ibid.

¹²⁰ I have decided to change the translation of *Plastik* and *plastische Figur* in presenting the passage here. In the translation, these terms are translated as "sculpture" and "three-dimensional figure." As a result, the terms *plastische* and *dreidimensional* become indistinguishable, which I am arguing here has obscured some of our understanding of the plastic. [von] Hildebrand, "The Problem of Form in the Fine Arts (1893)," 258. The first English version (1907) translated this as "The purpose of sculpture is not to put the spectator in a hap-hazard and troubled state regarding the three dimensional or cubic aspect of things, leaving him to do the best he may in forming his visual ideas. The real aim is to give him instantly a perfectly clear visual idea and thus remove the disturbing problem of cubic form. So long as the chief effect of any plastic figure is its reality as a solid, it is imperfect as a work of art. It is only when the figure, though in reality a solid, gains its effect as a plane picture, that it attains artistic form, that is to say, perfection for our sense of vision." [von] Hildebrand, *The Problem of Form in Painting and Sculpture*, 95. For the original German, see [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 71.

dynamics and symbolic energetics of what Warburg called *Befühlung*—that “palpating (*abtastender*) circumscribing visuo-haptic feeling (*Befühlung*)”.¹²¹

Just as the source for Hildebrand’s differentiation between *Schauen* (looking) and *Abtasten* (scanning)¹²² was likely the distinction theorized by Robert Vischer’s father, philosopher Friedrich Theodor Vischer (1807-1887) between *Sehen* (seeing) and *Schauen* (looking),¹²³ Warburg’s “visuo-haptic feeling” (*Befühlung*) was likely inspired by Robert Vischer’s outline of various ways of “generating an empathetic sensation or empathy.”¹²⁴ In his seminal work on empathy theory, *On the Optical Sense of Form*, Vischer describes *Anfühlung* (attentive feeling), *Nachfühlung* (responsive feeling) and *Zufühlung* (immediate feeling). Interestingly, the young Warburg reuses the prefixes of these terms in his *Foundational Fragments* outline of a theory he enthusiastically calls his “psychological law.”¹²⁵ The outline was written during Warburg’s travels in the American Far West, in the same period he wrote his notes on the concept of the ‘plastic.’ They describe what Warburg calls “*die ‘Verleibung’ des sinnlichen Eindrucks*” (“the corporealization of sensorial impressions”), a “law” with four variations presented out of numerical order:

<i>II Hineinumverleibung</i> (<i>Their</i> (“ <i>Nachahmung</i> ” ¹²⁶	II. Corporeal introjection (animal (“Imitation”
<i>III Anverleibung</i> (<i>Gerathsymbolik</i>)	III. Corporeal annexation (symbolism of tools)
<i>I Einverleibung</i> (<i>Medizinischer Zauber</i>)	I. Incorporation (medical magic)

¹²¹ My translation. A previously noted, since *Befühlung* is derived from *befühlen* meaning “to feel,” “to palpate,” “to finger,” I decided to translate it as “visuo-haptic feeling.” “*Befühlen*,” Collins German-English Dictionary, op. cit.

¹²² [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 229. For the original German, see [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 6.

¹²³ Friedrich Theodor Vischer, *The Symbol* (1887), trans. Holly A. Yanacek, *Art in Translation*. Vol. 7, No. 4 (2015), 434.

¹²⁴ Robert Vischer, “On the Optical Sense of Form: A Contribution to Aesthetics (1873),” *Empathy, Form, and Space: Problems in German Aesthetics* (1873-1893), trans. Harry Francis Mallgrave and Eleftherios Ikononou (Los Angeles, CA: Getty Center for the History of Art and the Humanities, 1994), 106.

¹²⁵ Ernst Gombrich translates “*psychologisches Gesetz*” as “psychological law;” however, it is also possible that Warburg intended it as “physiological law.” Ernst Gombrich, *Aby Warburg: An Intellectual Biography* (Chicago, IL: University of Chicago Press, 1986), 91. For the original German, see Aby Warburg “299 27.I.96. Santa Fé, N<ew> M<exico>. Palacahotel” in Aby Warburg, “*Grundlegende Bruchstücke* [1888/1896-1905/1912],” *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 145.

¹²⁶ The closing parenthesis is missing from the original note.

*IV Zu-verleibung (ornamentale Topferei)*¹²⁷ IV. Corporeal addition (ornamented pottery)¹²⁸

The last three terms use Vischer's same prefixes, replacing *Fühlung* (contact or touch) with *Verleibung* (corporealization). Vischer's description of his various iterations of *Fühlung* (feeling) comes after he has discussed "the activity of perception," the "sensing and imagining the object" in "sensation" (*Empfindung*).¹²⁹ As he explains,

In sensing and imagining the object, the activity of perception does not, however, imply a truly emotional contact with that object. Sensation has yet to advance through its partial or total implication with ideas to the stage of a psychic feeling.¹³⁰

The latter is conditional upon a "vital force" being "perceived within the phenomenon; the human being must pass through the realm of experience."¹³¹

In Vischer's description of the various stages involved in human beings passing through experience, he describes "attentive feeling" (*Anföhlung*, which becomes *Anverleibung* in Warburg's early theoretical manuscripts) as an "immediate and responsive sensation," a "purely sensory function" that is "condemned to a formal externality."¹³² There is "a prompt stimulation and pulsation (immediate sensation)" and then a "successive enveloping, embracing and and carressing of the object (responsive sensation), whereby we project ourselves all the more intensively into the interior of the phenomenon [...] generating [...] empathy."¹³³

What Vischer calls "responsive feeling" (*Nachföhlung*, which in Warburg's notes becomes *Nachverleibung*) "considers only the outline of the form (mountain silhouette) or follows only the path of movement (flight of a bird apart from the bird itself)," and "takes no account of

¹²⁷ Warburg, "299 27.I.96. Santa Fé, N<ew> M<exico>. Palacehotel," *Fragmente zur Ausdruckskunde*, 145.

¹²⁸ I have adapted Ernst Gombrich's English translation by changing the spelling of "corporal" to "corporeal" and by repositioning the numbered processes the way they read in Warburg's original notes. Gombrich reordered them so they would read from I to IV. For Gombrich's original translation, see Gombrich, *Abt Warburg*, 91.

¹²⁹ Vischer, "On the Optical Sense of Form (1873)," 102. German original for "sensation" is given as *Empfindung* on page 91.

¹³⁰ *Ibid.*, 102.

¹³¹ *Ibid.*, 102-103.

¹³² *Ibid.*, 106.

¹³³ *Ibid.*, 106-107.

the existence of the individual organism or its real center.”¹³⁴ It is dominated by “purely sensuous self-motions” reflected in “thought processes that are affected in a more definite way.”¹³⁵ It is these thought processes, not the organism actually making the movement, that are what draw the “whole person and all his vital feeling [...] into compassion”: “the apparent movement of form is [...] unconsciously accompanied by a concrete emotional element of feeling that is inseparably bound up with the concept of human wholeness.”¹³⁶ It is in intensified “responsive feeling” that Vischer explains “we have a strange knack of confusing our own feeling with that of nature.”¹³⁷ A road travelled, when “traced by the responsive feeling seems to hesitate and rush impatiently along its course.”¹³⁸

Lastly there is “immediate feeling” (*Zufühlung*, which in Warburg’s notes becomes *Zuverleibung*). Vischer writes that the best example of this “most general, formal union of subject and object” is “the effect of light.” Light “tangibly manifests itself only as warmth (skin sensation), and thus we speak of cold and warm shades of light, which are then identified with an icy reserve or with the love and warmth of human feeling.” While “the reflex sensations invoke an unspoken comparison with an imagined *feeling* of contrasting color,” the “actual combination of colors” also “suggest a “balance” or “dizziness, depending on whether it confirms or negates the symmetry in the optic nerves.” Its affect is thus both direct and metaphorical.

“I do not measure my heart with the same yardstick as I do a lump of stone,” Vischer writes: “where there is no life—precisely there do I miss it.”¹³⁹ It is with the inanimate that “feeling rises up”: “we miss red-blooded life, and precisely because we miss it, we imagine the dead form as living.”¹⁴⁰ Though Vischer admits that “objectivization takes place” in this process,

¹³⁴ Ibid., 107.

¹³⁵ Ibid., 107.

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Ibid.

¹³⁹ Ibid., 104.

¹⁴⁰ Ibid.

his primary focus is on subjectivization, or rather the manner in which “the [human] imagination seeks to experience itself through the image.”¹⁴¹ This is the “ability to project and incorporate our own physical form into an objective form,”¹⁴² instantiating what in contemporary visual studies is now known as the “scopic relation.”¹⁴³ It is the “experience of seeing oneself seeing oneself” through the object.¹⁴⁴ It appears that what the enthusiastic young Warburg seems to have brought to Vischer’s analysis of empathetic feeling is further elaboration upon the vocative: “the vocative incites more than just the viewer’s self-reflexive knowledge” by animating the object “elevated to the level of the viewer.” Warburg’s *Verleibung* (corporealization) is the way the object becomes a body on “level” with the viewer via processes of what Vischer called “objectivization,” i.e., the fact that when “I project my own life into the lifeless form [...] only ostensibly do I keep my own identity although the object remains distinct.”¹⁴⁵ As Vischer describes it, “I seem merely to adapt and attach myself to [the object] as one hand clasps another, and yet I am mysteriously transplanted and magically transformed into this Other.”¹⁴⁶ Whereas for Vischer, “a doubling of self” occurs with empathy “only toward other human beings,”¹⁴⁷ in the young Warburg’s thinking he seems to contemplate this same ‘doubling of self’ in both organic nature and the inanimate object.

Warburg takes the feeling and sensation of empathy and expands them into fully embodied psycho-physical modalities that double between human beings and objects. He

¹⁴¹ Ibid.

¹⁴² Ibid.

¹⁴³ Courtney Tunis, “scopic, vocative,” *The Key Words of Media Theory. Theories of Media*, ed. W. J. T. Mitchell, Eduardo de Almeida and Rebecca Reynolds. February 2004. Accessed January 4, 2017. The University of Chicago, <http://csmt.uchicago.edu/glossary2004/scopicvocative.htm>. “[T]he concept of the vocative entails a willingness to listen, to be instructed: “The interpellated one is called upon to speak.” Emmanuele Levinas from *Totalité et infini: essai sur l’extériorité* (1961) as quoted in James N. Comas, *Between Politics and Ethics: Toward a Vocative History of English Studies* (Carbondale, IL: Southern Illinois University Press, 2006), 113.

¹⁴⁴ Tunis, “scopic, vocative,” op. cit.

¹⁴⁵ Vischer, “On the Optical Sense of Form (1873),” 106.

¹⁴⁶ Ibid.

¹⁴⁷ Ibid.

accomplishes this by aligning the concern for “extension” (*Umfang*) with “plastic art.”¹⁴⁸ Vischer had not only, like his father, differentiated “seeing” [*Sehen*] from “looking” [*Schauen*] as two very different kinds of viewing, but had also “discern[ed] a double” in the latter “more active behavior.”¹⁴⁹ Indeed, to a certain extent Warburg follows Vischer’s description of this “double” as positioned between the “graphic” and the “plastic.” And yet, from the way he contextualizes the note, it appears that he appropriates it to extend his thinking beyond it. Robert Vischer’s father, Friedrich Theodor Vischer, had written:

either the eye follows the outlines linearly, just as whenever one traces them with the fingertip, and thus behaves graphically, or it grasps the complete form in the illuminated planes, swelling, recesses, and all pathways, and thus remodels the forms more plastically (*plastisch nachmodellierend*). There is a difference between looking more at the contours of a mountain or at its formations within its outlines, this distinction becomes clearer when one compares silhouette and relief. Both things result in an incomparably more sharply segmented and unified image, and thus, a more conscious image than what normal seeing yields. There is no artist without this kind of vision. Think of the intrinsic connection between seeing (*Sehen*) and touching (*Tasten*). Neither graspable form nor relations of distance can be recognized without the aid of the latter. If the actually touching hand assisted the eye, then it continues to have an effect in its activity as inner feeling.¹⁵⁰

The significance of Warburg’s term of choice, “extension” (*Umfang*) can be found in Hildebrand’s emphasis that “the boundary of an object is, strictly speaking, also the boundary of the air surrounding it.”¹⁵¹ With this, Hildebrand encouraged his readers to conceive of space as “three-dimensional extension (*dreidimensionale Ausdehnung*) and as a three-dimensional mobility or movement of our imagination (*den drei Dimensionen sich bewegen-können oder bewegen unserer Vorstellung*).”¹⁵² Once again, the reference to imagination calls attention to a

¹⁴⁸ My translation. Warburg, “306 25.III 96. S Frico Public Libr,” *Fragmente zur Ausdruckskunde*, 150.

¹⁴⁹ Vischer, “On the Optical Sense of Form (1873),” 93-95.

¹⁵⁰ Vischer, “The Symbol (1887),” 434-435.

¹⁵¹ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238.

¹⁵² I have translated “*oder bewegen unserer Vorstellung*” as “movement of our imagination” instead of “kinesthetic activity of our imagination” (as it appears in the Getty translation) to preserve the specific connection to the “sight-activity” Hildebrand called “scanning” and to his notion of “movement-ideas” (*Bewegungsvorstellungen*). [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 28.

visibility that is beyond presence. The German term Hildebrand uses, *Ausdehnung*, can be translated in English as “expanse,” and is considered a synonym of *Umfang* (the term Warburg selected) when used the way Hildebrand employs it.¹⁵³ Hildebrand writes that to conceptualize space in this way—in terms of what he calls the “spatial continuum”—space must be conceived plastically (*plastisch vorstellen*) “as a void filled in part by the individual objects and in part by the air”: “the void exists not as something externally limited (*begrenzter*) but rather as something internally animated (*belebter*).”¹⁵⁴ This sense of extension and the boundary of the object as in-between the dynamics of limitation (*begrenzen*) and animation (*beleben*) is fundamental to Warburg’s psycho-physiological approach to the role of the plastic in the artistic act.

For the present discussion, it is important to conclude where this section began—noting that the polarity Warburg chose to emphasize between the graphic and the plastic was neither inevitable nor obvious. Warburg’s contemporary, the Swiss art historian and formalist Heinrich Wölfflin, also influenced by Vischer, chose a different route. What had been the pictorial-plastic in Vischer, became the pictorial style in Wölfflin’s thinking: in the context of his dualism of style between the “linear” and the “painterly,” Wölfflin did away with the “plastic.”¹⁵⁵ As Pinotti explains, “to describe the operative modalities of the eye,” Wölfflin follows Vischer and “tactile practices are drawn upon;” as was the case with Herder, Hildebrand and Riegl, “of these practices,” Pinotti writes, “touching with the fingertips (a capturing of the image achieved through contours) [...] is differentiated with touching with the palm (a capturing of the image achieved through contours).”¹⁵⁶ “Capturing of the image achieved through contours” is associated with “the linear style in Wölfflinian terms, [the] graphic in vischerian terms” whereas the “capturing of the image achieved through surfaces” is “the pictorial style in Wölfflin [and] the

¹⁵³ “Ausdehnung,” *Collins German-English Dictionary*. Published 2017. Accessed January 15, 2017. <https://www.collinsdictionary.com/dictionary/german-english/ausdehnung>

¹⁵⁴ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238.

¹⁵⁵ Pinotti, *Il Corpo dello Stile*, 186-187

¹⁵⁶ *Ibid.*

pictorial-plastic in Vischer”.¹⁵⁷ Thus, unlike Wölfflin—who focuses on surface and the “pictorial”—what Warburg takes away from “the ambiguity” “between surface and depth” that Vischer had defined as the “plastic-pictorial,” is Hildebrand’s spatial continuum and a unique psycho-physiological “plastic.”¹⁵⁸

It is interesting to note that whereas the 1907 English translation of Hildebrand’s important book of art theory retained some of the distinction between “sculptural,” “three dimensional,” and the “plastic” by often (though not always) translating the adjective *plastisch* as “plastic,”¹⁵⁹ the most recent English translation (1994) chooses to almost completely do away with the English term “plastic” altogether.¹⁶⁰ The term “plasticity” is used on one occasion in reference to the way a figure is “modeled through its relation to its surroundings”: “the figure not only receives its plasticity from this apparent relationship, it also forms a spatial value in conjunction with the background.”¹⁶¹ This use of the term “plasticity” retains the sense of the ‘plastic’ Hildebrand established between object, environment and viewer. Evidenced by current English translations of Herder’s *Plastik* as “Sculpture,” the *Plastik* in German—is still considered interchangeable with the German *Skulptur* and *Bildhauerei*, both of which are usually translated in English as “sculpture” or the “art of sculpture.”¹⁶² In 1998, Pinotti had pointed out the same to his Italian readers, also attending to the fact that “tradition in art criticism” dictates

the *plastisch* or “plastic” is typically counterposed with the *malerisch* or “pictorial” (literally the “painterly”) as an effect of relief (thus of the three-dimensional, intended to give depth and volume) to an effect of surface (thus of the two-dimensional, intended to simply privilege chromatic appearance).¹⁶³

¹⁵⁷ Ibid.

¹⁵⁸ Ibid.

¹⁵⁹ [von] Hildebrand, *The Problem of Form in Painting and Sculpture*, op. cit.

¹⁶⁰ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” op. cit.

¹⁶¹ Ibid., 245.

¹⁶² Ibid.

¹⁶³ Ibid.

It is important to note that Warburg's note on "plastic art" avoids both of these tendencies by using the term in a manner that positions his thinking among Vischer (the philosopher), Hildebrand, (the sculptor), and his own observations of and reflections on Hopi dance. By aligning "plastic art" with "extension" [*Umfang*]¹⁶⁴ rather than relief, he evaded homogenizing *Plastik/Skulptur* and *Plastik/Bildhauerei* (Plastic – Sculpture); by choosing to think of the "plastic" in relation to the "graphic" he also avoided the "painterly" and "plastic" duality, which would have again encouraged confusing the "plastic" with "sculpture". Warburg's interest in dance and what he called "corporealization" (*Verleibung*) appears to have encouraged him to think about the plastic in a manner that focuses more on kinesthetics and proprioception than on three-dimensionality.

To conclude, reading Warburg's note on "plastic art" alongside Hildebrand's theories and within Pinotti's intellectual history of the 'plastic,' reveals Warburg's interest in interweaving concepts of the 'plastic' developed by predecessors and contemporaries. Warburg adapted these concepts to phenomena he could watch playing out between media and material, between inner psychological and outer physical worlds—among the bodies of viewers, artists and objects in a spatial continuum.

'Plastic Reading' and Warburg's *Mnemosyne Bilderreihen*

Towards the end of *Plasticity at the Dusk of Writing*, Malabou proposes a "method" that she calls "plastic reading."¹⁶⁵ She comes to describe the method after asserting that she "do[es] not believe in the absence of form or in a possible beyond of form," defining form as "the metamorphizable but immovable barrier of thought."¹⁶⁶ An example she gives for this definition of form as "immovable barrier"—a "trace [that] will never pierce the figure"—is the work of

¹⁶⁴ My translation. Warburg, "306 25.III 96. S Frico Public Libr," *Fragmente zur Ausdruckskunde*, 150.

¹⁶⁵ Malabou, *Plasticity at the Dusk of Writing*, 51.

¹⁶⁶ *Ibid.*, 49.

Italian sculptor Giuseppe Penone (fig. 21).¹⁶⁷ Quoting the artist defining his objects as “a trace formed by the images I have on hand,” she describes his work as being “devoted to forming the trace, as if the trace were the raw material of an *ultrametaphysical development of the concept of form* and hence an *ultrametaphysical development of the understanding of sculpture*.”¹⁶⁸ According to Malabou, with the series *Alberi* (Trees) (fig. 21, bottom right) and *Ripetere il bosco* (Repeating the Forest, 1980-2014) (fig. 21, top left), Penone “established a principle of the self-formation of the work” in which “the sculptor does not create,” but rather “causes [...] form to appear [...]”¹⁶⁹ In these two specific projects, he accomplishes this “by removing the tree’s growth rings until he finds its heart” and “the tree, as a prefiguration of itself, thereby comes to light.” When these works were on view in a Penone retrospective at the Centre Georges Pompidou, an article published on Radio France Internationale (RFI)—France’s public radio service—described these same works of “arts plastiques” (plastic arts) as “une invitation au ‘regard tactile’” (an invitation to ‘tactile looking’).¹⁷⁰

Malabou’s “plastic reading” is similarly a way of looking at “the form of philosophy after its destruction and deconstruction”: it “is not a starting point [...] but rather an outcome.” It is a “result,” a “residue.”¹⁷¹ Plastic reading follows an “ethical necessity to privilege the formless, the unrepresentable,”¹⁷² and follows a “form” not of “images” but of “imaginations.”¹⁷³ Critical to plastic reading is the “delocaliz[ation] of the concept of plasticity outside the field of aesthetics [...] breaking with a particular understanding of the aesthetic or artistic field itself.”¹⁷⁴ This

¹⁶⁷ Ibid., 50.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

¹⁷⁰ Dominique Raizon, “Giuseppe Penone, une invitation au ‘regard tactile’,” *Arts Plastiques. RFI*. May 31, 2004. Accessed January 20, 2017. http://www1.rfi.fr/actufr/articles/053/article_28405.asp

¹⁷¹ Malabou, *Plasticity at the Dusk of Writing*, 51.

¹⁷² Ibid., 54.

¹⁷³ Ibid., 55.

¹⁷⁴ Ibid., 54

“particular understanding” that Malabou wants plasticity to break with is a “relation to form” that understands form as “presentation, representation, or figuration.”¹⁷⁵

Though he never directly references Malabou’s work, Warburg scholar Georges Didi-Huberman has aimed to show that Warburg’s s image atlas project—now commonly referred to as the *Mnemosyne Atlas* (1924 – 1929)—performs a similar ‘plastic reading.’ Warburg first wrote about the *Pathos-formeln* (pathos-formulas) that he traces through image reproductions in the *Atlas* in a 1905 article on Renaissance drawings and prints of the dismemberment of Orpheus (fig. 22).¹⁷⁶ The pathos-formula is a figural type identifiable in both configurations of limbs articulated in gesture, and configurations of bodies performing an action. To be a type, the pathos-formula can never be in just a single image, i.e., the particular dismemberment of Orpheus as drawn by Albrecht Durer (fig. 22). It can be thought of in terms of what Malabou calls the “form [...] of ‘imagination’”¹⁷⁷: it results from observing the repetition of a configuration across a series or string of images (*Bilderreihen*), or else from understanding a single image as part of such a series or string even if all the material evidence has not survived. Warburg’s *Atlas* thus uses the figure and the image to explore what can only be found in relations between figures and images, or rather, in what, using Malabou’s words, could be called “imagination” that are otherwise “formless” and “unpresentable.”¹⁷⁸ Warburg’s plastic reading of the pathos-formula results from a residue, an outcome of configurations that become types over time and across media—the pathos-formula is not present in the single image (*Bild*), but only becomes visible as the affect of a series or string (*Bilderreihen*).

After studying the young Warburg’s thinking about the ‘plastic’ it becomes evident that, though he may not have been aware of it, this fundamental, though never explicitly central concept in his scholarship, certainly informed his approach to working with image reproductions

¹⁷⁵ Ibid.

¹⁷⁶ Aby Warburg, “Dürer and Italian Antiquity,” *The Renewal of Pagan Antiquity*. 553.

¹⁷⁷ Malabou, *Plasticity at the Dusk of Writing*, 55.

¹⁷⁸ Ibid., 54.

in interesting ways. What is now known as the *Mnemosyne Atlas* is the last version of three sets of photographs and glass slides taken of panels of image configurations (*Tafeln* or “plates”) that Warburg worked on in the late 1920s.¹⁷⁹ Warburg, who was the first-born son of Hanseatic Germany’s Warburg family banking dynasty, had ceded his position as primogenitur to his brother Max Warburg in exchange for funds he used to create a Hamburg-based library and research institute he called the *Kulturwissenschaftliche Bibliothek Warburg* (KBW, The Warburg Cultural Science Library). The institute’s structure included an elliptical reading room that Warburg designed and used to develop *Mnemosyne Atlas* configurations in Hamburg when these configurations did not demand he travel to procure image reproductions.

A conceptual portrait of Warburg’s *Mnemosyne Atlas* would share much in common with the “transformational mask” of “split representation” that Malabou describes in the conceptual portrait she writes for herself in *Plasticity at the Dusk of Writing*. Warburg worked on the *Atlas* configurations between Germany and Italy in a five-year period that began with his release from a Swiss sanatorium (1924), and ended with his fatal cardiac arrest in Hamburg (1929).¹⁸⁰ After a disturbing incident in which he is alleged to have attempted suicide and threatened his family with a revolver,¹⁸¹ he was assessed for treatment for schizophrenia the year after the German Revolutions began (1918).¹⁸² After being re-diagnosed with mixed-state manic depression, he was released from existential psychologist Ludwig Binswanger’s Bellevue sanatorium on the Swiss-German border in 1923.¹⁸³ He began work on the panels that were eventually photographed for the *Mnemosyne Atlas*, the year after the Hamburg Uprisings succeeded locally, but failed in their

¹⁷⁹ Peter van Huisstede, “Towards an Electronic Edition of the Mnemosyne Atlas,” *Darstellung und Deutung: Abbilder der Kunstfeschichte* (Weimar, Deutschland: VDG Weimar, 2000), 146-147.

¹⁸⁰ Davide Stimilli, “La Tintura di Warburg,” in Ludwig Binswanger and Aby Warburg, *La Guarigione Infinita: Storia Clinica di Aby Warburg*, trans. Chantal Marzia and Davide Stimilli, ed. Davide Stimilli (Vicenza, Italia: Neri Pozza, 2005), 15.

¹⁸¹ Stimilli, “La Tintura di Warburg,” in Ludwig Binswanger and Aby Warburg, *La Guarigione Infinita*, 13.

¹⁸² Stimilli, “La Tintura di Warburg,” in Ludwig Binswanger and Aby Warburg, *La Guarigione Infinita*, 10. Pierre Broué, *The German Revolution, 1917 – 1923*, trans. John Archer (Leiden, Netherlands: Brill, 2005). 812.

¹⁸³ Stimilli, “La Tintura di Warburg,” in Ludwig Binswanger and Aby Warburg, *La Guarigione Infinita*, 15.

ultimate aim to gain German national support for the communist struggle (1923).¹⁸⁴ Warburg died in October, 1929, the same month as the Wall Street crash. His brother Paul, who was among the founders of the U.S. Federal Reserve, had argued for regulatory policies to guard against the crash, but his warnings had not been heeded.¹⁸⁵ The extreme empathy between Warburg's body and the life of capitalism is what has led to him being called the "greatest capitalist in the history of art history."¹⁸⁶

The diaries of Warburg's research institute indicate his plan for the *Atlas* project was to finalize a series of plates from what were otherwise mobile panels and changeable image configurations, and publish them in a volume titled *Mnemosyne*.¹⁸⁷ Warburg, and his collaborators Gertrud Bing and Fritz Saxl, had previously referred to the project in their correspondence as the "Atlas."¹⁸⁸ Warburg was confident about the *Atlas* taking the name *Mnemosyne* from the ancient Greek titaness of Memory, mother of the muses and daughter of the primordial force, Gaia. He was less certain about how the full subtitle for the publication should read. He initially proposed *Mnemosyne. Kulturwissenschaftliche Betrachtung über Stilwandel in der Menschendarstellung der europäischen Renaissance (Mnemosyne. Cultural-Scientific Reflections on Stylistic Change in the Representation of Man in the European Renaissance)*.¹⁸⁹ He then changed this title to *Mnemosyne. Bilderreihen zu einer kulturwissenschaftlichen Betrachtung der europäischen Renaissance (Mnemosyne. Image Series for a Cultural-Scientific*

¹⁸⁴ Broué, *The German Revolution, 1917 – 1923*, 812.

¹⁸⁵ Allan H. Meltzer, *A History of the Federal Reserve*, Vol. 1: 1913 – 1951 (Chicago, IL: University of Chicago Press, 2003), 254. Ron Chernow, *The Warburgs* (New York, NY: Vintage, 1993), 30

¹⁸⁶ Spyros Papapetros, *On the Animation of the Inorganic: Art, Architecture and the Extension of Life* (Chicago, IL: University of Chicago Press, 2012), 60

¹⁸⁷ Van Huisstede, "Towards an electronic edition of the Mnemosyne Atlas," 154.

¹⁸⁸ Katia Mazzucco, "Mnemosyne, Il Nome della Memoria : Bilderdemonstration, Bilderreihen, Bilderatlas: Una Cronologia Documentaria del Progetto Warburghiano." *Quaderni Warburg Italia*. Vols. 4 – 5 – 6 (Siena, Italia: Diabasis, 2006 – 2008), 139-203. Huisstede, "Towards an Electronic Edition of the Mnemosyne Atlas," 146 – 158.

¹⁸⁹ My translation. Huisstede, "Towards an Electronic Edition of the Mnemosyne Atlas," 154

Study of the European Renaissance).¹⁹⁰ In the diaries of Warburg's research institute, Bing responded to his outlined search for titles, asking him if the latter title was perhaps too restricting, unduly limiting the scope of the project on the afterlife of ancient pathos-formulas to the period of the Renaissance.¹⁹¹ Warburg responded, settling on a new title that removed "European" from the terms of the main subtitle and broadened the temporal and stylistic concept of the "Renaissance" to *im Zeitalter der Renaissance* (in the age of the Renaissance), added at the end of the title in parentheses.¹⁹² The new title read: "*Mnemosyne. Bilderreihen zu einer kulturwissenschaftlichen Betrachtung antikisierender Ausdrucksprägung (im Zeitalter der Renaissance) (Mnemosyne. Image Series for a Cultural-Scientific Study of the Imprinting of Expression from Stylistic Features of Antiquity [in the Age of the Renaissance])*".¹⁹³

Only a year before his death—while he was in the midst of working on the *Atlas*—Warburg wrote a letter in which he referred to himself as "a spin-off of Hegel"¹⁹⁴: it is possible that Warburg had been struck by the passage in the *Philosophical Propædeutics* where Hegel describes "*Mnemosyne*" as "creative memory": a particular form of memory that "produces the association between intuition and representation."¹⁹⁵ This "[c]reative memory, or mnemosyne," productive of an interstice of in-betweenness Hegel calls "association," is, for him, "the source of language."¹⁹⁶ Hegel defines "language" as a "disappearance": "the disappearance of the sensuous world in its immediate presence, the suppression of this world, henceforth transformed into a

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

¹⁹² Ibid. Huisstede does not include the parenthetical in the final subtitle he cites for *Mnemosyne*. The parenthetical can be found in the published diary of Warburg's research institute. Aby Warburg, et. al. *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*. Gesammelte Schriften VII. Ed. Karen Michels and Charlotte Schoell-Glass (Berlin, Deutschland: Akademie Verlag, 2001), 223.

¹⁹³ Huisstede, "Towards an electronic edition of the *Mnemosyne Atlas*," 154. Mazzucco, "Mnemosyne, Il Nome della Memoria," 139 – 203.

¹⁹⁴ Letter from Aby Warburg to Mary Warburg, November 2 1928, as cited by Davide Stimilli in note 4 to Aby Warburg, "Secondo Frammento Autobiografico," in Ludwig Binswanger and Aby Warburg, *La Guarigione Infinita: Storia Clinica di Aby Warburg*, trans. Chantal Marzia and Davide Stimilli, ed. Davide Stimilli (Vicenza, Italia: Neri Pozza, 2005), 158.

¹⁹⁵ G.W. F. Hegel from *the Philosophische Propädeutik* as quoted in Jacques Derrida, *Margins of Philosophy* (1972), trans. Alan Bass (Chicago, IL: University of Chicago, 1982), 87.

¹⁹⁶ Ibid.

presence, which is a call apt to awaken an echo in every essence capable of representation.”¹⁹⁷ This “echo” of presence that is a less-than-presence generated by disappearance and suppression, resembles what Malabou refers to in her writings on Hegel, and her philosophy of “plastic reading,” as a kind of visibility without presence.¹⁹⁸ It is Hegel’s very phrase—the “source of language” [*Ursprung der Sprache*]¹⁹⁹—that just four notes after Warburg’s San Francisco note on “plastic art,”¹⁹⁹ is used as the header of a *Foundational Fragments* note on Hegel’s “symbolic.”²⁰⁰ The *Mnemosyne Bilderreihen* is the Atlas-apparatus Warburg used to track the manifestations of corporeal presence produced by the suppressions of presence and traumatic disappearances that he called pathos-formulas. These configurations of body parts in gesture, or configurations of bodies in action, are not just motifs but dynamic deposits of energy—“imprinting of expression” (*Ausdrucksprägung*).²⁰¹ They only become pathos-formulas through their migration across space and time, across media between drawings, prints, reliefs, sculpture and paegentry, through vanishing and reemerging. These transmigrations are what Warburg traces in his *Mnemosyne Bilderreihen*.

Tafel 2 (Plate 2) is the fifth plate in Warburg’s *Mnemosyne Bilderreih*e—what is now commonly referred to as the *Mnemosyne Atlas*—and maps the mythological figures of *Mnemosyne* and *Atlas* as pathos-formulas (fig. 23). It provides an example of how the pathos-formulas work, and how Warburg used his *Bilderreihen* panels to contemplate them.²⁰² Its

¹⁹⁷ Ibid.

¹⁹⁸ Malabou, *Plasticity at the Dusk of Writing*, 52. Catherine Malabou, *The Future of Hegel: Plasticity, Temporality, and Dialectic*, op. cit.

¹⁹⁹ Warburg, *Frammenti sull’Espressione*, 109-110.

²⁰⁰ Aby Warburg, “310 Hegel – Urspr<ung> d. Sprache” in Aby Warburg, “*Grundlegende Bruchstücke* [1888/1896-1905/1912],” *Fragmente zur Ausdruckskunde*, ed. Ulrich Pfisterer und Hans Christian Hones (Berlin, Deutschland: Walter De Gruyter GmbH, 2015), 152.

²⁰¹ Huisstede, “Towards an Electronic Edition of the Mnemosyne Atlas,” 154.

²⁰² Aby Warburg, *Der Bilderatlas MNEMOSYNE*. Gesammelte Schriften, II.1. Ed. Martin Warnke and Claudia Brink (Berlin, Deutschland: Akademie Verlag 2008), 16 – 17. For a concise interpretation of *Tafel 2*, see Katia Mazzucco, “I Pannelli di Mnemosyne” in Katia Mazzucco and Kurt W. Forster, *Introduzione ad Aby Warburg e all’Atlante della Memoria*, ed. Monica Centanni, (Milano, Italia: Bruno Mondadori, 2002), 90-91.

configuration of images can be considered a synecdoche of the project now referred to as the *Mnemosyne Atlas*: as a synecdoche, it is a literal part of the *Mnemosyne Atlas* whole and both constitutes a plate among the *Mnemosyne Atlas* photographs of image configurations, and contains photographs of actual representational ‘parts’ of the mythological figures Mnemosyne and Atlas as they manifested in sculpture from antiquity to the Renaissance.

In a diagonal that runs from the top right corner of the photographed plate to its bottom center, *Tafel 2* features a prominent pairing of Atlas and Mnemosyne (fig. 23, center). In total, the plate contains six images of Atlas and Mnemosyne, three images of the same Atlas and three images of the same Mnemosyne (fig. 23, left). This repetition amplifies the importance of Atlas and Mnemosyne in relation to other figures featured in the plate. These other prominent figures include Perseus and Andromeda, and Ancient Greek personifications of the sun and the stars which mirror the representations of Apollo and the muses.

The images of Atlas are two photographs and a schematic drawing of parts of the *Farnese Atlas* conserved at the National Archeological Museum in Naples, Italy (fig. 24).²⁰³ The *Farnese Atlas* is a seven-foot tall 2nd-century CE marble sculpture that was excavated in Renaissance Rome, and that scholars have ascertained to be an Ancient Roman copy of a Greek original.²⁰⁴ The sculpture is alleged to have been located originally in the Library of Trajan’s Forum.²⁰⁵ In the sculpture, the titan Atlas strains in a deep kneeling lunge under a celestial globe that bears down on his shoulders. All of his muscles, from his calves to his abdominal obliques, are contracted. His neck is contorted under the globe and his head appears turned to draw attention to his unusually steep forehead. Further accentuating the prominence of the figure’s

²⁰³ Aby Warburg, *Der Bilderatlas MNEMOSYNE*, 16 – 17.

²⁰⁴ *Farnese Atlas* (2nd-century CE), marble, approx. 7 ft (213.36 cm), Museo Archeologico Nazionale, Naples. “Atlante Farnese,” *Museo Archeologico Nazionale di Napoli. Circuito Informativo Regionale della Campania per i Beni Culturali e Paesaggistici. Soprintendenza per i Beni Archeologici di Napoli*. N.d. Accessed January 5, 2017. <http://cir.campania.beniculturali.it/museoarcheologico nazionale/itinerari-tematici/galleria-di-immagini/RA104>

²⁰⁵ “Atlante Farnese,” *Museo Archeologico Nazionale di Napoli*, op. cit.

forehead, a long cloth hangs from his left arm in folds extending to the ground from under his head. This interplay between the celestial globe and the titan's forehead in the *Farnese Atlas* emphasizes the relationship between the mysteries of the heavens and those of human body to which the complex cosmologies devised by human cultures are a response.

Variations on the lunging or crouching figure with extended arms repeat across the panel (fig. 25). Two fifth century Greek clay vessels on the left of *Tafel 2* are painted with scenes of the god Apollo seated actively on his four horse chariot, driving the sun across the sky (fig. 25). Whereas Apollo is dynamic, moving the sun across the sky, Atlas is static, holding up the celestial globe on his shoulders (fig. 24). Apollo's association with the sun earned him the title *Phoibos* (Greek for "bright or radiant") in the time of the poet Homer.²⁰⁶ In Greek mythology, the luminous Apollo Phoibos was also attributed the role of "leader of the muses and a patron of poetry and music, particularly that of the lyre."²⁰⁷ On the bottom left of *Tafel 2* is a reproduction of a design from a 6th-century black-figured Lekythos (a vessel used for oil) that calls attention to the source of Apollo's esteemed radiance (fig. 25): the design is a black-painted image of the personified sun, flanked by two winged horses, descending into a fish-filled sea. The black paint on light ground emphasizes the bright light emitted by the body of the figure.

On the right of *Tafel 2*—in the schematic drawing of a detail from the celestial globe held by Atlas—the seated Cassiopeia extends her arms under Andromeda and beside the soaring victorious Perseus, further broadening the network of associations across the Mediterranean from West to East (fig. 24). Apollo, the sun (Helios), and Perseus were "often represented together"²⁰⁸ in the Mithraic cult of the Mediterranean city of Tarsus (now located in South-Central Turkey). Tarsus is the alleged birthplace of the apostle Paul (Saul of Tarsus) and a renowned "center for

²⁰⁶ Robin Hard, *The Routledge Handbook of Greek Mythology: Based on H.J. Rose's Handbook of Greek Mythology* (London, UK: Routledge, 2004), 142.

²⁰⁷ Hard, *The Routledge Handbook of Greek Mythology*, 142.

²⁰⁸ David Ulansey, *The Origins of the Mithraic Mysteries: Cosmology and Salvation in the Ancient World* (Oxford, UK: Oxford University Press, 1991), 44.

Greco-Roman education” that some ancient sources claim “surpassed Athens [and] Alexandria.”²⁰⁹ According to scholars, in Mithraic representations from Tarsus, “the statue of Apollo often appears erected before Perseus sacrificing, or as an attribute of Perseus.”²¹⁰ Sun worship played an important role in Mithraism, which exerted an important influence on Christian cosmology; the “key factor” in Mithraism is thus thought to be Apollo’s “role as a solar deity rather than [his role as] guardian of the muses.”²¹¹ In only seventeen images, Warburg traces “the representation of the cosmos”²¹² from “mythological figures in the sky” (Perseus) and mythological figures supporting the sky (Atlas), to mythological figures carrying the sun across the sky (Apollo). He maps out transmigrations of pathos-formulas from the central importance of the “Muses as companions of Apollo”—interlocutors using the arts to mediate between mortals and immortals, the earthly and the celestial—to Apollo as an attribute of the heroic Perseus whose adventures, as the feats of the son of the mortal Danae and the god Zeus, bridge mortal and immortal realms.

At the center of these movements among Atlas and Apollo, Helios and Perseus are Mnemosyne and the muses. The images of Mnemosyne in *Tafel 2* are photographs of relief sculptures from an Ancient Roman marble sarcophagus, also dated to the late 2nd-century CE (fig. 26).²¹³ The sarcophagus—the Albani Collection’s *Sarcophagus of the Muses*, conserved at the Louvre in Paris—was a favorite reference work among Renaissance copyists.²¹⁴ The respective ends of the sarcophagus are each carved with a female figure that is typically identified as either a generic muse, or more specifically as Mnemosyne, mother of the muses. On each end, this female

²⁰⁹ Andrew Pitts, “Paul in Tarsus: Historical Factors in Assessing Paul’s Early Education,” *Paul and Ancient Rhetoric: Theory and Practice in the Hellenistic Context*, ed. Stanley E. Porter and Bryan R. Dyer (Cambridge, UK: Cambridge University Press, 2016), 44.

²¹⁰ Ulansey, *The Origins of the Mithraic Mysteries*, 44.

²¹¹ Ibid.

²¹² Aby Warburg, *Der Bilderatlas MNEMOSYNE*, 16 – 17.

²¹³ Aby Warburg, *Der Bilderatlas MNEMOSYNE*, 16 – 17. *Sarcophagus of the Muses* (2nd-century CE), marble, 3ft x 6 ft ¾ in x 2 ft 1/4in (92 x 206 x 68 cm), Albani Collection, Louvre, Paris.

²¹⁴ Ibid.

figure stands in front of a man who, in one relief, is thought to be the figure of a philosopher (Socrates), and in the other, a poet (Homer) (fig. 26 bottom).²¹⁵ Historians have also made the claim that both male figures were designed for the sarcophagus—a stone coffin for death ceremonies—with the intention of evoking associations with the divine union between Mnemosyne and Zeus, which in mythology, is said to have birthed the muses.²¹⁶

At one end of the sarcophagus, a female figure in high relief stands veiled, leaning on a tall pedestal and twisting her torso to look back at a man seated in front of an arch (fig. 26 bottom). The man motions towards her with open arms. At the other end of the sarcophagus, another figure of a woman in high relief—this time, unveiled—stands with the same relaxed bend in her left knee as the veiled female figure: the bent leg in this instance is exposed (fig. 26 center). The woman's arms are no longer restrained in the folds of her garment, but are extended to offer an object to the reclining man before her. The man leans towards her from a chaise lounge gesturing with two fingers. In this instance, it is the shift in body configurations between the repeated type of the Mnemosyne-Zeus pair, that is the pathos-formula.

When combined with the central procession of muses on the sarcophagus' central long side, the two male-female couples on either end of the sarcophagus generate a compression of symbolic force (fig. 26): the muse as *Mnemosyne*, mother of the muses, and the intellectual as *Zeus*, father of the gods, are the source of culture. The manifestations of this 'culture' are on display in the muse procession on the sarcophagus' central long side. The pageantry of the muses staged on the long end of the sarcophagus also appears as if intended to celebrate the Ancient Roman juridical act of matrimony evoked in the formula of the Mnemosyne-Zeus couple. The potential of partnership in marriage produced new life not only in children, but in legacy. Legacy

²¹⁵ Aby Warburg, *Der Bilderatlas MNEMOSYNE*, 16 – 17. Kenneth Lapatin, "Picturing Socrates" in *A Companion to Socrates*. Ed. Sara Ahbel-Rappe and Rachana Kamtekar (Oxford, UK: Blackwell Publishing, 2000), 120.

²¹⁶ Paul Zanker, *Living with Myths: The Imagery of Roman Sarcophagi* (Oxford, UK: Oxford University Press, 2012), 237.

is that mysterious materialization of collective memory that manifests its own autonomous spirit capable of surviving the death of the physical individual. The formula of the Mnemosyne-Zeus couple becomes visible only when at least two iterations of it are juxtaposed so that differences and similarities can be observed; it is also activated by the third image between the two iterations, the image of the muse procession. Without the image configuration generating what, using philosopher Catherine Malabou's word, can be called "imagination," pathos-formulas are not present in the image in and of itself. Pathos-formulas only become visible in interrelations between surfaces and objects. The rectangular structure of the sarcophagus was ideal for these kinds of configurations, which only became visible with movement around the ceremonial container for the body of the deceased.

The exchange of gestures and poses among the two couples and the group of muses in procession is one example within a single object (the sarcophagus) of what Warburg called pathos-formulas. The coiling migration of poses and gestures that Warburg traces across all the various individual images in *Tafel 2*—through photographs and schematic drawings of sculpture in relief, sculpture in the round, painted vases, and manuscripts—is an example of the expansion and contraction of the symbolic energetics of pathos-formulas over time and space, sculpture and vase painting, from the cosmological to the juridical and back. The pathos-formulas of Mnemosyne and Atlas in Warburg's *Tafel 2* are appearances, disappearances, compression and expansion between fragments of material culture. They cross personifications of the sun and stars on Ancient Greek vases with the compound figures of muse and intellectual, wife and husband, Mnemosyne and Zeus, or Mnemosyne-with-Socrates and Mnemosyne-with-Homer, on an ancient Roman sarcophagus. They then introduce nother links in the chain: the astrological pair Perseus and Andromeda as they were painted in a medieval manuscript and carved in relief on the first known celestial globe held in the hands of the *Farnese Atlas*; the associated pairs, Apollo and

Perseus, Helios and Apollo; and lastly, the active Apollo carrying the sun cross the sky and the static Atlas, holding up the celestial globe.

Warburg's inscription of *MNHMOΣYNH* (*Mnemosyne*) over the entryway to the library of his research institute (fig. 27, left) is a tribute to the "creative memory" involved in studying the interstices among pathos-formula fragments like the *Sarcophagus of the Muses*, the *Farnese Atlas*, the Ancient Greek vase paintings and medieval manuscripts in *Tafel 2* of the *Mnemosyne Atlas*. Both the library's elliptical reading room and its photography laboratory were of critical importance to the development of the *Mnemosyne Bilderreihen*.²¹⁷ Displays of different versions of *Mnemosyne Bilderreihen* image configurations pinned to display boards were photographed on several occasions under the reading room's elliptical dome (fig. 27, right). Like the association between the celestial globe held by Atlas and the titan's high forehead, these photographs connect the expansive cosmos beyond the reading-room dome, to the remnants of creative memory as they came to be internalized by Warburg's body. The tension of the ellipse, stretching from pole to pole in the ceiling's dome, is the architectural reflection of the ellipses of disappearance found in Warburg's associations between the singular fragments he configured his image atlas. It is in these ellipses of disappearance—the spaces between single image reproductions—that the pathos-formulas emerge from a 'language' of "image strings" (*Bilderreihen*) in "creative memory" (*Mnemosyne*). Creating constellations from these ellipses of disappearance is the Atlas-like burden of the historian.

Though often neglected in Warburg scholarship, the term *Bilderreihen* is important because it differentiates Warburg's *Mnemosyne* project from the late nineteenth and early

²¹⁷ Notes about the photography laboratory are in Aby Warburg, et. al. *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, op. cit. For more on the elliptical reading room, see Giacomo Calandra di Roccolino, "Aby Warburg architetto: Nota sui progetti per la Kulturwissenschaftliche Bibliothek Warburg ad Amburgo." *Engramma*. No. 116 (May 2014).

twentieth century picture-atlas revival that revived the 19th-century picture-histories book-form.²¹⁸ These picture-histories, which became popular when etchings were the principal media circulating in the print economy, could accommodate complex montages of image fragments. Etched montages were composed to guide vision in contemplation and to stimulate memory recall. In an example from one of the most frequently cited early picture histories—archeologist and historian Seroux D’Agincourt’s *L’Histoire de l’Art par les monuments* (1823) (fig. 28, right)²¹⁹—picture plates feature enlarged parts of a painting next to the painting as a whole, and include depictions of the painting’s supporting architectural frame as well as details of elements of this frame, all in a single composition.

The picture-histories format was not only used in travel guides and educational reference books for comparative studies and morphological explorations. It was also employed as a tool in scholarly observations on religion, ethnology, botany, the natural sciences, cultural history and art history (fig. 28, left).²²⁰ What most picture-histories lost when photography re-popularized their format in the guise of the picture-atlas (in German, the *Bilderatlas*) was experimentation with montage. The framing of single photographs made it more difficult to experiment with continuity between fragments and with dramatic changes in scale. With the help of his institute’s resources, Warburg’s *Bilderreihen* approach used sequences of variously scaled images of single objects—like *Tafel 2’s Farnese Atlas* and the *Sarcophagus of the Muses*—to take advantage of the experiments in montage that picture historians like d’Agincourt had previously employed (fig. 23). The *Bilderreihen* approach distinguished itself from the picture-atlas (*Bilderatlas*) by pushing the limits of the twentieth century’s full range of reproductive technologies.

²¹⁸ Frank Zöllner, “‘Eilig Reisende’ im Gebiete der Bildvergleichung”: Aby Warburgs Bilderatlas ‘Mnemosyne’ und die Tradition der Atlanten.” *Marburger Jahrbuch für Kunstwissenschaft*. 37 (2010), 287.

²¹⁹ For more on Seroux d’Agincourt, see Ulrich Keller, “Visual Difference - Picture Atlases from Winckelmann to Warburg and the Rise of Art History.” *Visual Resources*. Vol. 17 (2001), 180.

²²⁰ Zöllner, “‘Eilig Reisende’ im Gebiete der Bildvergleichung,” 302.

It is important to remember that Warburg's *Mnemosyne Bilderreihen* was not just conceived as the layout for a picture book. It was also a display architecture to be walked through, a performative lecture screen for reference during talks, a support structure for preparatory mock-ups to test ideas, and layout panels for scrutinizing intuitions about image associations (Fig. 27). It is this quality of Warburg's *Bilderreihen*—a pictorial, sculptural and architectural form that for Warburg—its curator—combined looking, speaking, touching, walking, reaching, shuffling, shifting, arranging, reordering, building, dismantling and photographic reproduction. This aspect of Warburg's *Atlas* project has led architectural historian and Warburg scholar Spyros Papapetros to call Warburg's *Kulturwissenschaft* (cultural science) a “pliable science.”²²¹ Art historian and Warburg scholar Georges Didi-Huberman has also written about this “plastic material” approach as critical to what he calls Warburg's “plastic knowledge.”²²²

In his 2002 book on Warburg, *L'Image Survivante* (recently published in English translation as *The Surviving Image*, 2016), Didi-Huberman writes of the “incredible quantity of manuscripts, note cards, [and] documents (Warburg threw nothing away)” that Warburg gathered in his library.²²³ Didi-Huberman writes of Warburg's projects as “constitut[ing] [...] a *plastic material*”: a material that made Warburg's knowledge a “*plastic knowledge* par excellence.”²²⁴ This “plastic knowledge,” as Didi-Huberman defines it, “acts through memories and interlaced metamorphoses” and is an “epistemological choice [...] of transforming, of refashioning the historical intelligibility of images under the pressure – the stamp [or “imprint” (*Prägung*) a term used by Warburg]—of each and every fruitful singularity.”²²⁵ Warburg's oft-cited motto for his process of identifying this “fruitful singularity”—this singular microcosm of a greater

²²¹ Didi-Huberman, *The Surviving Image*, 95; Papapetros, *On the Animation of the Inorganic*, 47-48.

²²² Didi-Huberman, *The Surviving Image*, 95.

²²³ Ibid.

²²⁴ Ibid.

²²⁵ Ibid.

macrocosm—was “the good God nests (or hides) in the detail” [*der liebe Gott steckt im Detail*].²²⁶ In picture-strings (*Bilderreihen*) of ellipses, fragments ‘string’ together disappearances to make formulas visible in what Warburg called his *Ikonologie des Zwischenraumes*, or iconology of interstices: “iconology of interstices. Art historical material on psychological development leads to the oscillation between pictorial and symbolic causation.”²²⁷

In what could be called (quoting English translations of Hegel) the “productive and plastic energy”²²⁸ of the *Mnemosyne Bilderreihen*, Didi-Huberman finds evidence of how, for Warburg, “line was a plastic vector representing the act of embracing or a deathly trap: for example, a serpent”; “surface was a plastic vector of amovement or of *pathos*: as in the case of drapery”; “*volume* was the plastic vector of the uneasy relationship between “external cause” and “internal cause”: entrails, for example”; “finally, he [...], *time* itself is [...] the plastic vector of the survival and metamorphosis of images.”²²⁹ For Didi-Huberman, the *Mnemosyne* project is the tangible materialization of Warburg’s philosophy of history, in which “the plasticity of becoming cannot exist without fractures occurring in history.”²³⁰ Warburg’s philosophy of history as *Nachleben*, or afterlife, is described by Didi-Huberman as an “organism” that “sutures” itself together, binding together the refracted fragments-of-life it can capture from “plastic vectors” shot off by time’s perpetual fracturing.²³¹

In his book on Warburg, Didi-Huberman’s writing swings between two contrasting versions of what he calls “plasticity.” The first is what Didi-Huberman considers an anti-Hegelian

²²⁶ My translation. Christopher Johnson translates the phrase as “God hides in the details.” Christopher D. Johnson, *Memory, Metaphor, and Aby Warburg’s Atlas of Images* (Ithaca, NY: Cornell University Press, 2012), 45.

²²⁷ In the diary of his research institute, Warburg wrote “*Ikonologie des Zwischenraums. Kunsthistorisches Material zu einer Entwicklungspsychologie des Pendelganges zwischen bildhafter und zeichenmäßiger Ursachensetzung*.” Johnson, *Memory, Metaphor, and Aby Warburg’s Atlas of Images*, 45. Warburg, et. al. *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg. Gesammelte Schriften VII*, 434 – 435.

²²⁸ Hegel, *On Art, Religion, Philosophy*, 27.

²²⁹ Didi-Huberman, *The Surviving Image*, 97-98

²³⁰ *Ibid.*, 98.

²³¹ *Ibid.* 97-98.

“plasticity” of perpetual transformations, a plasticity against teleology capable of absorbing all accidents, capable of consequently transforming itself without ever fixing itself in acquired results—without ever fixing itself in anything like Hegel’s synthesis of absolute knowledge.²³² The second version of “plasticity” is what Didi-Huberman calls the “semi-plastic,” a “plastic” that is between what he calls the “suture” and the “fracture”.²³³ In the first kind of plasticity, Warburg as reader of philosopher Friedrich Nietzsche incorporates the latter’s “plastic power” [*die plastische Kraft*] into his projects.²³⁴ Nietzsche’s “plastic power” as described by Didi-Huberman is a symbolic energetics that “must welcome a wound and make its scar participate in the very development of the organism”²³⁵—this “power” is what Nietzsche wrote about as “the capacity to develop out of oneself in one’s own way, to transform and incorporate into oneself what is past and foreign, to heal wounds, to replace what has been lost, to re-create broken molds [*Wunden ausheilen, Verlorenes ersetzen, zerbrochene Formen aus sich nachformen*].”²³⁶ In the second kind of plasticity, Warburg as reader of historian Jacob Burckhardt recognizes that “the discipline of history must think of itself as a ‘symptomology of time’ capable of interpreting latencies (plastic processes) together with crises (nonplastic processes).”²³⁷ Vacillating between a flexibility that never rests in fixity, and a flexibility that recognizes it must contend with moments of fixity, Didi-Huberman’s Warburg—between Nietzsche and Burckhardt—is said to acknowledge that since “plasticity alone cannot account for what it welcomes and absorbs, nor for what impresses it and transforms it”: “one must think of both plasticity and of *suture* (the way in which the ground has scarred over) in terms of *fracture* (the way in which the ground has given way, has cracked, has been insufficiently plastic).”²³⁸

²³² Ibid, 93-95.

²³³ Ibid, 94..

²³⁴ Ibid, 95-95.

²³⁵ Ibid., 95.

²³⁶ Ibid, 94.

²³⁷ Ibid, 98.

²³⁸ Ibid.

The point of contradiction in this Janus-faced picture of what Didi-Huberman calls Warburg's "plasticity," is that the "plastic" is made to exclude the capacity for a metamorphosis through brittle solidity: anything akin to crystallization is understood by Didi-Huberman to be "nonplastic".²³⁹ "The historian skirts the edge of the abyss," writes Didi-Huberman, "because seisms or eruptions have occurred which have fractured historical continuity at the points where *time was not sufficiently plastic* [my emphasis]."²⁴⁰ "Plasticity" as recounted by Didi-Huberman, is a compensating and balancing elasticity that does not permit for annihilating destruction. Its is a "plasticity of becoming" that "allows the *seism*" to survive and metamorphose [...] *without completely destroying the milieu in which it erupts* [my emphasis]."²⁴¹ It is "a process simultaneously plastic and nonplastic"²⁴² in the sense of being malleable, and non-plastic in the sense of being fixed, or not adaptable enough. Didi-Huberman names this kind of "plasticity" of redemptive "eruption," a "return" that is not *of the* symptom, but "*in the* symptom [my emphasis]."²⁴³ Warburg's "plasticity," as described by Didi-Huberman, is a redeeming creative destruction "in the symptom," analogous with what another twenty-first century Warburg scholar, German art historian Horst Bredekamp, calls "destructive production."²⁴⁴ This "destructive production" is "characterized by the twin stigma demolition/construction [...] a symbol of historical elasticity" that "embraces history and is at the same time a futuristic monument," that is "triggered by a will to edify for which destroying is as important as building."²⁴⁵

If the "plasticity of becoming"²⁴⁶ in Warburg's historiography of the image is between quasi-solidity and flexibility, and never allows for the totalizing solidity of crystallizing fixity or

²³⁹ Ibid.

²⁴⁰ Ibid.

²⁴¹ Ibid., 98.

²⁴² Ibid.

²⁴³ Ibid.

²⁴⁴ Horst Bredekamp, *La Fabbrica di San Pietro: Il Principio della Distruzione Produttiva* (2000), trans. Elena Broseghini (Torino, Italia: Biblioteca Einaudi, 2005).

²⁴⁵ Bredekamp, *La Fabbrica di San Pietro*, 161.

²⁴⁶ Didi-Huberman, *The Surviving Image*, 92-103.

the vaporizing obliteration of combustion, how can it also include the capacity for infinite metamorphosis that Didi-Huberman describes? On one hand, Didi-Huberman appears to acknowledge that “plasticity” is a dynamic coil between polarity and dualism; it is the dynamic exchange between the polarity of fixity and flexibility nested in the middle of a surface dualism of fixity and flexibility in binary opposition. This distinction between polarity and dualism is important: polarities are driven by the interplay of relative charge between their energetic poles; dualism is the partitioning of universal oppositions. Hegel’s characterization of what is “enjoyed” in art as the “freedom” of its “productive and plastic energy” recognized that both of these schemes—dualism and polarity—are necessary, but that the two movements cannot, and should not, be confused. When the “plastic” is treated as synonymous with elastic flexibility, and the “non-plastic” is identified with calcifying fixity, the ‘plastic’ is no longer capable of the dynamic expansion, contraction, suturing, and fracturing Didi-Huberman identifies with “perpetual transformation”.²⁴⁷ The ‘plastic’ cannot exclude fixity without undoing the very capacity for transformation that is supposed to characterize it. In this model, history is repetition that conforms to a self-conserving adaptability capable of change, but of no radical transformation.

How does the structure of the *Mnemosyne Bilderreihen* panels, and Warburg’s use of what have come to be called the *Mnemosyne Atlas* photographs, reveal a slightly different historiographical model? In the mid-1920s, while Warburg and his collaborators, Saxl and Bing, were developing the project, the picture atlas revival had reached such heights that scholars now refer to it as the “*Bilderatlas* boom” [*Hochkonjunktur von Bilder-Atlanten*].²⁴⁸ This rise in popularity of the *Bilderatlas* or picture atlas, was largely the result of technologies and chemical processes that made the production of photographic *Bilderatlas* books more cost-efficient.²⁴⁹ A survey of these volumes quickly confirms that it is indeed Warburg’s unique concept of the

²⁴⁷ Ibid.

²⁴⁸ Zöllner, “‘Eilig Reisende’ im Gebiete der Bildvergleichung,” 287.

²⁴⁹ Ibid.

‘plastic’ that differentiates his *Mnemosyne Bilderreihen* from the *Bilderatlas* trend: Warburg’s *Bilderreihen* was a nomadic display of mobile panels, macro-scaled as moveable walls that presented viewers with an overwhelming minutiae of images in constellation, and planned to be micro-scaled for reproduction in the form of a hand-held book, a format that could be easily incorporated by the viewer as a manageable prosthetic memory apparatus.²⁵⁰ Not only is its structure ‘plastic’ in the way that it shifts among dimensions, but the pathos-formulas it traces are plastic as well. Its structure shifts dimensions among the internalized image of memory, the two-dimensional presence of image in configurations and photographs, the three-dimensional support structure for the image, and the combination of memory, presence, and structure across space-time. The pathos-formulas are not themselves present in the images on the plate, but are only made visible through the shifts in dimensions generated by the *Bilderreihen* configurations. The productive and plastic energy in this shape-shifting plasticity is not synonymous with elasticity, pliancy, and malleability: it encompasses all possible formulas of change, even the eruption Didi-Huberman excludes as “nonplastic,” the eruption that completely destroys its environment.²⁵¹ In other words, it is not that, as Didi-Huberman describes it, “the ground that submits or splits” is “not plastic enough,” but rather that its splitting and submitting *is* the very expression of the ‘plastic’ par excellence. The eruption that destroys its environment and the ground that submits or splits, are the expression of destructive plasticity, the counter-posing pole to the elastic plasticity Didi-Huberman privileges in his theorization of Warburg’s “plastic knowledge.”²⁵² In order for pathos-formulas to be perceptible, they need to be fixed into particular manifestations. This does not mean, however, that the pathos-formula *is* a specific body configuration or configuration of bodies—what Warburg dismisses as a “motif.”²⁵³ The pathos-formula lies

²⁵⁰ For more on how Warburg used the *Bilderreihen*, see Mazzucco, “Mnemosyne, Il Nome della Memoria: Bilderdemonstration, Bilderreihen, Bilderatlas,” 139 – 203.

²⁵¹ Didi-Huberman, *The Surviving Image*, 98

²⁵² *Ibid.*, 95.

²⁵³ Aby Warburg, “Dürer and Italian Antiquity,” in *The Renewal of Pagan Antiquity*, 555.

between its various fixed instantiations in single images and objects: it becomes visible through association though it is never directly representable.

In conclusion, it is possible to make what constitutes ‘plastic reading’ in the *Mnemosyne Bilderreihen* even more concrete by using the *Mnemosyne Atlas* photographs as an example. This last set of photographs and slides made of Warburg’s *Bilderreihen* is usually referred to as a document of a suspended work-in-progress: the record of a book project never published—the indexical trace of a disappeared artifact allegedly lost in the posthumous transfer of Warburg’s Hamburg library to London in 1933 to evade German National Socialist expropriations.²⁵⁴ However, these photographs which ‘fixed’ the *Mnemosyne Bilderreihen* into set configurations were also an important part of Warburg’s *Mnemosyne* “plastic materials”: just as Warburg’s *Bilderreihen* was not only a series of panels planned to be handled and managed (elastic), put together and taken apart (explosive)—a display architecture and lecture-screen designed to both distance (elastic) and overwhelm (explosive) the body with constellations of details—so the photographs and slides now referred to as the *Mnemosyne Atlas*, were not just documents of the *Mnemosyne Bilderreihen*, or records for delimiting and defining history. They were plastic tools. The *Mnemosyne Atlas* photographs and slides were plastic tools employed by Warburg—an individual body both of and in history—to self-metonymize,²⁵⁵ that is, to take itself apart and put itself together as a part of a historical whole engaged in the process of being made by history while *making* history through individual creative memory.

The photographs and slides called the *Mnemosyne Atlas* are not just a document or a record, but a plastic tool Warburg used to observe historical plasticity, the capacity of history not only to receive form from individual human bodies, and to give form to individual human bodies,

²⁵⁴ Charlotte Schoell-Glass, “Serious Issues”: The Last Plates of Warburg’s Picture Atlas *Mnemosyne*,” *Art History as Cultural History: Warburg’s Projects*, ed. Richard Woodfield (London, UK: Routledge, 2001), 183.

²⁵⁵ The term “self-metonymize” comes from Gayatri Spivak’s writings on the Gramscian subaltern. See “Interview with Gayatri Chakravorty Spivak,” in *The Postcolonial Gramsci*. Ed. Neelam Francesca Rashmi Srivstava and Baidik Bhattacharya (New York, NY: Routledge, 2012), 227.

but to, through this plastic process, destroy its own integrity to establish parallel temporalities. This conception of the ‘plastic’ encompasses not just the “fractures” and “sutures”²⁵⁶ cited by Didi-Huberman, but also the ellipses, or disappearances, the vaporizations, or sites of total annihilation, Didi-Huberman calls “non-plastic” those disappearances that manifest as the interstices between the fragments of the pathos-formulas Warburg gathered on his *Bilderreihen* panels. Warburg collected fragments in order to map the un-picturable gaps that emerged in their association. His “picture strings” (*Bilderreihen*) are beads of disappearances (interstices between fragments) on strings knotted from presences (fragments). The photographs and slides of individual *Bilderreihen* plates, allowed Warburg to make a picture of *Lethe*, antiquity’s spirit of forgetfulness that flows in black rivers around the individual images that are pinned to each black canvas-backed *Bilderreihen* panel.²⁵⁷ Warburg used the mediation of photographic reproduction to create a picture of delay—a temporal, spatial, physical and emotional remove—through the creative memory of *Mnemosyne* on display in his image constellations. It is by way of this universe of memory and forgetting, of *Mnemosyne* and *Lethe*, that Warburg could both regulate and lose himself in consumption by, and consumption of, the fragments and disappearances in image culture that assailed him and his historical moment.

It could be said that the *Mnemosyne Atlas* photographs and slides have themselves, over the course of the late 20th and early 21st-century, become fragments of a pathos-formula of their own, replicated by art historians and reiterated by artists.²⁵⁸ As has already been discussed, alongside the *Mnemosyne Atlas* and Didi-Huberman’s re-theorization of Warburg’s historical time, or *Nachleben* (afterlife) as a field of “plastic vectors”, Warburg’s concept of pathos-formula is his most cited contribution to art history and aesthetics. Analysis of *Tafel 2* of the *Mnemosyne*

²⁵⁶ Didi-Huberman, *The Surviving Image*, 98.

²⁵⁷ Zanker, *Living with Myths*, 98 and 389.

²⁵⁸ See Georges Didi-Huberman’s *Alteratlas* (2014) and artist Peter Piller’s *Peter Piller Archives* (2005). For a comprehensive list of Warburg-influenced projects by artists and art historians, see Emily Verla Bovino, “The *Nachleben* of *Mnemosyne*: the Afterlife of the *Bilderatlas*,” *Engramma*, Issue 119 (September 2014), http://www.engramma.it/eOS2/atlante/index.php?id_articolo=1618.

Atlas showed how pathos-formulas—the living force of formula identifiable in the forms of repeating patterns among history’s surviving fragments or symptoms—embody the symbolic energetics of presences made of disappearances: the pathos-formulas are life-forms of afterlife (*Nachleben*). The pathos-formulas are the ideal types, or disappearances, between the fragments Warburg pinned into *Bilderreihen* configurations: they are not the forms *of* or *in* the fragments themselves, but rather the ‘plastic energy’ of formulas that generated these forms and fragments. Warburg thought of pathos-formulas not just as formal motifs or “atelier themes” designed to illustrate content, but as embodied abstractions of “experience lived and relived passionately and intuitively.”²⁵⁹ Warburg’s *Bilderreihen* is, thus, its own example of a pathos-formula: it is not just a form that current fashions in contemporary art are aestheticizing, rather it is the formula of a particular relationship between the human body and creative memory—a pathos-formula of Warburg’s modernist “cultural science” [*Kulturwissenschaft*]—now being “lived and relived again passionately and intuitively” by artists and art historians of the internet image-search age.

²⁵⁹ Aby Warburg, “Dürer and Italian Antiquity,” *The Renewal of Pagan Antiquity*, 555. Andrea Pinotti, *Memorie del Neuro: Morfologia dell’Immagine in Aby Warburg* (Milano, Italia: Mimesis, 2001), 83.



tion of Modern Art, New York (MoMA). Screenshots from MoMA video documentation posted on YouTube. Video:



MARINO MARONI, DET.
(View for detail by J. J. B. B. B.)

in Hildebrand, Schlafender Hirtenknabe (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 05 x 88 x 106 cm), Sammlung Konrad Fiedler, Alte Nationalgalerie, Berlin. Image: Also in: (right) reproduction of Hildebrand's Sleeping Shepherd Boy (1871-1873) (image: Public

4



Chapter Four / The Plastic in the Pathos-formula of Falling (Endymion)

The Endymion-Type from Antiquity to the Contemporary

The collections at the Nationalgalerie of the Staatliche Museen in Berlin include a marble sculpture titled *Schlafender Hirtenkabe* (Sleeping Shepherd Boy, 1871-73) by Warburg's friend and intellectual influence, Adolf von Hildebrand (fig. 29).¹ The marble figure was created by Hildebrand many years before he published his widely read *The Problem of Form in the Visual Arts* (1893); and yet, according to scholarship that dates the book's conceptual genesis to as early as 1876, Hildebrand began working on the figure only five years before the first traces of his theoretical work appears in his correspondence.² The specific motif of the reclining boy elaborated in the "sleeping shepherd" type (fig. 29) was popular in the late 19th-century and was derived from the Ancient Greek myth of Endymion.³ An "evocative metaphor of the afterlife,"⁴ the specific Endymion type of the reclining figure became popular because it appeared frequently on Ancient Roman sarcophagi (fig. 30).⁵ The passage "Indeed, you really see nothing so similar to death as sleep," commonly associated with the type, comes from its principle source, the Ancient Greek Eastern tradition of Sapphic fragments (c. 630 – 570 BCE); it is this version of the

¹ Adolf von Hildebrand, *Schlafender Hirtenknabe* (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 26.77 x 41.73 in (105 x 68 x 106 cm), Sammlung Konrad Fiedler, Alte nationalgalerie, Berlin. "Schlafender Hirtenknabe [Hildebrand, von Adolf]," *Deutsche Digitale Bibliothek. Kultur und Wissen online. Deutsches Dokumentationszentrum für Kunstgeschichte – Bildarchiv Foto Marburg*. January 15, 2009. Accessed February 8, 2017. <https://www.deutsche-digitale-bibliothek.de/item/5WKJ7Z3U3B4A64K7HKB4QILAH76NF7L7>

² Harry Francis Mallgrave and Eleftherios Ikonomou, "Introduction," *Empathy, Form, and Space: Problems in German Aesthetics, 1873 – 1893*. ed. by Harry Francis Mallgrave and Eleftherios Ikonomou (Santa Monica: Getty Center for the History of Art and the Humanities, 1994), 29-39.

³ "[A] reclining man is a motif, whereas a man who reclines in the pose devised specifically for Endymion is a type." Michael Koortbojian, *Myth, Meaning, and Memory on Roman Sarcophagi* (Berkeley, CA: University of California Press, 1995), <http://ark.cdlib.org/ark:/13030/ft4199n900/>

⁴ Koortbojian, *Myth, Meaning and Memory on Roman Sarcophagi*, op. cit.

⁵ *Sarcophagus with a Myth of Selene and Endymion* (early 3rd-century CE), marble, approx 37.50 x 82.28 x 236.22 in (approx 95 cm x 209 cm x 600 cm), Musei Capitolini, Palazzo dei Conservatori, Rome. *Sarcophagus with the Legend of Selene and Endymion* (240-240 CE, discovered 1805), marble, 37.50 x 82.28 x 236.22 in (95 cm x 209 cm x 600 cm), Louvre, Paris.

Endymion myth that scholars assert “eventually found visual expression” in the funerary reliefs on sarcophagi (fig. 30).⁶

The fragmentary nature of Sappho’s surviving tale is alleged to have led Roman artists to focus on the myth’s key themes, expanding them with detail for the “imperatives of the sculptural form and its context.”⁷ The key themes included: “the beauty of the youth, the desire of the goddess, the eroticism of the encounter, the similarity of sleep and death, and the sacred nature of the union.”⁸ Though what Sappho specifically wrote about Selene (the Greek goddess of the Moon) and the young shepherd Endymion (who in some accounts is a hunter) did not survive,⁹ what is reported in ancient sources concurs with the focus of most ancient representations of the type—this focus is the nocturnal arrival of the female moon deity, Selene, whose admiration of the sleeping Endymion led to him to be cast into eternal slumber. The earliest examples of this focus are found on a sarcophagus in Rome’s Capitoline Museum (c. 130-140 CE) and another in the Louvre (c. 140-150 CE)¹⁰ (fig. 30), both of which are thought to “reflect the Greek character of the original pictorial invention.”¹¹ What is generally recognized as a gradual isolation of “the recumbent figure of Endymion” from its “narrative context” is dated to the late 3rd-century CE in sarcophagi, and said to mark a moment when the myth transitioned from “narrative to symbol.”¹² This practice of isolating the recumbent figure from its surrounding context already existed in decorative wall panels like the ancient carved relief *Endymion Asleep* (early 2nd-century CE, found early 18th-century in Rome), re-used to adorn the house of the wealthy Roman Cardinal,

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ John J. Winkler, *The Constraints of Desire: The Anthropology of Sex and Gender in Ancient Greece* (New York, NY: Routledge, 1990), 203.

¹⁰ Koortbojian, *Myth, Meaning and Memory on Roman Sarcophagi*, op. cit.

¹¹ Ibid.

¹² Ibid.

Bernardino Spada (1594-1661) (fig. 31).¹³ In this version of the Endymion type, Selene is no longer included in the scene, but Endymion's dog has jumped up on a ledge beside him to howl at her in the moon.

The neo-classical sculptor Antonio Canova (1757-1822)¹⁴ did a version of the isolated Endymion type, *Sleeping Endymion*, a commission between 1819 and 1822 (fig. 32).¹⁵ His figure appears to take from the earlier ancient examples in sarcophagi where Endymion is a young man portrayed fully reclined in ecstatic abandon with his head tucked in the bend of an upraised arm. Hildebrand's *Sleeping Shepherd*, created fifty years later, more closely resembles the Spada *Endymion*, a boy seated on a platform with one arm resting on a shepherd's crook. Whereas Canova's version of Endymion (conserved at the Chatsworth, London) emphasizes the tension between death and the erotic encounter, Hildebrand's focuses on the element of eternal youth in the boy's eternal slumber. Whereas Canova's version includes the dog that is also found in the Spada *Endymion*, Hildebrand's completely isolates the figure.

In Maria Hassabi's MoMA performance of *PLASTIC*, the choreography Hassabi calls the "fall on the stairs"¹⁶ accidentally reactivates the pathos-formula of the Endymion type (fig. 33) in its many variations, from the seated recumbent boy in Hildebrand's iteration, to Canova's youth

¹³ *Endymion Asleep* (117-138 CE), marble, 61.81 x 40.55 in (157 x 103 cm), Musei Capitolini, Stanza dei Imperatori, Rome. "Endymion Asleep," Museum of Classical Archeology Databases. University of Cambridge, 2017. Accessed January 15, 2017. <http://museum.classics.cam.ac.uk/collections/casts/endymion-asleep>

¹⁴ Antonio Canova (1757, Possagno – 1822 Venice, Italy) is generally recognized to be "the greatest Neoclassical sculptor of the late eighteenth and nineteenth centuries." As a result of his fame, his body was treated as a saintly relic upon his death: his body was entombed in Possagno where he was born, his hand was preserved at the Accademia where he trained and his heart was placed in the tomb for Neoclassical sculptors that he designed in Venice. Though his early works were influenced by the "agonized expressions and twisted forms" associated with "Baroque theatrics" and the Dionysian attitude in anquity, his work with antiquarians, archeologists and patrons encouraged adherence to the Apollonian, a "more restrained aesthetic." He is renowned for "ushering in a new aesthetic of clear regularized form and calm repose inspired by [the collection of] classical antiquities." Christina Ferando, "Antonio Canova," Metropolitan Museum of Art. Heilbrunn Timeline of Art History. *Metmuseum.org*. July 2016. Accessed February 18, 2017. http://www.metmuseum.org/toah/hd/nova/hd_nova.htm

¹⁵ Antonio Canova, *The Sleeping Endymion* (189-1822), marble, 72.05 in long (183 cm long), Chatsworth, Derbyshire. "The Sleeping Endymion," *Chatsworth*. Published 2017. Accessed February 10, 2017. <https://www.chatsworth.org/art-archives/the-collection/sculpture/the-sleeping-endymion/>

¹⁶ Museum of Modern Art, New York, "Maria Hassabi | PLASTIC," op. cit.

in erotic abandon. Seen from this perspective, the work is the next step in the plastic transition that Hildebrand and Canova both made in the 19th-century, moving the Endymion type from high relief on sarcophagi, low relief on a wall panel (Spada), extreme high-relief in the form of a reclining figure (Canova) and free-standing seated figure (Hildebrand), to the body itself performing its absorption of the type's various instantiations.¹⁷ Seen in this context, the body performing *PLASTIC* takes on the appearance of its own iteration of centuries of the Endymion type in motion: the viewer plays the admiring Selene while the dancers perform the slumbering Endymion—mortal beauty condemned to eternal sleep by the possessive gaze of an immortal lover. Outside of any relation to a viewer, the choreography also passes through the pathos-formula of the isolation of Endymion, from ancient models on sarcophagi where the slumbering youth was presented in a crowded context, to wall panels where only his dog remained, to 17th and 18th-century transmigration to easel painting where the focus became the surrounding forest landscape and reflection of the light of the moon on pale skin (i.e., Anne-Louis Girodet, *Endymion. Effet de Lune (Le Sommeil d'Endymion)*, (1793) (fig. 35),¹⁸ and 19th-century manifestations in life-size sculptural figures.

In Afterlife? The 'New Plastic' in Bas Jan Ader and Piet Mondrian

In the 1970s, the theme of falling was taken up by the work of another interpreter of the 'plastic,' the California-based Dutch conceptualist Bas Jan Ader (1942-1975) (fig. 36).¹⁹ It has

¹⁷ *Sleeping Endymion* ("Spada Endymion"), (early 2nd century, A.D.) Stanza dei Imperatori, Musei Capitolini, Rome, Italy; Marble Sarcophagus with the myth of Selene and Endymion (3rd century, A. D.), Metropolitan Museum of Art, New York; Attributed to Johann Carl Loth, *Selene en Endymion* (1660-1680; acquired 1827), Rijksmuseum, Amsterdam, Netherlands; Louis-Claude Vassé, *Sleeping Shepherd* (1751), Musée du Louvre, Paris, France; Anne-Louis Girodet, *Effet de Lune. (Le Sommeil d'Endymion)* (1793), Musée du Louvre, Paris, France; Agostino Cornacchini, *The Sleep of Endymion*, (1716), marble, 25 1/2 x 21 x 18 in, Cleveland Museum of Art, Ohio.

¹⁸ Anne-Louis Girodet, *Effet de Lune (Le Sommeil d'Endymion)* (1793), op. cit.

¹⁹ Bas Jan Ader (Bastiaan Johan Christian Ader, Winschoten, Netherlands 1942 – Unknown 1975) was born in Holland, but lived, studied and worked in Southern California. He is generally categorized as a conceptualist and his work mostly involved performance and photography. His most well-known for the

been said that Ader is perhaps best understood as a proponent of “ludic conceptualism”²⁰—a conceptual artist who works with humor in art. However, Ader’s work has also been associated with what artist and theorist David Robbins calls “concrete comedy.”²¹ “Concrete comedy” is not “art with a humorous dimension,” rather it is “comedy that has taken material form.”²² In *Concrete Comedy*, Robbins uses Bas Jan Ader’s work as an example of the “presence in concretist comedy” of “physical ineptitude”—unlike in slapstick where the limits of control over the human body are exploited for the sake of laughter, in concrete comedy “clumsiness reads as pure existential gesture, as something done for its own sake.”²³ “Strategic physical ineptitude is an anarchy of sorts,” writes Robbins; “it disrupts society’s attempts to tame, control and regulate the body.”²⁴ If the Endymion myth is about the tragic, over-regulated reclining body whose aesthetic qualities result in it being cast by desire into an eternal sleep verging on death, Ader’s concrete comedy unintentionally reconfigures the type for a strategic physical ineptitude that flirts with the body’s desire for its own end.

For two years, beginning in 1970, Ader is said to have made fourteen works that “in one way or another had falling as the central theme.”²⁵ An anecdote reported in a recent book on Ader recounts ways in which the artist experimented with falling, playing with “deadpan drollness,” “daring physicality” and “comic timing” in quotidian institutional contexts, like the classes he took at Southern California’s Otis Art Institute:

project *In Search of the Miraculous*, for which he attempted to sail across the Atlantic. During this sail, he disappeared. His small sail boat Ocean Wave was later discovered without him.

²⁰ Janna Schoenberger, “Bas Jan Ader’s Ludic Conceptualism: Performing a Transnational Identity.” *The Power of Satire*. ed. Marijke Drees and Sonja de Leeuw (Philadelphia: John Benjamins Publishing Company, 2015), 185.

²¹ David Robbins, *Concrete Comedy: An Alternative History of Twentieth-Century Comedy* (Copenhagen, Denmark: Pork Salad Press, 2011).

²² Robbins, *Concrete Comedy*, 7.

²³ *Ibid.*, 119.

²⁴ *Ibid.*

²⁵ Alexander Dumbadze, *Bas Jan Ader: Death is Elsewhere* (Chicago, IL: University of Chicago Press, 2013), 8.

Ader instigated what was perhaps his first fall [...] during an American literature class [...]. [D]ressed all in blue, [he] sat off in a corner away from the other students. The instructor, famously boring, spent much of the class reading passages from the book assigned for that day. He spoke in monotone, smoking cigarettes and cracking asides that delighted only him. As the students drifted toward sleep, Ader crept slowly toward the edge of his seat. Inch by inch he shifted his body until he fell to the ground with a tremendous clatter that toppled the chairs around him.²⁶

The same slow drifting, a creeping-at-edges in inch-by-inch shifts of the body, defines Hassabi's *PLASTIC*. In Hassabi's MoMA choreography on the Gund Lobby staircase, bodies rise and fall, moving from securely seated to sprawling; however, they never give way to gravity the way Ader's gesture necessarily must if it is to succeed at being both a disruption and a simple outgrowth of a normal situation (i.e., falling asleep in class). There is nothing comic about Hassabi's *PLASTIC*: the post-conceptualist paradigm it presents is more akin to the tragic dimension between late 19th-century romanticism and neoclassicism—to the dynamic tension found in Canova's figures or in 18th-century German painter Caspar David Friedrich's individuals contemplating the sublime. Whereas in Hassabi's *PLASTIC*, the dancer's contemplation of the sublime generates a sense of captivation—a feeling of being captured or locked into what one is contemplating; an empathetic response in the body's sense of extreme self-control—in Ader's experiments with corporealization, contemplation of the sublime induces a boredom that drives the body to potentially self-annihilating breaks with self-control.

Ader has acquired mythic status in art because one such experiment with the body's limits resulted in his disappearance. Like the dadaist Arthur Cravan (1887-1918), Ader disappeared at sea.²⁷ On a sail he took alone on his boat *Ocean Wave*—a used Guppy 13—he disappeared between the United States and Europe in 1975. Ader's small vessel was found in

²⁶ Dumbadze, *Bas Jan Ader*, 10.

²⁷ The disappearance of artist, poet and boxer Arthur Cravan (Lausanne, Switzerland 1887 – Mexico, 1918) is considered an important example of Dada activities. See "Dada," *A Dictionary of Modern and Contemporary Art*, ed. Ian Chilvers and John Graves-Smith (Oxford, UK: Oxford University Press, 2015), 172.

1976 by a Spanish fishing boat (fig. 36).²⁸ Only a series of objects remained: “spoiled tins of food, a paraffin stove, a plastic sextant, sunglasses, six pairs of socks, a sweater, three pairs of slacks, a driver’s license, a health insurance card, a University of California, Irvine ID card and a damaged Dutch passport.”²⁹ These surviving objects resonate in a perturbing manner with objects in one of the few object-based installations that Ader created on the theme of falling.

Most of the works on falling were either performance photographs or films of Ader in particular settings; however, this particular installation/performance involved a series of objects that have also been thought of as examples of post-minimalist sculpture (fig. 37). The objects themselves did not survive the original exhibition, but the work was photographed. From these photographs, the installation was “rework[ed]” fifteen years ago by artist-curator Gavin Wade (now director of the Eastside Projects, an artist-space in Birmingham) in a 2001 London gallery exhibition.³⁰ In a press release written for the exhibition, Wade explains that Ader’s work “can never be remade without the presence of Ader himself, who went missing at sea sometime after July 30th 1975 during the second stage of his artwork *In Search of the Miraculous*. The intention of [...] reworking is to re-present the process and ‘space’ of Ader’s work as a curatorial artwork.”³¹ Wade’s “reworking,” aimed at “re-present[ing]” what he calls the “process” and “space” of Ader’s work (what Wade calls its “curatorial” dimension), is a contemporary attempt to make the pathos-formula present in the installation, visible.

What Wade calls Ader’s “curatorial artwork” was titled with the minimalist description *Light Vulnerable Objects Threatened by Eight Cement Bricks* (1970) (fig. 37). The work was presented at the Chouinard Art School in Los Angeles and occupied an exhibition space at the school with a series of objects: an arrangement of open paper bags (resembling Eva Hesse’s

²⁸ Dumbadze, *Bas Jan Ader*, 129.

²⁹ *Ibid.*, 129-130.

³⁰ Gavin Wade, “Nathan Coley, Bas Jan Ader, Gavin Wade,” curated by Gavin Wade. *Vilma Gold*. October 4 – October 28, 2001. <http://vilmagold.com/exhibition/2001-nathan-coley-bas-jan-ader-gavin-wade/>

³¹ Wade, “Nathan Coley, Bas Jan Ader, Gavin Wade,” *op. cit.*

Repetition Nineteen III, 1968) (fig. 37, left), a pile of eggs, a store-bought sheet cake in a box reading ‘Happy Birthday,’ several potted flowering plants, a tangled string of illuminated lightbulbs, two stacked pillows, a large radio and a poster (possibly a photograph) of a dark-haired woman.”³² Eight cement blocks were tied with rope and suspended from the ceiling to hang horizontally over eight object clusters.³³ The work depends on Ader’s “presence” because after the exhibition opening,

Ader went through the room and, one by one, cut the ropes, allowing the blocks to crush whatever was below. The poster received little damage, which could not be said for the cake or the lightbulbs. The plant survived somewhat; the flowers on the edge remained standing, while those in the middle were flattened.³⁴

As Wade writes, “the effect of the fall demonstrates the vulnerability of the object. In fact one can regard the fall as a “unit of measure” for the fragility of the object, or better yet, as the measure of its resilience.”³⁵ Ader’s gesture activated a sequence of object-exchanges to produce a new ‘plastic’ through creative destruction.

In the summer of that same year, Ader had friends take film and photographs of him along Amsterdam’s Reguliersgracht canal for a work he called *Fall II, Amsterdam*, (1970) (fig. 38).³⁶ The photographs capture him “on a bicycle, plunging toward the canal” while “hold[ing] a bouquet of flowers in his right hand, his eyes focused on the murky water several feet below.”³⁷ In the 16mm film,³⁸ the serpentine line of a canal sidewalk and bridge cuts the frame in two latitudinal parts, the canal water below and the concrete and trees above (fig. 38). A small figure enters the scene on a bicycle. Snaking through the trees, he arrives at the edge of the canal, and veers right to plunge into the water (fig. 38). The film fades to black with the fall; there are no

³² Dumbadze, *Bas Jan Ader*, 18.

³³ *Ibid.*

³⁴ *Ibid.*

³⁵ Wade, “Nathan Coley, Bas Jan Ader, Gavin Wade,” *op. cit.*

³⁶ This is the work that Robbins chooses to write about in *Concrete Comedy*. Robbins, *Concrete Comedy*, 119.

³⁷ Dumbadze, *Bas Jan Ader*, 19.

³⁸ “Fall II, Amsterdam, Bas Jan Ader, 16mm, 19 sec (1970),” *Bas Jan Ader*. N.d. Accessed January 10, 2017. <http://www.basjanader.com/works/fall2.php>

montage effects, no close-ups or cuts, just a fixed shot. The film is a brief 19 seconds. In initial viewing, it seems that as soon as the viewer notices the tiny cyclist in the quaint urban landscape, the fall occurs.

In an interview Ader did two years later, he explained “I have always been fascinated by the tragic. That is also contained in the act of falling; the fall is failure.”³⁹ Indeed, Ader’s fellow Dutch countryman, the modernist neo-plasticist Piet Mondrian, had defined the “tragic plastic” as a “disequilibrated expression” that only the “equilibrium” of the “new plastic” could “destroy.”⁴⁰ In *Fall II*, Ader enters the scene wobbling slightly on the bicycle he balances. He attempts to maintain perfect verticality in contrast with the movement of the rounded tops of surrounding trees and the curving line of the canal. Mondrian had written that the “tragic in nature manifested as corporeality [...] expressed plastically as form and natural color, as roundness, naturalistic plastic, the curvilinear and capriciousness and irregularity of surface.”⁴¹ In *Fall II*, Ader contrasts the attempts to manifest a new post-modern ‘plastic’ in his body with the modernist ‘tragic plastic’ in nature around him. In both *Fall II* and *Light Vulnerable Objects* (fig. 37), it is the build up of momentum in the “threat” of the fall—and the affect of this “threat” on bodies and objects— that appears to interest Ader. In both the the performance film and the installation, Ader’s ‘plastic’ is the tension between the pull of the horizontal plane of the ground and the precarity of elements attempting to cross or steady themselves on its surface: it is the struggle to sustain perpendicularity. As Mondrian had written, “in nature, we perceive that all relationship is governed by one prime relationship: that of extreme opposites. The abstract plastic of relationship expresses this prime relationship *determinately*—by the duality of position, the perpendicular. This relationship is the most equilibrated [...]”⁴²

³⁹ Dumbadze, *Bas Jan Ader*, 17.

⁴⁰ Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life*, 55.

⁴¹ *Ibid.*, 54.

⁴² Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life*, 30.

Ader's work acknowledges that the 'plastic' is an elusive concept requiring the artist work with a playbook of tactical maneuvers. His comedy of the body in *Pitfall on the Way to a New Neo-Plasticism* (1971) (fig. 39) confronts this with his characteristic 'plastic sense' of corporeal humor.⁴³ In a 1921 essay on "neo-plasticism" and music, Mondrian explained that though "the conception of the word 'plastic' has [...] been limited by individual interpretations," "in a deeper and broader sense, 'plastic' means 'what produces an image' and only that."⁴⁴ In Ader's *Pitfall on the Way to a New Neo-Plasticism*, he takes this definition seriously, documenting 'what produces an image' of his fall. He photographs himself tripping over uneven ground in a cobblestone path, using a "pitfall" to guide his own new plastic, what he calls his "new neo-plasticism" (fig. 39). The snapshot of collapse captures a moment just before the slapstick splat of Ader's body, which hits the road to a literal 'beacon' – a church tower converted into a lighthouse.⁴⁵ The Westkapelle lighthouse in Holland is known for inspiring Mondrian's neo- and post-impressionist painting exercises (c. 1909-1910) (fig. 39, adjacent left): early experiments that preceded his essays on the "new plastic" and "neo-plasticism" (c. 1917 – 1920).⁴⁶ Ader frames the scene to flatten depth perception by making the perpendicular road to the Westkapelle lighthouse lead into the distant tower's verticality. This mise-en-scène in the landscape combined with the flailing black-suited limbs of the artist's body, an accompanying tossed blue blanket, yellow fuel container and red case, all gesture towards formal fundamentals commonly listed as Mondrian's requirements for "neo-plasticism": these include contraposition

⁴³ See Bas Jan Ader, *On the Road to a New Neo-Plasticism. Westkapelle, Holland*, 1971, four C-type prints, 11 4/5 in x 11 4/5 in (30 x 30 cm), Bas Jan Ader Estate; and *Pitfall on the Way to a New Neo-Plasticism. Westkapelle, Holland*, 1971, chromogenic color print, 16 1/4 x 11 1/2" (41.3 x 29.2 cm), Museum of Modern Art, New York. For an image of the latter, visit: <http://www.moma.org/collection/works/192775?locale=en>

For more on Ader and "ludic conceptualism," see Schoenberger, "Bas Jan Ader's Ludic Conceptualism," 185.

⁴⁴ Piet Mondrian, "The Manifestation of Neo-Plasticism in Music and the Italian Futurists' Bruiteurs (1921)" in Piet Mondrian, *The New Art-The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G. K. Hall & Co., 1986), 151.

⁴⁵ Dumbadze, *Bas Jan Ader*, 47 – 48. See also, Schoenberger, "Bas Jan Ader's Ludic Conceptualism," 185.

⁴⁶ See Carol Blotkamp, *Mondrian: The Art of Destruction* (New York, NY: H.N. Abrams), 1995.

among primary colors, between line and field, between horizontality and verticality.⁴⁷ In *Die Nieuwe Beelding in de schilderkunst* (The New Plastic in Painting, 1917), Mondrian had explained that the “new plastic” is found “by reducing the corporeality of objects to a composition of planes that give the illusion of lying on one plane.”⁴⁸ Ader takes Mondrian’s words as instructions and performs them. However, in a ‘flight’ that blurs the staid constraints established for the 20th-century “new plastic” by Mondrian and his *De Stijl* collaborators, Ader’s agitated arms and legs catch his body in a momentary euphoria of levitation, beyond early 20th century “neo-plasticism” and into a late 20th-century “new neo-plasticism.”

A similar sense of agitation exists in two of the four lozenge, or diamond-shape, paintings Mondrian (fig. 40)⁴⁹ produced during the period when he published *The New Plastic in Painting*, his first essay on the “new plastic.” A print reproduction of one of the lozenge paintings, *Composition with grid 5: lozenge, composition with colors* (1919) (fig. 40, top left), had influenced Mondrian to change his way of working: when he saw that the painting had reproduced in a uniform grey, he responded by adopting more contrast in his color values.⁵⁰ How might Mondrian have responded to Ader’s concrete comedy of hidden, unsuspected danger, the “pitfall” of an actual fall in corporeal ‘reproduction’ of Mondrian’s “new plastic in painting”? Could this ‘reproduction’ have made him rethink his two early experiments with painted

⁴⁷ For an example of this canonical definition as used by museums, see “Neo-Plasticism,” in *Glossary of Art Terms*. Tate. N.d. Accessed January 2, 2017. URL: <http://www.tate.org.uk/learn/online-resources/glossary/n/neo-plasticism>.

⁴⁸ Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life*, 38.

⁴⁹ The four lozenge paintings are: 1) Piet Mondrian, *Compositie met raster 5: ruit, compositie met kleuren* (Composition with grid 5: lozenge, composition with colors, 1919), oil on canvas, diagonal 33.07 in (diagonal 84 cm), Rijksmuseum Kröller-Müller, Otterlo; 2) Piet Mondrian, *Compositie met raster 6: ruit, compositie met kleuren* (Composition with grid 6: lozenge, composition with colors, 1919), oil on canvas, diagonal 26.38 in (diagonal 67 cm), Rijksmuseum Kröller-Müller, Otterlo; 3) Piet Mondrian, *Composition with Grey Lines (Lozenge)* (1918), oil on canvas, diagonal 47.64 in (diagonal 121 cm), Gemeentemuseum, The Hague, Haags; 4) Piet Mondrian, *Composition in Black and Gray* (Composition with Grid 4 [Lozenge], 1919), oil on canvas, 23 5/8 x 23 11/16 in (60 x 60.2 cm), Philadelphia Museum of Art.

⁵⁰ Blotkamp, *Mondrian*, 126-127. Image at Blotkamp, Mondrian, 118 is titled *Composition with Planes in Ochre and Grey* (1919). In the collection of the Rijksmuseum Kröller-Müller, Otterlo, the painting is listed as Piet Mondrian, *Compositie met raster 5: ruit, compositie met kleuren* (Composition with grid 5: lozenge, composition with colors, 1919). For full information, see previous footnote.

diagonals, experiments which at the time of death, he had never exhibited but nonetheless kept in a “prominent place in his studio over an extended period of time.”⁵¹ In the literature on Mondrian, these paintings are often considered to be “a failure” in what has been characterized as “Mondrian’s ostensible goal of equalizing contrast and establishing surface flatness.”⁵² As Yve-Alain Bois has described them, the optical effects in the early lozenge paintings are an “overwhelming assault” and an “optical bombardment of the beholder.”⁵³ However, as Mondrian’s writings indicate, the Bois’ phrase “equalizing contrast” used to characterize Mondrian’s “goal” does not quite do justice to the explosive qualities Mondrian sought in the “new plastic.” Mondrian characterized the “new plastic” as working to annihilate tragic unequivalence with the destructive potential of equilibrium. Thus, there was, in fact, a role for what Bois calls the “assault” and “bombardment” of the lozenge paintings, in Mondrian’s objectives. In fact, Mondrian only parted with the paintings in 1926 and 1937: he gave *Composition with Grey Lines* (1918) (fig. 40, top right) to a friend in 1926, and in 1937, *Composition in Black and Grey* (1919) was sold to collector Walter Arensberg (1937) (fig. 40, bottom right).⁵⁴

The two paintings were made after the transition from what is generally called Mondrian’s “‘Plus-Minus’ manner” (i.e., *Pier and Ocean*, 1914-1915, and *Composition 10 in black and white*, 1915) to the manner of his ‘Compositions in Line’ (1916-1917) and his ‘Compositions with Color Planes’ (1917) (Fig. 41).⁵⁵ This transition involves the so-called

⁵¹ Marek Wieczorek, “Mondrian’s First Diamond Composition: Spatial Totality and the Plane of the Starry Sky,” *Meanings of Abstract Art: Between Nature and Theory* (New York, NY: Routledge, 2012), 31.

⁵² This is Yve-Alain Bois’ position as described by Wieczorek, “Mondrian’s First Diamond Composition,” 31.

⁵³ Yve-Alain Bois as quoted in Wieczorek, “Mondrian’s First Diamond Composition,” 31.

⁵⁴ Blotkamp, *Mondrian*, 124.

⁵⁵ Martin S. James, “Piet Mondrian: Art and Theory to 1917” in Piet Mondrian, *The New Art-The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G. K. Hall & Co., 1986), 18. For “‘Plus-Minus’ Style” paintings see Piet Mondrian *Pier and Ocean* (1914-1915), charcoal on paper, 20.07 x 24.80 in (51 x 63 cm), Gemeentemuseum, The Hague, Haags, and Piet Mondrian *Composition 10 in black and white* (1915), oil on canvas, 33.46 x 45.52 in (85 x 108 cm),

“turning point” in Mondrian’s conception of the ‘new plastic’ in painting, from what has been called a “more painterly state” to a “final state with small rectangular planes.”⁵⁶ In a certain sense, this transition could also be described as moving from line to extension, from the graphic to the plastic: in the “final state” of extension, there are still no vertical and horizontal black lines producing perpendiculars, and the colors of the planes are not pure saturated primary colors, but variations on yellow, blue and red that are either muted dark or muted light. In this moment of discovering the ‘new plastic,’ the early lozenge paintings from this particular period are the first executed in the “special format” of the diamond, a “square set on point.”⁵⁷ Mondrian would return to the diamond-shape format in several other instances, both in the 1920s, as well as in the 1940s (i.e., *Victory Boogie Woogie*)⁵⁸ (fig. 42); however, none of these later paintings include diagonal lines the way the lozenge paintings of the teens do.

The ‘problem of the diagonal’ in Mondrian’s work is famous in the art historical canon: it is generally said to have been the motivation for the eventual split between Mondrian and *De Stijl*. For Mondrian and his colleagues of *De Stijl*, there was a phenomenon called “diagonal destruction” that occurred within a composition when diagonal lines “were not sufficiently counterbalanced.”⁵⁹ This destruction produced the “same spatial effect as traditional perspective” by “suggest[ing] space *in* the picture plane, or depth;” Mondrian and *De Stijl* considered this insufficient counterbalance problematic because their ultimate goal was “to portray space *on* the

Rijksmuseum Kröller-Müller, Otterlo. For the ‘Compositions in Line,’ see Piet Mondrian, *Composition in line, second state* (1916-1917), oil on canvas, 42.52 x 42.52 in (108 x 108 cm), Rijksmuseum Kröller-Müller, Otterlo. For the ‘Compositions with Color Planes,’ see Piet Mondrian, *Composition with Color Planes 5* (1917), oil on canvas, 19 3/8 x 24 1/8 in (49 x 61.2 cm), Museum of Modern Art, New York.

⁵⁶ James, “Piet Mondrian,” 18.

⁵⁷ Blotkamp, *Mondrian*, 114.

⁵⁸ Piet Mondrian, *Victory Boogie Woogie* (1942-1944), oil and paper on canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, Haags.

⁵⁹ *Ibid.*, 120.

plane” not *in* it.⁶⁰ The former was what Mondrian’s essay *The New Plastic in Painting* called the “new plastic,” whereas the latter was what he referred to as the “tragic plastic.”⁶¹

In 1919, Mondrian wrote to *De Stijl* member and magazine editor Theo van Doesburg explaining what he had been working on: he recounted that he had turned his canvases, setting their squares “on point,” so that he could work with the tension of the diagonal while avoiding a composition that “looks like this[:] X.”⁶² Physically turning the canvas itself engaged the canvas as an object, and put the canvas itself into tension with the surrounding cube of conventional architectural environments. In the 16mm film *Broken Fall (Geometric), Westkapelle, Holland* (1971)⁶³ (fig. 43), Ader plays with this same gesture of setting-on-point, or tipping, in his body. The film uses the same set up as *Pitfall on the Way to a New Neo-Plasticism* and *On the Road to a New Neo-Plasticism* (1971, a set of four photographs on the same theme) (fig. 44),⁶⁴ only in this case, the traditional horizontal format of the film image extends across the widened representational field to include more of the hedges that surround the cobblestone path. In addition, the camera is set up from a more distant position emphasizing the relationship between Ader’s verticality and that of the Westkapelle tower.

The black-and-white film shows Ader, dressed in dark clothes, standing firm in the middle of the frame, a perpendicular center-line on the grey cobblestone path that leads to Westkapelle (fig. 43). The foliage on either side of him sways with wind gusts that blow right to left. The rigid Ader, with his arms held tight at his sides, tips to the left with the wind, even going so far as to periodically lift his left foot (on the viewer’s right side) and tilt his torso (fig. 43). The composition of the frame with Ader, the cobblestone path, and the Westkapelle tower at the

⁶⁰ Ibid.

⁶¹ Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life*, 55.

⁶² Blotkamp, *Mondrian*, 122.

⁶³ “Broken Fall (Geometric), Bas Jan Ader, 16mm, 1 min 49 (1971),” Bas Jan Ader. *Basjanader.com*. N.d. Accessed January 7, 2017. <http://www.basjanader.com/works/brokenfall2.php>

⁶⁴ Bas Jan Ader, *On the Road to a New Neo-Plasticism* (1971), four C-type prints, 11 4/5 in x 11 4/5 in (30 x 30 cm), Bas Jan Ader Estate.

center of the frame—and the frame-within-the-frame created by surrounding bushes—shares similarities with Mondrian’s plus-and-minus compositions *Pier and Ocean*, 1914 and *Composition no. 10*, 1915 (fig. 41, top and bottom left).⁶⁵ The two flickering compositions have a vertical path at their center and a barely distinguishable horizon line three-quarters of the way up from the canvas’ bottom edge. In Ader’s framing, his figure is flanked on the right (the viewer’s left) by a sawhorse whose two legs are opened to a solid triangular stance (fig. 43). This stance contrasts with Ader’s pose which holds his two legs tightly together except when he sways and they separate to balance him on one. The tipping and swaying carries on for almost two minutes, at the end of which Ader’s tight-legged pose sends him falling wide-legged into the the saw horse, which breaks his fall (fig. 43). If the fall is failure then, in this case, even failure itself has failed: the fall is “broken” by the sawhorse. Seen in projection on a gallery wall, the 16mm film also works with another dimension: the relationship between the body of Ader, the body of the viewer, and the projector. At times, the projected film makes it seem as though Ader is on the other side of the gallery wall, straining in his tipping to try to peer back at the viewer through the projection frame. The flickering frame takes on the appearance of a window folding space-time.

Pulled down by what, in the film, appears to be both the effect of the natural environment and its wind gusts, and a certain magnetism of the diagonals in the legs of the sawhorse, Ader falls; however, the diagonal is not only destructive—the diagonal in the legs of the sawhorse are also a support that serve to break Ader’s fall. Indeed, for Mondrian, destruction was not only just a negative feature of the “tragic plastic.”⁶⁶ Blotkamp paraphrases Mondrian’s *De Stijl* collaborator van Doesburg critiquing one of Mondrian’s experiments with muted and pastel dilutions of saturated primary colors, reminding him that “it was not the unity of contrasting

⁶⁵ Illustrations 122 and 123 in Mondrian, *The New Art-The New Life*, op. cit. The illustrations are not paginated.

⁶⁶ Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life*, 55.

forces that he propagated in his writings.”⁶⁷ It was not “equalizing contrast”⁶⁸ that Mondrian theorized, but a destructive equilibrium: “in order for the perpendicular position to be plastically expressed [...] multiple relationships of rectangular position must [...] be equilibrated in order to destroy the tragic as much as possible.”⁶⁹ The “new plastic” was also a destructive force.

The early lozenge paintings *Composition with Grey Lines* and *Composition in Black and Grey* have been compared to both illustrations of ornamental systems published in manuals devoted to decorative motifs (i.e., Herman Hana’s *Ornament-ontwerpen voor iedereen: Het stempelboekje*, 1917),⁷⁰ as well as to the neuro-physiological effect of the “Hermann grid illusion,”⁷¹ also known as “Hermann-Hering grids” (fig. 45).⁷² In 1870, German physiologist Ludimar Hermann reported that “when looking at a grid of black squares on a white background[,] the background does not appear uniformly white, but dark grey dots are apparent at all the intersections apart from the one fixated.”⁷³ Hering reported that “the reverse occurs with white squares on a black background.”⁷⁴ Retinal explanations were given for these effects; however, mid-20th century experiments showed that though these explanations were plausible, they could also be challenged. Evidence provided for the challenge included the claim that “rotating the display by 45° weakens the optical effect significantly”: technically, if the retinal explanations were correct, it should not have done so because “retinal receptive fields are circular” and should therefore be indifferent to rotation.⁷⁵ Interestingly, it appears that

⁶⁷ Blotkamp, *Mondrian*, 124.

⁶⁸ Wieczorek, “Mondrian’s First Diamond Composition,” 31

⁶⁹ Mondrian, “The New Plastic in Painting (1917),” *The New Art—The New Life*, 55.

⁷⁰ Blotkamp, *Mondrian*, 122.

⁷¹ Wieczorek, “Mondrian’s First Diamond Composition,” 44.

⁷² Nicholas Wade and Michael Swanston, *Visual Perception: An Introduction* (London, UK: Psychology Press, 2013), 122. Illustration of the Herman-Hering grid: Schiller Lab, “Slide Show: The Neural Control of Vision: Research on the Visual System,” *MIT Web*, web.mit.edu/bcs/schillerlab/research/A-Vision/A.htm

⁷³ Wade and Swanston, *Visual Perception*, 151. See Ludimar Hermann, “Eine Erscheinung simultanen Contrastes.” *Pflügers Archiv für die gesamte Physiologie*, 3 (1870), 13–15.

⁷⁴ Wade and Swanston, *Visual Perception*, 151. See Hermann, “Eine Erscheinung simultanen Contrastes,” 13–15.

⁷⁵ Robert Snowden, Peter Thompson and Tom Troscianko, *Basic Vision: An Introduction to Visual Perception* (Oxford, UK: Oxford University Press, 2012), 60.

Mondrian's rotation of his canvases and his use of diagonals, play with superimposing weakened and strengthened iterations of the effect long before they were theorized in scientific literature. By thickening sections of the horizontal and verticals lines that cross the canvas, he also varies the size of luminances that occur at intersections. In *Composition in Black and Grey* (fig. 40, bottom right), he tones down the effects even more by lessening the contrast between black lines and white triangles that appear in *Composition with Grey Lines* (fig. 40, top right). Meanwhile, he accentuates the difference between sections of thick horizontal and vertical lines, and the consistently thin diagonal lines. The fact that using wavy lines in Herman-Hering grids (fig. 45) destroys the plastic effect of luminances between the body and the painted canvas resonates with Mondrian's description of the sinuous line in the "tragic plastic,"⁷⁶ and his resulting outline of constraints for the "new plastic." Though he may have eventually found that the lozenge works accentuated "corporeality" rather than reducing it because of their retinal effects, it is clear that he was fascinated by the vertiginous sense of movement that the combined luminances and tipping of the canvas induced.

Diagonal Destruction: Training the 'New Plastic' Body

By the 1970s, Mondrian's work had already passed through the branding campaign it began to be submitted to immediately after his death in 1944.⁷⁷ Before giving up the lease on Mondrian's studio, Harry Holtzman, one of Mondrian's closest friends and collaborators (also his sole heir and legatee),⁷⁸ granted a fashion photographer access to the studio for a fashion shoot of models posed in the artist's former workspace.⁷⁹ Among the works that the models posed next to under dramatic lighting, was the large lozenge painting *Victory Boogie Woogie* (1944, found in

⁷⁶ Mondrian, "The New Plastic in Painting (1917)," *The New Art—The New Life*, 55.

⁷⁷ Nancy J. Troy, *The Afterlife of Piet Mondrian* (Chicago, IL: University of Chicago Press, 2013), 169.

⁷⁸ Troy, *The Afterlife of Piet Mondrian*, 35.

⁷⁹ *Ibid.*, 36.

Mondrian's studio after his death).⁸⁰ In one photograph that would eventually be published to accompany an article in *Town and Country* magazine, titled "Black is Right" (1944) (fig. 46) a model wearing long black gloves, a black dress, and a hat with fabric that falls irregularly around her ears, wears a large brooch in the form of a curling arabesque at her hip.⁸¹ The metallic sheen of the brooch gives it emphasis, as it seems to project forward past the build up of paint in some of the squares of Mondrian's composition on the easel next to her. In 1952, *New Yorker* cartoonist Saul Steinberg (fig. 47) commented on the irony of Mondrian's popularity with a drawing that played on a similar juxtaposition of curling arabesques with Mondrian's strict perpendiculars.⁸² The drawing shows a thin-legged broad-jacketed painter with pointed beard and tapering legs painting a Mondrian-inspired composition at a large easel. The easel is surrounded by objects and furniture covered with ornamental arabesques. As Mondrian scholar Nancy J. Troy points out, "there is no need for Steinberg to make explicit reference to Mondrian's name in order to ensure that the subject of his drawing would be understood."⁸³ The formal tension between the arabesques and Mondrian's horizontal-vertical neo-plastic had become a cliché, or better yet, a pathos-formula.

The 1957 film *Desk Set*, starring Katherine Hepburn and Spencer Tracy, opens its romantic comedy on automation, with an aerial shot of an office environment in which furniture and large computers are arranged on a stage of Mondrianesque rectangular color fields and black lines (fig. 48).⁸⁴ Not coincidentally, the film also plays with the dialectic of the curve and the line, the natural and the mechanical: it highlights anxieties over new computer technologies, contrasting the qualities of human ability with the benefits of machine capacity. Unsurprisingly, the film ends with Hollywood-style reconciliation: the information-service librarian (played by

⁸⁰ Ibid.

⁸¹ Ibid., 37.

⁸² Ibid., 205.

⁸³ Ibid., 205.

⁸⁴ *Desk Set*, directed by Walter Lang (1957; Beverly Hills, CA: Twentieth Century Fox Home Entertainment, 2010), DVD.

Hepburn) who advocates for human ability, and the technologist (played by Spencer), who is responsible for introducing computers into the librarian's work environment, fall in love after a long conflict. Though they find a compromise at the failed trial run of a new data processor, it is as if the pathos-formula in Mondrian's "new plastic" takes over the narrative: though a new equilibrium is found, it only occurs with the destruction of the previous unequivalence between human and machine, represented in the film by the malfunctioning of the machine.

Through film sets, cartoons, and fashion photographs, Mondrian's compositions got closer and closer to the body as their pathos-formulas were internalized. Then, in the late 1960s, while the Pop artist Roy Lichtenstein (1923 – 1997)⁸⁵ was producing a series of paintings after Mondrian, Yves Saint-Laurent (1936-2008)⁸⁶ created his famous line of "Mondrianesque dresses" (fig. 49, bottom).⁸⁷ Critics emphasized the connection between Lichtenstein's work and Saint-Laurent's designs, explaining that Lichtenstein's "references to fine art" through the work of artists like Mondrian, were "mediated by popular culture."⁸⁸ They were, in fact, so mediated by image reproduction that people mistakenly believed the Saint-Laurent dresses themselves were "mass produced"—themselves products of mechanical reproduction.⁸⁹ The dresses of Saint-Laurent's "Mondrian Look" were, in fact, "meticulously designed to adapt Mondrian's classic

⁸⁵ Roy Lichtenstein (New York 1923 – New York 1997) is "one of Pop art's most recognized, but controversial, artists." His work gave high artistic value to the Benday dot produced by printing processes developed in the late 19th-century. He used the Benday dot in paintings of popular comics and cartoon strips, and made other paintings that used the comic, the cartoon and the Benday dot as a trope. "Roy Lichtenstein," Artists. Museum of Modern Art, New York. *Moma.org*. From the Getty's Union List of Artist Names. N.d. Accessed January 17, 2017. <https://www.moma.org/artists/3542>

⁸⁶ Yves Saint-Laurent (Yves Henri Donat Mathieu-Saint-Laurent, Oran, French Algeria, 1936 – Paris, France, 2008) was a French fashion designer who is known for popularizing women's trousers. He made his career as assistant to Christian Dior and took over the House of Dior at Dior's death in 1957. He opened his own fashion house in 1962 after suffering a nervous breakdown and being replaced at Dior. He developed the Mondrian line while expanding his enterprises to include "ready-to-wear licenses, accessories, household linens, fragrances [...] and men's clothes in addition to his couture business." Before his death, he sold his art collection at auction, bringing in more than \$260 million, "a record price for a private art collection." The Editors of Encyclopedia Britannica, "Yves Saint Laurent," *Encyclopedia Britannica*, May 5, 2012. Accessed February 5, 2017. <https://www.britannica.com/biography/Yves-Saint-Laurent-French-designer>

⁸⁷ Troy, *The Afterlife of Piet Mondrian*, 206.

⁸⁸ Ibid.

⁸⁹ Ibid.

style of straight lines and rectangular forms to the curvaceous female body without compromising the geometry of dresses that aspired to the flatness of a neoplastic painting.”⁹⁰ In other words, the dresses were their own iteration of a ‘new neo-plastic’ that “flattered” the body by “flatten[ing]” it.⁹¹

Troy writes that “by 1965, Mondrian’s neoplasticism exemplified a version of classic modernism that had once been avant-garde, but was by then comfortably familiar”⁹²: undoubtedly, this process of familiarization had been helped along by the corporealization of his paintings, which took place with the co-optation and adaptation of his compositions as types. Mondrian types had been reinterpreted for women’s clothing before Saint-Laurent. As early as 1945, the designer Stella Brownie had been inspired by what were at the time “relatively unfamiliar paintings,” and had only just been introduced to the public through the “Mondrian memorial exhibition” at New York’s Museum of Modern Art (fig. 49, top).⁹³ These designs, however, had simply integrated geometrical elements into dress models and could hardly be defined as wearable Mondrians.

In the 1970s, after Saint-Laurent’s wearable Mondrians had become popular fashion, Mondrian’s own work to expand neo-plasticism beyond the picture plane into his New York studio-environment became a topic of increased interest among scholars.⁹⁴ Meanwhile, further reproductions of Mondrian types were circulating as commodity objects: in 1967, Mondrian collectors Emily and Burton Tremaine—who bought *Victory Boogie Woogie* (1944)—had given the Hallmark Company permission to create a jigsaw puzzle of their painting in fifty thousand copies (fig. 50).⁹⁵ The principle reason why *Victory Boogie Woogie* became well-known had less to do with the fact that the original was displayed in museums, than that it “was made widely

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid., 215.

⁹³ Ibid., 212.

⁹⁴ Ibid., 71-126.

⁹⁵ Ibid., 18.

available as a reproduction.⁹⁶ As a reproduction in the form of puzzles and dresses, people could handle and manipulate, grasp, touch and envelop themselves in Mondrian-like compositions. Not incidentally, this resulted in increasing the value of the work in the art market significantly.⁹⁷

Considering this history, it was particularly insightful that, in the 1970s, Ader chose to propose his “new neo-plasticism” performance and photography in an exploration of the relations of the body, its objects, and the surrounding environment. As Robert Motherwell had commented under the rise of totalitarian socialisms in 1944,

history has its own ironies. It is now Mondrian, who dealt with the ‘eternal,’ who dates the most. To underestimate the capacity of the individual to transcend the social, is to deny the possibility of art now.⁹⁸

Almost thirty years after Motherwell’s 1944 talk—amidst the rise of neoliberal governance and the collapse of the gold exchange standard⁹⁹—Ader’s “new neo-plasticism” proposed a comic plastic of a human body that could not resist the impulse to play with the comedy of its own tragic demise. In media studies, it has recently been proposed that “there is a blind spot in the existing historical studies chronicling optical or visual media[:] [t]hey have not adequately accounted for [...] the history of the [...] transplane image.”¹⁰⁰ The play with transgressing the plane that Ader engaged through sophisticated play between Mondrian’s work and the Mondrian brand, is evidence of another “blind spot” in these histories: the role of experiments with the ‘plastic.’

⁹⁶ Ibid., 63.

⁹⁷ Ibid., 63-70.

⁹⁸ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 31.

⁹⁹ Philip Mirowski and Dieter Piehwe, *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective* (Cambridge, MA: Harvard University Press, 2009), 9. Neoliberal governance operates principally through financialization, deregulation and privatization. Mirowski and Piehwe, *The Road from Mont Pèlerin*, 63.

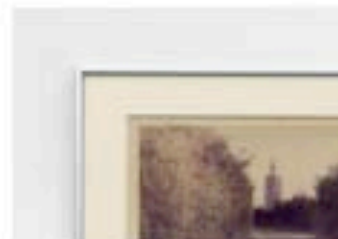
¹⁰⁰ Jens Schroeter, *3D*, 3.

5



Fig. 51 (left) Music for 16 Futurist Noise Intoners, a recit (c. 1913). Video: PERFORMA; (right) photographs of Rus Image: Public Domain.

Broken Fall



Chapter Five / The 'Plastic' and Futurism

Piet Mondrian's Neo-Plasticist Critique of the Futurist 'Plastic'

In the second half of his essay *Le Néo-Plasticisme: Principe général de l'équivalence plastique* (Neo-Plasticism: The General Principle of Plastic Equivalence, 1920), Mondrian compares his thinking on the “new plastic” and “neo-plasticism” with the work of the Italian Futurists: “The New Plastic,” writes Mondrian, “is in accord with Futurism in seeking to eliminate the ‘self’ in art.”¹ It is, in fact, with reference to annihilating “plastic expression”—“the plastic appearance of the nonindividual, the absolute and annihilating opposition of subjective sensations”²—that Mondrian begins the essay, the first appearance of his “essential ideas”³ in French. Thus, in agreement with the Futurists, Mondrian writes, “art’s mission resides in the plastic suppression of particular thought.”⁴ However, Mondrian also insists that neo-plasticism “goes even further” than Futurism in this claim: Futurism, Mondrian asserts, substitutes a “lyrical obsession with matter” for the “human psychology” that is dominant in the plastically degenerate “descriptive and morphoplastic art” devised by “particular thought.”⁵

Mondrian uses the term “morphoplastic” again to describe the work of the Futurists in music in *De 'Bruiteurs Futuristes Italiens' en 'Het' nieuwe in de muziek* (The ‘Italian Futurists’ *bruiteurs*’ and ‘the new’ in music, 1921).⁶ Interestingly, the first version of the essay does not include the term “plastic” in its title; a year later, when the essay was translated in French as *La Manifestation du Néo-Plasticism dans la musique et les bruiteurs italiens futuristes* (The

¹ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence,” *The New Art—The New Life*, 143.

² *Ibid.*, 134.

³ Editor’s Introduction to Mondrian’s “Neo-Plasticism: The General Principle of Plastic Equivalence,” *The New Art—The New Life*, 132.

⁴ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence,” *The New Art—The New Life*, 143.

⁵ *Ibid.*

⁶ Editor’s Introduction to Piet Mondrian, “The Manifestation of Neo-plasticism in Music and the Italian Futurists’ *Bruiteurs* (1921),” *The New Art—The New Life*, 148.

Manifestation of Neo-Plasticism in Music and the Italian Futurists' Bruiteurs, 1922) the term "neo-plasticism" reappears.⁷ The change in the essay's title appears to have been inspired by Mondrian's desire to stress the importance of a more precise definition of the "plastic." In the essay, Mondrian explains "the conception of the word 'plastic' has [...] been limited by individual interpretations. It has been narrowed to mean 'morphoplastic.'"⁸ The "morphoplastic," according to Mondrian, is a "plastic" that is "followed unconsciously": it is the "palpable reality" that he insists the "new plastic" must "annihilate" with "an equilibrated duality."⁹ Through this annihilation, a "plastic means [...] 'expresses' [...] objects and beings" and "does not presume to represent them."¹⁰ The morphoplastic is representational; the plastic is expressive.

Bruitisme (Bruitism) was "noise music"¹¹ allegedly named for a term coined by poet and Futurist leader Filippo Tommaso Marinetti (1876-1944).¹² In a Futurist performance, Marinetti had first "used a chorus of typewriters, kettledrums, rattles and pot-covers" in an activist presentation that was intended as "a violent reminder of the colorfulness of life."¹³ While some understood *bruitisme* as "noise with imitative effects," Futurist painter and composer Luigi Russolo insisted in his manifesto *L'Arts des bruits* (The Art of Noises, 1913) that it "must not be

⁷ Ibid.

⁸ Mondrian, "The Manifestation of Neo-plasticism in Music and the Italian Futurists' Bruiteurs (1921)," *The New Art—The New Life*, 151

⁹ Ibid., 150

¹⁰ Ibid.

¹¹ For a live performance reconstructing Futurist bruitist Luigi Russolo's *Music for 16 Futurist Noise Intoners*, see PERFORMA, "Music for 16 Futurist Noise Intoners," Online video clip. *Youtube*. November 9, 2011 Accessed March 3, 2015. <https://www.youtube.com/watch?v=4G0mBnzSXD8>

¹² The poet Filippo Tommaso Marinetti (Alexandria, Egypt 1876 – Bellagio, Italy 1944) is generally recognized as the "ideological founder" of the Futurist "literary, artistic and political movement." He published the Manifeste de Futurisme (The Manifesto of Futurism) in 1909 in the Paris-based newspaper *Le Figaro*. The Editors of the *Encyclopedia Britannica*, *Encyclopedia Britannica*, March 5, 2009. Accessed February 19, 2017. <https://www.britannica.com/biography/Filippo-Tommaso-Marinetti>. Marinetti's manifesto was endorsed by a group of painters and sculptors who responded to Marinetti's call with their own manifestoes. Among these artists were Umberto Boccioni, Giacomo Balla and Gino Severini, who are discussed later in this section.

¹³ Richard Huelsenbeck, "En Avant Dada: A History of Dadaism (1920)," *Modernism: An Anthology*, ed. Lawrence Rainey (Malden, MA: Blackwell, 2005), 463.

limited to reproductive imitation” (fig. 51).¹⁴ As dadaist Richard Huelsenbeck (1892- 1974)¹⁵ recounts in a “history of Dadaism” he wrote in 1920:

while all ‘abstract artists’ maintained the position that a table is not the wood and nails it is made of but the idea of all tables, and forgot that a table could be used to put things on, the futurists wanted to immerse themselves in the “angularity” of things—for them the table signified a utensil for living, and so did everything else. Along with tables there were houses, frying pans, urinals, women, etc. Consequently, Marinetti and his group love war as the highest expression of the conflict of things, as a spontaneous eruption of possibilities, as movement [...] embodying an attempted solution of the problem of life in motion. The problem of the soul is volcanic in nature. [...] Bruitism is a kind of return to [this] nature. It is the music produced by circuits of atoms; death ceases to be an escape of the soul from earthly misery and becomes a vomiting, screaming and choking.¹⁶

Through the clang and clatter of objects, *brutisme* was thus intended as a way to return sound to the soul’s volcanic nature.

Mondrian based his writings on *bruitisme* not on Russolo’s manifesto or any other theoretical position on *bruitiste* practice, but on what he observed at a Futurist concert he attended in Paris in 1921. In his essay, he compares the Futurist *bruiteurs* with the jazz band and asserts the argument that Futurist *bruitisme* is inferior to jazz improvisation with traditional instruments (fig. 52).¹⁷ He insists that “although the *bruiteurs* sometimes form an orchestra exclusively of new instruments,” jazz nonetheless “surpasses them by the freedom it allows for intuition

¹⁴ Editor’s Introduction to Piet Mondrian, “The Manifestation of Neo-plasticism in Music and the Italian Futurists’ Bruiteurs (1921),” *The New Art—The New Life*, 148.

¹⁵ Richard Huelsenbeck (Minusio, Switzerland, 1974) became a dadaist through artist Hugo Ball who he met in Munich while he was studying medicine, literature and art history. He wrote for the periodical *Revolution* and published poems, essays and book reviews in *Die Aktion*. His poetry was influenced by African aesthetics, what he called “Negro rhythm.” He became Dada’s ‘official’ historian and travelled around as organizer and promoter of Dada ideas. He began practicing medicine in 1920 and wrote *Memoirs of a Dada Drummer* in 1969. “Richard Huelsenbeck,” *DADA-Companion*. N.d. Accessed February 4, 2017. <http://www.dada-companion.com/huelsenbeck/>. The online article cites its principle source as Amanda L. Hockensmith, ‘Richard Huelsenbeck’, published in *Dada. Zurich, Berlin, Hannover, Cologne, New York, Paris*, ed. Leah Dickerman (National Gallery of Art : Washington DC 2005) 476-477.

¹⁶ Piet Mondrian, “The Manifestation of Neo-plasticism in Music and the Italian Futurists’ Bruiteurs (1921),” *The New Art-The New Life*, 154.

¹⁷ To hear a famous jazz band (King Oliver’s Creole Jazz Band) active in the period Mondrian wrote his essay, see Felipe Alfonso Jazz, “King Oliver’s Creole Jazz Band (Gennett, April 5-6, 1923 Session).” Online video clip. *Youtube*. August 23, 2013. Accessed March 3, 2017. <https://www.youtube.com/watch?v0kgija2k4Zlc>

suddenly to intervene.”¹⁸ In addition, the jazz band “has the advantage of being supported by modern dancing”: there are “no obstacles” between the body and the new music in jazz performances, “even if they are treated as barbaric.”¹⁹ On the other hand, “most people regard the *bruiteurs*’ performances as an attack on art itself”: the *bruiteurs* noise music elicits no responsive movement from the body. For Mondrian, jazz is, therefore, “more successful in annihilating the old harmony” and this is “probably because it is not preoccupied with ‘art.’”²⁰ Being preoccupied with art, the *bruiteurs*’ “‘noises’ often remain reproductions of natural sounds”: as Mondrian writes, “one need only think of the names given to *bruiteurs*: screechers, growlers, cracklers, graters, howlers, buzzers, cluckers, gluggers, poppers, hissers, croaker, and rustlers.”²¹ This morpho-plastic tendency for reference to the natural world “unconsciously demonstrate[s] the need for instruments that do not imitate natural reality.”²² In the new plastic of jazz, the body is this new non-imitative instrument.

In his earlier essay, *Neo-plasticism* (1920), Mondrian had insisted that despite the Futurists’ “penetration of matter,” “they did not attain plastic expression of all matter (matter and energy)”: “they did not achieve expression of the one and the other in equilibrated relationship.”²³ The example Mondrian provides centers on poetry, or what he calls “verbal art.”²⁴ Verbal art is defined by Mondrian as “the plastic of sound and of idea.”²⁵ He differentiates between “verbal art” and “use of word” in a manner that makes “verbal art” into a realm for the new plastic, associating “use of word” with the tragic plastic or morphoplastic. “In the present use of word,” he explains, “purely abstract appearance is veiled, confused by materialized sound, traditional

¹⁸ Ibid., 154.

¹⁹ Ibid.

²⁰ Ibid.

²¹ Ibid., 155

²² Ibid.

²³ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence,” *The New Art-The New Life*, 140.

²⁴ Ibid.

²⁵ Ibid.

plastic exteriorization, and bastardized idea.”²⁶ Mondrian argues that it is easier for those arts traditionally conceived as “plastic arts” (painting, sculpture and architecture) to generate the new plastic than it is for the “verbal arts” (poetry, prose, literature, theatre and verbal performance): whereas the “so-called plastic arts are able to nullify form directly” to create a new plastic, “verbal art will have to destroy form indirectly.”²⁷ This is because “the word, as an element of language, remains necessary to designate things.”²⁸ For Mondrian, there is no equivalent to the word in in the traditional plastic arts. Mondrian’s criticism of the Futurists is that they want “to free word from idea.”²⁹ However, “if the Futurists hate intellect,” Mondrian contests, “it is because their thinking about the problem still follows the old mentality.”³⁰ It is not the “idea” that is the problem for Mondrian, but “form”: the new plastic involves a “new spirit” that changes the very “nature” of “feeling and intellect”—that changes the way the ‘idea’ is constituted.³¹ In this change of “nature,” “particular thought ceases to exist” and is distinguished from the “contemplative awareness” of “concentrated and creative thought.”³²

Interestingly, Mondrian’s critique of the Futurists does not refer to the groups’ own texts, but to newspaper articles on Futurism by art critic and journalist Dominique Braga.³³ Braga wrote a number of important articles on Futurism in 1920 and 1921, one of which gave the Futurist poet and leader Marinetti the name, the “great inventor.”³⁴ And yet, as Mondrian himself admits “a plastic is limited only by the *expressive means* it employs” and, “like the word plastic, everything

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid., 141.

²⁹ Ibid., 142.

³⁰ Ibid., 143.

³¹ Ibid., 142.

³² Ibid, 142-143

³³ Ibid, 142.

³⁴ Vera Castiglione, “A Futurist before Futurism: Emile Verhaeren and the Technological Epic,” *Futurism and the Technological Imagination*, ed. Gunter Berghaus (Amsterdam, Netherlands: Rodopi, 2009), 104. Leah Dickerman and Matthew S. Witkovsky, *The Dada Seminar* (Washington, DC: Center for Advanced Study in the Visual Arts with Distributed Art Publishers, 2005), 266. Dominique Braga, “Il Futurismo giudicato da una grande rivista francese,” Roma. September 10 and 11, 1920, in the Beinecke Digital Collections, Yale University Library. N. d. Accessed January 19, 2017. <http://brbl-dl.library.yale.edu/vufind/Record/4147257>

must be interpreted according to [...] spirit if it is to be understood at all.”³⁵ Mondrian elected to overlook the “spirit” of the Futurist plastic in his essay, critiquing this “spirit” for not being Neo-Plasticist enough. However, considering the extensive use of the term “plastic” by the Futurists in their manifestoes, is important to consider the “spirit” with which Futurists employed the word.

‘Plastic Foundations’: Umberto Boccioni

In 2001, the Scuola Normale Superiore di Pisa and the Accademia della Crusca collaborated in the publication of a small volume, *Manifesti Futuristi: Arte e Lessico* (Futurist Manifestos: Art and Lexicon). The book proposes a linguistic analysis of Futurist texts in the context of renewed scholarship and curatorial endeavors on Futurism in Italy. In her preface, researcher and literary scholar Stefania Stefanelli asserts that the book is a response to the fact that despite the ample literature on Futurism after the reconstruction of cultural life in Italy following World War II, “critical studies” of the movement “have shown themselves to be more attentive to historical reconstruction of the occurrences that characterized the existence of Futurism, or to inquiries into the ideologies that constituted its foundations, then to the analysis of the texts it produced.”³⁶ To address this lacuna, Stefanelli’s project offers a digitized library of manifestos and theoretical writing on CD-ROM in the attempt to contribute to new efforts for “systematic inquiry” of “critical elaborations and debates” in Futurism.³⁷ The digitized collection features a selection of texts from the initial phases of the Futurist movement, and from these texts, elaborates a lexical analysis. The “plastic” as both noun and adjective (in Italian “plastica, plastico”) is so important to Futurism that it is included among the group of six terms considered fundamental to the manifestoes, all of which are featured under the section “new meanings, new words” (*nuovi significati, nuove parole*). The other five terms in this list are

³⁵ Mondrian, “The Manifestation of Neo-Plasticism in Music and the Italian Futurists’ Bruiteurs (1921),” *The New Art-The New Life*, 151.

³⁶ My translation. Stefania Stefanelli, *Manifesti Futuristi: Arte e Lessico* (Livorno, Italy: Sillabe, 2001), 9.

³⁷ My translation, Stefanelli, *Manifesti Futuristi*, 9.

“futurism, futurist;” “passatism, passatist;” “dynamism, dynamic;” “synthesis, synthetic;” and “simultaneity, simultaneous.”³⁸ The often cited Futurist syntagm “plastic dynamism” (*dinamismo plastico*) is featured in another section titled “lexical singularities” (*unità lessicali superiori*) which also includes the well-known futurist phrases “words-in-freedom” (*parole in libertà, parolibero*), “imagination without strings” (*immaginazione senza fili*), “multilinear lyricism” (*lirismo multilineo*) and “interpenetration of planes” (*compenetrazione dei piani*).³⁹

According to Stefanelli’s lexical analysis, the adjective “plastic” occurs over seventy-nine times among the first Futurist manifestoes—those published between 1909 and 1918, from poet Filippo Tommaso Marinetti’s *Fondazione e Manifesto del Futurismo* (Foundation and Manifesto of Futurism, 1909) to his *Manifesto del Partito Politico Futurista* (Manifesto of the Futurist Political Party, 1918).⁴⁰ It is first used in the manifesto collectively signed by painters in 1912: *Manifesto dei Pittori futuristi* (Manifesto of Futurist Painters).⁴¹ In this context, it tends to be combined “with nouns that refer to the psychological sphere,” thus creating a “synthesis” between psychological and “aesthetic research” in terms like: “plastic sensation, plastic mood, plastic emotion.”⁴² Umberto Boccioni (fig. 9) furthers this practice of generating ‘plastic’ syntagms in his *Fondamento Plastico della Scultura e Pittura Futuriste* (The Plastic Foundations of Futurist Sculpture and Painting”) published in the magazine *Lacerba* in March 1913, then as part of his book *Pitture e Sculture Futuriste (Dinamismo Plastico)* (Futurist Painting and Sculpture [Plastic Dynamism], 1914).⁴³ This manifesto was the first to include the term “plastic”

³⁸ My translation. Stefanelli, “Indice,” *Manifesti Futuristi*, (not paginated). See also Stefanelli, *Manifesti Futuristi*, 51-89.

³⁹ My translation. Stefanelli, “Indice,” *Manifesti Futuristi*, (not paginated). See also Stefanelli, *Manifesti Futuristi*, 90 – 102.

⁴⁰ Stefanelli, *Manifesti Futuristi*, 83.

⁴¹ *Ibid.*

⁴² My translation. Stefanelli, *Manifesti Futuristi*, 83. The terms in Italian are “sensazione plastica, stato d’animo plastico, emozione plastica.”

⁴³ Stefanelli, *Manifesti Futuristi*, 83. Umberto Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), 139-142.

in its title. It begins by outlining the relationship of Futurism to early twentieth century scientific research, and the word “plastic” appears again immediately in the second sentence. The “plastic” is a qualifier used to modify the substantive “elements” that constitute a form of “life” between art and science, what Boccioni calls “constructive idealism”: “constructive idealism derives from pure plastic elements.”⁴⁴ “Plastic elements” are elements that are “illuminated by intuitions” of a “mentality” attributed to “scientific discoveries” and the “new conditions of life” these discoveries have “created.”⁴⁵ The renewal of life proposed by the manifesto advocates for what Boccioni calls “a law of plastic analogy almost completely unknown before us”: this “analogy”—the process of creating correspondences between otherwise disparate elements—is described as the “very essence of poetry”; it is a process by way of which it becomes possible to “achieve the plastic state of mind.”⁴⁶ The adjective “plastic,” as it is used by Boccioni, is thus conceived as a modification that results from the interconnection of entities and attitudes usually alienated from one another, like art and science, intuition and inquiry. Boccioni’s claim appears to be that plastic interconnections produce plastic thinkers and plastic makers.

Boccioni describes “plastic values” in sculpture as values that can be distorted by “atmosphere”—“a materiality that exists between objects.”⁴⁷ Instead of allowing atmosphere to “distort” “plastic values,” Boccioni insists that “sculpture must try and model the atmosphere.”⁴⁸ This passage resonates in a striking manner with Adolf von Hildebrand’s notion of plastic spatial continuum; the resonance is particularly striking considering Hildebrand’s neoclassical approach to sculpture and the Futurist’s explicit anti-traditionalist stance. Boccioni explains that for the kind of modeling of the atmosphere that he describes to take place, the sculptor must forcefully forget—what in Boccioni’s words is described as a “want to suppress”—“traditional and

⁴⁴ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 139.

⁴⁵ *Ibid.*

⁴⁶ *Ibid.*, 140.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

sentimental values concerning atmosphere.”⁴⁹ Once again, Boccioni’s manifesto recalls the same Herbartian conception of the mind that influenced Hildebrand’s post-Herbartian psychology of perception: “the mind receives individual disparate presentations that *must be either assimilated with past or contiguous presentations or else suppressed.*”⁵⁰ Though these instances are evidence of traditionally anti-traditional ideas influencing Boccioni’s manifesto, it is important to remember that the ultimate aim of the Futurists is not the idealized unity sought by the neo-classical Hildebrand. Rather, the Futurist objective is the active destruction of any presupposed integrality for the very sake of that tensile dynamism which dispersion and fracturing produces.

The “values” that must be suppressed for “plastic values” to emerge include the value of atmosphere as a “naturalism which veils objects, making them diaphanous or distant like a dream, etc., etc.”⁵¹ Atmosphere is not “intangible or made of gas,” Boccioni insists.⁵² It should not be made to “float overhead like a puff of air”: “I feel it, seek it, seize hold of it and emphasize it by using all the various effects which light, shadows and streams of energy have on it.”⁵³ “Hence, I create the atmosphere!” Boccioni exclaims. Once more, the exclamation resounds with Hildebrand’s late-19th century assertion that space must be conceived plastically (*plastisch vorstellen*) “as a void filled in part by the individual objects and in part by the air”: “the void exists not as something externally limited but rather as something internally animated.”⁵⁴ Like Boccioni, Hildebrand insisted that “the most essential attribute” of “space as three-dimensional extension and a three-dimensional mobility or movement-idea of our imagination,” is “continuity.”⁵⁵ Hildebrand’s atmosphere—like Boccioni’s—is not intangible but a thing that can

⁴⁹ Ibid.

⁵⁰ Herbart’s conception of mind as described in Iversen, *Alois Riegl*, 62.

⁵¹ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 140.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238.

⁵⁵ The reader is reminded that I have translated “oder bewegen unserer Vorstellung” as “movement of our imagination” instead of “kinesthetic activity of our imagination” (as it appears in the Getty translation) to preserve the specific connection to the “sight-activity” Hildebrand called “scanning” and to the notion of

be felt, sought, seized and emphasized. Indeed, Hildebrand had urged his readers to “imagine the spatial continuum as a body of water in which we submerge containers and thus define volumes as specifically formed individual bodies without losing the conception of the whole as one continuous body of water.”⁵⁶

According to Boccioni, the mist in “impressionist” atmospheres was already a step towards what he calls “atmospheric plasticity.”⁵⁷ Atmospheric plasticity was a move towards “physical transcendentalism” and “another step toward the perception of analogous phenomena that have hitherto remained hidden from our obtuse sensibilities.”⁵⁸ Among these “phenomena” Boccioni includes “the luminous emanations of our bodies” that he had previously discussed in other contexts as only becoming visible by “reproduc[ti]on in photographic plates.”⁵⁹ In the Rome lecture *Gli Espositori al Pubblico* (The Exhibitors to the Public, 1912) Boccioni had discussed photographs taken at seances that purportedly showed the “spiritualist ‘auras’” of each participating individual.⁶⁰ Plastic values are thus a “tangible measuring” of what in the case of atmosphere, “formerly appeared to be empty space.”⁶¹ This “measuring” is made up of “distances” between objects that are not actually empty gaps, but energetic interstices “occupied by material continuities made up of varying intensities.”⁶² For the sculptor, the continuities in a “solidity of space”⁶³ that are of interest are those that cannot be photographed. They can only be expressed by the hand or a tool on a material that cedes to being shaped.

“movement-ideas” (Bewegungsvorstellungen). [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238. [von] Hildebrand, *Das Problem der Form in der Bildenden Kunst*, 28.

⁵⁶ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238.

⁵⁷ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 141.

⁵⁸ *Ibid.*

⁵⁹ *Ibid.*

⁶⁰ “Notes,” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), note 3, 540.

⁶¹ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 141.

⁶² *Ibid.*

⁶³ *Ibid.*

According to Boccioni, “plastic conceptualization” is not an “abstract solution,” but part of a process of the “individual’s intuition.”⁶⁴ “Experimenting” and “research” create the conditions of possibility for “masterpieces;” these “masterpieces,” in turn, generate “formulas.”⁶⁵ “Plastic conceptualization” is not the “cold image-making” that results from “theoriz[ing] too rigidly” and in which there is a “gap between external and internal realities.”⁶⁶ Boccioni identifies this “cold image-making” with Cubism. Futurism—unlike Cubism—is “on the extreme fringe” for its particular approach to a “search for the definitive, through a succession of intuitive stages.”⁶⁷ The ‘plastic’ is conceived between formula and experiment, research and intuition.

This Futurist quest on what Boccioni calls the “fringe,” is a “new plastic translation of reality” that he insists must be accompanied by new “mental habits”: it would be “wrong to try to experience emotions” from the work by approaching it with an old viewpoint,⁶⁸ Boccioni writes three years before Mondrian’s insistence on a “new spirit” for the “new plastic.”⁶⁹ The “new plastic translation of reality,” Boccioni explains, is a new spectacle, a changed spectacle that wants to “show the living object in its dynamic growth”: it wants to “provide a synthesis of those transformations undergone by an object due to its twin motions, one relative, the other absolute.”⁷⁰ The “relative” and the “absolute” motions described in this passage recall the movement between “informality” in “plastic shape,” and “formality” in “sculpture,” described by historian Alex Potts in his definition of the ‘plastic’ in modernist sculpture.⁷¹ These motions create a synthesis between “the deconstructive and dematerialising imperatives of a modern

⁶⁴Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 142.

⁶⁵ Ibid., 141.

⁶⁶ Ibid., 142.

⁶⁷ Ibid.

⁶⁸ Ibid., 142.

⁶⁹ “If the new plastic is to interpret the new spirit, it must show itself homogeneous with the new spirit’s every manifestaion in life.” Mondrian, “The New Plastic in Painting (1917),” *The New Art-The New Life*, 43.

⁷⁰ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 142.

⁷¹ Potts, *The Sculptural Imagination*, 105.

aesthetic”⁷²—described by Potts as characterizing experiments with plastic shape—thus combining what Potts described as two distinct phenomena: the “shift from painting to work in three dimensions,” and “a fascination with imagining depicted forms taking shape in three dimensions.”⁷³ According to Potts, the latter “relates less to sculpture than to the preoccupation with represented depth central to modern Western painting.”⁷⁴ Though Potts intuitively more of a “preoccupation with represented depth central to modern Western painting” in Boccioni’s bronze, *Unique Forms of Continuity in Space* (1913) (fig. 9), Boccioni’s manifesto (coeval with the bronze) declares its concern with both the absolute position in space found in what Pott’s calls “work in three dimensions” and the “imagining [of] depicting forms taking shape,”⁷⁵ and which Boccioni describes as “relative” to “three dimensions.”⁷⁶

In *The Sculptural Imagination*, Potts compares Boccioni’s *Unique Forms of Continuity in Space* to Russian constructivist Alexander Rodchenko’s *Oval Hanging Construction No. 12*, (c. 1920) (fig. 10) in order to demonstrate his distinction between what he calls “formality” in “sculpture” and “informality” in “plastic shape.”⁷⁷ Notably, Rodchenko was deliberate about positioning himself against such distinctions *a priori*. In debates over Russian art that were held in the winter and early spring in 1921, the Russian artists of the First Working Group of Constructivists (*Peravia rabochaia grupa konstruktivistov*)⁷⁸ gathered to discuss “whether or not a distinction need[ed] to be drawn between “artistic” and “technical” (or “engineering”) construction.”⁷⁹ The term “plastic” reportedly emerged in these debates when it was invoked by

⁷² Ibid., 105

⁷³ Ibid.

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 142.

⁷⁷ Potts, *The Sculptural Imagination*, 105.

⁷⁸ Margarita Tupitsyn, “After Vitebsk: El Lissitzky and Kazimir Malevich, 1924 – 1929,” *Situating El Lissitzky: Vitebsk, Berlin, Moscow*, ed. Nancy Lynn Perloff, Brian M. Reed and El Lissitzky (Los Angeles, CA: Getty Research Institute, 2003), 178.

⁷⁹ Maria Gough, *The Artist as Producer: Russian Constructivism in Revolution* (Berkeley: University of California Press, 2005), 39.

Babichev with a binary opposition: “mechanical necessity” versus “plastic necessity.”⁸⁰ The context of this emergence was a disagreement over the notion that “the principle of construction” differs between “art and engineering.”⁸¹ As art historian Maria Gough recounts, in the first session of the group’s debate:

the painters [Varvara] Bubovna, [Aleksandr] Drevin, and [Lyubov] Popova immediately insist[ed] on the necessity of distinguishing between artistic and technical construction. The sculptor [Alexei Vasilievich] Babichev follow[ed] suit, insisting on a distinction between laws of “plastic necessity” and those of “mechanical necessity.” Rodchenko [was] against this distinction: “There is only one kind of construction,” he declare[d], defining “laid-bare construction” (*obnazhennaia konstruktsiia*) as the organization of a work’s elements and materials according to a purpose or goal (*tseľ*). Composition, he assert[ed], is the lack of such purposeful organization—it is merely a matter of the maker’s tasteful selection of particular components. Rodchenko argue[d] that his definition of construction is applicable irrespective of discipline or medium.⁸²

Bubovna and Pupova agreed construction was work of “purpose and necessity”—an “expediency of organization” that could be applied towards achieving “aesthetic goals”; however, they thought it should not be conflated with the aesthetic goal itself.⁸³ Babichev was wary of equating the “plastic” and the “mechanical,” the “artistic” and the “technical.”⁸⁴ Nonetheless, in the end, Rodchenko’s position prevailed.⁸⁵ For Rodchenko, there was no distinction between what Potts calls “sculpture” and “plastic shape.”⁸⁶ In his 1926 essay, *Our Book*, El Lissitzky—who had previously shown himself to be “in sympathy with the First Working Group’s [...] radical rethinking [of] the role of the aesthetic object”⁸⁷—explained his understanding of the medium of

⁸⁰ Gough, *The Artist as Producer*, 39.

⁸¹ *Ibid.*

⁸² Gough, *The Artist as Producer*, 39. Also discussed in Christina Kiaer, *Imagine No Possessions: The Socialist Objects of Russian Constructivism* (Cambridge, MA: MIT Press, 2005), 10.

⁸³ Kiaer, *Imagine No Possession*, 10.

⁸⁴ *Ibid.*

⁸⁵ Gough, *The Artist as Producer*, 39

⁸⁶ Potts, *The Sculptural Imagination*, 105.

⁸⁷ Tupitsyn, “After Vitebsk,” 178

the book as a “mediating device”⁸⁸ of the “plastic”: “by reading, our children are already acquiring a new plastic language; they are growing up with a different relationship to the world and to space, to shape and to colour.”⁸⁹ In this description, there is no identifiable distinction between the artistic and the technical—the “plastic” qualifies an aesthetic relationship to space and color, but also a general relationship to the world and shape.

Boccioni explicitly describes the “new plastic” as not “observ[ing], dissect[ing], or transpos[ing] into pictorial terms,” but rather, as aimed at “giv[ing] the style of movement.”⁹⁰ Once again, the distinction that Potts sets up between a “shift from painting to work in three dimensions,” and “a fascination with imagining depicted forms taking shape in three dimensions” breaks down.⁹¹ In Pott’s assessment, Boccioni’s *Unique Forms of Continuity in Space* does not exemplify the position he expresses in his writings; it is important to note, however, that in his texts, Boccioni explicitly writes against conceptions of the plastic that conflate work in three dimensions with the kind of “preoccupation with represented depth central to modern Western painting” that Potts associates the concept with.⁹² Boccioni elaborates upon this point, by asserting that the “new plastic” of Futurism is not “cinematographic”: it is not “trying to subdivide each individual image,” rather it is “looking for a sign, (...) a single form, to replace the old concepts of division with new concepts of continuity.”⁹³ In this definition of Futurist aesthetic goals, Boccioni’s anti-cinematographic rhetoric directly contrasts with the way poet Malcolm de Chazal describes his conception of the ‘plastic’ in his “*sens-plastique*”—he calls *sens-plastique* his “literary impressionism by subdivision;” his “film [of] the mind from the

⁸⁸ This characterization comes from art historian Victor Margolin. Victor Margolin, *The Struggle for Utopia: Rodchenko, Lissitzy, Moholy-Nagy, 1917-1946* (Chicago, IL: University of Chicago Press, 1997), 195.

⁸⁹ Margolin, *The Struggle for Utopia*, 195.

⁹⁰ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 142.

⁹¹ Potts, *The Sculptural Imagination*, 105.

⁹² Ibid.

⁹³ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 141.

inside.”⁹⁴ Thirty-five years after Boccioni’s manifesto, Chazal—a poet who, it is clear, would not feel the same threat from cinema that the painter Boccioni did at the turn of the century—would have no problem describing his plastic procedure as a sequence of projections:

What I proceeded to do was project a series of pictures on the inside of my mind, subconsciously project on the screen of the conscious mind continuous images [...] drawn from the depths of the subconscious. I showed them at high speed, each “film” consisting of a single face superimposed on an infinite number of still shots of itself. It was looked at in dissociated “takes.” I would stop the projector to separate a “take” and then write about it, having seen the essence of the expression in its inmost form....When I tried to extend interior filming into the natural world I had to rely on exterior observation. This meant—and I only gradually became aware of it—that I now needed to combine the *double vision of my retrogressive narcissism* (integrating myself into the world of things) with *filming the inside of the mind*. The result of the combination, of compressing and uniting the two methods together, was a *triple vision* of man and nature.⁹⁵

Interestingly, Boccioni’s expressly anti-cinematographic stance and Chazal’s cinematophilic position are similar in that both seek a continuity that is described as identification between artist and object. “We,” Boccioni writes of the futurists, “identify ourselves with the thing itself.”⁹⁶ Likewise Chazal writes: “I integrate [the object] into my self by dividing myself into [its] world so that [it] “sees me” in return.”⁹⁷ Chazal qualifies this statement by assuring readers he is not granting the object agency in this process: “obviously, this is only an apparent act of seeing by the [object]: what really happens is that the separate parts of the double self contemplate each other by means of the [object].”⁹⁸ Chazal’s relation between subject and object remains a “scopic relation”⁹⁹—the “experience of seeing oneself seeing oneself” through the object.¹⁰⁰ Chazal

⁹⁴ Chazal, “Afterword to Sens-Plastique,” *Sens-Plastique*, 161.

⁹⁵ Ibid.

⁹⁶ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 142.

⁹⁷ The specific object that Chazal gives as an example is a “flower.” I have replaced “flower” with object in order to better to represent the fact that Chazal is speaking in general about his process with regards to all the objects of his poems. Chazal, “Afterword to Sens-Plastique,” *Sens-Plastique*, 162.

⁹⁸ Ibid.

⁹⁹ Courtney Tunis, “scopic, vocative,” *The Key Words of Media Theory. Theories of Media*, ed. W. J. T. Mitchell, Eduardo de Almeida and Rebecca Reynolds. February 2004. Accessed January 4, 2017. The University of Chicago, <http://csmt.uchicago.edu/glossary2004/scopicvocative.htm>. For more on the scopic relation, see Jacques Lacan, *The Four Fundamental Concepts of Psychoanalysis* (1977), ed. Jacques-Alain Miler, trans. Alan Sheridan, (London, UK: Karnac, 2004).

persists with the cinematographic metaphor, explaining that with his “gaze hypnotically attached to what it sees,” he draws the object down into his “subconscious” through sense perception, until he feels that the object has become “*incarnate*” there.¹⁰¹ “At this point,” he concludes, “the cerebellum projects the [object] on the interior screen of my conscious mind where the psychic film unrolls and the constantly observant mind stops the imagery in flight here and there to extract a still shot and proceeds to write about it.”¹⁰²

Likewise, Boccioni explains that for the Futurist, “the object has no form in itself: the only definable thing is the line which signifies the relationship between the object’s weight (quantity) and its expansion (quality).”¹⁰³ In this distinction between “line” and “expansion,” Boccioni’s manifesto recalls Aby Warburg’s notes on “plastic art” (*plastische Kunst*) notes that, as previously discussed, positioned the young scholar’s thinking between the philosopher Vischer and the sculptor Hildebrand.¹⁰⁴ As previously discussed, by aligning “plastic art” with “extension” [*Umfang*] rather than relief (as the philosopher Robert Vischer had, and as Hildebrand implicitly did by privileging the medium of relief in his overall theory of art), Warburg had evaded making “plastic art” synonymous with sculpture (*Skulptur, Bildhauerei*).¹⁰⁵ By choosing to create a polarity between the “plastic” and the “graphic”—associated with “line and “extension” respectively—he had also avoided the painterly-plastic duality, which would have also encouraged confusing the ‘plastic’ with sculpture.

In a similar spirit, Boccioni quotes philosopher Henri Bergson stating, “all division of matter into independent bodies with absolutely determined outlines is an artificial division.”¹⁰⁶ The outline in contour is what Boccioni calls “optical illusionism.” He suggests instead “the

¹⁰⁰ Tunis, “scopic, vocative,” op. cit. Lacan, *The Four Fundamental Concepts of Psychoanalysis* (1977), op. cit.

¹⁰¹ Chazal, “Afterword to Sens-Plastique,” *Sens-Plastique*, 162.

¹⁰² Ibid.

¹⁰³ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 142.

¹⁰⁴ Warburg, “306 25.III 96. S Frico Public Libr<ary>,” *Fragmente zur Ausdruckskunde*, 150.

¹⁰⁵ Ibid.

¹⁰⁶ Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 141.

notion of *force-lines*—lines which “characterize the object” through “the perception of life itself.”¹⁰⁷ Hildebrand continues to haunt this section of the manifesto: Hildebrand had emphasized that “the boundary of an object is [...] also the boundary of the air surrounding it,” encouraging artists to conceptualize space plastically (*plastisch vorstellen*): he advocated for a sense of the objects’s boundaries—its outline—as a dynamic exchange between limitation (*begrenzen*) and animation (*beleben*),¹⁰⁸ an energetic tension not unlike that of Boccioni’s “force-lines.”

‘Plastic Analogies’: Gino Severini

In 1913, a manifesto titled *Le Analogie Plastiche del Dinamismo: Manifesto Futurista* (Plastic Analogies of Dynamism: Futurist Manifesto) by painter Gino Severini (fig. 53), introduced readers to a “world of plastic creation” in which “individual objects no longer exist for us,” and the universe is enclosed in the work of art.¹⁰⁹ What Severini proposes is akin to the subject-object exchange and object interchange that Aby Warburg proposed in his *Foundational Fragments* on “plastic art.”¹¹⁰ In Warburg’s 1896 notes, a combination of scopic and vocative relations¹¹¹—of “seeing oneself seeing oneself” through the object in the former, and of calling to the object to interpellate experience in the latter¹¹²—animate the object with a life of its own

¹⁰⁷ Ibid., 142.

¹⁰⁸ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238.

¹⁰⁹ Gino Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), 165.

¹¹⁰ Warburg, “305 23.III 96,” *Fragmente zur Ausdruckskunde*, 150. Warburg, “306 25.III 96. S Frico Public Libr,” *Fragmente zur Ausdruckskunde*, 150.

¹¹¹ Martin Jay argued that the “scopic regime” of the “modern era” identified by film theorist Christian Metz in his seminal 1977 book *Le Signifiant Imaginaire: Psychanalyse et Cinéma* (The Imaginary Signifier: Psychoanalysis and Cinema) is actually a “contested terrain rather than a harmoniously integrated complex.” In the present context, Warburg’s late 19th-century notes and the early 20th-century manifestoes of the Futurists are evidence of this. Martin Jay, *Force Fields: Between Intellectual History and Cultural Critique*, (New York, NY: Routledge, 1993), 114.

¹¹² Tunis, “scopic, vocative,” op. cit. For the “scopic,” see Lacan, *The Four Fundamental Concepts of Psychoanalysis* (1977), op. cit. For the “vocative,” see Emmanuel Levinas, *Totality and Infinity: An Essay on Exteriority* (1961), trans. Alphonso Lingis (Dordrecht, Germany: Kluwer Academic Publishers, 1991), 69.

through the “artistic act” (*“künstlerische” Act*).¹¹³ Likewise, in Severini’s writings, “exterior reality and our everyday knowledge of it” is forgotten for the creation of “new dimensions” through “artistic sensibility.”¹¹⁴ This “artistic sensibility” is comprised of “artistic emotions” that are “connected to the whole universe” not simply a “particular emotional environment”: “matter, considered in its effects, encloses the universe in an enormously vast circle of analogies, which start with affinities or resemblances and end with specific contrasts and differences.”¹¹⁵

Here, Severini expresses something of a sense of the “universal” that Mondrian would make central to his “new plastic” in his 1920 essay, *Neo-Plasticism*.¹¹⁶ It is thought that Mondrian may have met Severini in Paris between 1912 and 1913, and Severini was also “the first non-Dutch artist to contribute to [the magazine of Mondrian’s collaborators] *De Stijl*.”¹¹⁷ Nonetheless, by 1921, Mondrian positioned himself against theories that Severini expounded about the use of number in his compositions—theories which Mondrian told Van Doesburg made him so “angry” that he “spoke out against it (without mentioning [Severini’s] name)” in an article on neo-plasticism in music and theater published in 1922.¹¹⁸ In 1920, Mondrian had already written against what he called the “recently evolved [...] plastic expression by analogies.”¹¹⁹ It is generally thought that what Mondrian is referring to here is Marinetti’s definition of the “analogy” in his *Technical Manifesto of Futurist Literature* (1912); indeed, he could have found a copy of Marinetti’s manifesto in *Les Mots en Libertè Futuristes* (Futurist Words in Freedom,

¹¹³ Warburg, “306 25.III 96. S Frico Public Libr<ary>,” *Fragmente zur Ausdruckskunde*, 150. Warburg, “305 23.III 96,” *Fragmente zur Ausdruckskunde*, 150.

¹¹⁴ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 165.

¹¹⁵ *Ibid.*

¹¹⁶ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920),” *The New Art-The New Life*, 134-135.

¹¹⁷ “[Editor’s] Notes,” Piet Mondrian, *The New Art-The New Life*, 396.

¹¹⁸ Piet Mondrian, “Neo-Plasticism: Its Realization in Music and in Future Theater” in Piet Mondrian, *The New Art-The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G. K. Hall & Co., 1986), 156-157.

¹¹⁹ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920),” *The New Art-The New Life*, 142.

1919) which Marinetti is said to have given him as a gift.¹²⁰ Mondrian conceded that the practice of analogy “demolished” what he called the “old conception of composition” to allow things to be “born in totality”: “thanks to this,” Mondrian admitted, “the universal attains direct plastic expression.”¹²¹ However, though “the object and its action change” when oppositions are placed “side by side,” the “plastic transformation” that takes place “does not yet contain completely equilibrated plastic.”¹²²

The best example of what Mondrian is criticizing when he writes of this “not yet [...] equilibrated” “plastic transformation”¹²³ can be found in Severini’s discussion of “plastic conception” in his manifesto.¹²⁴ Severini describes “plastic conception” as a “sensation aroused in us by a real object”: he describes a blue cube whose external reality of volume and blue color are transformed through the “plastic conception” of “memory”—that “element of artistic intensification”—into “its formal and chromatic complementaries i.e., round shapes and yellow colors.”¹²⁵ Severini argues that since “memory” is the “memory of the emotion that remains, not the memory of the cause that produced it,” the intensity of emotion can transform a blue cube into a yellow sphere.¹²⁶ Memory is “independent of any unity of time or place” and the sole reason for being of “artistic creation.”¹²⁷ It is clear how in this description, Severini elaborates a position distinctly different from Mondrian’s advocacy for “the plastic suppression of particular thought.”¹²⁸

¹²⁰ “[Editor’s] Notes,” Piet Mondrian, *The New Art-The New Life*, 395.

¹²¹ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920),” *The New Art-The New Life*, 142.

¹²² *Ibid.*

¹²³ *Ibid.*

¹²⁴ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 165.

¹²⁵ *Ibid.*

¹²⁶ *Ibid.*

¹²⁷ *Ibid.*, 165.

¹²⁸ *Ibid.*

Severini describes how he came appreciate “the possibility of expanding *ad infinitum* the range of plastic expression.”¹²⁹ In this moment of realizing the possibility for expansion, he writes of “totally destroying the unities of time and place with a painting of memory which brought together (...) things perceived in Tuscany, the Alps, Paris, etc.”¹³⁰ Severini’s plastic expression is a kind of malleable map of plastic scale in which the unity of time and place is destroyed for a “whole” called a “single plastic whole”—a “whole” characterized by “dynamism and simultaneity.”¹³¹ For Mondrian, though this whole may be asserting something that looks like “the universal,” it is ultimately not doing so through opposition with the individual, but rather through a “lyricism” about individual memory that does not go far enough in eliminating the “self.”¹³²

Severini understands the early twentieth century as an “epoch” in which events and objects have become inseparable from what he calls “plastic affinities or aversions.”¹³³ These “affinities or aversions” are “call[ed] up simultaneously” by the “expansive action” of the object or the event; meanwhile, “memories” are “abstract realities” that serve as points of reference for the object or event in this “expansive action” to achieve its “full effect.”¹³⁴ For example, by way of “plastic affinities or aversions,” the shapes and colors experienced in the event of a dancer spinning in spirals through space can be found again in the “concentric circling of an airplane or in the on-rush of an express train.”¹³⁵ “Plastic analogy” allows for forms and colors connected with one experience, to be connected with the same sensations evoked by a very different situation: “the experience *ocean liner* is thus linked to the experience *Galleries Lafayette*,” two

¹²⁹ Ibid.

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² As previously discussed, Mondrian writes “the new plastic is in accord with Futurism in seeking to eliminate the “self” in art. It goes even further than they do. The art of the Futurists shows that they do not understand the consequences of the New Plastic.” Mondrian, “Neo-plasticism: The General Principle of Plastic Equivalence (1920),” *The New Art-The New Life*, 143.

¹³³ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 165.

¹³⁴ Ibid.

¹³⁵ Ibid.

very different situations which, “by qualitative continuities [...] permeate the universe on the electrical waves of our sensibility.”¹³⁶ The “plastic analogy” is thus described as a “complex form of realism which *totally* destroys the integrity of matter,” “taken (...) only at its greatest vitality.”¹³⁷ It belongs to “a Universe outside of time and space.”¹³⁸ This section of Severini’s manifesto helps to explain what specifically Mondrian was referring to when he challenged the critic Dominique Braga’s assesment that, “Futurism calls above all upon sensation. It is the frenzy of environment or, according to Marinetti’s own formulation, a lyrical psychology of matter.”¹³⁹ For Mondrian, this “lyricism” is still “descriptive, and [...] even fell into symbolism.”¹⁴⁰ The futurists “disregard intelligence,” but Mondrian insists that the “new man” created by his Neo-Plasticist “new plastic” “combines feeling and intellect in unity. When he thinks, he feels; when he feels, he thinks. Both are in him, despite him, automatically alive.”¹⁴¹

Severini cites Marinetti’s definition of literary analogy in his *Technical Manifesto of Futurist Literature* (1912), which understands “plastic analogy” to be a “deep love that binds together things that are remote, seemingly diverse or inimical,” a “chain” of “successive movements of an object” that is “condensed and concentrated;” a “shap[ing] strict nets of images” to “be cast into the mysterious sea of phenomena.”¹⁴² Analogies that are “plastic,” however, are particular in that they “penetrate the most expressive part of reality,” in order to “simultaneously render matter and will.”¹⁴³ “In their most intensive and expansive action,” they “render the reciprocal influence of objects and the environmental vitality of matter (intensity and expansion

¹³⁶ Ibid, 166.

¹³⁷ Ibid.

¹³⁸ Ibid.

¹³⁹ Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920),” *The New Art-The New Life*, 143.

¹⁴⁰ Ibid.

¹⁴¹ Mondrian cites himself in this passage, referring the reader to his previous essay “The New Plastic in Painting (1917).” Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920),” 1 *The New Art-The New Life*, 42.

¹⁴² Filippo Tommaso Marinetti’s *Technical Manifesto of Futurist Literature* (1912) as quoted in Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 166.

¹⁴³ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 166.

of object + environment).”¹⁴⁴ For Severini, plastic analogy “can infinitely enlarge the range of these influences, contiuties, desires and contrasts, whose unique form is created by [...] artistic sensibility,” and which “expresses the absolute vitality of matter, or universal dynamism.”¹⁴⁵ Plastic analogy accomplishes this expression of “universal dynamism” by taking “artistic emotion back to its physical and spontaneous source—nature—from which anything philosophical or intellectual would tend to alienate it.”¹⁴⁶ In this passage, Severini equates nature with the universal, or rather what Mondrian would call “aesthetic harmony” and “natural harmony.”¹⁴⁷ In doing so, Mondrian’s argument against his theory would be that it fails to “distinguish real unity from apparent unity”: it is an example of the “conscious self” that “seeks unity but in the wrong way.”¹⁴⁸

“Plastic analogy” as Severini describes it expanding upon Marinetti’s definition, is actually a combination of two different kinds of analogies: “real analogies” and “apparent analogies.”¹⁴⁹ In real analogies, two distinct things are directly connected by an explicit similarity. For example, the sea makes “zigzag movements” with “sparkling contrasts of silver and emerald”; a dancer also makes “zigzag movements” and her sequined costume creates the same sparkling effect.¹⁵⁰ Thus “sea=dancer” is an example of real analogy.¹⁵¹ In apparent analogy, the sight of the sea, for some unknown reason, suddenly evokes “a vision of a large bunch of flowers.”¹⁵² In plastic analogy, the expression becomes “sea=dancer+bunch of flowers” (fig. 53).¹⁵³

¹⁴⁴ Ibid.

¹⁴⁵ Ibid.

¹⁴⁶ Ibid.

¹⁴⁷ Neo-Plasticism: The General Principle of Plastic Equivalence (1920), 145.

¹⁴⁸ Ibid.

¹⁴⁹ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 167.

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 167. Gino Severini, *Mare=Ballerina* (Sea=Dancer, 1914), oil on canvas with artist’s painted frame, 41 ½ x 33 13/16 in (105.3 x 85.9 cm), The Solomon R. Guggenheim, Foundation Peggy Guggenheim Collection, Venice 1976.

In the “plastic sensibility” that is necessary to work with plastic analogy there are what Severini calls “foundations” for “expressive devices.”¹⁵⁴ Severini is explicit that these should not be considered “technical rules”—any such system of rules would be too rigid.¹⁵⁵ As “devices” these “foundations” must be “sufficiently malleable for the individuality of each artist.”¹⁵⁶ The foundations are outlined for both “form” and “color,”¹⁵⁷ and contrast radically with the “general principles” that Mondrian would publish for Neo-Plasticism in 1926.¹⁵⁸ First and foremost is Severini’s idea that straight lines and parallel lines, called “static and formless,” should be suppressed.¹⁵⁹ Second is the resulting emphasis on creating “simultaneous contrast” (as opposed to Mondrian’s “dual opposition”¹⁶⁰) using “spherical expansion”—what is referred to as “constructive interpenetration.”¹⁶¹ This “interpenetration” is achieved through a “rhythmic construction resembling arabesques,”¹⁶² that curving form that—as was shown in the previous section—even popular culture always contrasted with Mondrian’s compositions (fig. 42).¹⁶³

Following on this emphasis on the arabesque, Severini (fig. 53) insists that plastic analogies must be made to encounter each other via “centrifugal” and “centripetal” interrelations.¹⁶⁴ This is necessary both to “expressing sensations of movement” as well as to “do away with the principle of light, local tone, and shadows [...] used to show the effect of light on bodies.”¹⁶⁵ To maximize sensations of movement and emphasize the “expression of the sensation of light” rather than its “effect,” a single work of art’s “spherical expansion in space” can

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Ibid.

¹⁵⁸ Mondrian, “General Principles of Neo-Plasticism (1926)” in Piet Mondrian, *The New Art—The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G. K. Hall & Co., 1986), 213-215.

¹⁵⁹ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 167.

¹⁶⁰ Mondrian, “General Principles of Neo-Plasticism (1926),” *The New Art—The New Life*, 214.

¹⁶¹ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 167.

¹⁶² Ibid.

¹⁶³ See Saul Steinberg’s 1952 cartoon from *the New Yorker* as reprinted in Troy, *The Afterlife of Piet Mondrian*, 35.

¹⁶⁴ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 168.

¹⁶⁵ Ibid.

“contain more than one centrifugal and centripetal nucleus in simultaneous and dynamic interaction.”¹⁶⁶ The “sensation of light” is thus created by both fostering a sense of movement in line and form, as well as by “using the entire spectrum of colors [of the prism].”¹⁶⁷ Plastic analogy works not only with “a real difference among objects” but with “color analogies.”¹⁶⁸ Through its color analogies the plastic analogy attains “the greatest luminous intensity, heat [and] musicality,” the greatest “optical and constructional dynamism.”¹⁶⁹

Severini concludes the manifesto by insisting that practicing plastic analogy requires “plastic creations.”¹⁷⁰ He thus declares the coming “end of the painting and the statue.”¹⁷¹ These “art forms” are “passéist” (the Futurist neologism for traditionalist, conservative, a negative reliance on the past) and “already contain their fates within themselves”: fates that he describes as “museums, collectors’ living rooms, [etc.]”¹⁷² “Plastic creations” are instead creations which “share the active intervention of the outside world.” To do so, they “must live in the open air and fit into architectural schemes.”¹⁷³

‘Plastic Complexes’: Giacomo Balla and Fortunato Depero

Following on Severini’s call for “plastic creations,”¹⁷⁴ the Futurist syntagm “plastic complexes” first appeared in a manifesto by Giacomo Balla and Fortunato Depero who used it to name a new kind of object.¹⁷⁵ After manifestos on Futurist theatre and Futurist stage design were

¹⁶⁶ Ibid.

¹⁶⁷ Ibid.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

¹⁷⁰ Ibid., 169.

¹⁷¹ Ibid.

¹⁷² Ibid.

¹⁷³ Ibid.

¹⁷⁴ Ibid.

¹⁷⁵ Giacomo Balla and Fortunato Depero, “Futurist Reconstruction of the Universe (1915),” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), 209-212.

circulated in 1915,¹⁷⁶ Balla and Depero wrote their own manifesto titled *Ricostruzione Futurista dell'Universo* (Futurist Reconstruction of the Universe).¹⁷⁷ In this manifesto, the two artists describe their desire to realize a “complete fusion in order to reconstruct the universe, cheering it up, i.e., recreating it entirely.”¹⁷⁸ According to their account, this desire was a response to the proposal for “plastic dynamism, atmospheric modeling and the interpenetration of planes and states of mind” found in Boccioni’s manifestos and books, and in Carlo Carrà’s book *Guerrapittura* (*Warpainting*, 1915).¹⁷⁹ This is the same “call” that, as has been shown here, was reiterated in Severini’s *Plastic Analogies of Dynamism*.¹⁸⁰ In the “plastic complex,” Balla and Depero saw “Marinetti’s words-in-freedom and [Luigi] Russolo’s art of noises [...] merging with plastic dynamism in order to give a dynamic, simultaneous, plastic, noise-ist [*bruitiste*] expression of universal vibrations.”¹⁸¹ The *Futurist Reconstruction of the Universe* defines “plastic complexes” as the result of a process that “give[s] flesh and blood to the invisible, the impalpable, the imponderable, the imperceptible” to “find abstract equivalents for all the forms and elements of the universe.”¹⁸² Balla and Depero ascertain that these “forms and elements” can be combined, “according to the whims of our inspiration,” and with the creation of “plastic complexes (...) put into motion” (fig. 54).¹⁸³

¹⁷⁶ Lawrence Rainey, “Introduction: F.T. Marinetti and the Development of Futurism,” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), 21.

¹⁷⁷ Balla and Depero, “Futurist Reconstruction of the Universe (1915),” 209-212.

¹⁷⁸ *Ibid.*, 209.

¹⁷⁹ *Ibid.*

¹⁸⁰ Severini, “Plastic Analogies of Dynamism: Futurist Manifesto,” 165-169.

¹⁸¹ Balla and Depero, “Futurist Reconstruction of the Universe (1915),” 209.

¹⁸² *Ibid.*

¹⁸³ Balla and Depero, “Futurist Reconstruction of the Universe (1915),” 209. Giacomo Balla, *Complesso Plastico Colorato de Linee-Forze* (Colored Plastic Complex with Force Lines, 1913), plastic and thread, 15.7 x 11.8 x 5.9 in (40 x 30 x 15 cm), private collector; Giacomo Balla, *Complesso Plastico Colorato di Frastuono + Velocità* (Colored Plastic Complex with Din + Speed, 1914), paint, wood, cardboard and tin sheets, 20.47 x 23.62 x 2.76 in (52 x 60 x 7 cm), private collection; Fortunato Depero, *Fiera, complesso plastico motorumorista* (Fair, Motonoisist Plastic Complex, 1924, destroyed), dimensions not specified; Fortunato Depero, *Complesso motorumorista di equivalenti in moto* (Motonoisist Complex with Equivalents in Motion, 1914-1915, destroyed), dimensions not specified; Fortunato Depero, *Colori in Moto, esperimento plastico* (Colors in Motion, Plastic Experiment, 1914, destroyed), dimensions not

The two artist-authors attribute the first “dynamic plastic complex” to Balla’s studies of “the essential force-lines” in car speeds: “after more than twenty paintings exploring this project, he came to see that the single plane of the canvas did not permit for the depth necessary to capture the dynamic volume of speed.”¹⁸⁴ As a result of this experience, Balla recounts feeling “the need to make new constructions with iron wires, cardboard planes, fabrics and tissue paper, etc. [...]”¹⁸⁵ This auto-biographical account of how the construction of plastic complexes was first contrived is followed by a list of qualities that characterize the new objects:

1. Abstract. – 2. Dynamic. Relative motion (cinematographic) + absolute motion.
- 3. Transparent. From the speed and volatility of the plastic complex, which must appear and disappear, light and impalpable. – 4. Strongly Colored and Luminous by means of internal lights. – 5. Autonomous, i.e., resembling only itself. – 6. Transformable. – 7. Dramatic. – 8. Volatile. --- Fragrant. ---10. Noise-making. Simultaneous plastic noise-making together with plastic expression. – 11. Exploding, simultaneous bursts of apparition and disappearance.¹⁸⁶

The sense of “simultaneous bursts of apparition and disappearance” that was outlined as a key characteristic of Futurist “plastic complexes” is also an important though often overlooked feature of Mondrian’s “new plastic.” As Mondrian outlines in his *General Principles of Neo-Plasticism* (1926) it is not just the “constant equilibrium [...] achieved by [...] perpendicular opposition” that is required for the new plastic; it is also the “equilibrium that neutralizes and annihilates the plastic means” achieved through the “relationships of proportion” and their “vital rhythm” that is required. In this explosive equilibrium, balance does not mean “naturalistic repetition” or “symmetry.”¹⁸⁷ In fact, Mondrian is explicit about the fact that the latter “must be excluded.”¹⁸⁸

specified; Fortunato Depero, *Panoramagico, complesso plastico motorumorista* (Panoramagic, Motonoisist Plastic Complex, N.d., destroyed). Sabrina Carollo, *I Futuristi: La Storia, Gli Artisti, Le Opere* (Firenze-Milano, Italia: Giunti Editorie S.p.A, 2004), 26.

¹⁸⁴ Ibid., 209-210.

¹⁸⁵ Ibid., 210.

¹⁸⁶ Ibid.

¹⁸⁷ Mondrian, “General Principles of Neo-Plasticism (1926),” *The New Art—The New Life*, 215.

¹⁸⁸ Ibid.

In their manifesto, Balla and Depero describe Marinetti responding to their first plastic complexes with a dramatic soliloquy:

Before us, art relied on memory, an anxious re-evocation of an Object lost (happiness, love, a landscape), and hence was nostalgic, static, charged with suffering and distance. With Futurism, instead, art is turning into art-action, which is to say, into will, optimism, aggression, possession, penetration, delight, brutal reality within art (example: onomatopoeia; -- example: noise-tuners = motors), geometrical splendor of forces, projections forward. Thus, art is becoming Presence, new Object, new reality created with the abstract elements of the universe. The hands of the passéist artist used to suffer for the sake of the lost Object; our hand will twitch for the new Object to be created. That is why the new Object (the plastic complex) has miraculously appeared in your hands.¹⁸⁹

In this description, Marinetti seems eager to discard some of the reliance on memory and “anxious re-evocation of an Object lost” that Severini’s manifesto on plastic analogy had retained; this eagerness is expressed in the way Marinetti writes about the relationship between the plastic complex and the body— for Marinetti, the plastic complex is the “new Object” that makes the hand “twitch.”¹⁹⁰ To cause this “twitch,” the plastic complex requires a series of what Balla and Depero call “necessary materials.”¹⁹¹ These materials provide the plastic complex with various means to achieve motion of different types referred to in the manifesto as “rotations,” “decompositions” and “miracle magic.”¹⁹² The hand ‘twitches’ for the plastic complex because the plastic complex is kinetic.

Rotations are described as “plastic complexes that turn on a pivot” or “plastic complexes that turn on several pivots.”¹⁹³ Single pivot-turning plastic complexes turn horizontally, vertically or obliquely, whereas plastic complexes that turn on several pivots turn “in the same direction with variable speed; (...) in opposite directions; (...) [as well as] in the same *and* in opposite directions.”¹⁹⁴ Decomposition in plastic complexes occurs either in “successive transformations”

¹⁸⁹ Balla and Depero, “Futurist Reconstruction of the Universe (1915),” 210.

¹⁹⁰ Ibid.

¹⁹¹ Ibid.

¹⁹² Ibid., 210-211.

¹⁹³ Ibid., 210.

¹⁹⁴ Ibid.

or “simultaneously.”¹⁹⁵ The former occurs in the case of “volumes” and “levels,” and its transformations are likened to a composition moving “from cones to pyramids to spheres, etc;” the latter “decompose, speak, make noises, sound simultaneously.”¹⁹⁶ The following formula results:

$$\begin{array}{l} \text{Decomposition} \\ \text{Transformation} \end{array} \left\{ \begin{array}{l} \text{FORM +} \\ \text{EXPANSION} \end{array} \right\} \left\{ \begin{array}{l} \text{ONOMATOPOEIA} \\ \text{SOUNDS} \\ \text{NOISES}^{197} \end{array} \right\}$$

The phenomenon of “miracle magic” follows this formula and includes “plastic complexes that appear and disappear” whether at various speeds and rhythms, whether “slowly; (...) in repeated fits and starts (at intervals); (...) in unexpected bursts.”¹⁹⁸ The examples given are “fireworks – waters – fire – smokes.”¹⁹⁹ The materials listed for plastic complexes include the general category of “plastic,” intended as both material plastics and anything artificial: for example, “celluloids” and “transparencies” feature in the list, as do “chemically luminous liquids” and “everything gaudy or garish.”²⁰⁰ Most of the materials named, however, are everyday materials, poor materials that lack the precious quality of media usually associated with art, i.e., metal wires, strings of cotton, wool, tissue papers, metal screens, metallic foils, springs, levers and pipes.²⁰¹

The rotations, decompositions and miracle magic of appearance and disappearance that make a complex “plastic” are achieved by means of a “Futurist style” that the manifesto calls “noise-ist constructive complex abstraction”: “every action unfolds in space, every lived emotion will be the intuition of a discovery.”²⁰² The ascent of an airplane while a band is playing music in the town square below, produces intuitions called “plastic – motornoise-ist concert in space and

¹⁹⁵ Ibid., 210.

¹⁹⁶ Ibid., 210.

¹⁹⁷ Ibid., 211.

¹⁹⁸ Ibid.

¹⁹⁹ Ibid.

²⁰⁰ Ibid., 210.

²⁰¹ Ibid., 210.

²⁰² Ibid., 211.

the launching of aerial concerts above a city.”²⁰³ The experience of tearing up and throwing a book down into a courtyard leads to the intuiting of “phono-moto-plastic advertising and abstract-plastic fireworks contests.”²⁰⁴

The objective of plastic complexes is to counter “grotesque imitations, timidity (...) things that are monotonous and discourage exercise, prone only to dishearten (...) and make (...) stupid.”²⁰⁵ In the realm of games and toys for children, the “stupid” objects targeted by Balla and Depero include things like “miniature trains, little cars, dolls that can’t move, cretinous caricatures of domestic objects.”²⁰⁶ Plastic complexes constructed as games and toys are instead intended to “accustom the child” to “wholehearted laughter,” “maximum elasticity,” “imaginative impulses,” “the continual exercise and streamlining of (...) sensibility” and “physical courage, struggle and war.”²⁰⁷ They are also intended to be “useful for adults, helping to keep them young, agile, playful, carefree, ready for everything, tireless, instinctive and intuitive.”²⁰⁸ The Futurist laughter provoked by plastic complexes is not just any laughter, but “whole-hearted laughter,” the kind of laughter that occurs “through absurdly comical tricks.”²⁰⁹ The futurist “elasticity” of the plastic complex is only exemplified by what it should not be: it should not be like the elasticity that “resort[s] to thrown projectiles, whip-cracking, sudden pin-pricks, etc.”²¹⁰ The imaginative impulses that should result from plastic complexes are instead likened to those that “us[e] fantastic toys to be studied under a magnifying glass; little boxes to be opened at night containing pyrotechnic marvels; devices that transform themselves, etc.”²¹¹ If plastic complexes are to instill

²⁰³ Ibid.

²⁰⁴ Ibid.

²⁰⁵ Ibid.

²⁰⁶ Ibid.

²⁰⁷ Ibid., 211-212.

²⁰⁸ Ibid., 212.

²⁰⁹ Ibid., 211.

²¹⁰ Ibid.

²¹¹ Ibid.

“physical courage” in a child, inspiring “elasticity,” bellicosity and a desire to struggle, they must be “enormous toys that do things out in the open, dangerous and aggressive.”²¹²

To conclude the manifesto, Balla and Depero return to Balla’s first experiments with studies of the speeding automobile, reminding readers that the first plastic complex “revealed to us an abstract landscape of cones, pyramids, polyhedrons, spirals of mountains, rivers, lights, shadows”: “a deep analogy between the force-lines of speed and the essential force-lines of a landscape.”²¹³ The artists conclude that these first experiments are evidence that, through the construction of plastic complexes, they have “gone down into the deep essence of the universe, and (...) are mastering its elements.”²¹⁴ In 1915, the year Italy joined the First World War—with many hoping the conflict would help complete the late 19th-century project for national unity²¹⁵—the final lines of *Futurist Reconstruction of the Universe* declare that only the “Italian genius”—the most “constructive and architectural genius”—“could intuit the plastic abstract complex”: an “absolute creation,” a “fusion of art+science” that will “construct millions of metallic animals” for war.²¹⁶ One such ‘animal’—though not quite metallic—was a work said to be Boccioni’s “final sculpture”:²¹⁷ *Dinamismo di un cavallo in corsa + case* (Dynamism of a Galloping Horse + Houses, 1915) (fig. 55).²¹⁸ The assemblage of painted wood, cardboard and metal plays with texture, grain, folds and parabolic curves to achieve its dynamic formula for the gallop.²¹⁹ In keeping with Futurist dematerialization of the body, this example of “high Futurism” finds “the

²¹² Ibid., 211-212.

²¹³ Ibid., 212.

²¹⁴ Ibid.

²¹⁵ Giovanni Lista, *Futurisme: Manifestes, Proclamations, Documents* (Lausanne, Switzerland: L’Age d’Homme, 1973).

²¹⁶ Balla and Depero, “Futurist Reconstruction of the Universe (1915),” 212.

²¹⁷ Ibid.

²¹⁸ Umberto Boccioni, *Dinamismo di un cavallo in corsa + case* (Dynamism of a Galloping Horse + Houses, 1915), gouache, wood, cardboard and painted copper and iron, 44.45 x 45.28 (112.9 x 115 cm), Peggy Guggenheim Collection, Venice.

²¹⁹ Ibid.

animal almost totally dissolved into evidences of its movement” (fig. 55)²²⁰ The mid-section of the composition is painted in black, red and white oil and gouache, with swift staccato brush strokes of striking contrast. The folded cardboard panels and curling metal strips bend and project beyond and under firmer forms like fin-shaped panels. In this interpenetration of planes, there is not only the horse that dissolves, but the houses which are animated to defy their material bounds.

As Arthur Danto explains,

Boccioni hit on a truth well in advance of his time. Movement is not a property that exists alongside the other properties [...] revealed to the eye. It is not [...] an extra property that can be added or subtracted [...]. [T]he perception of movement affects the way we perceive everything else. [...] [E]verything is in motion, even things seen standing still.²²¹

This is even true for the title of the work. There is alliteration in the Italian words “case” (houses) and “cavalli” (horses) that when combined with the phonetic contrast between consonant “s” and “v” sounds and their relative positions in the mouth—the teeth over the tongue in “s” and the top teeth over the bottom lip in “v”—makes the mouth move to actualize the sense of motion that the title’s formula gives to the sculpture as its name. “Our bodies penetrate the sofas upon which we sit, and the sofas penetrate our bodies,” Boccioni had written with other Futurist painters in *Pittura Futurista: Manifesto Tecnico* (Futurist Painting: Technical Manifesto, 1910).²²² The title of Boccioni’s final work activates this interpenetration. As Boccioni and his fellow Futurist painters wrote, “the motor bus rushes into houses which it passes, and in their turn, the houses throw themselves upon the motor bus and are blended with it.”²²³ Like the buses, the horse—

²²⁰ Arthur Danto, “Boccioni and Il Futurismo,” *Encounters & Reflections: Art in the Historical Present* (Berkeley, CA: University of California Press, 1990), 229.

²²¹ Ibid.

²²² Umberto Boccioni, “Futurist Painting: Technical Manifesto (1910),” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven, CT: Yale University Press, 2009), 65.

²²³ Stephen Kern, *The Culture of Time and Space 1880-1918* (Cambridge, MA: Harvard University Press, 2003), 197.

once treated as a “quasi-allegorical figure” for work—is in Boccioni’s final work just the plastic “dynamic force”²²⁴ of interpenetration.

Balla’s work from the 1920s shows a similar concern for the affect of empathetic tension between the dematerialization of the body and the materiality of words: in *S’è rotto l’incanto* (The Spell is Broken, 1922) and *Numeri Inamorati* (Numbers in Love, 1923) (fig. 56)²²⁵, words and numbers are transformed into space like luminous pink hallways and attics, and architectural elements like metal pipes and carved stone moulding. Text and texture literally fuse in the articulation of space and the construction of environments. It is perhaps a lesson learned from the tactile and sound experiments involved in assembling plastic complexes like Balla’s now lost *Complesso Plastico Colorato di Frastuono + Danza + Allegrìa* (Colored Plastic Complex of Din + Dance + Cheer, 1915). Aside from the visual effects created by the assemblage of mirrors, tinfoil, talcum powder, cardboard and wire, there were also the tactile and sonic properties of these materials: the sharp expansive silence of the mirror or the fragile, breakable crinkling of foil; the satiny huff of powder (dust-cum-smoke), the rough popping resistance in cardboard, and the bendable potential for manipulation and sonic resonance in wire.

Between Boccioni’s *Unique Forms of Continuity in Space* (1910) and *Dynamism of a Galloping Horse + Houses* (1915), the plastic complexes transformed a Futurist preoccupation with form-in-motion into an obsession with formulas for momentum. Balla extended this even further, creating a scenography for *Fireworks (Feu d’Artifice, 1917)* (fig. 57),²²⁶ a performance of volumes and light without human presence on stage and where the ‘plastic’ itself can be said to

²²⁴ Christine Poggi, *Inventing Futurism: The Art and Politics of Artificial Optimism* (Princeton, NJ: Princeton University Press, 2009), 168 and 90.

²²⁵ Giacomo Balla, *S’è rotto l’incanto* (The Spell is Broken, 1922), oil on canvas, 17.5 x 12.8 in (44.5 x 32.5 cm), private collection; Giacomo Balla, *Numeri Inamorati* (Numbers in Love, 1923), 30.32 x 21.65 in (77 x 55 cm), Museo di Arte Moderna e Contemporanea di Trento e Rovereto (Mart), Rovereto.

²²⁶ For a reconstruction of Balla’s scenography for *Feu d’Artifice* see Elio Marchegiani, *Reconstruction of Giacomo Balla’s scenography for Feu d’Artifice* (Fireworks, 1917), abstract action of light and color with music by Igor Stravinskij for Sergej Djagilev’s Ballets Russes, at Teatro Costanzi, Rome (1997), Castello di Rivoli Museo d’Arte Contemporanea.

have replaced the actors performing.²²⁷ Indeed, the ultimate aim of the plastic complex had been to involve all the “creative forces” of the world in a phenomenon Balla and Depero described in a frantic sentence, its own variation on the plastic complex: “chemistry, physics, unexpected continuous fireworks, automatically speaking, screaming, dancing with new being.”²²⁸

The “Plastic Art” of *Métachorie*: Valentine de Saint-Point

Scholars of futurism often associate the Futurist aim of the “dancing with new being”²²⁹ described by Balla and Depero in their manifesto with Valentine de Saint-Point, the great-grand niece of iconic French poet and statesman Alphonse de Lamartine (fig. 58).²³⁰ Saint-Point’s theory and practice of dance is referenced by Marinetti in his *Manifesto of Futurist Dance* where he describes it as “an abstract metaphysical dance [...] supposed to embody pure thought without sentimentality or sexual excitement [...] abstractions danced but static, arid, cold, emotionless.”²³¹ In the text *Métachorie* (1914)—titled eponymously for the name she gave her approach to dance—Saint-Point defined her dance in different terms, writing about it as “plastic art.”²³² In *Métachorie*, she qualifies the “plastic” used in this context to mean an “exoteric materialization, a bodily rhythm, instinctive or conventional.”²³³ With the *métachorie* approach,

²²⁷ In 2014, the Guggenheim Museum (New York) created a digital animation of Balla’s stage design for Fireworks with accompanying environmental lighting effects for the occasion of *Italian Futurism, 1909-1944: Reconstructing the Universe*, February 21 – August 31, 2014, Guggenheim Museum, New York. For video documentation of the project, see Caitlin Dover, “How the Guggenheim Evoked a Groundbreaking 1917 Futurist Performance,” *Guggenheim Blog. Checklist – Mondays in Motion*, May 5, 2014. Accessed July 10, 2014. <https://www.guggenheim.org/blogs/checklist/guggenheim-evoked-groundbreaking-1917-futurist-performance>

²²⁸ Balla and Depero, “Futurist Reconstruction of the Universe (1915),” 212.

²²⁹ *Ibid.*

²³⁰ Steven E. Aschheim, *The Nietzschean Legacy in Germany: 1890 – 1990* (Berkeley, CA: University of California Press, 1992), 62.

²³¹ F. T. Marinetti, “Manifesto of Futurist Dance,” *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven, CT: Yale University Press, 2009), 236.

²³² Valentine de Saint-Point as quoted in Mark Franko, *Dancing Modernism / Performing Politics* (Bloomington, IN: Indiana University Press, 1995), 22.

²³³ *Ibid.*, 22.

the body is no longer an “intermediary” between the body and music, the mind and idea, it *is* the idea: it is mind in matter.²³⁴

All that remains of Saint-Point’s choreographies are staged performance photographs, drawings, descriptions written by critics, and the artist’s writings. There are nonetheless important insights that these materials can provide about her conception of dance as “plastic art.” First and foremost is the unique position that her conception of dance takes between symbolist poetics and new abstractionist tendencies. Her costuming is an excellent illustration of this. In her plastic art of mind in matter, femininity and masculinity are played off one another in a manner that follows Saint-Point’s declaration in *Manifesto della Donna Futurista* (Manifesto of the Futurist Woman, 1912) that “it is absurd to divide humanity into women and men; humanity is composed only of femininity and masculinity.”²³⁵ In her costume for one documented performance of her *Métachorie*, Saint-Point makes manifest the spirit of femininity of the “Erinyes, Amazons, Semiramides, Joan of Arcs, Jeanne Hachettes, Judiths and Charlotte Cordays, the Cleopatras and the Messalinas, the warriors [...], the lovers [...], the destroyers” who she invokes in the *Futurist Woman* manifesto.²³⁶ In its decadent references, her costuming alludes to the flowing garments and snaking serpents of the furies. In details like the crossing straps of high boots, and in the overall styling “meant to minimize [...] feminine contour and maximize the ‘muscle,’” there is the force of amazonian horsewomen.²³⁷ A long hanging braid recalls one of the regularly referenced coiffures of medieval French heroine Jeanne Hachette.²³⁸

²³⁴ Ibid., 24.

²³⁵ Saint-Point as quoted in Franko, *Dancing Modernism / Performing Politics*, 21.

²³⁶ Valentine de Saint-Point, *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven, CT: Yale University Press, 2009), 111.

²³⁷ Catherine C. Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” *Konsthistorisk tidskrift / Konsthistoriska Sällskapet*, Volume 73, Issue 2, (2004), 74.

²³⁸ See posters prepared for the annual Fetes Jeanne Hachette (Jean Hachette Festival) in Beauvais. The majority of the models in the posters are shown with distinctive braids. “La Fetes Jeanne Hachette,” *Les Amis des Fetes Jeanne-Hachette*. N.d. Accessed January 20, 2017. <http://photosdebeauvais.free.fr/fetesjh/fetesjh.html>. A well-known bronze of Jeanne Hachette created for

The turban brings to mind the headwrap that the biblical Judith's female companion has been painted wearing in depictions of Holofernes's slaying.²³⁹ In Saint-Point's headband there is even the barely identifiable trace of the wide ribbon circling the bonnet of revolutionary assassin Charlotte Corday as she is painted in a picture allegedly made at the time of her trial.²⁴⁰ And yet, the pastiche effect of combining these fragmentary elements annihilates any real opportunity for actual symbolic reference. Saint-Point appears more interested in the affective aspects of costuming and what it can contribute to the various corporealities, choreographies, and geometries expressed in the "idea" of her dance, then she is interested in signalling the presence of particular female heroines.

These details in Saint-Point's costume can be observed in performance photographs taken of a *métachorie* performance in 1913 (fig. 58).²⁴¹ In a tableaux of four such photographs—published as a configuration to accompany a report on her "futurist dances at the Poirier Theatre, Paris" (1914)—the most striking detail is her commitment to being faceless.²⁴² In each photograph, she obscures her face either with a veil, her hands or, when seated, by resting her head on crossed arms and legs. In the latter instance the circle of a headband that holds her obscuring silk veil in place, becomes an enlarged extension of a string of circles that fall in a vertical band in front of her shins and feet (top left). Each circle in the band is crossed by a vertical or horizontal line, creating a sense of pulsing rhythm up from her toes to her crossed

Beauvais in 1851 by the sculptor Vital Gabriel Dubray also portrays the heroine with her hair loosely braided back under a scarf.

²³⁹ Artemesia Gentileschi, *Giuditta che decapita Oloferne*, 1612-1613 (Museo di Capodimonte, Naples) and Artemesia Gentileschi, *Giuditta che decapita Oloferne*, 1620-1621 (Galleria degli Uffizi, Florence).

²⁴⁰ Jean Jacques Hauer's painting of Charlotte Corday at the Museum at Versailles is mentioned in a Auguste Cabanès, *Pathological Studies of the Past. Curious Bypaths of History being Medical-Historical Studies and Observations* (Paris, France: Librairie des Bibliophiles, 1898), 147-148. Cabanès books are known to have inspired Surrealists. Simon Baker, *Surrealism, History and Revolution* (New York, NY: P. Lang, 2007), 21.

²⁴¹ Photographs of Valentine de Saint-Point from her performances of *La Métachorie* at the Théâtre Leon-Poirier in Paris, 1913-1914. Reproduced in the Sketch Supplement, 7, January 1914. Courtesy of the Dance Collection, New York Public Library. Nancy Locke, "Valentine de Saint-Point and the Fascist Construction of Woman," *Fascist Visions: Art and Ideology in France and Italy*, ed. Matthew Affron and Mark Antliff (Princeton, NJ: Princeton University Press, 1997), 88.

²⁴² Locke, "Valentine de Saint-Point and the Fascist Construction of Woman," 88.

arms. The geometry of the pose is complex, but has often been overlooked in analysis of the photographs. Her crossed arms create a square that the circle of her headband is nested within. The compressed ‘X’ of her arms opens into the expanded ‘X’ of her legs. The vertical line of circles in the band cross this expanded chiasmic ‘X’ with its own vertical and horizontal dashes. In another photograph below (bottom left), the chiasmus, the circles, and the squares return again. The circle of Saint-Point’s headband is still in the foreground of the photograph, only this time it is not centered in the frame but tilted off to the right. Saint-Point lies on her back with her body contorted—her knees are bent acutely so her calves extend against her outer thighs; her feet are pulled up to her hips by her hands; her elbows are elevated and bent to create right angles between her upper arms and forearms. Her arms and feet make two squares at either side of her body. Her legs are two triangles flanking her pelvis. Her entire body appears configured as both a circle and a square. Meanwhile, the pattern of triangular brackets on her headband repeats the triangular forms taken by her bent legs. The tension in her body contrasts with the loose flow of the veil that obscures her face and falls around her head.

The approach to dance that Saint-Point called *métachorie* has been described as marking Saint-Point’s move from an “earlier preoccupation with scripted drama to a theatre of spectacle”—“from a fictive protagonist who speaks and acts, to an anonymous dancer who signifies pure form in motion.”²⁴³ In her theater and dance criticism, Saint-Point had criticized Vaslav Nijinsky and Isadora Duncan for working with what art historian Catherine Bock-Weiss characterizes as “stylizations of the already stylized”: “poses and postures found on vases and sculptured reliefs,” or “conventionalized actions” like tennis movements (i.e. Nijinsky’s *Jeux*) that are products of “the technical requirements of the game.”²⁴⁴ The closest Saint-Point appears to get to this type of stylization are her elaborate costumes. The costumes undoubtedly worked

²⁴³ Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 72.

²⁴⁴ Ibid.

with the popular conceptions of strong female figures absorbed from ancient graphic designs, statuary, reliefs and more recent 19th-century monuments;²⁴⁵ however, her movements themselves do not appear to have been conceived through incorporated replications of types derived from similar sources. Even the costumes seem more preoccupied with texture and the potential for movement in various accessories, then they are with any allegorical coding. Since it was in the use of “images [...] already stylized from natural, living movement” that Saint-Point’s criticism perceived the “failure of modern dance,” she experimented with a re-invention of style.²⁴⁶

Rather than work with stylized poses and postures, Saint-Point experimented with her own “*figures idéistes*” (ideist figures), geometric designs she used in the process of writing her poems (fig. 58, below).²⁴⁷ In the ideist figure that accompanied the publication of the poem *Pavots de Sang* (Blood Poppies) in *Montjoie!* (1914), it is possible to see the same contortions in the geometric floral design as previously described in her photographed body configuration. Four loops in the design occupy the center of four quadrants on the page. Each loop is a teardrop-shape that crosses to open in a petal-like rounding. The loops and their extending curves recall Saint-Point’s ovoid torso and bent legs in the performance photograph. Seen in reverse, her bent arms could also be interpreted as following the topology of the open curves as they extend back from each teardrop-shape. Extending back they reconnect with the crossing vertical and horizontal lines in the ideist figure.

²⁴⁵ For example, see the “amazon” relief used in Joshua Rothman, “The Real Amazons,” *The New Yorker*, October 17, 2014. Accessed January 20, 2017. <http://www.newyorker.com/books/joshua-rothman/real-amazons>. For Erinyes with serpents in their hair, see William-Adolphe Bouguereau’s *Orestes Pursued by the Furies*, 1862, 91 x 109 5/8 in. (231.1 x 278.4 cm), Chrysler Museum of Art, Norfolk, Virginia; for the Erinyes with serpents around their arms on a 4th-century B.C. Apulian red-figured vase decorated with Erinyes and the Three Furies (Badische Landesmuseum, Karlsruhe).

²⁴⁶ Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 72.

²⁴⁷ The caption to the print of Saint-Point’s drawing in the magazine *Montjoie!* (1914) identifies the image as Valentine de Saint-Point, “Figure idéiste des Pavots des Sang” (Ideist Figure of Blood Poppies) (1914). See Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 73. The re-printed image is from the Jerome Robbins Dance Division, The New York Public Library for the Performing Arts, Astor, Lenox and Tilden Foundation.

De Saint-Point described the relationship between her *métachorie*, her poems, and her ideist figures, as similar to that between a musical composition and its “orchestral score.”²⁴⁸ As

Bock-Weiss explains:

She drew a general idea from one of her own (already published) poems, a poem that was read at the beginning of the performance either from behind stage or from the orchestra. The Idea thus educed was then visualized in the form of a geometric figure, diagram or symbolic linear design, “as one writes an orchestral score;” this diagram was then both projected on the backdrop during the dance and used as the floor plan of the dancer’s path on the stage.²⁴⁹

In performances, “stage décor was minimal” however “dramatic lighting (one main color for each section) was important to project the concept of each set or group of dances, as was the releasing of [...] incense.”²⁵⁰ One might wonder if the shapes that can be discerned in the performance photographs were perceptible to the viewer. Descriptions of the dance by critics indicate that though the geometric complexities of her body configurations may not have been the most noticeable aspect of the performance, the role of her projected ideist figures was explicit:

while the invisible reader shouts the impassioned verses, the stage remains in shadow and we distinguish only an upright form, dark and disquieting, positioned under a small, luminous and cabalistic design. The design changes according to the sense of the poems—it is a triangle, or a square, or a diamond or a circle—a hermetic and geometric writing[...], there were roses [...], [there were] intertwined spears [...].²⁵¹

At the conclusion of this description, the critic sums up the scene, stating: “De Saint-Point dances her ideas.”²⁵²

Thinking about the role of the ideist figures in Saint-Point’s *métachorie* in relation to the ideograms that appear in futurist Anton Giulio Bragaglia’s Futurist film *Les Possédés: Thais*

²⁴⁸ Ibid., 73.

²⁴⁹ Ibid.

²⁵⁰ Ibid.

²⁵¹ Ibid.

²⁵² Ibid.

(1916) (fig. 60)²⁵³ helps to illuminate important distinctions between *métachorie* and Futurism. Bragaglia's film, starring actresses Bianca Bellincioni Stagno and Thais Galitzky, was named for the latter. The set of Bragaglia's film uses two designs from a series of hermetic woodcuts that 16th-century Italian Hermeticist philosopher Giordano Bruno created for a volume he published while under the protection of the court of Rudolf II in Prague (*One Hundred and Sixty Theses Against Mathematicians and Philosophers*, 1588) (fig. 60, two film stills at the bottom of the sequence).²⁵⁴ The designs appear at the end of the film. They are painted in enlarged scale as the bottom panels on the walls of a gas chamber that the character Thais prepared for herself. In the final scene of the film, Thais writhes in desperation from asphyxiating fumes released through the teeth of a vent painted in the form of a mouth. The intertitles of the film summarize the sequence succinctly: "obeying the instinct for self-preservation, Thais tries to escape from the death that she skillfully prepared to end her delirious and artificial life with cruel refinement."²⁵⁵ While Bragaglia's film transforms Bruno's figures into ornament, Saint-Point appears to work with Bruno's philosophical process, creating her own poems and ideograms, and corporealizing them with movement.

Dance historian Gabriele Brandstetter describes Saint-Point's *métachorie* as "a rejection of the principles of *plasticity* and *rhythm* in dance."²⁵⁶ With the term "plasticity," Brandstetter clarifies that she intends "sculpture"—referring not only to the use of poses from ancient sculpture in "Duncan's "Greek" dances" and "Nijinsky's *Faune*," but also to the "principle of

²⁵³ *Les Possédés: Thais*, directed by Antonio Giulio Bragaglia and Riccardo Cassano (1916; Italy: Novissima Film, 1916), 35mm film. Conserved at La Cinémathèque Française. www.cinematheque.fr/film/42502.html

²⁵⁴ The original title in Latin is *Articuli centum et sexaginta adversus huius tempestatis mathematicos atque philosophos*. See Arielle Saiber, *Giordano Bruno and the Geometry of Language* (Burlington, VT: Ashgate, 2005).

²⁵⁵ *Les Possédés: Thais*, op. cit. For an online post of the film, see A cinema History, "Thais (Les possédées) A 1917 futurist film by A.G. Bragaglia (with english captions)." Online video clip, *Youtube*. December 17, 2014. Accessed January 3, 2016. <https://www.youtube.com/watch?v=0iPF3Ygl16Fo&t01835s>.

²⁵⁶ Gabriele Brandstetter, *Poetics of Dance: Body, Image, and Space in the Historical Avant-Gardes* (1995), trans. Elena Polzer with Mark Franko (Oxford, UK: Oxford University Press, 2015), 312.

rhythm in the ‘rhythmic gymnastics’ of Émile Jaques-Dalcroze and to the entire ‘rhythm’ movement [as a whole] and [its manifestation] in *Ausdruckstanz* [Expressionist Dance].”²⁵⁷ Brandstetter counterposes plasticity—the combined principles of “sculpture and rhythm” in dance—with Saint-Point’s notion of “ideistic dance,”²⁵⁸ or dance in which the “idea [is] the formative motor” (fig. 58, below).²⁵⁹ In Brandstetter’s analysis, “sculpture [...] emphasized the body as a semiotic form,” and “rhythm [...] focused on the temporal component of movement as an expression of the rhythm of life.”²⁶⁰ Brandstetter argues that Saint-Point’s innovation in dance was replacing sculpture and rhythm with “line”: not line intended as “ornament,” but rather line intended as “an abstract basic pattern”—a spatial-formula, what inspired by Warburg’s pathos-formula she calls “topos-formula.”²⁶¹

In topos-formula, “line” refers not only to the “spatial line of dance movement, but also to the kinesphere of the body,” that sphere around the body whose periphery can be reached by the limbs being outstretched from a fixed axis point of reference.²⁶² Line is thus both line intended in a conventional sense (what Aby Warburg’s *Foundational Fragments* associated with “graphic art”) as well as extension (what Warburg associated with “plastic art”).²⁶³ In Saint-Point’s dances, this expanded notion of line shows up in various dimensions: first, in the lines of the body; second, in their configurations; third, in the body’s trajectories; fourth, in the geometric line of ideist figures projected on backdrops for performances; and fifth, in the poetic ‘line’ of poems and critical writings which, as Brandstetter explains, are “intertwined with the texture of

²⁵⁷ Brandstetter, *Poetics of Dance*, 312.

²⁵⁸ From Saint-Point’s manifesto of *Métachorie* (1913) published in the Parisian newspaper *Tribune Libre*. Brandstetter, *Poetics of Dance*, 306.

²⁵⁹ Brandstetter, *Poetics of Dance*, 312.

²⁶⁰ *Ibid.*

²⁶¹ *Ibid.*

²⁶² Rudolf Laban quoted in Derek P. McCormack, *Refrains for Moving Bodies: Experience and Experimenting Affective Spaces* (Durham, NC: Duke University Press, 2013), 172.

²⁶³

[her] choreograph[ies].”²⁶⁴ Saint-Point takes the idea of choreography literally, creating dance that is an actual combination of *chorie*, or dance, and *-graphy*, or writing.

With regard to Brandstetter’s discussion of “plasticity,” it is important to note that Saint-Point not only defined *métachorie* as dance that “expresses an idea,” but as a dance that “releases [...] plastic rhythm”—a choreography that liberates dance from its “enslavement” to music, to make it autonomous “plastic art.”²⁶⁵ Though scholars identify her work with Futurism, by identifying her plastic dance as “ideistic” rather than “futurist,” Saint-Point aligned herself more with the intellectual Ricciotto Canudo than with Futurism. Canudo’s *Cérébrisme* (Cerebrism) had theorized cinema as “an art so [...] rhythmic and plastic, scientific and artistic,” that it is capable of creating “new cerebral patterns” (*nouvelles habitudes cérébrales*); likewise, Saint-Point’s use of the term “plastic” refers to “inter-sensory perception” not to sculpture, and her conception of “plastic rhythm” is committed to the liberation of rhythm from sensation and representation for an abstract rhythm of the body-as-idea—what using Canudo’s words could be described as a rhythm of “new cerebral patterns.”²⁶⁶

In her research on Saint-Point, Bock-Weiss identifies a difference between what she calls Saint-Point’s “an-esthesia” and the popular 19th-century concept of synesthesia²⁶⁷ that the Futurists reference with their frequent use of the terms “synthesis” and “synthetic” (*sintesi, sintetico*).²⁶⁸ As Bock-Weiss writes:

esthesia constituted a complex set of responses to the sense-perception of nature and, eventually, of art, so an-aesthesia is a response to what is not nature. An-esthesia is a sublimated mental or spiritual perception that rejects the natural for [...] a non-mimetic projection of the intellect.²⁶⁹

²⁶⁴ Brandstetter, *Poetics of Dance*, 312.

²⁶⁵ *Ibid.*, 306.

²⁶⁶ Ricciotto Canudo, “Lettere d’arte. Il Trionfo del Cinematografo,” *Il Nuovo giornale* (Florence) 25 Nov. (1908), reprinted in *Filmcritica*, no. 278 (November 1977), 292-296. Ricciotto Canudo, *L’Officina delle Immagini* (Roma, Italia: Bianco e Nero, 1966).

²⁶⁷ Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 67.

²⁶⁸ Stefanelli, *Manifesti Futuristi*, 76-79.

²⁶⁹ Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 67.

Whereas synesthesia fascinated the 19th-century romantics and symbolists with a “notion of a point of originary unity amongst the senses since sundered”—a “hidden unity of the world” that could “be grasped in moments of illumination”—Saint-Point’s an-esthesia “was formulated on the structure of separate sensory experiences retaining their clarity and distinctiveness, while being combined in a whole whose integration and interpretation”²⁷⁰ is left to a separate meta-critical sense, a plastic sense—or, in the case of Saint-Point, a *meta-chorie*: *meta-* from the Greek for “after” or “beyond,” and *chorie* for “dance.” Saint-Point’s dance beyond-dance attempted to establish a new sense of what it meant for dance to be expressive: not the expression of “sensations or psychologies,” but the “expression of an idea;” not a pantomime of emotion that performs expressing, but the plastic corporealization of a “spirit that animates.”²⁷¹

The Staircase and a ‘Fantastically Slow Unfolding’

It could be said, using Saint-Point’s language to write about Maria Hassabi’s *PLASTIC*, that the “plastic rhythm” in Hassabi’s choreographies is, as art critic and curator Tim Griffin describes it, a “fantastically slow unfolding.”²⁷² According to Griffin, this rhythm “heightens [...] changing relationships between corporeality and pictorialism,”²⁷³ what Hassabi talks about as a “relation of body to image” that “draw[s] its strength from the tension between the human subject and the artistic object.”²⁷⁴ In her artist statement, Hassabi describes this tension as assuming an “uncanny sculptural quality” in her performers.²⁷⁵ In his essay the *Aesthetics of Ufology* (1997), artist Mike Kelley (1954 – 2012)²⁷⁶ associates “uncanny quality” with the

²⁷⁰ Warburg, “306 25.III 96. S Frico Public Libr<ary>,” *Fragmente zur Ausdruckskunde*, 150.

²⁷¹ Valentine de Saint-Point, “La Métachorie (1914)” in *Giovanni Lista, Futurisme: Manifestes, Proclamations, Documents* (Lausanne, Switzerland: L’Age d’Homme, 1973), 255-256.

²⁷² Griffin, “Living Contradiction,” 1.

²⁷³ *Ibid.*

²⁷⁴ Maria Hassabi quoted in Griffin, “Living Contradiction,” 1.

²⁷⁵ *Ibid.*

²⁷⁶ Mike Kelley (Wayne, Michigan 1954 – South Pasadena, California 2012) is “considered one of the most influential artists” of the early 21st-century. His first well-known works were sculptures fabricated from popular craft material and early sculptures featuring “repurposed thrift store toys, blankets and worn

movement of slime.²⁷⁷ Citing philosopher Jean-Paul Sartre, he explains that “slimy things” are “imbued with an uncanny quality” because they “cling.”²⁷⁸ As Kelley writes—again quoting Sartre—this clinging “provoke[s] an ontological crisis” by “threaten[ing] one’s sense of autonomy.”²⁷⁹ The “ambiguous qualities” of slime are “accentuated by the fact that its ‘fluidity exists in slow motion.’”²⁸⁰ By this slow motion, Kelley explains, “[slime] makes a spectacle of its instability.”²⁸¹ Whereas “water [...] instantly absorbs itself, slime does so slowly, giving one the false impression that it is a substance that can be *possessed*. Slime is read therefore, as a deceitful material. Its in-betweenness, its boundary-threatening attributes, provoke a [...] sublime experience.”²⁸² Hassabi’s choreographies take this same ‘uncanny quality’ into the body. Her sculptural uncanny is the effect of a similar phenomenon in the sense that it is an ‘in-betweenness’ with ‘boundary-threatening attributes’ that gives the ‘false impression’ that the body is ‘a substance that can be *possessed*.’ The fact that the sense of self-possession in the body appears as a ‘false impression’ is what generates the uncanny because the feeling of being in full possession of one’s own body is such a commonplace. Since sculpture is usually contained and necessarily stable like Kelley’s example of water, creating a situation in which the body becomes a sculptural object that moves like slime liberates both the human body and the artistic object from their respective forms, restoring a sense of plastic rhythm.

stuffed animals” explored “memory, trauma and repression” in what he called a “shared culture of abuse.” He created a wide variety of work in performance, installation, drawing, painting, video, photography, sound, text and sculpture. He played with the band Destroy All Monsters (1979 -1985). He frequently collaborated with other artists and wrote about their works in both critical and creative ways. “Mike Kelley,” *Mike Kelley Foundation for the Arts*, N.d. Accessed February 10, 2017. <http://www.mikekelleyfoundation.org/#!/about/mission>

²⁷⁷ Mike Kelley, “Aesthetics of Ufology,” *Mike Kelley: Minor Histories—Statements, Conversations, Proposals*, ed. John C. Welchman (Cambridge, MA: MIT Press, 2004), 403.

²⁷⁸ Kelley, “Aesthetics of Ufology,” 403.

²⁷⁹ *Ibid.*

²⁸⁰ *Ibid.*

²⁸¹ *Ibid.*

²⁸² Kelley, “Aesthetics of Ufology,” 404.

The cultural phenomenon of “ufology” that Kelley discusses in *Aesthetics of Ufology* began in the 1940s and, in his 1997 essay, extends to the early 1990s. In 1972, the disaster novel *Mutant 59: The Plastic Eaters* circulated the tale of a world beset by solid material plastics turning to slim due to “a strain of bacteria mutating after exposure to a new biodegradable plastic”: “as solid plastic turned to slime everywhere, toys ran amok, clothes melted, heart valves malfunctioned, subway trains crashed, and an airliner dissolved in midair.”²⁸³ Ironically, at the time of the book’s publication, the “throwaway society” of material plastics was flourishing. According to historian of material plastics, Jeffrey Meikle, “as the physical yielded to the digital, the material to the immaterial,” the new society encouraged “a more tenuous conception of things.”²⁸⁴ With this “transformation,” between “plastic presence” and “the process of plasticity,” the meaning of “plastic” was “shift[ing] almost beyond any correlation with material things. [...] [P]lastic expressed a sense of limitless shape-shifting.”²⁸⁵

At a historical moment when the “process of plasticity” has taken over popular conceptions of the “plastic,” making it increasingly difficult to find mention of the term that does not directly associate it with the organ of the brain,²⁸⁶ Hassabi’s *PLASTIC* returns to the problem of “plastic presence,” though not in the sense that Meikle intends it.²⁸⁷ Beyond ‘plastic presence’ intended as the presence of material plastics, there is the ‘plastic presence’ between body and space found in Valentine de Saint-Point’s line of “plastic rhythm,” and the ‘plastic presence’ among body, object and architecture found in Hassabi’s *PLASTIC*. In Hassabi’s choreography

²⁸³ Meikle, *American Plastic*, 276.

²⁸⁴ Ibid.

²⁸⁵ Ibid.

²⁸⁶ The Learning Network, “Word of the Day: Plasticity,” *The New York Times*. February 26, 2010. Accessed January 22, 2017. https://learning.blogs.nytimes.com/2010/02/26/word-of-the-day-plasticity/?_r=0. On January 22, 2017. A Google search of the term “plasticity” in the U.S. newspaper of record, the New York Times, returned 18 posts on “plasticity” in the organ of the brain before providing the link to an article on philosopher John Dewey’s concept of “plasticity” in learning as “an openness to being shaped by experience.” Michael Roth, “John Dewey’s Vision of Learning as Freedom,” *The New York Times*. September 5, 2012. Accessed January 22, 2017. <http://www.nytimes.com/2012/09/06/opinion/john-deweys-vision-of-learning-as-freedom.html>.

²⁸⁷ Meikle, *American Plastic*, 276.

for the MoMA staircases, this ‘plastic presence’ is found not only in the general “slow unfolding” identified by Griffin,²⁸⁸ but in the way this unfolding specifically embodies the pleating of space/time over what appear to be the banal treads and risers of staircases. Notably, Antonio Sant’Elia’s manifesto, *Futurist Architecture* (1914), railed against this rhythm in “stairs” as a holdover of “the sense of the monumental, the massive, the static”:

we must invent and rebuild our Futurist city like an immense and tumultuous shipyard, active, mobile, and everywhere dynamic [...]. Elevators must no longer hide away like solitary worms in the stairwells, but the stairs—now useless—must be abolished, and the elevators must swarm up the facades like serpents of glass and iron.²⁸⁹

Taking the opposite stance, in the late 1970s, Marshall McLuhan accused the elevator of being a metaphor for social “proximity minus community.”²⁹⁰

In Hassabi’s choreography performers share the space of the museum with viewers (fig. 7, bottom right), and the interaction between the functional use of stairs as architectural passage, and their aesthetic use as an object of art is vital to the installation. In interview, Hassabi emphasized that though she creates work for theatre, *PLASTIC* is distinctly not “theatrical”: it “needs the passersby, the people passing around.”²⁹¹ On the MoMA’s Gund lobby staircase, one of the most notable aspects of *PLASTIC*’s choreography is the way it positions performers on the stairs. Rather than always positioning descending performers on the left (facing up the staircase)—where staircase etiquette typically requires that the user descend (the users’ right)—the dancers perform their slow fall on both the right and the left. Observations of behavior on staircases show that “in both ascent and descent, most people keep to their right on the stair;

²⁸⁸ Griffin, “Living Contradiction,” 1.

²⁸⁹ Antonio Sant’Elia, “Futurist Architecture (1914)” in *Futurism: An Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), 200.

²⁹⁰ Marshall McLuhan quoted in Bob Hanke, “McLuhan, Virilio and Electric Speed in the Age of Digital Reproduction,” *Marshall McLuhan: Critical Evaluations in Cultural Theory*. Vol. 3, Renaissance for a Wired World, ed. Gary Genosko, (London, UK: Routledge, 2005), 137.

²⁹¹ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

however, in descent, nearly one-fifth kept to their left.”²⁹² In studies of staircases, it has been hypothesized that this may be because “maneuvering and changing course in descent is much easier than in ascent”: “the user can quickly switch sides if an ascending person keeping right approaches.” And yet, this explanation seems counter-intuitive. Medical studies of falls and fractures also assert a commonplace that “descending down stairs is more perilous than ascending up stairs.”²⁹³ In descending, many people tend to keep to their left—their right-side when they initially ascended—because they felt secure ascending and prefer to descend from the same position.

In interview, Hassabi has unintentionally punned, discussing the “safety issues that can’t be sidestepped” in working on the busy Gund lobby stairs.²⁹⁴ ‘Side-stepping’ is, in fact, what the choreography often requires of staircase users: in the moments when performers occupy both sides of the museum’s main stairway, the work forces its viewers to alter pedestrian flow. In pedestrian flow, each individual plays an integral part—as historian of the staircase John Templer points out, “each person can exert a strong influence on flow. [...] Of course, the stream of traffic may not follow the route that any individual may take, however, each person is affected to a degree by the motion of the others.”²⁹⁵

In one instance, MoMA video documentation of *PLASTIC* shows a performer occupying the center of the staircase (fig. 61).²⁹⁶ At this particular moment, there is a steady on-rush of stairway foot traffic. The position of the performer creates a split in the momentarily intensified pedestrian flow, with both descenders and ascenders being forced to their respective lefts. In

²⁹² John A. Templer, *The Staircase: Studies of Hazards, Falls and Safer Design* (Cambridge, MA: MIT Press, 1992), 88.

²⁹³ Monwara Hassan, Adrian Cristian and Teina Daley, “Geriatric Rehabilitation,” *Medical Aspects of Disability, Fourth Edition: A Handbook for the Rehabilitation Professional*, ed. Herbert H. Zaretsky, Steven R. Flanagan, Herbert H. Zaretsky and Alex Moroz (New York, NY: Springer Publishing Company, 2011), 359.

²⁹⁴ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

²⁹⁵ Templer, *The Staircase: Studies of Hazards, Falls and Safer Design*, 88.

²⁹⁶ Museum of Modern Art, New York, “Maria Hassabi | PLASTIC (Performance Excerpt,” September 22, 2016. Accessed October 10, 2016. <https://www.youtube.com/watch?v=otx5yO6YHX4>

another instance, when traffic is light, a performer positioned on the ascending user's right side causes an approaching viewer to hesitate: ultimately, the approaching viewer decides not to ascend, but to turn around and inquire if it is permitted that she mount the staircase. When she returns to the slate steps, she crosses the stairway to ascend slowly on her left while watching the dancer; she stops on the platform in the middle of the stairway and pulls out her smartphone. Meanwhile, a descending user moves past her following the dividing center line of the slate tile in descent. Another user mounts with her phone at her ear and a duffle bag swung over her arm, hopping up the steps on the right, skipping two at a time. When the hopping user arrives at the middle platform, she shifts to the left past another user who descends in the middle, disrupting the smartphone user who waits for a moment of calm to take her picture. The hopping user casts no glance over the performer who the more deliberate stairway user photographs. Meanwhile, the falling performer silently counts seconds of stillness in her head.

Each position in *PLASTIC* held by a performer involves a count that can extend anywhere from ten seconds to two minutes.²⁹⁷ The choreography on the Gund lobby stairs is a looping sequence of one hour and fifty minutes that was performed by different dancers for the seven hour span that extends from the opening of the museum to its closing.²⁹⁸ When a count for a position ends, the performer transitions into the next position following the rule of “slowness” or “smooth transitioning”: “moving through stillness; nothing abrupt.”²⁹⁹ When the one hour and fifty minute sequence ends, the performer leaves the staircase for an hour before returning to begin the sequence again.³⁰⁰ Hassabi calls the units of her choreographic sequences “positions” and “point[s] of stillness” rather than “poses.”³⁰¹ Though she discusses having worked with “copying images, iconic images of women” in previous works—and does not challenge the

²⁹⁷ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

²⁹⁸ Ibid.

²⁹⁹ Ibid.

³⁰⁰ Ibid.

³⁰¹ Ibid.

notion that some of the acquired “vocabulary” may have “stayed” with her—for *PLASTIC* she did not prepare for the work with this kind of deliberate copying.³⁰² In her description of the way she developed the “paradox of stillness” in *PLASTIC*, she explains that it began with her desire to create “images supported by the body.”³⁰³ The “most obvious way to create an image is to hold a pose,” Hassabi asserts; however, with initial movement research that involved “hold[ing] a pose, then another pose,” she found that this practice “did not resemble images at all.”³⁰⁴ It was with this recognition of a lack of resemblance to the image in sequences of held poses, that she developed the “counts” that characterize *PLASTIC*.³⁰⁵ In interview, Hassabi is explicit about avoiding use of the term “pose,” emphasizing that she prefers the term “physicality”: this term privileges a process by way of which it is not the performer who “put[s] emotionality into it, [but rather] the physicality [that] brings out the emotion from [the performer].”³⁰⁶ Some positions accomplish this more forcefully than others: Hassabi calls these positions the “forgotten bodies”—“someone forgot you there, or you forgot yourself there,” she explains.³⁰⁷ A collaborating performer who contributed to the interview refers to these ‘forgotten bodies’ as “the headless sculptures.”³⁰⁸

In *The Interpretation of Dreams*, Freud asserts that steps are “representations of the sexual act”: the surfaces “over which the dreamer climbs” and “down which he lowers himself—often in great anxiety—correspond to erect human bodies.”³⁰⁹ He genders these surfaces, claiming “the ‘smooth’ walls are men” whereas any “‘wood’ seems [...] to stand in general for

³⁰² Ibid.

³⁰³ Ibid.

³⁰⁴ Ibid.

³⁰⁵ Ibid.

³⁰⁶ Ibid.

³⁰⁷ Ibid.

³⁰⁸ Ibid.

³⁰⁹ Sigmund Freud, *The Interpretation of Dreams: The Complete and Definitive Text*, trans. James Strachey. (Philadelphia, PA: Basic Books, 2010), 368.

female ‘material.’³¹⁰ The short passage on stairs in the volume includes a footnote that references an anecdote about an encounter with a psychologist that Freud previously recounted in a 1910 publication: the encounter involved a psychologist who criticized psychoanalytic dream interpretation for “over-estimating the secret sexual significance of dreams.”³¹¹ Using his own most frequent dream of “climbing a stairway” as an example, the psychologist asserted that surely psychoanalysis could find nothing sexual behind movement on a stairway.³¹² “Our attention having been called to this objection,” Freud expounds,

we directed our investigations to the occurrence of stairways [...] in the dream, and we soon ascertained that stairs (or anything analogous to them) represent a definite symbol of coitus. The basis for this comparison is not difficult to find; under rhythmic intervals and with increasing difficulty in breathing one reaches to a height, and may come down again in a few rapid jumps. Thus the rhythm of coitus is recognisable in climbing stairs. Let us not forget to consider the usage of language. It shows us that the “climbing” or “mounting” is, without further addition, used as a substitutive designation of the sexual act. In French, the step of the stairway is called ‘*la marche*’; ‘*un vieux marcheur*’ corresponds exactly to our ‘an old climber’ [“*ein alter Steiger*”].³¹³

In French, *un vieux marcheur* is a term used to refer to “an elderly womanizer.”³¹⁴ What is interesting in this account is the fact that Freud locates the “sexual significance” of the staircase in the movement over it, in its “rhythmic intervals” and the “increasing difficulty in breathing” associated with these intervals.³¹⁵ In interview, Hassabi talks about the choreography of *PLASTIC* as “labor.”³¹⁶ With this key term—labor—used in both industrial production and sexual reproduction, Hassabi describes “the tension of [...] muscles and breaths [that] is beautiful to

³¹⁰ Freud, *The Interpretation of Dreams*, 368.

³¹¹ Ibid.

³¹² Ibid.

³¹³ Ibid.

³¹⁴ Jennifer Speake and Mark LaFlaur, “vieux marcheur,” *The Oxford Essential Dictionary of Foreign Terms in English* (Oxford, UK: Oxford University Press, 1999; online 2002), <http://www.oxfordreference.com/view/10.1093/acref/9780199891573.001.0001/acref-9780199891573-e-7606?rskey=utNCMv&result=1>

³¹⁵ Freud, *The Interpretation of Dreams*, 368.

³¹⁶ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

watch”: “it is the labor you are watching that each of these individuals is producing,” she explains.³¹⁷

From the perspective of the performer, this “labor” alters the experience of time: Hassabi discusses an incident in which, during one performance of *PLASTIC*, she noticed a friend watching who she thought had left the museum after five minutes; she later found out the friend had actually been at the museum all morning.³¹⁸ Likewise, a collaborating performer commented on the combined effect that the “physical discipline of doing the work” and the “energy from the public” had on his experience of the duration of his sequences: “I’m finding that with the energy from the public [...] some of the moves and sequences I most dreaded in rehearsal have actually become the things I look forward to the most [...]—there are things the body is capable of in this space,” he explains, “that you can’t really tap into in a rehearsal context [elsewhere].”³¹⁹

From the literature on the ‘plastic’ that has been reviewed thus far, this sense of a boundary between limiting and animating, resonates with the 19th-century sculptor Adolf Hildebrand’s notion of the plastic as the expression of a “spatial continuum.”³²⁰ As such, its “uncanny sculptural quality”³²¹ also carries with it Boccioni’s insistence that to avoid the distortion of “plastic values,” “sculpture must try and model the atmosphere.”³²² In *PLASTIC*’s use of the staircase, there are traces of Saint-Point’s approach to line in her “ideistic dance.”³²³ The ideist figure in Hassabi’s *PLASTIC* is not a Bruno-inspired *sigillo*-like drawing,³²⁴ but the

³¹⁷ Ibid.

³¹⁸ Ibid.

³¹⁹ Ibid.

³²⁰ [von] Hildebrand, “The Problem of Form in the Fine Arts (1893),” 238.

³²¹ Maria Hassabi quoted in Griffin, “Living Contradiction,” 1.

³²² Boccioni, “The Plastic Foundations of Futurist Sculpture and Painting (1913),” 140.

³²³ From Saint-Point’s manifesto of *Métachorie* (1913) published in the Parisian newspaper *Tribune Libre*. Brandstetter, *Poetics of Dance*, 306.

³²⁴ Philosopher Giordano Bruno’s geometric drawings are referred to as *sigilli* (stamps) for their relationship to mnemonics and the art of memory. Hilary Gatti, *Giordano Bruno. Philosopher of the Renaissance* (Burlington, VT: Ashgate, 2002), 351 and 359. For Saint-Point’s “ideist figure” see “Figure idéiste des Pavots des Sang” (Ideist Figure of Blood Poppies) (1914), op. cit. in Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 73. The re-printed image is from the Jerome

staircase itself. Unlike in Saint-Point's *métachorie*, which was performed in a theatre, there is no need to project an image of the ideist figure in *PLASTIC*: the figure is identified in an architectonic element of the museum itself. The line of the staircase conditions the choreography of *PLASTIC* both for its architectural qualities, as well as for its functional qualities, making it even more sympathetic with Saint-Point's notion of the "idea."³²⁵ There are two stairway performances occurring simultaneously in *PLASTIC*—one (on the Gund Lobby's slate staircase) which, Hassabi asserts, the viewer "does not have a choice" but to confront (fig. 61); the other (a spiraling wood staircase between the fourth and fifth floors) which Hassabi calls "quiet," "hidden," "the secret of the work," more of "an image" (fig. 62).³²⁶ In the latter, Hassabi was able to play with "distance" from the viewer, using the stairway like a stage (fig. 62); in the former, she worked with proximity and the discomfort of intimacy between viewer and performer (fig. 61).³²⁷ The square spiraling of the wood stairwell between the fourth and fifth floor permits for a certain closeness between performers, an embracing sense of enclosure in the restricted space, and warmth in surface contact between the dancer and the materiality of the stairs; the imposing straight staircase in the lobby open to the sculpture garden, makes performers more vulnerable—objects on view in surface contact with a monumental pedestal that is slate-cool to the touch.

Paradox is ever-present in Hassabi's *PLASTIC*. She is deliberate about distinguishing between "slowness" and "slow motion" in the "paradox of stillness" she works to achieve.³²⁸ Whereas slow motion—a cinematographic concept also used as a *plastiques* exercise in

Robbins Dance Division, The New York Public Library for the Performing Arts, Astor, Lenox and Tilden Foundation.

³²⁵ With Saint-Point's *métachorie* approach, the body is no longer an "intermediary" the mind and idea, it is the idea: it is mind in matter. See Valentine de Saint-Point as quoted in Mark Franko, *Dancing Modernism / Performing Politics*, 24.

³²⁶ Museum of Modern Art, New York, "Maria Hassabi in Conversation with Philip Bither," op. cit.

³²⁷ Ibid.

³²⁸ Ibid.

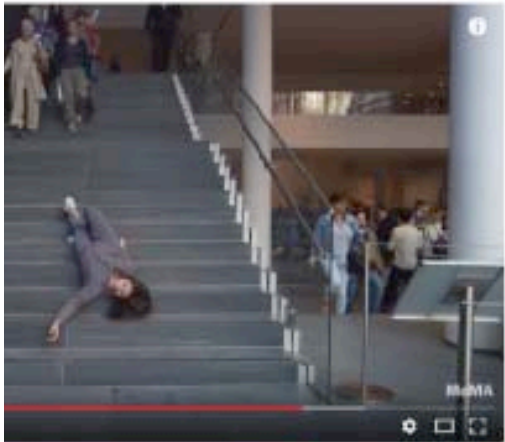
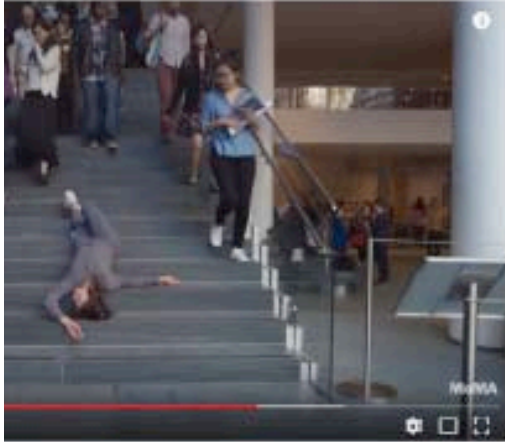
derivations of Grotowskian theatre training³²⁹—implies a predetermined motion whose timing is extended, Hassabi’s “slowness” is the result of researching “how to transfer from one point of stillness to the next.”³³⁰ The latter is the establishment of a movement-based temporality of the interstice—a line of slowness between points of stillness; the former is a movement determined *a priori* whose initial temporality has been manipulated to give it a sense of strangeness. The distinction is important to Hassabi because it is in this interplay between the transitional line of slowness and points of stillness that “another dance that is not choreographed [...] comes out as a reaction of the body held still.”³³¹ This dance is one in which “there’s always the breath, [...] muscular tension, [...] [even] tears [inadvertently falling from the eyes],” all the “physical reactions” to the choreography that are “movements themselves.”³³² This second unplanned dance produced by the body in response to choreography is the ‘plastic.’

³²⁹ I observed this at an Odin Teatret Workshop with Roberta Carreri. A description of a similar workshop online explains, “The participants work with the creation of physical and vocal actions, and how to carry them out with different qualities of energy - for example slow motion.” “Roberta Carreri - Dance of Intentions.” *Odin Teatret-Nordisk Teaterlaboratorium*. N.d. Accessed April 2015. <http://www.odinteatret.dk/workshops/dance-of-intentions.aspx>

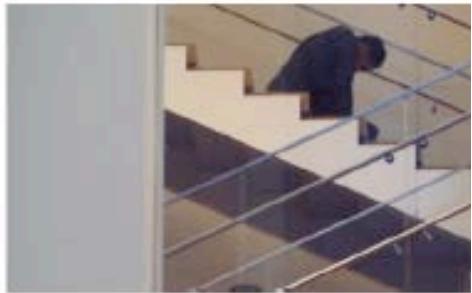
³³⁰ Ibid.

³³¹ Ibid.

³³² Ibid.



6



Chapter Six / “Try to Argue for the Plastic Duration” – Marcel Duchamp

The ‘Plastic’: Aesthetic Category or Aesthetic Pleasure?

In public interview with curator Phillip Bither, dancer Maria Hassabi explains that she chose the word “plastic” as the title for her MoMA commission because, with the idea of creating “work for museum spaces, I thought of plastic arts.”¹ In the same interview—recognizing that perhaps the term rings strange to an American audience—the Cypriot Hassabi sets out to describe the meaning of “plastic arts.” She explains, “the ‘plastic arts’ involves physical....,” and as she appears to struggle, Bither interjects to assist, completing her sentence: “molding,” he offers.² Hassabi politely agrees, yet, the term “molding” seems to fix a single meaning that makes her uncomfortable. She thus proceeds to qualify, asserting that the “plastic has so many other connotations that [all] ended up getting in there somehow.”³ She allows herself another association: “plastic” as in “something that is like garbage.”⁴ Bither adds “plasticity,” specifying “plasticity of the body.”⁵ He then repeats the verb, “molding.”⁶

With Bither’s introduction of “plasticity” into the conversation, there is a sense that an opportunity has been lost. The discussion has veered away from Hassabi’s original association of her title “PLASTIC” with “plastic arts,” and has been rerouted to the popular, more recognizable term “plasticity.”⁷ The capitalization of the “plastic” in Hassabi’s title helps the term resist: it calls out in protest like a gesture of refusal, as if the word itself were intent on asserting its own power through Hassabi, demanding to be seen as something distinct from ‘plasticity.’

¹ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

⁷ Ibid.

Like Hassabi, Marcel Duchamp (1887-1968)⁸ also used an interview as the occasion to elaborate upon his concept of the ‘plastic.’⁹ During the period in which Duchamp dedicated his activities to rethinking art through chess (fig. 63),¹⁰ he spoke of chess as “plastic.”¹¹ Though “in my life,” he explained,

chess and art stand at opposite poles [...], do not be deceived. Chess is not merely a mechanical function. It is plastic [...]. Each time I make a movement of the pawns on the board, I create a new form, a new pattern, and in this way I am satisfied by the always changing contour.¹²

And yet again, with this reference to the “plastic,” academic analysis has once more felt compelled to transform the term “plastic” into “plasticity.” In her discussion of Duchamp’s definition of chess as “plastic,” French literary scholar Dalia Judovitz conjures “plasticity” for assistance:

the *plasticity* [my emphasis] that Duchamp ascribes to chess is not aesthetic in the visual sense but rather intellectual. The movement of the pieces on the board creates patterns and forms whose contours are constantly shifting. This moving geometry is described by Duchamp as a ‘drawing’ or as a ‘mechanical reality.’ As Duchamp elaborates: ‘In chess there are some extremely beautiful things in the domain of movement, but not in the visual domain. It’s the imagining of

⁸ Marcel Duchamp (Blainville-Crevon, France 1887-Neuilly-sur-Seine, France 1968) has been described as a “one-man movement” and is recognized as having had “a huge impact on 20th-century art.” He rejected what he called “retinal art” and proposed “to put art back in the service of the mind.” His seminal *La Mariée Mise à Nue Par Ses Célibataires, Même (Le Grande Verre)* (The Bride Stripped Bare by Her Bachelors, Even [The Large Glass], 1915-1923) is seen as “summarizing [his] view that painting and sculpture were fundamentally incompatible and inadequate [...] to render and reflect contemporary cultural life.” He is known for “famously renouncing artmaking” in favor of chess-playing, but never really completely withdrew from his activities as an artist. He is known for the invention of the “readymade,” the selection and collocation of pre-existent objects as objects of art. Nan Rosenthal, “Marcel Duchamp (1887-1968),” Metropolitan Museum of Art. Heilbrunn Timeline of Art History. *Metmuseum.org*. October 2004. Accessed February 13, 2017. http://www.metmuseum.org/toah/hd/duch/hd_duch.htm

⁹ Francis Roberts’ 1968 interview “I Propose to Strain the Laws of Physics,” as quoted in Dalia Judovitz, *Unpacking Duchamp: Art in Transit* (Berkeley: University of California Press, 1998), 38.

¹⁰ Arnol Rosenberg, *Marcel Duchamp playing chess on a sheet of Glass* (1956), silver gelatin print, 11 x 14 in (27.94 x 35.56 cm), Francis M. Naumann Fine Art.

¹¹ Scholars often describe this period as Duchamp’s withdrawal from art. David Joselit points out that this withdrawal should not be considered a “renunciation of art but rather a means of rethinking its terms.” David Joselit, *Infinite Regress: Marcel Duchamp 1910-1941* (Cambridge, MA: MIT Press, 1998), 162. Joselit quotes Duchamp explaining to Truman Capote that chess is “plastic.” The quote cited here from Marcel Duchamp is in Roberts’ interview as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 38.

¹² Marcel Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 38,

movement or the gesture that makes the beauty, in this case. It's completely in one's gray matter."¹³

"The beauty that Duchamp appeals to," explains Judovitz, "is not one based on aesthetic categories, on visual appearance and artistic self-expression. Rather the beauty in question is defined by the plasticity of the imagination, by the poetry of its ever changing contours."¹⁴

And yet, while Duchamp does assert that "chess has apparently no visual aesthetic value," he does not completely withdraw it from "aesthetic categories" as Judovitz asserts.¹⁵ Immediately after Judovitz asserts Duchamp's appeal to "beauty" is one "not [...] based on aesthetic categories," she quotes him claiming that "every chess player experiences a mixture of two aesthetic pleasures."¹⁶ The reader can, therefore, only ascertain that though she does not discuss the distinction, Judovitz does not associate "aesthetic pleasures" with "aesthetic categories."

The "aesthetic pleasures" Duchamp associates with chess are important to note.¹⁷ They relate in interesting ways to both Hassabi's *PLASTIC* and Valentine de Saint-Point's insistence on dance as "plastic art."¹⁸ These two "aesthetic pleasures" in chess that Duchamp describes are "first, the abstract image akin to the poetic idea of writing[;] second the sensuous pleasure of the ideographic execution of the image of the chessboards."¹⁹ The latter pleasure derives from the fact that "the game of chess looks very much like a pen-and-ink drawing with the difference that the chess player paints with black-and-white forms already prepared."²⁰ These forms are in both the squares of the chess board and in the figures of the chess pieces. Just as Saint-Point defined

¹³ Ibid.

¹⁴ Judovitz, *Unpacking Duchamp: Art in Transit*, 38.

¹⁵ Ibid.

¹⁶ Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 39.

¹⁷ Ibid.

¹⁸ Saint-Point as quoted in Franko, *Dancing Modernism / Performing Politics*, 22.

¹⁹ Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 39.

²⁰ Ibid., 38

her ideist figures (fig. 58, below caption) in relation to “orchestral scores,”²¹ Duchamp describes the “design” that is “formed on the chessboard” as “more like a score for music,” than what would be expected of a design with apparent “visual aesthetic value.”²² This is the “pleasure” of “the abstract image akin to the poetic idea of writing”: like the alphabet in poetry, the exchange of chess pieces “shapes thought.”²³ It is possible to refer back to Saint-Point’s *métachorie* at this point and describe chess as an ideistic dance by way of which “ideas,” or Duchamp’s shaped thoughts, do indeed—as Duchamp describes them—“mak[e] a visual design” in space (in the case of chess, on the chessboard),²⁴ however, like Saint-Point’s “idea” in dance, they (as Duchamp explains) “express their beauty abstractly”²⁵ by another vision. This vision is not retinally perceived, but generated in the viewer by what Duchamp calls “design” (what in Saint-Point’s work is called her “ideist figures”).²⁶ This is the way the two artists define the plastic. It is important to distinguish it from plasticity for a reason that Judovitz’s work on Duchamp helps to make more evident: whereas plasticity is a concept, the plastic is, if not an “aesthetic category,” definitely (at least for Duchamp) an “aesthetic pleasure.”²⁷

²¹ Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 74. For Saint-Point’s ideist figure, see “Figure idéiste des Pavots des Sang” (Ideist Figure of Blood Poppies) (1914), op. cit. in Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 73. The re-printed image is from the Jerome Robbins Dance Division, The New York Public Library for the Performing Arts, Astor, Lenox and Tilden Foundation.

²² Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 38.

²³ *Ibid.*, 39.

²⁴ *Ibid.*

²⁵ *Ibid.*

²⁶ For the Saint-Point’s ideist figure, see “Figure idéiste des Pavots des Sang” (Ideist Figure of Blood Poppies) (1914), op. cit. in Bock-Weiss, “Valentine de Saint-Point’s metachoric theatre: synesthesia/an-esthesia,” 73. The re-printed image is from the Jerome Robbins Dance Division, The New York Public Library for the Performing Arts, Astor, Lenox and Tilden Foundation.

²⁷ Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 39.

The ‘Plastic’ in ‘Plastic Duration’: Duchamp and Fernand Léger

In 1966, Duchamp published a collection of facsimiled notes he titled *À l’Infinitif* (*In the Infinitive*) (fig. 64).²⁸ This collection includes not only use of the French adjective “*plastique*” (the plastic), but can also be considered an experiment with what Duchamp called the “aesthetic pleasures” of the “plastic” in interview.²⁹ Like the game of chess, the limited edition collection works with “forms already prepared”³⁰—a select set of fragments that Duchamp chose to publish from his notes. Though the notes are arranged in distinct groups contained in separate black folders, the carefully printed and shaped scraps that constitute each group can be shuffled to create a variety of relationships among their written passages, phrases, drawings, photographic prints, bills, and even small watercolor paintings. The majority of the notes can be considered three-dimensional objects that have to be turned around to be fully appreciated—many notes have writing on both sides; some have writing on one side and a print or image on the other. The interrelations among the notes are one dimension of the ‘plastic’ in the collection and introduces the fourth dimension of time and a posited fifth dimension of gravity and electromagnetic force³¹ into the collection.

The collection of facsimiled fragments—a limited edition plexiglass box containing seven portfolios of seventy-nine notes—is also known as *The White Box* for the color of its frosted plastic container. Each limited edition box features a small semicircular panel of vinyl with a silkscreen print in metallic ink titled *The Glider* (fig. 65, right). The print is a miniature replica of *Glass Glider Containing a Water Mill in Neighboring Metal* (1913-1915) (fig. 65, left), a work in oil and lead wire mounted on two glass panels and said to be the “first preparatory

²⁸ Marcel Duchamp, *À l’Infinitif*, in the original French with a pamphlet in translation, trans. Cleve Gray (New York: Cordier & Ekstrom), 1966, box dimensions: 13 1/8 x 11 1/4 x 1 5/8 in (33.3 x 28.6 x 4.1 cm). Edition number 93 in limited edition of facsimile reproductions numbered 1/150. Museum of Modern Art, New York. Offsite Special Collections Flat. Consists of manuscript notes of Marcel Duchamp 1912-1920.

²⁹ Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit.*, 39.

³⁰ *Ibid.*, 38.

³¹ Edward Witten, “A Note on Einstein, Bergmann, and the Fifth Dimension,” *History and Philosophy of Physics* (physics.hist-ph). January 31, 2014. Accessed February 3, 2017. <https://arxiv.org/abs/1401.8048>

study on glass³² for Duchamp's later masterwork, *La Mariée Mise à Nue Par Ses Célibataires, Même (Le Grande Verre)* (The Bride Stripped Bare by Her Bachelors, Even [The Large Glass], 1915-1923) (fig. 66).³³ *À l'Infinitif* is the final facsimile edition that Duchamp made of his notes and, in Michel Sanouillet's often referenced collection of Duchamp's writings, is included with other editions of notes published in 1914, 1934, 1948 and 1958.³⁴ In Sanouillet's book, the fragments of *À l'Infinitif* are transcribed to appear under the heading "The Bride's Veil," and are thus presented as part of Duchamp's "working notes for *The Large Glass*."³⁵

Like the staircase in dream of the psychologist in Freud's *The Interpretation of Dreams*, Duchamp's "mill" has also been associated with "eroticism."³⁶ Scholars who have written about the erotics of the mill claim Duchamp admitted he was "aware" it could be a source of "sensuous pleasure."³⁷ Picking up on these cues from Duchamp, Duchamp scholar Arturo Schwarz writes that "the word *mill* has been derived, by Jakob Grimm, from the reiterative form of mowing, which has sexual connotations in folklore and literature in classical, medieval and modern times."³⁸ In the figure of the mill, Duchamp is said to bring together the two protagonists of *The*

³² Octavio Paz, *Marcel Duchamp: Appearance Stripped Bare* (1978), trans. Rachel Phillips and Donald Gardner (New York, NY: Arcade Publishers, 1990), 185. Marcel Duchamp, *Glider Containing a Water mill in Neighboring Metals* (1913-1915), oil and lead wire on glass, 59 3/8 x 32 15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art.

³³ The real dimensions of the original *Glider* study for *The Large Glass* are 59 3/8 in x 32 15/16 in. "Glider Containing a Water Mill in Neighboring Metals, Marcel Duchamp, American (born France), 1887-1968 (1913 – 1915)," *Philadelphia Museum of Art*. Published 2017. Accessed January 20, 2017. <http://www.philamuseum.org/collections/permanent/51507.html>. Marcel Duchamp, *The Bride Stripped Bare by Her Bachelors, Even (The Large Glass)* (1915-1923), oil, varnish, lead foil, lead wire, and dust on two glass panels, 9 ft 1 ¼ in x 70 in x 3 3/8 in (277.5 x 177.8 x 8.6 cm), Philadelphia Museum of Art. "The Bride Stripped Bare by Her Bachelors, Even (The Large Glass)," *Philadelphia Museum of Art*. Published 2017. Accessed February 2, 2017. <http://www.philamuseum.org/collections/permanent/54149.html>

³⁴ Marcel Duchamp, *The Writings of Marcel Duchamp* (1973), ed. and trans. Michel Sanouillet and Elmer Petersen (New York, NY: Da Capo Press, 1989).

³⁵ Marcel Duchamp, *The Writings of Marcel Duchamp*, vi.

³⁶ Arturo Schwarz, "Prolegomena to the 'Large Glass,'" *Marcel Duchamp*, ed. Klaus Beekman (Amsterdam, Netherlands: Editions Rodopi B.V., 1989), 40.

³⁷ Schwarz, "Prolegomena to the 'Large Glass,'" 40.

³⁸ *Ibid.*

Large Glass—the bachelor and the bride: in the mill, “Duchamp animates the machine, [and] mechanizes the soul.”³⁹

Among the notes grouped in a black portfolio from *À l’Infinifif* titled “Speculations,” is a small scrap of paper pencilled with a phrase in the infinitive, “*Chercher à discuter sur la durée plastique*” (“Try to argue for the plastic duration”) (Fig. 67).⁴⁰ In the same period Duchamp was writing the notes (c. 1912-1920), a similar association of fragmentation and plastic value can be found in the insistence of painter Fernand Léger (1881 – 1955) that both fragmentation and plastic value characterize early 20th-century experiments in the arts.⁴¹ In a preface to his praise of Abel Gance’s film *La Roue* (The Wheel, 1923) (fig. 68), Léger had asserted “the fragmentation of the object, the intrinsic plastic value of the object, its pictorial equivalence, have long been the domain of the modern arts.”⁴² The promotional materials for Gance’s film that circulated Léger’s praise returned the favor asserting “Fernand Léger is the modern French painter that first considered the *mechanical element* as a possible plastic element; he has incorporated the concept of *equivalences* into numerous pictures.”⁴³

For Léger, the “plastic” contributes to an approach to the object that is “a means and not an end”: “tackl[ing] the mechanical element as a plastic possibility” is understanding it as an “organic occurrence [...] dependent on absolute geometric laws.”⁴⁴ The quest to maximize “plastic possibility” in every object is in contrast with the “spectacle” of the “beautiful object”:

³⁹ Sidney Janis as quoted in Schwarz, “Prolegomena to the ‘Large Glass,’” 40.

⁴⁰ Duchamp, *À l’Infinifif*, op. cit.

⁴¹ Fernand Léger, “A Critical Essay on the Plastic Quality of Abel Gance’s Film The Wheel (1922),” *Functions of Painting*, ed. Edward Fry, trans. Alexandra Anderson (New York, NY: The Viking Press, 1973), 21. *La Roue* (The Wheel, 1922), directed by Abel Gance (1922, Hat Creek, CA: Film Preservation Associates, 2008) DVD.

⁴² Léger, “A Critical Essay on the Plastic Quality of Abel Gance’s Film *The Wheel* (1922),” *Functions of Painting*, 21.

⁴³ *The Wheel* promotional materials as quoted in Felicia McCarren, *Dancing Machines: Choreographies of the Age of Mechanical Reproduction* (Stanford, CA: Stanford University Press, 2003), 123.

⁴⁴ Fernand Léger, “Notes on Contemporary Plastic Life (1923)” *Functions of Painting*, ed. Edward Fry, trans. Alexandra Anderson (New York, NY: The Viking Press, 1973), 24. First published in *Kunstblatt*, Berlin, 1923.

beautiful objects are “unusable,” they are no longer “raw material” and therefore have no “plasticity.”⁴⁵ Between the “unusable” object and the “beautiful object,” the artist sets out “searching for the state of plastically organized intensity.”⁴⁶ To accomplish this, the artist makes use of “equivalences” or rather “the law of contrasts”: the practice of “creating an equivalence to life.”⁴⁷ The “state of plastically organized intensity” is defined as “useful” because it is a “‘multiplicative’ state.”⁴⁸ “Plastic work is ‘the ambiguous state’ of [...] two values”: the “subjective” and the “objective,” the “real and the imagined.”⁴⁹ The “difficulty” in this “ambiguous state” is “find[ing] a balance between these two poles.”⁵⁰ For Léger, “plastic life” is indissociable from social class: it cannot be found in “soft environments” but only in environments with “aspects of crudeness and harshness, of tragedy and comedy, always hyperactive,” which Léger associates with “lower-class environment[s].”⁵¹ Like the magnified machinic “visual fragments” of Gance’s film, *The Wheel*, the elements of this fraught and fractured life “collaborate closely with [...] the drama, reinforc[ing] them, sustain[ing] them instead of dissipating their effect.”⁵² “Fragmentation” in its “plastic value” is “something completely different” because it is a “matter of making images be seen.”⁵³ The “plastic event” is an “entirely new plastic contribution” that combines “a dramatic state, an emotional state and a plastic state” in which the object is “the leading charcter, the leading actor”—an “actor object” whose “fixed or moving [...] fragments [...] cruhes and eliminates the human object, reduces its

⁴⁵ Léger, “Notes on Contemporary Plastic Life,” *Functions of Painting*, 24-25.

⁴⁶ *Ibid.*, 25.

⁴⁷ *Ibid.*

⁴⁸ *Ibid.*

⁴⁹ *Ibid.*, 26.

⁵⁰ *Ibid.*

⁵¹ *Ibid.*, 27.

⁵² Léger, “A Critical Essay on the Plastic Quality of Abel Gance’s Film *The Wheel* (1922),” *Functions of Painting*, 22.

⁵³ *Ibid.*, 21.

interest, pulverizes it.”⁵⁴ This destruction of the “theatrical concept” for a “plastic order” is “laden with implications in itself and for the future.”⁵⁵

Just as after studying Saint-Point’s invocation of “plastic art” in relation to dance illuminated Duchamp’s conception of the aesthetic as complimentary to the conceptual, thinking about Duchamp’s use of the phrase “plastic duration” in relation to Léger’s theorization of “plastic life” helps to reframe *À l’Infinitif* within Duchamp’s broader concerns. In the literature on Duchamp, the *À l’Infinitif* note on the “plastic duration” has yet to inspire focused study on Duchamp’s notion of the ‘plastic.’ The note has been cited in scholarship about Duchamp’s poetic and innovative use of titles;⁵⁶ it has also been referenced in studies that compare Duchamp’s “antiocularcentrism” with late 19th-century philosopher Henri Bergson’s “dynamic,” “action,” and “rhythm”-inspired insistence that “no image can replace the intuition of duration.”⁵⁷ In 1976, an article published by Duchamp scholar Lucia Beier in the French journal *La Gazette des Arts* (The Art Gazette) was among the first to use Duchamp’s *À l’Infinitif* phrase on the “plastic duration” to analyze his use of the term “duration” (*durée*), identifying it with “what Bergson described as the cinematographic method” in his book on evolution, *L’Evolution Creatrice* (Creative Evolution, 1907).⁵⁸ Whereas the focus on the influence of Bergson’s notion of the “cinematographic” on Duchamp’s work has led to study of the term “duration,” attention to the nexus Léger-Duchamp decenters current discourse for an exploration of the ‘plastic.’

Like the wheel in Gance’s film, the staircase is an actor-object in both Maria Hassabi’s *PLASTIC* and Duchamp’s famous early oil on canvas, *Nude Descending the Staircase (No. 2)*,

⁵⁴ Ibid., 20.

⁵⁵ Ibid.

⁵⁶ John Welchman, *Invisible Colors: A Visual History of Titles* (New Haven, CT: Yale University Press, 1997), 79.

⁵⁷ Henri Bergson as quoted in Martin Jay, *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought* (Berkeley: University of California Press, 1993), 203.

⁵⁸ Lucia Beier, “The Time Machine: A Bergsonian Approach to the ‘Large Glass,’” as cited in Herbert Modlerings, *Duchamp and the Aesthetics of Chance: Art as Experiment* (New York, NY: Columbia University Press, 2010).

(1912) (fig. 70).⁵⁹ In Beier's 1976 article on Bergsonian duration in Duchamp's work, Duchamp's painting is described as "'a static image of movement' that by melting one physical position into another using simultaneous images [...] was employing [...] the cinematographic method [from] *L'Evolution Creatrice*."⁶⁰ And yet, without the actor-object of the staircase—the object that, using Léger's language, proves itself "useful" for its "plasticity" (its "plastic possibility" as a "hyperactive" environment that "fixes and moves," "making images be seen")⁶¹ —there would be no "melting [of] one physical position into another."⁶² With focus on duration, the plastic life of the actor-object (the staircase) dissolves into the background, like the chessboard in a chessgame.

With the infinitive suggestion "try to argue for the plastic duration," Beier asserts Duchamp's work "is contending that it is [...] impossible to capture the experience of duration in the work of art": "he is mocking the attempt to do so."⁶³ Beier argues that the suggestion in the note is evidence Duchamp read Bergson's account of the cinematographic method and appropriated its claim "that the representation of movement as such was a function of the intellect and not intuition."⁶⁴ In what she refers to as Duchamp's "desire to use the intuitive method in art, [he] turns aside from the depiction of objective movement and [in the *Large Glass*] incorporates the spectator's perception of potential movement, or motion."⁶⁵ Beier thus identifies Duchamp's "plastic duration" with a turn away from the vocative relation (the autonomous object as interpellator responding to the call of the viewing subject), back to a scopic regime (a relationship between subject and object dominated by the self-reflexive viewing paradigm in which the

⁵⁹ Marcel Duchamp, *Nude Descending a Staircase (No. 2)* (1912), oil on canvas, 57 7/8 x 35 1/8 in (147 x 89.2 cm), Philadelphia Museum of Art. "Nude Descending a Staircase (No. 2) (1912)," Philadelphia Museum of Art. Published 2017. Accessed March 3, 2017. <http://www.philamuseum.org/collections/permanent/51449.html>.

⁶⁰ Beier as quoted in Jay, *Downcast Eyes*, 206.

⁶¹ "A Critical Essay on the Plastic Quality of Abel Gance's Film *The Wheel* (1922)," *Functions of Painting*, 21.

⁶² Beier as quoted in Jay, *Downcast Eyes*, 206.

⁶³ *Ibid.*

⁶⁴ *Ibid.*

⁶⁵ *Ibid.*

subject sees itself seeing itself in the object). Art historian Martin Jay finds that this interplay between the scopic and the vocative shares similarities with what he calls Bergson's "vacillation [...] between damning images as inherently static and deathlike, on the one hand," and their character of "possessing a genuine ability to move, or at least to arouse the experience of movement when skillfully employed by artists, on the other."⁶⁶

According to Jay, the "critique of ocularcentrism" that Duchamp's 'anti-retinal' attack on art participated in, had a "complicated impact" on "the cultural life of the interwar era"—especially in Europe.⁶⁷ It "imbued it with an urgency that was not apparent before," expressing the "denigration of sight" with "an intensity that often bordered on violence."⁶⁸ This "violence," which surged in the late 19th and early 20th-century, seem inspired to institute a vocative and haptic regime—a "tactile dimension" to counter the "cool, spectatorial distance of [the] observing eye"⁶⁹—in place of the 19th-century's previously "privileged scopic regime."⁷⁰ A "nonretinal stress on geometric form [...] fit nicely with the needs of industrial technological design," as well as with the anti-revolutionary post-Paris Commune⁷¹ "Republican ideology of universal rationalism" over the royalist absolute knowledge of Versailles loyalists.⁷² In Jay's assessment, it is with "Duchamp and other [20th]-century artists" that "the importance of internal physiological stimulations with their own rhythms"—an "embodied and culturally mediated character of sight" that saw the "desiring, sexualized body as a source of visual experience"⁷³—"was now for the

⁶⁶ Ibid., 208.

⁶⁷ Ibid., 208-209.

⁶⁸ Ibid., 209.

⁶⁹ Ibid., 155.

⁷⁰ Ibid.

⁷¹ The Paris Commune (1871) was a revolutionary movement that occurred after the Prussian War when the working classes were able to seize control of the French capital. Though he did not fight in the Commune's National Guard, Realist painter Gustav Courbet was elected to the Council of the Commune and given the task of reconceiving and reestablishing art institutions. For more on this incident and its relevance to art history, see Albert Boime, *Art and the French Commune: Imagining Paris after War and Revolution* (Princeton: Princeton University Press, 1997).

⁷² Jay, *Downcast Eyes*, 155.

⁷³ Ibid., 153.

first time acknowledged as a determinant of sight.”⁷⁴ As art theorist Thierry de Duve writes, Duchamp’s new plastic was “eroticism.”⁷⁵

This is perhaps the “*plastique pour plastique talionisme*” (plastic for plastic retaliation)⁷⁶ that Duchamp refers to in a note in another portfolio in *The White Box*.⁷⁷ As the only other instance where Duchamp uses the word “plastic” in the *À l’Infinif* facsimiled collection, the phrase “plastic for plastic retaliation” appears in the folder “Dictionaries and Atlases,” where it is written in parentheses after the description, “*Du Scribisme illuminatoresque dans la peinture*” (a kind of illuminatistic Scribism in painting).⁷⁸ The phrase “illuminatistic Scribism” is a dense compression of the two aesthetic pleasures Duchamp associated with the plastic in his discussions of chess: the “illuminatistic” is “the sensuous pleasure of the ideographic execution of the image of the chessboards;” the “Scribism” is “the abstract image akin to the poetic idea of writing.”⁷⁹ Eroticized in Duchamp’s work is the exchange he fosters between these two pleasures.

The sexualized body in Duchamp’s work operates with an eroticism that requires the object. Broadly defined as the interplay between inner and outer, between self and other,

⁷⁴ Ibid., 152.

⁷⁵ “For Mondrian’s neo-plasticism [...], Duchamp substituted eroticism, which, as he very seriously explained to Pierre Cabanne, he wanted to turn into a new artistic “ism.”” Thierry de Duve, *Kant After Duchamp* (Cambridge, MA: MIT Press, 1996), 159.

⁷⁶ This is Cleve Gray’s translation from the original Cordier & Ekstrom pamphlet published with *À l’Infinif*. In his typographic translation of *À l’Infinif*, artist Richard Hamilton translated the note “*Du Scribisme illuminatoresque dans la peinture (Plastique pour plastique talionisme)*” as “On – illuminatoresque Scribism in painting (Plastic form for plastic form talionism).” As Hamilton explains, “There’s so much in that little note, [...] ‘This [the Gray version that accompanies the Cordier & Ekstrom edition] you can read and move on, because it doesn’t mean very much. Duchamp used the word talionism. I don’t need to know about French to ask: is “retaliation” talionism? Look up the word in the dictionary and the root is the same. But talionism is the law of talion and it’s an English word that is perfectly good. And you think: how does an eye for an eye and a tooth for a tooth come into this?”” According to Rick Poyner, “what Duchamp’s brief note proposes is that the interplay between text and image – such as that found in a medieval illuminated manuscript – could be the model for a painting. Word and image are equally important and can be combined: eye for eye, tooth for tooth, form for form.” Rick Poyner, “Typotranslation: In a typographic tour de force, Richard Hamilton has turned Marcel Duchamp’s Notes for the Large Glass into printed form.” *Eye*, Vol. 10, no. 38 (Winter 2000). N.d. Accessed September 8, 2017. <http://www.eyemagazine.com/feature/article/typotranslation>

⁷⁷ Duchamp, *À l’Infinif*, op. cit.

⁷⁸ Ibid.

⁷⁹ Duchamp as quoted in Judovitz, *Unpacking Duchamp: Art in Transit*, 39.

sexuality in this case is the exchange between the scopic and the vocative. In this exchange, the relationship between viewing subject and viewed object is transformed into an experience of the object that does more than “incite [...] the viewer’s self-reflexive knowledge” by “elevat[ing the object] to the level of the viewer”⁸⁰—by “call[ing] upon the object” to interpellate.⁸¹ This is the eroticism of the subject-object relation in the artistic act: the body becomes an object and the object becomes a body. At work are the same processes that (as previously discussed) in iterations of late 19th-century empathy theory, art historian Aby Warburg named “corporealization”⁸² and that the philosopher Robert Vischer called “objectivization.”⁸³ Vischer had described “objectivization” as the process by which “I project my own life into the lifeless form [...] only ostensibly [...] keep[ing] my own identity although the object remains distinct.”⁸⁴ This “doubling of the self” in the object was identified by Vischer as an “adapt[ing] and attach[ing]” as simple as “one hand clasp[ing] another.”⁸⁵ In this “clasping” embrace with the actor-object, the human body is “mysteriously transplanted and magically transformed.”⁸⁶

‘Plastic Duration’ in Practice in Duchamp’s *À l’Infinif* Fragments

Duchamp’s “try to argue for the plastic duration” (fig. 67) has been described as a title-like text and has been associated with a sketch that also appears in the *À l’Infinif* folder “Speculations” (fig. 71).⁸⁷ It has been described as such because it is usually read in Michel Sanouillet’s republished transcription rather than in the original Cordier & Ekstrom edition of facsimiled fragments. Unfortunately, this designation of the phrase as a title—along with confusion between the infinitive grammatical form and the imperative or command form in

⁸⁰ Tunis, “scopic, vocative,” op. cit.

⁸¹ Levinas, *Totality and Infinity*, 69.

⁸² Warburg, “299 27.I.96. Santa Fé, N<ew> M<exico>. Palacehotel,” *Fragmente zur Ausdruckskunde*, 145.

⁸³ Vischer, “On the Optical Sense of Form (1873),” 104.

⁸⁴ *Ibid.*, 106.

⁸⁵ *Ibid.*

⁸⁶ *Ibid.*

⁸⁷ Welchman, *Invisible Colors*, 79.

French—has denied it both the autonomy and the notional quality (the quality of being a suggestion rather than a command) that Duchamp gave it as a floating fragment among other floating fragments. In what, in a pun on the mill in the vinyl print of *The Glider*, could be described as a ‘milling’ about of fragments, each fragment in a portfolio of *À l’Infinif* is able to relate to other fragments in the portfolio in different ways without necessarily defining them or being defined by them. The fragments in the “Speculations” folder have a special relationship to each other as a designated set; however, their mobility as fragments also allows them to make connections with fragments in other folders. Thus, there is, in fact, nothing about the *plastic duration* note that makes it any more a title of the so-called *Pharmacie* (Pharmacy) sketch than of the watercolor of an iridescent lakeside scene that is also included in the “Speculations” folder (fig. 72). The *plastic duration* note could, in fact, just as easily be a response to a question posed in another note in the same portfolio, “can one make works with are not works of “art”?” Or, for that matter, the answer to a long passage of text that seems to outline a formula for a riddle:

A thing to be looked at with one eye
 ---- with the left eye
 ---- with the right ---
 what one must hear with one ear
 --- the right ear
 --- the left ---

to put in the Crash—splash

One could base a whole series of things to be looked at with a single
 Eye (left or right).
 One could find a whole series of things to be heard (or listened to)
 with a single ear.⁸⁸

Nonetheless, though the *Pharmacy* sketch is in no way more intimately interrelated with the *plastic duration* note than any of the other fourteen notes in the “Speculations” group of sixteen, it is worth describing because of its exceptional graphic qualities and its relevance to other instances of Duchamp’s use of the term “plastic”.

⁸⁸ Duchamp, *À l’Infinif*, op. cit.

Under the infinitive phrase “to not forget the painting of Doumouche: Pharmacy = snow effect, dark sky, dusk, and 2 lights on the horizon (pink and green),” there is what at first glance appears to be a chaos of lines – straight lines, dashes, parabolas, waves, squiggles and coils (fig. 71). If read from left to right like a sentence, two parallel lines begin the sequence. The top line has two noticeable darkened and enlarged end points at its terminating sides. The bottom line appears to lack clearly delineated circular endpoints; instead, dashes of line appear to stutter off from its right end. An explosion of dashes blasts from the circular end point of the top line. The staggered parallels thus end in a cloud of staccato marks, some noticeably darker than others. The diagonal trajectory of this fluttering noise travels up and to the right. Its marks still retain a certain parallel character, travelling in what appear to be two distinct groups of dashes—an upper group and a lower group with a narrow channel open between them. The contrast between strict parallel lines and dashes ends with a new contrast between disordered staccato and ordered arcs of reverberation. The cloud of dashes is halted by the parabolic curve of a large arc, a curved vacuum mouth that sucks the little marks into its ballooning belly. The dashes disintegrate, broken into points, and the resonant suction arc echoes out in five subsequent curves drawn parallel to one another, veering off to the lower right. Beneath these curves is a confusion of forms, some indelible, like curling smoke, others straight lines or arcs that appear drawn to call attention to the degrees of angles formed by other combinations of lines. A tiny circle hangs like a pendulum in the middle of the resonant arcs: next to it spring spirals, curlicues, and coils drawn with only slight pressure on the pencil tip. These gray designs billow into what takes on the form of a tunnel or tubular opening. The sinuous line of what could be buttocks, breasts, a nose, a penis-and-testicles, or swollen cheeks and puckered lips, inflates before the telescope-like partial cylinder. Under all this confusion is the scrawled phrase “*aspiration de la pompe*” (exhaust of the pump).

The short and simple “plastic duration” note with its limited, but open, surrounding field of paper blankness and its lack of any recto text (drawing, painting, or print) does seem to serve its accompanying series of fragments in “Speculations” as a concise position, a breath, a pause, a punctuating interstice in a frenzy of fantastic deliberations. “Buy a book about “knots.” (Sailor’s knot and others),” Duchamp suggests in another note written on a larger scrap of paper with two torn edges.⁸⁹ A horizontal line divides the paper in half; the bottom section contains the proposal, “have a room entirely made of mirrors which one can move—and photograph mirror effects...”⁹⁰ In another note written on the back of a blank form for a “*Bulletin de Souscription*” (Subscription Bulletin), Duchamp lists suggestions for materials: “use tooth paste make a test on the glass also Brillantine, Cold cream, etc.? Not solid” (fig. 73).⁹¹ Two notes written on the back of photographic prints make other suggestions for material experiments: on the back of a print advertisement for Hershey, Pennsylvania, “the chocolate town,” Duchamp comically proposes a brown-white, dark-pale, chocolate-milk dialectic, writing “Milky Way” in large script (fig. 74).⁹² Under the script that appears on the page like a loud declaration, he crosses out two numbers with thick pencil slashes, and writes “or Louis XV images like the legs of the Grinder. The clouds are rather of soap (shaving)” (fig. 74).⁹³ The suggestion conjures the image of Duchamp’s oil and graphite on canvas, *Chocolate Grinder (No. 2)* (1914) (fig. 75),⁹⁴ in which three heavy copper cylinders, with grooves rendered in thread, turn on an axis atop a platform elevated by the delicate curves of rococo furniture legs. The Hershey advertisement on the back of the note is a lakeside scene in which a rowboat ironically named “Mayflower” appears to be carrying four

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ Ibid.

⁹² Ibid.

⁹³ Ibid.

⁹⁴ Marcel Duchamp, *Chocolate Grinder (No. 2)* (1914), oil, graphite, and thread on canvas, 25 ¾ x 21 3/8 in (65.4 x 54.3 cm), Philadelphia Museum of Art. “Chocolate Grinder (No. 2) (1914),” *Philadelphia Museum of Art*, Published 2017. Accessed December 3, 2016. www.philamuseum.org/collections/permanent/51530.html?mulR=1803493003|5

passengers—three women and a single man—to Hershey (fig. 74). The erotic insinuation of a foursome in the image recalls Duchamp’s description of the figure of the “grinder” as “the bachelor [who] grinds his own chocolate.”⁹⁵ Another fragment, written out on the back of a small stamp-sized photographic print, notes “lead embossed, hammered or ‘tufted’ is less dense” (fig. 76).⁹⁶ The tiny print shows a group of three women seated roadside under a large bending tree trunk on a divider of sorts. Both notes suggest that the “plastic duration” is a material duration—a temporality of “tufting,” hammering, embossing, foaming, curving and polishing.

Interestingly, another note poses a concern that Léger also wrote about in his “Notes on Contemporary Plastic Life” (1923)—the concern for, what Duchamp calls, “the question of shop windows.”⁹⁷ Léger wrote about the same issue, calling it the “astonishing art of window display.”⁹⁸ Léger recognizes “certain store windows are highly organized spectacles” and writes about resisting the allure of “unusable” objects to whose “plastic qualities” one can only respond by “fold[ing] one’s arms and admir[ing].”⁹⁹ Duchamp, on the other hand, recounts yielding to seduction. In response to what he calls the “demands of shop windows,” Duchamp writes:

inevitable response to shop window, choice is determined. No obstinacy, ad absurdum, of hiding the coition through a glass pane with one or many objects of the shop window. The penalty consists in cutting the pane and in feeling regret as soon as possession is consummated. Q.E.D. (Neuilly, 1913).¹⁰⁰

The act of consummation is a theme in other notes where it is described not through the gesture of cutting, but rather through “winding.”¹⁰¹ Duchamp’s proposal shares a certain kinship with Léger’s assertion that “80 percent of the elements and objects that help us to live are only noticed by us in our everyday lives, while 20 percent are *seen*.” From this Léger deduces that the

⁹⁵ Juan Antonio Ramírez, *Duchamp: Love and Death, Even* (London: Reaktion Books, 1998), 89.

⁹⁶ Duchamp, *À l’Infinifif*, op. cit.

⁹⁷ Ibid.

⁹⁸ Léger, “Notes on Contemporary Plastic Life (1923),” *Functions of Painting*, 25.

⁹⁹ Duchamp, *À l’Infinifif*, op. cit.

¹⁰⁰ Ibid.

¹⁰¹ Ibid.

“cinematographic revolution” in “contemporary plastic life” is “*to make us see everything that has been merely noticed.*”¹⁰²

The motion of the machine enables the production of what Léger calls “the fragment of the object,” a fragment that “make[s] you see and move[s] you.”¹⁰³ In *À l’Infinifitif*, Duchamp suggests “mak[ing] a painting or sculpture as one windsup a reel of moving picture film.”¹⁰⁴ Duchamp takes the phrase ‘cinematographic revolution’ literally: “with each turn, on a large reel (several meters in diameter if necessary), there is a “new ‘shot’” continuing the preceding turn and tying it into the next one.”¹⁰⁵ “This kind of continuity,” Duchamp explains, “may have nothing in common with moving picture film or even resemble it.”¹⁰⁶ His interest is less in the cinematographic as the technique of making moving pictures, than in the activity of winding that the cinematographic apparatus makes important with its crank. In yet another note, Duchamp describes “[...] produc[ing] mechanically the continuous passage of one tone to another in order to be able to record without hearing them, sculptured sound forms.”¹⁰⁷ In parentheses he insists that this proposal is “(against ‘virtuosism,’ and the physical division of sound which reminds one of the uselessness of the physical color theories).”¹⁰⁸ It is not technical innovation, but a conceptual innovation in the experience of consummation that drives Duchamp’s works with the psycho-motor affect of “continuous passage” and “continuity.”¹⁰⁹

Another note in the “Speculations” folder—a long note written on the back of what appears to have been a receipt or stationary for a Brasserie in Paris—describes a “way of being able to experiment in 3 dim. [three-dimensions] as one operates on planes in plane geometry—

¹⁰² Léger, “A Critical Essay on the Plastic Quality of Abel Gance’s Film *The Wheel* (1922),” *Functions of Painting*, 22.

¹⁰³ *Ibid.*

¹⁰⁴ Duchamp, *À l’Infinifitif*, op. cit.

¹⁰⁵ *Ibid.*

¹⁰⁶ *Ibid.*

¹⁰⁷ *Ibid.*

¹⁰⁸ *Ibid.*

¹⁰⁹ *Ibid.*

.”¹¹⁰ The protagonists in this experiment are “fragile objects,” a “show case with sliding glass panes” and a “table.”¹¹¹ Duchamp proposes placing the fragile objects inside the display case to create a sensation of “inconvenience—narrowness—reduction of a space.”¹¹² He then suggests placing the largest number of fragile objects possible on a table, “squeeze[ing] them together as much as possible,” building them up in an assemblage that is as tall as possible while “avoid[ing] the danger of their falling.”¹¹³ After assembling this configuration, he suggests making one “good photo,” a “good print” and then “break[ing] the [photographic] plate.”¹¹⁴ Just as in the previous notes on materials, the interest was in the “not solid”—in pliable yet not quite liquid materials like creams, pastes and foams—this note is about what Duchamp calls “semi-stability.”¹¹⁵ This “semi-stability” is not described in material terms, but in interrelations among objects staged as interactions between figure and ground (i.e., fragile objects and containers or fragile objects and platforms).

In other portfolios in the box, facsimiled notes are printed on the back of facsimiled gas bills.¹¹⁶ The ephemeral material, gas—its precarity and instability—is thus a persistent theme throughout the collection, an underlying thread that connects the fragments without undermining their autonomy. As was the case with the appearance of photographic prints and watercolors among the notes, the gas theme accomplishes this by being presented as an intrusion of everyday life into Duchamp’s collection of metaphysical ruminations, technical trials, and theoretical diagrams. The quotidian intersects Duchamp’s cryptic inscriptions. The sketch scrawled with the phrase “exhaust of the pump” under the infinitive “to not forget the painting of Doumouche” in the “Speculations” portfolio, returns to mind as one sifts through denser and lengthier fragments

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Ibid.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

¹¹⁶ Ibid.

in the portfolio titled “Perspective.”¹¹⁷ Numerous notes in this folder are penned on the back of gas cards from the *Société du Gaz de Paris* (Paris Gas Company), and a scrap is printed with the address 44 rue de la Clef, Paris, under the name “Dumouchel.”¹¹⁸ Likewise, while sorting through notes in a portfolio titled “Color,” the chocolate town advertisement from Hershey in the “Speculations” portfolio returns through Duchamp’s reference to chocolate as an example of an exception in rules for color composition.¹¹⁹ The note suggests “determining (...) each substance by its color composition – (White 1, black ½, vermilion ¼ etc.)”: “chocolate and the ‘water[fall]’” are among the “certain substances” which Duchamp advises “have a physical equivalent that should be approximated as closely as possible without atmospherization.”¹²⁰ The reference to chocolate returns again in the portfolio “Appearance and Apparition” where the “chocolate object” is used as an example to assert a distinction between “appearance”—defined as “the sum of the usual sensory evidence enabling one to have an ordinary perception of that object (see psychology manuals)”—and “apparition”—the “emanating object,” or “body of the object composed of luminous molecules [that] becomes the source of the lighted objects’ substance.”¹²¹ As an example of the “emanating object,” Duchamp offers the “chocolate emanatine” which he describes as “the atomic mold of the opaque chocolate substance having a physical existence verified (?) by the 5 senses.”¹²² With all this understated ironic play inviting a sense of *deja vu* (already seen) in seemingly haphazard associations, *À l’Infinitif* directs attention to the “plastic duration” not only by naming it amidst its facsimiled notes, but by invoking the very experience of it in the fragmentary plastic of the *À l’Infinitif* collection and its portfolios.

¹¹⁷ Ibid.

¹¹⁸ Ibid.

¹¹⁹ Ibid.

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² Ibid.

‘I Mean Space into Time’: The ‘Plastic’ between Dimensions

The pamphlet of English translations that accompanies the facsimiled notes in *À l’Infinif* footnotes the fragment on “plastic duration” with a statement attributed to “M.D.” (Marcel Duchamp) as an “explanatory note” dated 1965: “I mean space into time,” the statement reads.¹²³ Several notes in the folders titled “Perspective” and “Continuum” are indications of what Duchamp means by “space into time.”¹²⁴ As philosopher Adi Efal has explained in her study of the ‘plastic’ in relation to art historical conceptions of form and figure, “plastic things are the spatial foundation of optical perception”;¹²⁵ duration as experienced through continuity and fragmentation is likewise the bases of temporal perception. If the passage between the two-dimensional and the three-dimensional characterizes the “plastic art (*plasticen, plastae*)”¹²⁶ of classical antiquity (then subsequently the neo-classicizing ‘plastic’ of Gottfried Herder and Adolf von Hildebrand), the passage from the three-dimensional into fourth and fifth dimensions is what Duchamp’s “plastic duration” explores.¹²⁷ In the portfolio “Perspective,” Duchamp’s notes describe this as “construction of a 4-dimensional eye.”¹²⁸ In a facsimiled note dated September 14, 1914, he recognizes this “construction” requires “tactile exploration”:

perspective3 starts in an initial frontal plane without deformation. Perspective4 will have a cube or 3 dimensional medium as a starting point which will not cause deformation i.e. in which the object3 is seen circumhyperhypo-embraced (as if grasped with the hand and not seen with the eyes).¹²⁹

¹²³ Ibid.

¹²⁴ Ibid.

¹²⁵ Adi Efal, *Figural Philology: Panofsky and the Science of Things* (London, UK: Bloomsbury Academic, 2016), 44.

¹²⁶ Efal, *Figural Philology*, 45.

¹²⁷ Duchamp, *À l’Infinif*, op. cit.

¹²⁸ Ibid.

¹²⁹ Ibid.

He quotes French mathematician Esprit Jouffret (1937 – 1904): “the shadow cast by a 4-dim’l figure on our space is a 3-dim’l shadow (See Jouffret “Geom.à 4 dim.” Page 186, last 3 lines) (15).”¹³⁰

A note in another portfolio titled “Continuum” raises an “objection”: “what is the meaning of this word 4th dimension since it does not have either tactile or sensorial correspondence as do the 1st , the 2nd and the 3rd dimension[?]” Duchamp asks.¹³¹ The “Continuum” folder sets out to respond to this question, and indeed, its fragments are no longer suggestions, but proofs and axioms; the paper support for these notes is, in most cases, no longer just small scraps but often sheets of pages joined by a straight pin.¹³² “In a continuum,” Duchamp explains in one note, “any space is perceived by a 4-dim’l [four-dimensional] sense of touch as a sort of projection on a plane recording the different 3-dim’l [three-dimensional] coordinates. --- The perceived object is no longer the point, as to the ordinary sense of touch, but rather a sort of tactile expansible sphere assuming all 3-dim’l [three-dimensional] shapes.”¹³³ This “tactile expansible sphere” is altered by motion, the physical expression of time.¹³⁴ “When I represent a space³ by means of a 3-dim’l sphere (or a cube³) I am comparable to a flat individual who sees the section of a drawn plane P,” Duchamp writes in another note.¹³⁵ “The individual A,” he continues “can move to AI. He measures, while moving, the 4 sides of the quadrangle but at each stop he only sees a projection of the quadrangle on an imaginary axis perpendicular to his visual ray”—

The vision³ [three-dimensional vision] of a plane P corresponds in the continuum to a grasp⁴ [four-dimensional grasp] of which one can get an idea by holding a penknife clasped in one’s fist, for example. [...] For a 4-dim’l individual, the 3

¹³⁰ Ibid.

¹³¹ Ibid.

¹³² Ibid.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ Ibid.

dim'l tactile grasp-image (like a pen-knife in one's fist) will differ when the (point? where the grasp? starts) moves 4-dimensionally.¹³⁶

The fourth dimension is “virtuality”:

not the reality in its sensorial appearance, but the virtual representation of a volume (analogous to the reflection in a mirror). Multiplicity to infinity of the virtual images of the 3-dim'l [three-dimensional] object. These images being the smallest to infinity and the largest to infinity [...].¹³⁷

What is at stake in the suggestion “try to argue on the plastic duration” is the construction of a new critical sense that challenges “sense very accustomed to physical space, [and which] hardly allow the conception of a 5-dim'l continuum.”¹³⁸ This “continuum” is described as a “set of supravirtual images of the virtual image already given by the 3 dim'l object in its 4 dim'l conception.”¹³⁹

A note in the “Speculations” folder provides an exercise that seems to attempt to experiment with these “supravirtual images.”¹⁴⁰ Perhaps not incidentally, it is written on the back of a small watercolor sketch (fig. 72) that appears to be a reiteration of the lakeside scene in the Hershey print. In this scene, however, rather than a view centered on human figures in a boat on the lake, landscape is portrayed at a distance in which small boats appear anchored off-shore in the yellow, pink and blue vapors of sunset. The note on the back of the watercolor outlines an experiment for “2 ‘similar’ objects, i.e., of different dimensions but one being the replica of the other.”¹⁴¹ The note suggests “2 deck chairs,” one “large” and the other “doll size.”¹⁴² The pairing “could be used to establish a 4-dim'l perspective,” Duchamp qualifies, “not by placing them in relative positions with respect to each other in space³ [three-dimensional space] but simply by

¹³⁶ Ibid.

¹³⁷ Ibid.

¹³⁸ Ibid.

¹³⁹ Ibid.

¹⁴⁰ Ibid.

¹⁴¹ Ibid.

¹⁴² Ibid.

considering the optical illusions produced by the difference in their dimensions.”¹⁴³ It is as if Duchamp is using the watercolor on the back of the note to stir the reader’s memory, affecting the exercises in perception that the note describes.

In *Plastik*, the 18th-century philosopher Gottfried Herder had asked, “Is it not our plastic sense that enables us to transform the line back into a body, the flat figure back into a rounded and living form?”¹⁴⁴ In Duchamp’s 20th-century ‘plastic sense,’ poses eroticism at the center of this question, reframing the realm in which the body’s physicality accomplishes the transcendence of its sensorial limitations. This use of the body to move beyond the body, through the body—to retrain the senses and unaccustom the body to physical space allowing for the conception of the continuum—is what Duchamp seeks in his explorations of experimental scenarios, materials, and gestures—“try to argue for the plastic duration.”¹⁴⁵

Duchamp’s erotic gestures of “space into time”—his winding, foaming, grinding, etc.—present an interesting contrast to the theory of conventional gestures of sculpture—“modeling” and “carving”—articulated by British painter and critic Adrian Stokes (1902-1972).¹⁴⁶ Stokes described “modeling” and “carving” as gestures of time “turned into space” and “incorporated into space.”¹⁴⁷ Stokes distinguished “modeling forms” (or “plastic objects” that “betray tempo”) from “carving forms” (“solid bit[s] of space”) by asserting that in “carving conception,” “temporal significance” is “turned into space,” while in “modeling conception” “temporal significance” is instead “incorporated into space.”¹⁴⁸ In the case of the former, the conception is “shown in immediate form, deprived of rhythm.”¹⁴⁹ In the case of the latter, the conception, “untrammelled by the restraint that reverence for objects as solid space inspires, may turn to many

¹⁴³ Ibid.

¹⁴⁴ Gottfried Herder as quoted in Efal, *Figural Philology*, 46.

¹⁴⁵ Duchamp, *À l’Infinifif*, op. cit.

¹⁴⁶ Efal, *Figural Philology*, 46.

¹⁴⁷ Adrian Stokes in Efal, *Figural Philology*, 46.

¹⁴⁸ Ibid.

¹⁴⁹ Ibid.

kinds of extreme,” “the wildest sense.”¹⁵⁰ Duchamp’s attempts to come up with new movements, motions and gestures that estrange the body from physical space, are neither the ‘time turned into space’ that Stokes identifies with carving and “solid bit[s] of space,” nor the ‘time incorporated into space’ that he associates with modeling and “plastic objects.”¹⁵¹ Stokes privileged the “carving conception” for “caus[ing] its object, the solid bit of space, to be more spatial”—he thus lauded the spatial object of carving over the plastic object of modeling;¹⁵² Duchamp offers an alternative plastic that is neither nor. His plastic extends perception beyond the dialectic between two- and three-dimensions, into the “plastic duration” of four- and five-dimensions.¹⁵³

Coupling and Doubling in Plastic Poems: Man Ray and Sherrie Levine

Like Duchamp’s proposed exercise of paired deck chairs, Duchamp’s friend Man Ray (1890-1976)¹⁵⁴ also developed an approach to doubling that he associated with the ‘plastic.’ Whereas Duchamp’s pairing was focused on plastic scale—on “establish[ing] a 4-dim’l [four-dimensional] perspective” (not by relative placement in three-dimensional space, but simply by “the optical illusions produced by the difference in their dimensions”)—Man Ray’s “coupling” provoked empathetic corporeal disturbance by combining objects with distinct functional uses.¹⁵⁵ He referred to the result of this “coupling” as a “plastic poem.”¹⁵⁶ In one of his most famous plastic poems, *Cadeau* (Gift, 1963 replica of lost 1921 original) (fig. 77, left), Man Ray and the composer Eric Satie, glued a row of fourteen tacks to the underside of a flatiron.¹⁵⁷ The object

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² Ibid.

¹⁵³ Duchamp, *À l’Infinif*, op. cit.

¹⁵⁴ Man Ray (Emmanuel Radnitzky, Philadelphia 1890 – Paris 1976).

¹⁵⁵ Duchamp, *À l’Infinif*, op. cit.

¹⁵⁶ Man Ray as quoted in Mason Klein, “Alias Man Ray,” *Alias Man Ray: The Art of Reinvention*, ed. Mason Klein (New Haven, CT: Yale University Press, 2009), 53.

¹⁵⁷ Howard Singerman, *Art History, After Sherrie Levine*, (Berkeley, CA: University of California Press, 2012), 240. Merry A. Foresta, “Lost in Translation: Man Ray and the Shifting Milieu of Modernism,” *Alias Man Ray: The Art of Reinvention*, ed. Mason Klein (New Haven, CT: Yale University Press, 2009), 112.

was made during the opening of Man Ray's first show in Paris and was on display only a short time before it disappeared later in the evening.¹⁵⁸ It was re-created in 1958 in a signed edition of 5,000.¹⁵⁹ "I need more than one factor, at least two," wrote Man Ray, "two factors that are not related in any way. The creative act for me rests in the coupling of these two different factors in order to produce a plastic poem."¹⁶⁰

The coupling of two different factors was also complimented in this case by the context: presented as an object for contemplation at an exhibition, the object's title "Gift" suggested that the viewer interact with the curated display differently: not with cool, detached reserve, but with a sense of entitled possession. The relationship between sight and touch is in this case made explicit, not only by the object, but by the conditions of its display. The disappearance of the object allowed it to become 'idea' once the original no longer existed and had to be re-created. The object itself has been described by art historian Howard Singerman as "allow[ing] us to imagine its action"—a "forward-looking" object with a "sense of impending movement."¹⁶¹ This empathetic sense derives from the fact that, as Rosalind Krauss has explained, the viewer recognizes that the object, though disfunctionally alien—a flatiron with tacks—could be made to work in physical space in a way that challenges the object's original intent.¹⁶² One would typically grab a flatiron to smooth out wrinkles in a garment; this flatiron with tacks would shred the garment. A further chain of association ensues because of the metonymic relationship between garments and the body. The shredding of the garment becomes the horrific shredding of

Man Ray, *Cadeau* (1963 replica of lost 1921 original), cast iron and brass tacks, 6 ¼ x 3 5/8 x 4 ½ (15.9 x 9.2 x 11.4 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art.

¹⁵⁸ Singerman, *Art History, After Sherrie Levine*, 240. "Man Ray, *Gift*. Paris. c. 1958, replica of 1921 original," *Dada in the Collection of the Museum of Modern Art*, ed. Anne Umland and Adrian Sudhalter with Scott Gerson (New York, NY: Museum of Modern Art, New York, 2008), 220. Singerman, *Art History, After Sherrie Levine*, 240.

¹⁵⁹ Singerman, *Art History, After Sherrie Levine*, 240. Dietmar Elger, "Man Ray, Gift (1921/1940)," *Dadaism*, ed. Uta Grosenick (Cologne, Germany: Taschen, 2004), 88.

¹⁶⁰ Man Ray as quoted in Francis Naumann, *Conversion to Modernism: The Early Work of Man Ray* (New Brunswick, NJ: Montclair Art Museum, 2003), 211.

¹⁶¹ Singerman, *Art History, After Sherrie Levine*, 241.

¹⁶² Rosalind Krauss as discussed in Singerman, *Art History, After Sherrie Levine*, 241.

skin. In this interchange between body and object, the object becomes subjectivized and the body objectified: the “smooth underbelly”¹⁶³ of the iron is the vulnerable open torso of the body; the tacks are not glued on its surface but pressed into the skin. Through this “coupling of [...] two different factors”¹⁶⁴—the tack created to pin materials to a wall and the flatiron created to smooth garments with its surface heat—as Singerman describes it, “the object is shrouded in the temporality of fantasy. It can be the recipient of the extended experience of the viewer who projects his own associations onto its surface;” the object “invite[s] [the viewer] to call to consciousness an internal fantastic narrative he has not previously known.”¹⁶⁵

The artist Sherrie Levine created a variation on Man Ray’s *Cadeau*, eponymously titled (fig. 77, right).¹⁶⁶ In Levine’s plastic poem between two objects, the two objects are not mutually incorporated like the tacks and the flatiron in Man Ray’s original. Instead, Levine’s reiterated double of Man Ray’s coupling combines two separate objects that remain autonomous: a cast bronze sculptural replica of a flat iron and the small statuette of a dog holding a fish in its mouth.¹⁶⁷ The two objects are distinct in that one—the flatiron—is a functional object transformed into a sculpture by the process of casting, while the other is a statuette already identified as non-functional kitsch. The two objects join each other on the same level as they have both undergone the replication process (the statuette has also been copied). The two objects are also distinct in shape: the flatiron’s distinctly minimal geometric form contrasts with the statuette’s irregular contour. The combination triggers a series of empathetic responses. The flatiron typically held by the hand in conventional operation is thus associated with the human

¹⁶³ Singerman, *Art History, After Sherrie Levine*, 242.

¹⁶⁴ Man Ray as quoted in Naumann, *Conversion to Modernism*, 211.

¹⁶⁵ Singerman, *Art History, After Sherrie Levine*, 241-243.

¹⁶⁶ Sherrie Levine, *Cadeau* (c. 2005), edition of 12, polished bronze in 2 parts (flat iron: 5 ¾ x 4 ½ x 3 ½ in (14.6 x 11.4 x 8.9 cm); dog: 5 ½ x 4 ½ x 2 ½ in (14 x 11 x 6.4 cm), Jablonka Galerie. Image: Jablonka Galerie.

¹⁶⁷ *Ibid.*

organ. The flatiron recalls the image of a hand gesturing refusal, and the dog who offers a captured fish in its mouth is denied recognition.

As Singerman has explained, “Levine’s [plastic poem] is, in its way, the more prosaic—a closed, strictly plotted melodrama, which given her *mise-en-scène*, we see only from the outside.”¹⁶⁸ Though the viewer might make the metonymic association of the flatiron with the hand, and thus perceive a sense of refusal in the combination of objects, it is more likely that the viewer will simply feel this refusal as rejection, perplexed by the seemingly nonsensical pairing of dog and flatiron. As Singerman writes, Levine’s *Cadeau* “is impassive, unperturbed, complete within itself, untouched by the dog or its gift,” it is “cool immobility.”¹⁶⁹ In its staging of this “cool immobility” between the dog and the flatiron, Levine’s *Cadeau* reenacts the impassivity between the art object and the viewer. With *Cadeau*, both the idea of art and the viewer take turns playing the flatiron: the frustrated viewer may refuse the gift offered in the art object, just as the art object refuses the “desire for ‘recognition’”—the desire to be desired—of the viewer.¹⁷⁰ As Singerman writes, this desire to be desired has been defined as “anthropogenic”—as what distinguishes human desire from “bestial desire”—the desire to be wanted from the desire that “requires the physical body to meet a physical need.”¹⁷¹ Both desires are “frightening” and potentially “annihilating.”¹⁷² As Singerman writes, “human history is the history of desired Desires.”¹⁷³

Critical theorist Bill Brown has followed Thierry de Duve’s argument—one which he asserts “Duchamp himself believed”—assessing that the Duchampian readymade “belongs [...] to the history of painting;”¹⁷⁴ he compares this to “Man Ray’s very different, ongoing struggle”

¹⁶⁸ Singerman, *Art History, After Sherrie Levine*, 242.

¹⁶⁹ *Ibid.*

¹⁷⁰ *Ibid.*

¹⁷¹ *Ibid.*

¹⁷² *Ibid.*

¹⁷³ *Ibid.*

¹⁷⁴ Bill Brown, *Other Things* (Chicago, IL: University of Chicago Press, 2015), 98.

which he insists was explicitly “against painting” (though “waged while, on and off, he continued to paint”).¹⁷⁵ Duchamp’s proposed experiment for the two deck chairs in *À l’Infinif* shares similarities with the readymade, using the readymade approach to selected objects already existent in the world; nonetheless, it is a very different operation. It takes a position somewhere inbetween the readymade and Man Ray’s “plastic poem,” exploring the “optical illusion” produced between two objects that are the same rather than different.¹⁷⁶ Its status as an experiment intended to contribute to the “construction of a 4-dimen’l [four-dimensional] eye”¹⁷⁷ should not be subsumed under the history of painting: it belongs to the history of the ‘plastic.’

Maria Hassabi’s *PLASTIC* makes its own speculations about plastic duration. In the process, its choreographies produce embodied iterations of the “plastic poem” that resonate with both the malleable imaginative potential in Man Ray’s *Gift*, and the fixed impassivity of Levine’s. A viewer who stands among *PLASTIC* performers on the green slate of the Gund Lobby staircase can see other performers on the wooden staircase between the fourth and fifth floors, through a long sliver of window above the Marron atrium. The wooden staircase is made up of repeated half-landings where a 180° change in direction occurs in the stairway every ten treads. Like Duchamp’s experiment for two deck chairs, Hassabi’s live installation presents two staircases at different scales, in different material, with two dancing bodies (four total; two on each staircase), doubling what Duchamp calls “a 4-dim’l [four-dimensional] perspective.”¹⁷⁸ When Duchamp writes that this perspective is generated “not by placing [the two deck chairs] in relative positions with respect to each other in space³ [three-dimensional space],” but by “considering the optical illusions produced by the difference in their dimensions,”¹⁷⁹ he is referring to the difference in scale between a small deck chair and a large deck chair. In

¹⁷⁵ Ibid.

¹⁷⁶ Duchamp, *À l’Infinif*, op. cit.

¹⁷⁷ Ibid.

¹⁷⁸ Ibid.

¹⁷⁹ Ibid.

Hassabi's *PLASTIC*, there is both play with two dances on two staircases placed in relative positions, and play with two dancing bodies on one staircase repeating the same counts and the same sequence of movements in different temporalities. In Hassabi's *PLASTIC*, Duchamp's "plastic duration" of "4-dim'l [four-dimensional] perspective"¹⁸⁰ occurs in the difference in movement rather than in size.

Two moving bodies (fig. 62) do not express sameness the way two stationary deck chairs do: thus, the optical illusion to produce a four-dimensional perspective happens not in the bodies themselves, but in the spatial formulas they repeat in their movement loops. One body always seems to be foreshadowing the movement of the other; the other always seems to be unintentionally repeating the movement of its distant partner. These movements, however, are never exactly the same. The optical illusion produced in the doubled choreography is the perception that the staircase is somehow occupied by a spatial formula that possesses the bodies that pass over it. This spatial-formula cannot be seen, other in than in these two specific bodies; the other bodies that pass on the staircase, i.e., the bodies of museum visitors, miss it. In addition, the count that dancers follow in performing the choreographed sequence results in the dancers taking different positions relative to each other each time the live installation is presented. The dancers also recognize that each of them must go through a process of adapting Hassabi's movements in the choreographies to their own bodies' limitations. The choreographies are uncanny not only because of the perturbing way in which they are looped and repeated among various dancers, but because, in a sense, Hassabi's body is also always present as the *phantasm* for theirs. As Aristotle wrote:

Just as the picture painted on a panel is at once both a picture and a likeness, and though one and the same is both, yet they differ in being, and it is possible to think of it both as a picture and as a likeness, and we must regard the phantasm within us in us similarly both as an object of thought in itself and also in relation

¹⁸⁰ Ibid.

to something else. Considered *qua* itself, the phantasm is an object of contemplation, but considered *qua* related to something else—for instance, as that of which it is likeness [*eikon*]¹⁸¹—it is a reminder.

In a comment on the allographic quality of his work, Man Ray emphasized this importance of the role of the “reminder” in his objects, stating ironically: “*créer est divin, reproduire est humaine*” (to create is divine, to reproduce is human).¹⁸² Duchamp’s suggested experiment with the two deck chairs in *À l’Infinifif* is similar play with the reminder.

Invent and Experiment: Duchamp with Jacques Lebel and J.W. Dunne

In his translator’s notes to Duchamp’s *À l’Infinifif*, Cleve Gray writes that Duchamp had suggested that readers of *À l’Infinifif* refer to J.W. Dunne’s *An Experiment with Time* (1927) and Robert Lebel’s *L’Inventeur du Temps Gratuit* (The Inventor of Free Time, 1964).¹⁸³ For the latter, Duchamp “made a ‘pliage’ of a clock seen in profile” in which, as he describes it, “time disappears, but which accepts the idea of time other than linear time.”¹⁸⁴ The “pliage” is both a drawing and a sculpture in light cardboard (fig. 78).¹⁸⁵ Its movement between two- and three-dimensions produces what, using Duchamp’s words from his *À l’Infinifif* notes, could be called a four-dimensional perspective. A vertical strip can be pushed to the right to fold two circles onto one another. If pushed completely to the right, the two circles overlap to take on the appearance of a three-dimensional wall clock, in profile, with small holes taking the place of the numbers 1 to 12. Slid back from right to left the “pliage” becomes two clocks watching each other, connected by a strip, but nonetheless, autonomous. They remain connected until they are pushed to settle

¹⁸¹ Aristotle as cited in Tony Roark, *Aristotle on Time: A Study of the Physics* (Cambridge, UK: Cambridge University Press, 2011), 146.

¹⁸² Brown, *Other Things*, 106.

¹⁸³ Duchamp, *À l’Infinifif*, op. cit.

¹⁸⁴ Ibid.

¹⁸⁵ Marcel Duchamp, *The Clock in Profile* (1964), relief print, 11.1 x 8.6 inches. For the flat version of the drawing, see “Marcel Duchamp, *The Clock in Profile*, 1964,” *Artnet*. Past Auctions. N.d. Accessed January 20, 2017. <http://www.artnet.com/artists/marcel-duchamp/the-clock-in-profile-jvxy8x9OKWUpvk-3umB9Yg2>; for the folded version of the drawing see “Marcel Duchamp, *The Clock in Profile*, 1964,” *Tout-Fait: The Marcel Duchamp Studies Online Journal*. Vol. 2, Issue 4 (January 2002). http://www.toutfait.com/issues/volume2/issue_4/news/barnes/popup_16.html

back onto their supporting page as two clocks, side by side. Several of the holes in each of the circles reveal hand-drawn capital letters that read “Al Pendule [...] Profil” (Of the Clock [...] Profile). The word “de” (the English proposition “in”) is written on the tab that connects the two circles so that when the two circles are extended the phrase “Al Pendule de Profil” (Of the Clock in Profile) comes fully into view.

Scholars have connected the drawing-sculpture to a note in the most famous collection of facsimiled fragments Duchamp published, *La Boîte Verte* (The Green Box, 1934). The associated note reads “The Clock in profile. / and the Inspector of space.”¹⁸⁶ In Lebel’s *The Inventor of Free Time*, the figure of the clock appears in an encounter between the character A. Loride and a curiosity-seeker who accidentally becomes the inventor’s interviewer.¹⁸⁷ The curiosity-seeker happens upon A. Loride’s studio while looking for a place to live around Front and Pearl Streets in lower Manhattan. Going door to door looking for “an artistic existence,” he discovers a French inscription at one entrance that reads “A. Loride, Inventeur du Temps Gratuit” (A. Loride, Inventor of Gratuitous Time). After going through “the office of a navigation company, a print shop and a bath shop,” the wanderer discovers what looks like a “cluttered warehouse” where a “totally naked man was executng movements of physical exercise.”¹⁸⁸ When the man notices his visitor, the embarrassed wanderer can find nothing else to say except “I’m here about your invention.”¹⁸⁹ The man allows him to leave his address to be assigned an appointment and three weeks later, the art-enthusiast receives a letter for an interview the following day. At the interview, the wanderer-cum-interviewer asks “what about time?”¹⁹⁰ A. Loride responds, showing him a “providential gathering of [...] three clocks” in the crowded

¹⁸⁶ *The Artist and His Critic Stripped Bare: The Correspondence of Marcel Duchamp and Robert Lebel*, ed. Paul B. Franklin (Los Angeles, CA: Getty Research Institute, 2016), 276.

¹⁸⁷ Robert Lebel, “L’Inventeur du Temps Gratuit,” *Toutfait* (May 1, 2000). Updated July 13, 2016. Accessed July 1, 2015. <http://toutfait.com/linventeur-du-temps-gratuit/>

¹⁸⁸ Lebel, “L’Inventeur du Temps Gratuit,” op. cit.

¹⁸⁹ Ibid.

¹⁹⁰ Ibid.

space, which is full of objects left by the previous tenants.¹⁹¹ “One functions precisely, another irregularly, and another not at all,” Loride explains.¹⁹² He describes how the “gathering” had caused him to “revise” his “views,” but insists “don’t take me for some sort of a thinker.¹⁹³ I only try to connect some scattered notions” to “carry out a mental patchwork of happy inconsistency”: “these machines,” he explains in reference to the various experiments surrounding him, are “deficient for the most part,” and only serve to “constantly bring me back to details, to fragmentary verifications. [...] They impress upon my questioning a concrete form while their eminently fictitious character keeps me from giving up [...] to the detriment of the result Here I learn to uselessly take advantage of everything.”¹⁹⁴ As Loride describes it, an elevated train (the New York “El”) that passes by the window of the studio serves a function, “as fundamental as the cycle of the tides.” He explains,

It expresses with as much perfection the stamp of humanity, but in addition has the immense advantage of keeping the organism in a state of latent exasperation. The ebb and flow merely encourage us to resign ourselves endlessly, while the El directly drives us to revolt against what is presented to us again and again as being our condition.¹⁹⁵

The train is also central to Dunne’s *An Experiment with Time*, the other book Duchamp suggested that viewers of his *À l’Infinif* notes read. Dunne’s book asserts, “time is serial”¹⁹⁶—a phenomenon of “Times behind Times” composed of an infinite series of “Times” that time the activity of other “Times.”¹⁹⁷ This phenomenon—which Dunne explains “contains phenomena other than visual; [...] embrac[ing] [...] every species of mental phenomenon”—shares the same psychological and physiological effects as two experiences of time made visual by railway travel:

¹⁹¹ Ibid.

¹⁹² Ibid.

¹⁹³ Ibid.

¹⁹⁴ Ibid.

¹⁹⁵ Robert Lebel, “The Inventor of Gratuitous Time (L’Inventeur du temps gratuit, 1957; 1964)” trans. Sarah Skinner Kilborne (with Julia Kotliansky). *Tout-Fait: The Marcel Duchamp Studies Online Journal*. Vol. 1, Issue, 2 (May 2000). Accessed January 20, 2017. http://www.toutfait.com/issues_2/Art_&_Literature/lebel.html

¹⁹⁶ J.W. Dunne, *An Experiment with Time* (London: A. & C. Black, Ltd., 1929), vii.

¹⁹⁷ Dunne, *An Experiment with Time*, 124.

the experience of a cow in the landscape who, despite “gliding past” the window of a passing railway carriage, is perceived as being at rest, and that of a moving carriage on adjacent railway tracks perceived as stationary and experienced as the movement of the rider’s own actually stationary carriage.¹⁹⁸ These train examples show how Dunne, an aeronautical engineer combines working through “logical deduction from already established facts,” through “direct experiment” with everyday experience, and then through “both processes corroborating each other.”¹⁹⁹

The majority of Dunne’s book focuses on the analysis of dreams. He makes it a point of distancing his analyses from “occultism” and “psychoanalysis,”²⁰⁰ using extended discussions of physics to assert his theories about dream interpretation. These theories are designed to provide a “language of physics”²⁰¹ capable of explaining incidents that “have passed for ‘clairvoyance’”²⁰²—incidents which induce individuals to feel they “habitually observe events before they occur.”²⁰³ At the conclusion of Dunne’s deductions and experiments, he argues there is evidence for an “existence of a common-to-all field [...] filling all space [...]” that “would provide us with [...] the primary essential for the production of anything in the nature of real telepathic inter-communication.”²⁰⁴ This “existence of a common-to-all field [...] filling all space” is similar to the “space-time continuum” of relativity, but—as Dunne’s friend A.S. Eddington comments in a passage Dunne includes as an epigraph to the book—Dunne’s “common-to-all field” is of a “going on of time” that is not quite in the world of “space-time [...] as it stands.”²⁰⁵ In this “going on of time” the ‘becoming’ is really there in the physical world, but is not formulated in the description of it in classical physics.²⁰⁶ Dunne’s new “language of

¹⁹⁸ Ibid., 127.

¹⁹⁹ Ibid.

²⁰⁰ Ibid., 1.

²⁰¹ Ibid.

²⁰² Ibid.

²⁰³ Ibid., vi.

²⁰⁴ Ibid., 208.

²⁰⁵ Ibid.

²⁰⁶ Ibid., viii.

physics” calls the “common-to-all field [...] filling all space” the “soul.”²⁰⁷ This “individual soul [...] has a definite beginning in absolute Time.”²⁰⁸ Its “immortality, being in other dimensions of Time does not clash with the obvious ending of the individual in the physiologist’s Time dimension,”²⁰⁹ nor does it “nullify the physiologist’s discovery that brain activity provides the formal foundation of all mundane experience and of all associative thinking.”²¹⁰ This soul is a “tree-like field” that Dunne describes as split between a “superlative general oberver” and a “less generalized observer.”²¹¹ The former is the “fount of all that consciousness, intention, and intervention which underlies mere mechanical thinking.”²¹² It contains within it the “less generalized observer” who is the “personfication of all genealogically related life and who is capable of human-like thinking and prevision of a kind quite beyond our individual capabilities.”²¹³ It is off of this “superlative observer” that “we individual observers” live and have our being as “branches.”²¹⁴ After perusing Dunne’s work, the reader is left with the impression that Duchamp’s “plastic duration” combines the temporal continuum of Dunne’s Serialism with Hildebrand’s spatial continuum; Duchamp’s work follows Dunne’s approach to experimental study of time, but still adheres to a certain classicism in the way the spatial continuum and its shifts among dimensions manifest.

In Maria Hassabi’s *PLASTIC*, the importance of “counting” and the manipulation of spatial containers created by architecture, are similarly oriented. In the play with scale that *PLASTIC* engages, the viewer can observe two dances simultaneously, a dance performed immediately before her on a straight staircase, and at a distance, a dance on a staircase of half landings that appears to float in a window of the Marron atrium (fig. 62, top and middle).

²⁰⁷ Ibid., 207-208.

²⁰⁸ Ibid., 207.

²⁰⁹ Ibid.

²¹⁰ Ibid.

²¹¹ Ibid.

²¹² Ibid.

²¹³ Ibid.

²¹⁴ Ibid.

PLASTIC is performed on the straight staircase in the Gund lobby, amidst throngs of passersby in rush-hour periods of museum attendance (fig. 61, top), and in silence, when viewers can potentially get closer to dancers, during lulls (fig. 61, bottom). Under the fourth and fifth floor staircase viewable through the window in the Marron atrium (fig. 62), *PLASTIC* is performed on furniture especially designed by Hassabi for the vast open space where an uncomfortable intimacy tends to pervade the atmosphere (fig. 79). This plastic scale recalls a note from Duchamp's *À l'Infinifif*: "landscapism from the height of an aeroplane, then the fieldtrip (number of houses in each village then number of Louis XV chairs [legs are cabriole, curved] in each house)." ²¹⁵ In the case of Hassabi's *PLASTIC*, "landscapism" extends over the depth of the atrium to a window onto the passage between the museum's fourth and fifth floors; then there is the "fieldtrip"—the individual bodies of dancers in each space—and the cabriole legs—the movement of limbs. This is the plastic duration.

²¹⁵ Duchamp, *À l'Infinifif*, op. cit.



Hassabi, *PLASTIC* (2016), live installation, dem Art, New York (MoMA), Marron Atrium low that looks into the stairwell between the floor Painting and Sculpture Galleries). on MoMA video documentation posted to : Museum of Modern Art, New York.



imela, *Construction* is, brass, metal and $\frac{1}{8} \times 1 \frac{3}{4}$ in (89.85 x , private collection. s Society (ARS), New



Fig. 80 Cover from issue number 3 of the modernist magazine *PLASTIQUE* (1938). Stedelijk Museum. Image: Stedelijk Museum.

7

NVA

Chapter Seven / *PLASTIQUE* between Surrealism and Abstraction

The Man Who Lost His Skeleton in the Magazine PLASTIQUE

In the modernist magazine *PLASTIQUE* (fig. 80), Marcel Duchamp's name appears listed among contributors to a collaborative novel titled *L'Homme qui a Perdu son Squelette* (The Man Who Lost His Skeleton, 1938-1939), published in two parts in 1938 and 1939.¹ Though Duchamp scholar Arturo Schwarz claims Duchamp denied having any part in the novel, he is nonetheless listed as an author along with Hans Arp, Paul Eluard, Max Ernst, Georges Hugnet, Henri Pastoureau and Gisèle Prassino. The theme of the story—a man who lost his skeleton—appears to have been ironic play in both content and form with the Surrealist *cadavre exquis* (exquisite corpses) game, where each player elaborates upon a drawing, a collage, or a story without knowing the totality of what other participants have produced. Considered “the key game played by the surrealist group,” *cadavre exquis* is defined in the *Dictionnaire abrégé du surréalisme* (*Abbreviated Dictionary of Surrealism*, 1938) as:

a game of folded paper that consists in a group of people composing a phrase or a drawing collectively without anyone being aware of the collaboration, or of preceding collaborations. The example, now classic, that has given its name to the game had a first phrase that read in the following manner: *Le cadavre—exquis—boira—le vin—nouveau* (The exquisite—corpse—shall drink—new—wine).²

As scholar of Surrealism Elza Adamowicz has explained, “in the verbal version of this game, the rules of syntax were strictly adhered to,” whereas in its “visual form,” the game was based on a “compositional rule analagous to the syntactic construction of the sentence [and] based on the

¹Hans Arp, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Henri Pastoureau, Gisele Prassinis, etc. “L’Homme qui a perdu son squelette,” *PLASTIQUE*, no. 4 (1939), 2, in *PLASTIQUE* (New York, NY: Arno Press, 1969). The original page numbers from the separate issues are retained.

² My translation from the *Dictionnaire* as quoted in Elza Adamowicz, *Surrealist Collage in Text and Images: Dissecting the Exquisite Corpse* (Cambridge, UK: Cambridge University Press, 1998), 55.

anatomical structure of the body: the first participant drew the equivalent of a head, the second shoulders and arms, and so on.”³

The Man Who Lost His Skeleton is collectively authored without any specification as to who contributed which chapters. Scholars have since attributed specific chapters to Hans Arp and Max Ernst.⁴ The novel is written from a perspective that shifts across the story’s various short chapters, moving between a skeleton liberated from its flesh and a fleshy mass desperately seeking its skeleton. The story is introduced from the perspective of the heap of “flesh without will,” “a disquieting limpness” that “lacking support, had begun to cover itself within a kind of mesh, solid but cumbersome.”⁵ The “limpness” wanders from town to town in Northeastern France—from Nancy on the border with Germany, to Bourges in central France, then Vanves to the North—all in search of its skeleton. It eventually reaches a crossroads and accepts a chance suggestion that it return to Paris from a group of children it encounters.

In the second chapter, the protagonist in Paris finds its flesh literally transformed.⁶ One morning, after a long walk, the “flesh without will” suddenly finds that it has become a tree: “he brought his hand to his forehead velvety with moss and wet with dew. Next he checked his shoulders: leaves shielded the internal softness. He knew that he was a tree.”⁷ Both chapters involve the main character learning something about himself through a kind of auto-erotic self-touching.

³ Elza Adamowicz, *Surrealist Collage in Text and Images*, 55.

⁴ Robert Jouanny, “L’Amitié Magique de Paul Eluard et Max Ernst,” *Motifs et Figures* (Paris, France: Publications de l’Université de Rouen, 1974), n10, 160.

⁵ My translation. Hans Arp, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Henri Pastoureau, Gisele Prassinis, etc., “Premier Chapitre: Dans la Campagne” in “L’Homme qui a perdu son squelette,” 2, in *PLASTIQUE* (New York, NY: Arno Press, 1969).

⁶ My translation. Hans Arp, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Henri Pastoureau, Gisele Prassinis, etc., “Deuxième Chapitre: L’Arbre ou La Vie” in “L’Homme qui a perdu son squelette” in *PLASTIQUE* (New York, NY: Arno Press, 1969). 3.

⁷ Arp, Duchamp, Eluard, Ernst, Hugnet, Pastoureau, Prassinis, etc., “Deuxième Chapitre: L’Arbre ou La Vie” in “L’Homme qui a perdu son squelette,” 3.

The flesh-turned-tree finds that the railings used to enclose city trees on the Parisian boulevards have been fixed under his feet like “snowshoes.”⁸ He takes off on the snow-covered streets soaring over the snow on his tree railings. “He shakes his large branches heavy with leaves which are soon populated by all of the winter birds,” and finds repose on the monumental staircase of the Opéra where he throws his branches around the bodies of the building’s bronze women.⁹ He chooses a café for his aperitif and meets a young woman named Isabeau de Bavière, who gives him the name, “*Erable Enchanté*”(Enchanted Maple).¹⁰ Isabeau tells the tree her own story of encounter with the skeleton. Though the story is still told from the perspective of Erable, it is Isabeau’s voice that dominates the following chapter.¹¹ Chapter Three begins with Isabeau recounting a frightening nighttime encounter with Erable’s skeleton. Through Isabeau’s account, the tree learns his skeleton has “found better” and will not return to “nest itself in his branches.”¹² The ensuing chapter picks up the story in the next issue of the magazine.¹³ It finally invests the protagonist’s perspective in the long-sought skeleton who readers discover is on “vacation,” “overjoyed as a madman having his strait-jacket removed”:

it was a true release for him to stroll about without the burden of flesh. [...] The skeleton’s lodging had an ancient head and modern feet. The ceiling was the sky, the floor the earth. It was painted entirely in white and decorated with snowballs in which hearts throbbed. It looked like a transparent monument that dreams of an electric breast, and it gazed eyelessly—with a gentle and invisible smile—into the inexhaustible supply of silence that surrounds our star. The skeleton didn’t care for the sinister, but in order to suggest that life also has certain hazardous moments, he had placed a giant die in the center of his fine apartment and, from time to time, he would sit on it like a true philosopher [...]. The skeleton didn’t bother any more with the world of errant flesh, the world of Mister Maple. Every

⁸ Ibid.

⁹ Ibid., 4.

¹⁰ Ibid.

¹¹ My translation. Hans Arp, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Henri Pastoureau, Gisele Prassinis, etc., “Troisième Chapitre: Autant en Emporte la Mort” in “L’Homme qui a perdu son squelette” in *PLASTIQUE* (New York, NY: Arno Press, 1969), 5.

¹² Arp, Duchamp, Eluard, Ernst, Hugnet, Pastoureau, Prassinis, etc., “Troisième Chapitre: Autant en Emporte la Mort in “L’Homme qui a perdu son squelette,” 5.

¹³ My translation. Hans Arp, Leonora Carrington, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Gisele Prassinis, “Quatrième Chapitre: Le Squelette en Vacances,” in “L’Homme qui a perdu son squelette,” *PLASTIQUE*, no. 5 (1939), 2 in *PLASTIQUE* (New York, NY: Arno Press, 1969).

morning he would wake up, pure as a Gillette blade. [...] It happened that one day the skeleton made a drawing of some little hazelnuts walking on darling little legs across mountains that spat frogs through the mouth, the eyes, the ears, the nose, and other openings and holes. The skeleton was as frightened as a skeleton meeting a skeleton in broad daylight. He quickly grew a detective pumpkin on his head, and the pumpkin had the day side of a loaf of patchouli and the night side of the egg of Columbus; then he went off, halfway reassured, to see a fortuneteller.¹⁴

The skeleton's vacation sets the scene for the final two chapters of the novel, where there are two brief encounters between the skeleton and its flesh-turned-tree, Erable. The first encounter in Chapter Five occurs during a dream at the fortuneteller's chambers. The second in Chapter Six occurs after the mound of flesh, Erable, has become a circus star.

When the skeleton enters the fortuneteller's chambers in Chapter Five, he is immediately warned that skeletons are forbidden there.¹⁵ The skeleton manages to enter the chambers by telling the gladiators who guard the chambers, "I am only a skeleton in dreams."¹⁶ Inside the chambers, he finds himself among some thirty odd women with their thirty odd dogs, to whom he announces himself with a formal introduction: "my name is Renoir: I know how to draw hazlenuts ablaze (*noisettes flambées*)."¹⁷ When the fortuneteller demands that all attendees sign a mysterious sheet of paper attesting to their presence, the skeleton hesitates, fearing the thirty odd dogs will chase him away the way they did three evil spirits who had given false testimony. He closes his eyes to reflect on the situation and falls into a dream. He dreams he is in an amphitheater, preparing to fight for his life against a pack of five hundred ferocious dogs. He is introduced to the arena public as "RENOIR, specialty: hazlenuts ablaze and salsify [a root

¹⁴ My translation. Hans Arp, Leonora Carrington, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Gisele Prassinis, "Cinquième Chapitre: La Sirène de Luxe et La Sirène Ordinaire," in "L'Homme qui a perdu son squelette," *PLASTIQUE*, no. 5 (1939), 3 in *PLASTIQUE* (New York, NY: Arno Press, 1969).

¹⁵ Arp, Carrington, Duchamp, Eluard, Ernst, Hugnet, Prassinis, "Cinquième Chapitre: La Sirène de Luxe et La Sirène Ordinaire," in "L'Homme qui a perdu son squelette," 3.

¹⁶ *Ibid.*, 4.

¹⁷ *Ibid.*

vegetable similar to parsnip].”¹⁸ Amidst “scenes of a liberated and audacious eroticism” in the arena, the skies darken and suddenly under a “frightening cloud” and a “formless mass, enormous, a tree or a mass of human flesh, launches itself like a light arrow into the arena and lets itself fall into the arms of the dreaming Renoir.”¹⁹ Renoir dresses himself in Erable, and Renoir-Erable reintegrated find a “sweet joy” in “contemplating [...] corporeal unity, rediscovered at long last.”²⁰ Renoir awakens from the dream after an appearance by Apollo on his chariot, but before the “allegorical spectacle,” he momentarily finds “everything as it once was, only, in the place of his genitals, a pretty tree had sprouted, and two planetree fruits dangled from it.”²¹

When Renoir awakens in the waiting room of the fortuneteller’s chambers, he finds himself a skeleton, alone without its flesh, accompanied only by two sirens, one “ordinary” the other “deluxe.”²² The two sirens named Ifal and Sifie follow him as he leaves the waiting room. They sing their names to his movements as thousands of children join the procession chanting: “Ifal Sifie ses salsifis.”²³ The line is a homonym for “He falsifies his salsifies” (Il falsifie ses salsifis). The French noun *salsifis* is a pseudo-anagram of the verb conjugation, *falsifie*. As Renoir runs down the Rue de Bac, he sees a “formless mass” out of the corner of his eye: it is Erable, his mound of flesh.²⁴ Erable is gazing with ardor at a human skeleton in a naturalist’s boutique.

¹⁸ Ibid., 5.

¹⁹ Ibid., 6.

²⁰ Ibid.

²¹ Ibid.

²² Ibid., 7.

²³ Ibid.

²⁴ Ibid.

The novel ends with Chapter Six, which begins with the desperately depressed mound of flesh, Erable, being picked up off the street by a passerby.²⁵ Erable loses consciousness and awakens only to find himself made up and costumed, lying under the body of a sea lion. Tossed among elephants, then under the body of a white-moustached sea lion, the beautiful Madeleine, Erable suddenly “feels male and powerful” in his mound of flesh, and “possesses” Madeleine.²⁶ The two lovers—the sea lion and her fleshy mass, Erable—awaken in the middle of an immense circus surrounded by a crowd. As the crowd laughs and shouts with joy, “the heart of Erable swells with pride and delight.”²⁷ Among the spectators he sees his skeleton, Renoir, who observes “Erable’s success with his deep eye sockets, black and astonished.”²⁸

Though the conclusion of Chapter Six, in what could otherwise be an interminable work of literature, is capped with the parenthetical “(*a suivre*)” (to continue), the 1939 issue where the sixth chapter appears is the last issue of *PLASTIQUE*. Throughout all of the transformations between Renoir the skeleton, and Erable the mound of flesh, the collaborative novel finds content that is inspired not only by its format—the game called the exquisite corpse—but by its frame—the magazine named *PLASTIQUE*. The word *plastique*, used to title the magazine, is French for the “plastic” that is commonly associated with sculpture, three-dimensionality and *arts plastiques* (plastic arts); it is also, however, a “plastic” that translates more readily into English as “physique” or “figure”—“*Elle était admirée pour sa plastique*” (she was admired for her figure) is a dictionary example of the term’s use.²⁹

²⁵ My translation. Hans Arp, Leonora Carrington, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Gisele Prassinis, “Sixième Chapitre: Le Mari de l’Otarie,” in “L’Homme qui a perdu son squelette,” *PLASTIQUE*, no. 5 (1939), 7 in *PLASTIQUE* (New York, NY: Arno Press, 1969).

²⁶ My translation. Arp, Carrington, Duchamp, Eluard, Ernst, Hugnet, Prassinis, “Sixième Chapitre: Le Mari de l’Otarie” in “L’Homme qui a perdu son squelette,” 8.

²⁷ *Ibid.*

²⁸ *Ibid.*, 9.

²⁹ “*plastique* (n.),” *WordReference English-French Dictionary*. WordReference.com, published 2017. Accessed January 20, 2017. <http://www.wordreference.com/fren/plastique>

The two issues of *PLASTIQUE* in which the novel appears are credited to the curating of Sophie Taeuber-Arp.³⁰ These two issues, number 5 and 6, are among the three of five *PLASTIQUE* issues where Taeuber-Arp's name is listed first as principle curator.³¹ And, in fact, the accomplishments of the Swiss-German dadaist, abstractionist and surrealist usually include the line, "founder and editor of the journal *PLASTIQUE*, 1937-1939."³² Together with artists Cesar Domela, George L. K. Morris and Hans Arp (Taeuber-Arp's husband), Taeuber-Arp contributed to founding *PLASTIQUE* ten years after her exile from Germany, in the period that followed her naturalization as a French citizen.³³ The period in which *PLASTIQUE* was founded was one of widespread exile and migration due to the rise of totalitarian politics across countries in Europe. Amidst exile and migration, artist magazines helped expatriate artists integrate into new-found groups, while "reactivating and extending their old networks."³⁴ Taeuber-Arp's unique experiments with the plastic during the period included not only her planning of *PLASTIQUE*, but work on turned-wood objects and painted wood reliefs. Her kinesthetic approach to the plastic between object and body is distinct from the way her colleagues conceptualized the plastic in the art object.

In the contemporary neurosciences, the plastic is broadly associated with a general capacity for change in the brain's neural networks. Among the important, but lesser-known

³⁰ "Ce numéro est composé par S. H. Taeuber-Arp, avec la collaboration de A. E. Gallatin, G.L.K. Morris et H. Arp." *PLASTIQUE*, no. 4 (1939), editorial page. "Ce numéro est composé par S. H. Taeuber-Arp, avec la collaboration de A. E. Gallatin, G.L.K. Morris et H. Arp," *PLASTIQUE*, no. 5 (1939), editorial page.

³¹ The three issues are *PLASTIQUE*, no. 2 (été 1937); *PLASTIQUE*, no. 4 (1939); and, *PLASTIQUE*, no. 5 (1939).

³² Sophie Taeuber-Arp (Davos, Switzerland 1889 – Höngg, District 10, Switzerland 1943) was a member of many artists groups. Among these were the Dada group in Zurich between 1916 and 1919 and the Abstraction-Création group from 1931 to 1934. She participated in four international Surrealist exhibitions in London (1936), New York (1936), Paris (1938), and Amsterdam (1938). "Sophie Taeuber-Arp," *Concise Dictionary of Women Artists*, ed. Delia Gaze (London, UK: Fitzroy Dearborn, 2001), 651.

³³ See footnote 30 on Taeuber-Arp's letters of October 2, 1937, August 13, 1939 and April 20, 1938 "in which she included proposals for forthcoming issues." Gail Savitsky, "Albert Eugene Gallatin and the Paris-New York Connection, 1927-1942," *A Transatlantic Avantgarde: American Artists in Paris, 1918 – 1939*, ed. Sophie Lévy and Christian Derouet (Berkeley, CA: University of California Press, 2003), 117.

³⁴ Savitsky, "Albert Eugene Gallatin and the Paris-New York Connection, 1927-1942," 118.

definitions of plasticity, is a more specific capacity for migration among the brain's neurons. An example of this kind of plasticity in neuroendocrinology are neurons that migrate from the nose into the hypothalamus, and that, "at the beginning of puberty" are "waiting there to swing into action"³⁵: if during development these neurons "failed in their journey [...] from the nose into the brain," they will "not be there to tell the pituitary to send out [...] signals."³⁶ Research in neuroendocrinology indicates that the human hosts of these neurons will suffer in the future from lack of libido. In artist writings and art history, transmigration through various dimensions also defines the plastic; the magazine *PLASTIQUE* is unique in that it directly associates the free movement of art and artists across national borders with the inter-dimensional movement that artists were writing about as critical to the development of the art object. Meanwhile, Taeuber-Arp—a migrant herself—was also experimenting with movement and the erotics of abstraction in her objects.

Taeuber-Arp's involvement in *PLASTIQUE* has recently emerged as a topic of interest in curatorial discourse and art historical writing. The landmark retrospective *Sophie Taeuber-Arp: Today is Tomorrow*, held in Switzerland and Germany, produced an exhibition catalogue (2014) with an article on the topic.³⁷ Meanwhile, volumes on American abstractionists in Paris have, in turn, focused on the importance of American involvement in *PLASTIQUE*. These two research interests have, for the most part, been kept separate; with this separation, debates over the plastic that surrounded the founding of the magazine have been neglected. In order to make these debates re-emerge, the following section brings together these two perspectives on *PLASTIQUE*.

³⁵ Donald Pfaff, *Man and Woman: An Inside Story* (New York, NY: Oxford University Press, 2011), 163.

³⁶ Pfaff, *Man and Woman*, 163.

³⁷ Maike Steinkamp, "In the Modernism Network: Sophie Taeuber-Arp's involvement in the magazine *Plastique*," *Sophie Taeuber-Arp: Today is Tomorrow*, ed. by Aargauer Kunsthau, Switzerland and Kunsthalle Bielefeld, Germany (Chicago, IL: University of Chicago Press, 2014).

***PLASTIQUE* curator Sophie Taeuber-Arp’s Kinesthetic ‘Plastic’**

The magazine, which ran for five issues, was co-financed by U.S.-based French artist, collector and art-writer Albert Eugene Gallatin and American writer and painter George L. K. Morris.³⁸ Gallatin and Morris are listed as the principle curators of the magazine’s third issue, though Taeuber-Arp is still credited.³⁹ *PLASTIQUE* is said to have played an important part in facilitating exchange between the works of abstractionists from the Americas in Europe (in particular, in Paris) and European abstractionists in the United States. These exchanges were sometimes fraught. For example, as a result of the magazine’s association with Dutch abstractionist Cesar Domela—listed as principle curator of the magazine’s first issue, once again, with Taeuber-Arp’s contributions still credited—some scholarship has identified *PLASTIQUE* as a magazine founded with “anti-surrealist” intent.⁴⁰ Domela (fig. 81)⁴¹ described his involvement in *PLASTIQUE* as an effort to make a “propaganda review for geometric abstract art.”⁴² Taeuber-Arp’s work on the magazine, however, appears to have countered this intent: the artists she seems to have consistently invited to contribute to *PLASTIQUE* ranged in the polarity between abstraction and surrealism. The same tension between abstraction and surrealism found in Robert Motherwell’s 1944 “plastic automatism” talk at the Pontigny sessions at Mount Holyoke College,⁴³ is thus present in issues of *PLASTIQUE* in circulation six years earlier. In Motherwell’s talk the “creative principle” in question was the practice of automatism, and the distinction was between a “verbal” bias in surrealism and the “plastic” of abstraction—between the surrealist “psychic” conception of the irrational in the unconscious, and Motherwell’s

³⁸ Sophie Lévy and Christian Derouet, “Chronology 1918 – 1939,” *A Transatlantic Avantgarde: American Artists in Paris, 1918 – 1939*, ed. Sophie Lévy and Christian Derouet (Berkeley, CA: University of California Press, 2003), 248.

³⁹ “Ce numéro est composé par A. E. Gallatin, G.L.K. Morris, S. H. Taeuber-Arp, avec la collaboration de H. Arp et C. Domela.” *PLASTIQUE*, no. 3 (printemps 1938), editorial page.

⁴⁰ Gail Stavitsky, “Albert Eugene Gallatin and the Paris-New York Connection, 1927-1942,” op. cit.

⁴¹ Cesar Domela, *Construction* (1929), painted glass, brass, metal and wood, 35 3/8 x 19 5/8 x 1 3/4 in (89.85 x 49.85 x 4.45 cm), private collection.

⁴² Ibid.

⁴³ Robert Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 27-35.

elaboration of the unconscious as a kind of haptic reason.⁴⁴ In *PLASTIQUE*, the tension around the concept of the ‘plastic’ appears to involve the question of contentious oppositions between word and image, naturalism and purity of form.

In the intention statement reprinted for each of its issues, *PLASTIQUE* changes the way it describes itself. In Spring 1937, under Domela, *PLASTIQUE* is “a magazine devoted to the study and appreciation of Abstract Art.”⁴⁵ In Summer 1937, under Taeuber-Arp’s first turn as principle curator, its mission remains the same.⁴⁶ In the third issue under Gallatin and Morris, it changes to “a magazine devoted to the study and appreciation of Concret Art,” while in the fourth issue, under Taeuber-Arp, it becomes an “international revue dedicated to avantgarde works of plastic literary arts.”⁴⁷ In Taeuber-Arp’s issue five—her third issue as principle curator—the magazine is an “international revue dedicated to avantgarde works of literary and plastic arts.”⁴⁸ Despite all of these changes in its mission statement, contributions to *PLASTIQUE* were always multi-lingual (published in English, French and German) and issues were planned for release three times a year (though triannual release did not actually occur). The first issue was scheduled for release in 1936, but only appeared in the spring of 1937 after many delays. Probing into the development and short run of *PLASTIQUE* reveals a series of conflicts that, in hindsight, make this initial hesitation emblematic of the entire enterprise.

In the much of what has been written about the magazine by American scholars, Taeuber-Arp’s involvement recedes from view as attention focuses on Gallatin and Morris, *PLASTIQUE*’s financiers. And, in fact, Morris’ description of the magazine’s mission is notably different from the statement of intention that would eventually accompany the magazine’s later issues. In his description of the magazine’s mission, Morris foregrounds an opposition between artist-writers

⁴⁴ Ibid., 34-35.

⁴⁵ *PLASTIQUE*, no. 1 (printemps 1937), editorial page.

⁴⁶ *PLASTIQUE*, no. 2 (été 1937), editorial page.

⁴⁷ *PLASTIQUE*, no. 3 (printemps 1938), editorial page; *PLASTIQUE*, no. 4 (1939), editorial page.

⁴⁸ *PLASTIQUE*, no. 5 (1939), editorial page.

and critics, calling attention to the fact that *PLASTIQUE*'s editors were "themselves painters and sculptors [...] rather than [...] critics on the watch for subject and anecdote."⁴⁹ For Morris (fig. 82),⁵⁰ the mission of the magazine was not to showcase the intersection of word, image and object between "literary arts and plastic arts," or in an integrated field called "plastic literary arts"; rather, the mission was to promote a more classicist notion of the "abstract tradition" that privileged those artists who were committed to its purity, to "vitalizing it [...] in its new-found purest forms."⁵¹ Thus Morris sets up twin oppositions: the binary he establishes is not only between critic and artist, but specifically between what he calls "critic on the watch for subject" and artist committed to the "purest forms" of the "abstract."⁵²

This dialectic between attraction to subject matter and commitment to pure form is important to further understanding one of the ways the term "plastic" was being used in the 1930s. In some scholarship, *PLASTIQUE* has been described as a "successor" to a "never-realized *PLASTIC*," a magazine titled with an English version of the term.⁵³ *PLASTIC* had been planned by the French artist Jean Helion in 1934.⁵⁴ This association with *PLASTIC* places *PLASTIQUE* at the center of another tension: that between the French Helion and the American Morris who, in 1938, replaced Helion as the "advisor and spokesman" of Galatin, one of *PLASTIQUE*'s principal sources of funding.⁵⁵ In art historical scholarship, Helion is known for having reversed the developmental paradigm of Piet Mondrian's "new plastic" in "Neo-plasticism" (fig. 83)⁵⁶ by beginning his practice as a painter in "strict non-figuration and end[ing]

⁴⁹ Stavitsky, "Albert Eugene Gallatin and the Paris-New York Connection, 1927-1942," 114.

⁵⁰ George L.K. Morris, *Composition* (1938), 24 1/8 x 18 1/8 in (61.3 x 46 cm), Yale University Art Gallery.

⁵¹ *Ibid.*, 113.

⁵² *Ibid.*

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*

⁵⁶ For an example of this paradigm, compare early and late paintings that work with verticality: Piet Mondrian, *The Lighthouse at Westkapelle* (1909-1910), oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague, Haags; Piet Mondrian, *Composition in Yellow, Blue, and White, I* (1937), oil on canvas, 22 1/2 x 21 3/4 in (57.1 x 55.2 cm), Museum of Modern Art, New York.

in a return to figuration” (fig. 83).⁵⁷ In his writings on “neo-plasticism,” Mondrian had coined the term “morpho-plastic” to define Cubism in relation to his “new plastic.”⁵⁸ Scholars have written about the prefixes “morpho-” and “neo-” as an example of Mondrian’s application of Hegelian teleology to his “history of the spirit” in painting: in this narrative, Mondrian’s neo-plasticism defines itself in evolutionary terms as a progressive, absolute perfection of the idea in the ‘plastic,’ from reliance on the “form” or “shape” of “outward appearance” (the Greek, *morpho*) to the resolutely “new” (the Greek, *neo*).⁵⁹ Interestingly, Mondrian’s quintessential term of choice for his stylistic revolution—“neo-plastic”—also has a medical instantiation. The word “neoplastic”—derived from *neoplasia* and *neoplasm* (in medical literature as early as 1750)—is found in descriptions of abnormal growths or tumors in the eye as early as 1878.⁶⁰ While in contemporary art, the term is rarely used except in reference to Mondrian’s work, in medicine, it is still employed.

According to this evolutionary, teleological perspective on Mondrian’s ideas about “neo-plasticism,” Cubism, like the afore-discussed Futurism, was defined as morpho-plastic because,” instead of fully committing to the idea of the “new plastic,” it demonstrated a “continued need to refer to subject matter.”⁶¹ If *PLASTIQUE* has been described as “a successor to [the never-realized] *PLASTIC*,”⁶² the magazine planned by Helion—a proponent of what Mondrian identified as a tragic “morpho-plastic” will to subject-matter, allusion, and figuration—with what concept of the plastic was *PLASTIQUE* aligning itself? Was it aligning itself with Helion’s

⁵⁷ Christopher Green, *Art in France, 1900 – 1940* (New Haven, CT: Yale University Press, 2000), 111.

⁵⁸ Green, *Art in France, 1900-1940*, 111. For an example compare Jean Helion, *Nu et pots à fleurs* (Nude and Flower Pots, 1947), oil on canvas, 25.6 x 19.69 in (65 x 50 cm), Centre Georges Pompidou, with Jean Helion, *Figure d’Espace* (Figure of Space, 1937), oil on canvas, 52 x 38 in (132.08 x 96.52 cm), San Francisco Museum of Modern Art.

⁵⁹ *Ibid.*, 108 and 144.

⁶⁰ *The London Lancet: A Journal of British and Foreign Medical and Chemical Science, Literature and News* (New York: Burgess, Stringer & Company, 1878), 115. This article specifically discusses a “neoplastic formation observed in syphilitic retinochoroiditis.”

⁶¹ Green, *Art in France, 1900-1940*, 111.

⁶² *Ibid.*, 114.

“morpho-plastic” or with advocates of Mondrian’s “new plastic”? Helion’s “morpho-plastic” contradicts Morris’ vision for a “plastic” in the “purest forms” of the “abstract.”⁶³ In fact, in 1937, while Helion was living in the United States, he allegedly turned down the offer to contribute to *PLASTIQUE* with the explanation that in his work “towards a new figuration,” he had “[...] turned to nature, which they [the founders, editors and contributors to *PLASTIQUE*] were escaping from.”⁶⁴ In light of these conflicts, the plastic of *PLASTIQUE* can be defined as a concept of the plastic in-between. In this instance, the plastic of *PLASTIQUE* is between purist interpretations of Mondrian’s “neo-plastic” and experiments with what Mondrian understood as Helion’s “morpho-plastic”—it is the plastic in-between the figural and the geometric, nature and artifice. Returning to the statement of intention that would appear in the final issues of *PLASTIQUE*, it is also the plastic in-between word, image, and object.

It should be clear from the examples provided here that both surrealists and abstractionists had complex writing practices: proponents of surrealism and of abstraction worked with the manifesto form, as well as with forms of art criticism, and more experimental approaches. The artists who contributed to *PLASTIQUE* ranged in position across the polarity between abstraction and surrealism; their contributions also ranged in format, from criticism and poems to creative experiments in collaborative writing. It appears that this diversity is attributable to the efforts of Taeuber-Arp, who seems to have been the least ideological of *PLASTIQUE*’s curating editors. As previously mentioned, she had variously allied herself with dadaist, abstractionist and surrealist groups, and the work she helped arrange for publication in *PLASTIQUE* reflects her polylingual, inter-medial curiosity.

PLASTIQUE’s diversity and its work with word-image-object intersections is evident in the following examples. One 1938 issue was entirely devoted to American abstract art⁶⁵ and

⁶³ Stavitsky, “Albert Eugene Gallatin and the Paris-New York Connection, 1927-1942,” 113-114.

⁶⁴ Ibid.

⁶⁵ Lévy and Derouet, “Chronology 1918 – 1939,” 250.

featured Gallatin's article "Abstract Painting and the Museum of Living Art."⁶⁶ The article was printed alongside black-and-white reproductions of work by members of the American Abstract Artists group like Charles Shaw, whose "pioneering shaped canvases" or *Plastic Polygons* are further examples of experimentation with the concept of the plastic. Meanwhile, among the various creative experiments of interest published in *PLASTIQUE* is the afore-discussed *The Man Who Lost His Skeleton*. Excerpts from the novel have been featured in anthologies of writings by both Hans Arp and Leonora Carrington.⁶⁷ However, in its republication and translation, the text of the story is removed from its layout among images of art objects. The short novel was originally published in what could be considered a veritable virtual exhibition-in-print, that is, amidst reproductions of drawings by Raoul Hausman and Ernst Schwitters, and paintings by Wassily Kandinsky, Leo Leuppi, Albert Magnelli, and Hanns Robert Welti.

The first lines in the novel about the flesh that lost its skeleton "running his hand along his body, [...] finding a certain disquieting limpness, this flesh without will," is prefaced with a painting by Wassily Kandinsky titled *Formes Capricieuses* (Capricious Forms, 1937) (fig. 84, left).⁶⁸ The painting's fields of form are dripping amoebic shapes, which, viscous in their embryological curling, writhe over the pure geometry of squares, circles, and two vertical parallel columns. The first published part of the novel ends with two very different reproductions: two untitled drawings by Ernst Schwitters (1936) and Raoul Hausmann (1921) with sharp graphic line (fig. 84 middle and right).⁶⁹ Schwitters' drawing is diagram-like (fig. 84, left). Eight arrows enter a rectangular frame from the right. They round into a perfect circle on the left, feathering off in a swerve left on the bottom right. Raoul Hausmann's drawing is also diagram-like (fig. 84, right). A square turns a continuous line, first through a rectangle, then through two triangles, then

⁶⁶ Ibid.

⁶⁷ Leonora Carrington, *The Seventh Horse and Other Tales* (New York, NY: E.P. Dutton, 1988). Arp on Arp: Poems, Essays, Memories (New York, NY: Viking Press, 1972).

⁶⁸ Wassily Kandinsky, "Formes Capricieuses (1937)" as reprinted in *PLASTIQUE*, No. 4 (1939), 1.

⁶⁹ Ernst Schwitters, "Untitled (1936)" as reprinted in *PLASTIQUE*, No. 4 (1939), 6 and Raoul Hausmann, "Untitled (1921)" as reprinted in *PLASTIQUE*, No. 4 (1939), 7.

into the pinnacle of an asterisk that extends its arms and legs down to depths below. The painted and graphic abstractions, like the novel, move from amorphous form to strict structure—from the fleshy to the skeletal. The drawings are like movement maps that trace the appearances and disappearances of the split character’s two identities: whereas the first of the diagrams, like the mound of flesh, Erable, turns over and around on itself across the page from right to left and then right again, the second diagram, like the skeleton, appears to pulse in and out aggressively between the page and the viewer.

The second issue of the magazine reprinted photographs of a series of Taeuber-Arp’s circular reliefs in wood.⁷⁰ While Taeuber-Arp was developing these reliefs, she was also experimenting with wood-turning to create an object that shares the fleshy-to-skeletal dynamics between surrealism and abstraction, present in the publication layout of *The Man Who Lost His Skeleton*. Intersections among Taeuber-Arp’s work as editor of *PLASTIQUE* (1937-1939), her experiments in wood-turning from the same period (c. 1937), and her life-long interest in kinesthesia, are indications of her unique conception of the ‘plastic.’ In particular, experiments with wood-turning that were simultaneous with her work on *PLASTIQUE* show how Taeuber-Arp’s object-oriented studies of kinesthesia distinguished her concept of the ‘plastic’ from that of colleagues like Helion and Morris. Kinesthesia is the physical and psychological sense of position and movement achieved by the body through the synthesis of sensorial impressions.⁷¹ It is the body’s perception of its “position, movement, momentum and proximity to everything around it.”⁷² The term “kinesthesia” (from the Greek, *kine*, for movement and *aesthesia*, for sensation) was first used in the 1880s to describe the “muscular sense of the body’s movement.”⁷³ It was only in the mid-twentieth century, after Taeuber-Arp’s premature death by accidental gas poisoning, that kinesthesia was “expand[ed] to include the synthesis of information provided by

⁷⁰ S.H. Taeuber-Arp, “Untitled (1937),” *PLASTIQUE*, No. 2 (été 1937), 23.

⁷¹ For more on kinesthesia, see Susan Leigh Foster, *Choreographing Empathy*, 73 – 125.

⁷² Foster, *Choreographing Empathy*, 74.

⁷³ *Ibid.*

muscle and joint receptors along with information on orientation contributed by the inner ear.”⁷⁴ The so-called “kinesthetic system”⁷⁵ integrated the visual, aural and the tactile, to construct the body’s sense of its own location, position, and orientation. Taeuber-Arp’s work is an example of how this shift in scientific thinking about kinesthesia was preceded by artist experiments with the ‘plastic.’ In Taeuber-Arp’s practice, art objects, and machines like the lathe, are organs between the internal and the external, ‘extended’ organs integral to the body’s kinesthetic system.

Taeuber-Arp’s study of kinesthesia through dance training and movement research led her to mix interests otherwise at odds, like the formal concerns of abstractionists and the surrealist interest in the psyche. Taeuber-Arp’s negotiation of alignments amidst artists otherwise in conflict, provides insight into a variety of experiments with the ‘plastic’ that may have influenced her practice. In the late 1920s, the abstractionist Joaquín Torres-García—who, like Taeuber-Arp, was part of the group of abstractionists *Cercle et Carré* (Circle and Square)⁷⁶—experimented with what he called “*objeto plástico*” (“plastic objects”) (1929 – 1932), objects “halfway between painting and sculpture” (fig. 85)⁷⁷ that “asserted the physicality of their materials and exploited the ambivalent character of relief sculpture.”⁷⁸ Meanwhile, surrealist Salvador Dalí proposed a distinction between “*plastiques*” (“plastics”) as “associative systems,” and “*plastiques-figuratifs*” (“plastic-figuratives”) in painting (1932; 1963).⁷⁹ In Dalí’s “associative systems,” the plastic was not just a property of figural representation but an integral

⁷⁴ Ibid.

⁷⁵ Ibid.

⁷⁶ Sophie Lévy and Christian Derouet, “Chronology 1918 – 1939” in *A Transatlantic Avantgarde*, 246.

⁷⁷ Joaquín Torres Garcia, *Objeto Plástico. Forma 140* (Plastic Object, Shape 140, 1929), assemblage of wood, nails and oil paint, 11.3 x 18.7 x 3.66 in (28.7 x 47.5 x 9.3 cm), Museo Nacional Centro de Arte Reina Sofía, Madrid.

⁷⁸ Mónica Amor, *Theories of the Nonobject: Argentina, Brazil, Venezuela, 1944 – 1969*. (Oakland, CA: University of California Press, 2016), 43.

⁷⁹ Salvador Dalí, *Le Mythe Tragique de l’Angélus de Millet: interprétation “paranoïaque-critique”* (Paris, France: Pauvert, 1963), Museum of Modern Art, New York, Special Collections. Dalí claims that he first began working on the book in 1932 when he experienced his first delirious episodes (“*phénomène délirant*”). See Salvador Dalí, *Le Mythe Tragique de l’Angélus de Millet: interprétation “paranoïaque-critique* (1963),” (Paris, France: Éditions Allia, 2011), 26.

part of “delirious drama”: it was “no longer in the formal domain, but in the far more evasive and complicated domain of [...] psychic phenomena.”⁸⁰ In her work planning and contributing to *PLASTIQUE* and her coeval experiments with the lathe, Sophie Taeuber-Arp appears to have positioned herself in-between these diverging conceptions.

Taeuber-Arp created *Sculpture en bois tourné* (*Turned Wood Object*) in 1937 (fig. 86). Two versions of it exist—one conserved by the Arp Foundation in Berlin, the other given as a gift to Yale University by Hans Arp after Taeuber-Arp’s death.⁸¹ Taeuber-Arp’s *Turned Wood Object* is evidence of the role played by interrelations between human movement and the machine in shifting ideas about kinesthesia and artist experiments with the ‘plastic.’ In art history, the lathe is acknowledged as one of the oldest “complex tools known to antiquity,”⁸² yet its mechanics, its objects, and its relationship to the body are rarely the focus of in-depth study. Various powered with pullies, treadles and bows in ancient times, then with electric motors in the nineteenth century, the lathe shapes materials by means of rotation.⁸³ Wood, metal or other material is fixed to a rotating axis. A human operator presses against the spiraling material with modulated pressure using blades of different form to produce combinations of angles and curves in varied contours.

Like the concept of the ‘plastic,’ the lathe was a disputed point of contention in 20th-century art. In the catalogue for the 1934 *Machine Art* exhibition at the Museum of Modern Art in New York, Alfred Barr opened his foreword with a quotation from Plato that referenced the lathe

⁸⁰ Dalí, *Le Mythe Tragique de l’Angélu de Millet* (1963), 26.

⁸¹ Sophie Taeuber-Arp, *Turned Wood Sculpture* (1937), Wood (lathe-turned), 15 5/16 in (38.9 cm). Yale University Art Gallery. Gift of Jean Arp in memory of Sophie Taeuber-Arp (1950). “Artist: Sophie Taeuber-Arp, Swiss, 1889 – 1943), Turned Wood Sculpture,” Yale University Art Gallery. Collection. Published 2016. Accessed March 3, 2017. <http://artgallery.yale.edu/collections/objects/47909>. A version of the same sculpture, painted white, was photographed as part of the display of *Meubles modulable* (meubles à dessin) c. 1929, wood, painted, conserved at the Fondation Arp, Clamart. *Sophie Taeuber-Arp: Today is Tomorrow*, ed. by Aargauer Kunsthau, Switzerland and Kunsthalle Bielefeld, Germany (Chicago, IL: University of Chicago Press, 2014), 164.

⁸² Joseph Connors, “Ars Tornandi: Baroque Architecture and the Lathe,” *Journal of the Warburg and Courtauld Institutes*, Vol. 53 (1990), 217 – 236.

⁸³ Connors, “Ars Tornandi,” 217 – 236.

to define the “absolute” in the “beauty of shapes”: “by beauty of shapes I do not mean [...] the beauty of living figures or pictures, [...] I mean straight lines and circles, and shapes, plane or solid, made from them by lathe, ruler and square. These are not [...] beautiful relatively, but always and absolutely.”⁸⁴ Bauhaus engineering innovations in the mechanics of the copying lathe were central to the Fagus factory initiative in shoe production, making the reproduction of shoe lasts more precise and more efficient.⁸⁵ It is also the case, however, that Bauhaus design drove the craft of ornamental turning into obsolescence. Marcel Breuer famously announced that “[Bauhaus] design was to be the handmaiden not of the loom and lathe but of the machinery of the assembly line.”⁸⁶ In 1979, an article titled “The Art of Wood-Turning” began with the explanation, “wood turning is an unfamiliar technique nowadays, no doubt in part because [...] furniture (especially since the Bauhaus) no longer requires turned elements.”⁸⁷

In 16th century Europe, “turnery” (work on the lathe) was an activity of rulers that served both social and therapeutic, as well as moral and educational, functions in princely courts.⁸⁸ The “art of turnery” operated as a “language of noble communication,” a “display of artisanal skill” that taught the laws of mechanics to rulers while also showing that a ruler-turner was “adverse to slothful behavior.”⁸⁹ The lathe figured as a “metaphor for the political order at large” and a “model for [...] authoritarian order determined by a single individual”: the image of the ruler-turner using an interceding blade to shape material rotating on an axis was both metaphor and

⁸⁴ Paul Greenhaigh, “Introduction,” *Modernism in Design* (London, UK: Reaktion Books, 1990), 13. See also Franz Schulze, *Philip Johnson: Life and Work* (Chicago, IL: University of Chicago Press, 1994), 100.

⁸⁵ Annemarie Jaeggi, *Fagus: Industrial Culture from Werkbund to Bauhaus* (New York, NY: Princeton Architectural Press, 2000), 63.

⁸⁶ Barry Bergdoll and John H. Beyer, *Marcel Breuer: Bauhaus Tradition, Brutalist Invention* (New York, NY: The Metropolitan Museum of Art, 2016), 7.

⁸⁷ H. A. “The Art of Woodturning [Die Kunst des Drehselns].” *Kunst und Handwerk* (G.F.R.). 23.9. Sept. 1979: 366 – 368.

⁸⁸ Helmut Puff, *Miniature Monuments: Modeling German History* (Berlin, Germany: de Gruyter, 2014), 104 – 111.

⁸⁹ Puff, *Miniature Monuments*, 106.

model for imperial reign over a territory, and divine rule over the earth.⁹⁰ The contrasting quotes about the lathe from Barr and Breuer show that the machine continued to occupy a central symbolic position in modernist aesthetics, whether as celebrated tool or rejected apparatus of ornament.

In the summer of 1915, Taeuber-Arp made her first visit to one of Rudolf Laban's schools of "dance sense" in Zurich for another kind of kinesthetic training.⁹¹ Laban's schools were developed to bring "cultural reform" by teaching participants "sensitization to movement."⁹² Taeuber-Arp and other Dadaists were attracted to the school's processes of "decomposition," the "break[ing] down [of] the flow and development, quality, and orientation"⁹³ of movement. Taeuber-Arp learned Laban's notation system and used the "productive chaos"⁹⁴ generated by decomposition exercises to create new movement experiments: "she was able to not only deconstruct a movement into its details, but with the help of the notation system, assemble it anew."⁹⁵ In 1917, Hugo Ball wrote a diary entry about the dance *Song of Flying Fish and Sawhorses* choreographed, performed and staged by Taeuber-Arp: "it was a dance full of points and fish bones, full of flickering sunshine and glare and a piercing acuity. The lines shatter on her body. Every gesture is subdivided a hundred times, sharp, bright and pointed. [...] [H]er [...] structures are full of inventive desire, grotesqueness and rapture."⁹⁶

In the same period that Taeuber-Arp created *Turned Wood Object*, 1937, she made a series of paintings that appear to inadvertantly recall this early dance, and the studies with Laban that had led to its creation. Shattered lines, bright circles and piercing triangles are titled with

⁹⁰ Ibid.

⁹¹ Sarah Burkhalter, "Kachinas and Kinesthesia: Dance in the Art of Sophie Taeuber-Arp." *Sophie Taeuber-Arp: Today is Tomorrow*, ed. by Aargauer Kunsthau, Switzerland and Kunsthalle Bielefeld, Germany (Chicago, IL: University of Chicago Press, 2014), 227.

⁹² Burkhalter, "Kachinas and Kinesthesia," 227.

⁹³ Ibid.

⁹⁴ Ibid.

⁹⁵ Ibid, 229.

⁹⁶ Ibid, 228-229.

compound descriptions of movement: *Flottant, aligné, oscillant, écartant, soutenant* (Floating, aligned, oscillating, parting, supporting, 1934) and *Surgissant, tombant, adhérent, volant* (Emerging, falling, adhering, flying, 1934) (fig. 87).⁹⁷ The geometric ‘grotesques’ seem to combine lessons learned from the training pantomimes of early 20th-century physical culture, with techniques from mid 20th-century new modern dance—the result is a dance of desire and rapture among basic shapes (fig. 87). In “energizing” and “decomposing exercises” that resemble early 20th-century lessons in physical culture, the shapes are “prompted into a full [...] expression of feeling,” posing for expressive “pantomimes.”⁹⁸ Each shape, however, is also treated with late 20th-century sensibility “as a volume subject to the laws of gravity and momentum,” “the tensility of motion.”⁹⁹ In the paintings, shapes pose in a variety of expressions from floating (*flottant*) to supporting (*soutenant*), emerging (*surgissant*) to flying (*volant*); however, rather than use these movements to emote states like indifference or tenderness,¹⁰⁰ lines, circles and triangles express the strange experience of physical phenomena like gravity, momentum, and motion that, in reality, are inaccessible to their ideal forms.

While Taeuber-Arp made these paintings, neurological investigations were in the process of replacing the term “kinesthesia” with a new term, “proprioception.”¹⁰¹ The new term focused less on the integration of various senses and more on how “sensors [newly] identified in muscles and joints were connected by nerves to the spine.”¹⁰² Psychology, however, continued to use “kinesthesia” to describe the “sensations” of organs, muscles, tendons, joints and skin that

⁹⁷ Ibid., 231. For catalogue images, see *Sophie Taeuber-Arp: Today is Tomorrow*, 27 and 29. Sophie Taeuber-Arp, *Surgissant, tombant, adhérent, volant* (Floating, aligned, oscillating, parting, supporting, 1934), oil on canvas, 33.29 x 28.85 in (99.8 x 73.3 cm), Kunstmuseum Basel, and Sophie Taeuber-Arp, *Flottant, aligné, oscillant, écartant, soutenant* (Emerging, falling, adhering, flying, 1932), oil on canvas, 31.89 in x 25.60 in (81 x 65 cm), private collection, Basel.

⁹⁸ Foster, *Choreographing Empathy*, 115.

⁹⁹ Ibid.

¹⁰⁰ The emotional states of “indifference” and “tenderness” were among those favored in the training pantomimes of early 20th-century physical culture. Foster, *Choreographing Empathy*, 115.

¹⁰¹ Ibid., 110.

¹⁰² Ibid.

combined in “touch-blends” to “convey a perception of movement, position, weight and degree of activation.”¹⁰³ These “touch-blends” were said to create “images – traces in the mind of the body’s actions.”¹⁰⁴ Taeuber-Arp’s paintings offer themselves like maps of these traces. After study of the paintings, her *Turned Wood Object* (fig. 86) takes on the appearance of a “touch-blend”¹⁰⁵ device, a training exercise used to stimulate plastic sense between sight and touch, between the visual and haptic experience of contour among body, object, and machine. Is *Turned Wood Object* a fleshy-mass-turned-tree’s dream of an “electric teat”?¹⁰⁶ Is it the transformation of the ornamental bulb at the end of a bed post, the top of a banister rail, or the post on a chair-back, into an eroticized “partial object,” a symptom of the earliest “lost object,” the mother’s breast?¹⁰⁷ Is it simply a formal experiment between turning and carving in which the continuous curve of lathe-turning is disrupted by carved out slices—in which the indirect manipulation of the object through machine-mediated modeling is interrupted by deliberate interventions performed by a tool-in-hand on a stationary object? Is it something akin to the “detective pumpkin” that the skeleton who abandoned its body in *The Man Without a Skeleton* grew on its head after frightening itself with a drawing of little-legged “hazelnuts”?¹⁰⁸ There are memory-traces of both the hazelnut and the carved pumpkin in its forms—perhaps this is the “pumpkin” that the novel described as having “the day side of a loaf of patchouli” (a crisp smell of wet soil between

¹⁰³ Ibid, 111.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Arp, Carrington, Duchamp, Eluard, Ernst, Hugnet, Prassinis, “Quatrième Chapitre: Le Squelette en Vacances,” in “L’Homme qui a perdu son squelette,” 2-3.

¹⁰⁷ The “lost object” and the “partial object” are terms from Freudian and Lacanian psychoanalysis: the “lost object” is the “object cause of desire [...] an object which is originally lost, which coincides with its own loss, which emerges as lost.” The “partial object” is where the “will” to rejoin the lost object gets “stuck”: it is the “metonymy of desire.” The “object of drive” on the other hand is “directly loss itself”; in other words, “in the shift from desire to drive, we pass from the lost object to loss itself as an object. That is to say: the weird movement called “drive” is not driven by the “impossible” quest for the lost object; it is a push to enact “loss”—the gap, cut, distance—itself directly.” The drive is “our libido getting ‘stuck’ onto a particular object, condemned to circulate around it forever.” Slavoj Žizek, *The Parallax View* (Cambridge, MA: MIT Press, 2006), 60.

¹⁰⁸ My translation. Arp, Carrington, Duchamp, Eluard, Ernst, Hugnet, Prassinis, “Cinquième Chapitre: La Sirène de Luxe et La Sirène Ordinaire,” in “L’Homme qui a perdu son squelette,” 3.

pumpkins and hazlenuts) and the night side of the egg of Columbus” (the challenge to stand an egg on its tip that also named Nicholas Tesla’s copper ‘egg’ in a rotating magnetic field [1893]).¹⁰⁹ Taeuber-Arp’s engagement with kinesthetics between abstractionism and surrealism suggests the object somehow contains within it the spirit of all of these things.

Taeuber-Arp’s synchronous work between *Turned-Wood Object* (fig. 86) and *PLASTIQUE* (fig. 80) indicates that the conception of the plastic that *PLASTIQUE* aligned itself with was in-between—in the middle of all the various disputes and debates that were contemporary with the magazine’s founding. It is a migrant’s plasticity between art practice and art writing, between Mondrian’s “neo-plastic” and Helion’s “morpho-plastic,” between Torres-Garcia’s “plastic objects” (fig. 86) and Dali’s psycho-dramatic “*plastiques*,” between new figuration and pure form, between formal concerns and psychological phenomena (fig. 90). Taeuber-Arp’s *PLASTIQUE* is the plastic as a realm of sensory perception shared by bodies and objects in “touch-blends”¹¹⁰ between kinesthesia and proprioception, between the surrealist psyche and the abstractionist haptic.

Dancer, poet and influential dance critic Edwin Orr Denby (1903-1983)¹¹¹ defined the “plastic quality [...] of the movement” of dance as the “three-dimensional quality” of

¹⁰⁹ Ibid.

¹¹⁰ The term “touch-blends” was explained in previous sections. It comes from psychologist Edward Titchener’s *A Textbook of Psychology* (1910). Foster, *Choreographing Empathy*, 111.

¹¹¹ Edwin Orr Denby (Tientsin, China 1903 – Searsmont, Maine 1983) considered to be “one of the most influential dance critics,” is also well-known for a collaboration with Orson Welles that adapted a French Farce for the New York theatre piece, *Horse Eats Hat* in 1936. He wrote a monograph on Willem De Kooning who was his neighbor and who, in 1940, he helped get a job designing costumes for the ballet *Les Nuages* at the Metropolitan Opera House. Denby was known as a champion of George Balanchine, Jerome Robbins, Antony Tudor and Martha Graham; however, in later life, he followed the experimental work of Robert Wilson. His poetry is generally “termed Classical” (though it is said that his “improvisational attention to urban movement plays against the [...] constraints” of the sonnet, his poetic form of choice). Jack Anderson, “Edwin Denby, Dance Critic, Dies at 80,” *The New York Times*. July 14, 1983. <http://www.nytimes.com/1983/07/14/obituaries/edwin-denby-dance-critic-dies-at-80.html> “Edwin Denby,” *The Poetry Foundation*. N.d. Accessed March 3, 2017. <https://www.poetryfoundation.org/poems-and-poets/poets/detail/edwin-denby>. Tracy Schpero Fitzpatrick, “Willem de Kooning,” *American National Biography Online*, January 2001. Accessed March 4, 2017. <http://www.anb.org/articles/17/17-01631.html>

movement.¹¹² In Taeuber-Arp's *Turned Wood Object*, this plastic quality of movement is invested in the object by the lathe, which permits for the creation of the form of the object by spinning its raw material on an axis. On the lathe, the object pirouettes, while the blade held by the human hand presses down upon it like the force of a spatial continuum shaping the boundaries of bodies that travel through it. Denby used dancer and choreographer Vaslav Nijinsky's *Faun* (1912) (fig. 88) as an example of 'plastic quality,' arguing that many of the dancers who took on the role did not have "sufficient plastic discipline to make clear the intentions of the dance."¹¹³ Nijinsky's "plastic vitality" had "animat[ed]" his poses.¹¹⁴ Denby cites the ideas of friend and painter Willem de Kooning¹¹⁵ who, he writes, "knows [Nijinsky's] photographs well," and asserts that according to De Kooning the "grace" of their "poses" was derived "not [...] from avoiding strain [...] but from the heightened intelligibility of [...] plastic relationships."¹¹⁶ Though this "plastic theory of countermovement" was also "inherent in ballet technique," Nijinsky's approach added an even more more "rich and [...] fully expressed" iteration of it.¹¹⁷ And, even though Denby insisted that "the camera gives a poor illusion of volume; [...] and [...] is plastic only at short range,"¹¹⁸ the "emotion" that Nijinsky managed to "project" in his photographs was nonetheless strong plastic sense: it was an "emotion" "not communicated as his own, but as one

¹¹² Edwin Denby, "The Dance in Film (1943)," *Dance Writings & Poetry*, ed. Robert Cornfield (New Haven, CT: Yale University Press, 1998), 87.

¹¹³ Edwin Denby, "Notes on Nijinsky Photographs (1943)," *Dance Writings & Poetry*, ed. Robert Cornfield (New Haven, CT: Yale University Press, 1998), 72.

¹¹⁴ Denby, "Notes on Nijinsky Photographs (1943)," 72.

¹¹⁵ Willem de Kooning (Rotterdam, Netherlands 1904 – East Hampton, New York, 1997) is generally identified as an Abstract Expressionist painter, though he only reluctantly accepted the categorization. He is usually discussed as one of the few Abstract Expressionists who continued to work with the human figure, focusing on female archetypes with bulging forms and twisting contours. De Kooning worked with "problems in the creation of the picture plane"—the "virtual, illusionary plane, nominally parallel to the literal surface, that the painter invents in the execution of a work and that shapes the pictorial space in which the represented visual activity (abstract or figurative) takes place." The problem of this "virtual [...] plane" constitutes the 'plastic' in painting. John Elderfield, "Space to Paint," *De Kooning: A Retrospective*, ed. David Frankel (New York, NY: Museum of Modern Art/Distributed Art Publishers, Inc., 2011), 11.

¹¹⁶ Denby, "Notes on Nijinsky Photographs (1943)," 72.

¹¹⁷ Ibid.

¹¹⁸ Denby, "The Dance in Film (1943)," 87.

that exists independently of himself, in the objective world.”¹¹⁹ This “plastic sense” was “neither a private yearning into an infinity of space nor a private shutting out of surrounding relationships” rather “the weight Nijinsky [gave] his own body,” the “center” that he gave his “plastic motions,” “str[uck] a balance with the urge and rapidity of [his] leaps and placements.”¹²⁰ The use of “awkward heaviness” counterposed with an “angular precision” was “an effort to make the dance more positive, to make clearer still the center of gravity of a movement, so that its extent, its force, its direction, its elevation can be appreciated not incidentally merely, but integrally as drama.”¹²¹ As Denby writes, Nijinsky “not only extended the plastic range in dancing, but clarified it.”¹²²

A similar ‘plastic theory of countermovement’ exists in what Maria Hassabi has called “paradoxes” and “think[ing] in antitheses” in her choreographies for *PLASTIC*.¹²³ “Plastic sense” in *PLASTIC*, however, is also created by using color to intentionally create a poor illusion of volume, an illusion that Denby describes in the dance photograph as working against “plastic vitality.”¹²⁴ Hassabi’s live installation works with a grey palette. In the MoMA atrium, the vast open room is made to feel smaller with low sections of its high walls painted grey. The furniture pieces that Hassabi specially created for the work are based on the designs of cushioned benches often found in museums: they are designed to be comfortable enough to facilitate restful contemplation, but not so welcoming as to encourage lounging. The grey denim costumes of the performers were expressly inspired by the objective to, as Hassabi recounts, be “neutral within [the] space”: grey “is the color that rules museums, places of contemporary art,” their characteristic “cement.”¹²⁵ In Hassabi’s *PLASTIC*, an element in the costuming that breaks with

¹¹⁹ Denby, “Notes on Nijinsky Photographs (1943),” 75.

¹²⁰ Ibid.

¹²¹ Ibid.

¹²² Ibid.

¹²³ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

¹²⁴ Denby, “Notes on Nijinsky Photographs (1943),” 72.

¹²⁵ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

the neutrality the live installation attempts to establish are the “jeweled inseams” (fig. 89) of the performers pant legs.¹²⁶ The cluster of rhinestone-sparkle on dull denim emphasizes crystallization—the sense that the dancer holds the body in positions long enough to induce an empathetic petrification with its austere surroundings. *PLASTIC* is vitality in a delirium of subdued, but nonetheless dynamic movement in stillness. This delirium is described by Hassabi as a “gift” to the viewer—an “opportunity” like Taeuber-Arp’s magazine *PLASTIQUE* to “have time to look at something longer, to have a chance to stay with something longer”: a gift through which, the “initial connotation might shift,” and “you might notice things you don’t notice, like a breath.”¹²⁷

Salvador Dali’s *Plastiques-Figuratifs* and *Delerious Plastiques*

In Salvador Dali’s¹²⁸ book *The Tragic Myth of Millet’s Angelus* (1932; 1963) (fig. 90),¹²⁹ the ‘shifting of initial connotations’ that dancer Maria Hassabi sees as a possible consequence of her *PLASTIC* choreographies, is instead induced by frantic delusions. In his book, Dali distinguishes between what he calls “*plastiques*” as “*systèmes associatifs*” (associative systems)

¹²⁶ Siobhan Burke, “Review: Maria Hassabi’s ‘Plastic’ Sends Dancers Crawling Through MoMA,” *The New York Times*, February 23, 2016. Accessed March 3, 2016. <https://www.nytimes.com/2016/02/24/arts/dance/review-maria-hassabis-plastic-sends-dancers-crawling-through-moma.html>

¹²⁷ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

¹²⁸ Salvador Dali (Figueres, Spain 1904 – 1989) is one of the most well-known artists of the surrealist movement. His fame is in large part due to his sophisticated practice of performative self-mythologization. In his early years, he is generally recognized as having “worked in two distinct modes—a highly detailed naturalism [...] and a more avant-garde, cubist-derived style.” His later surrealist work fused these modes together in ambiguous dream-like images whose objects are capable of shifting identities with extended contemplation by the viewer. Félix Fanés, *Salvador Dali: The Construction of the Image, 1925 -1930* (New Haven, CT: Yale University Press, 2007).

¹²⁹ Dali claims that he first began working on the book in 1932 when he experienced his first delirious episodes (“*phénomène délirant*”). He writes that it was lost in 1941, during his departure from Arcachon in southwestern France, just hours before the German occupation. I consulted the original publication: Salvador Dalí, *Le Mythe Tragique de l’Angélus de Millet: interprétation “paranoïaque-critique”* (Paris, France: Pauvert, 1963), Museum of Modern Art, New York, Special Collections. However, I have decided to cite corresponding page numbers from the publicly available French reprint: Salvador Dalí, *Le Mythe Tragique de l’Angélus de Millet: interprétation “paranoïaque-critique (1963)”*, (Paris, France: Éditions Allia, 2011), 11.

and “*plastiques-figuratifs*” in painting.¹³⁰ The ‘plastic’ in associative systems is not just a property of figuration, as it is in “*plastiques-figuratifs*,” rather it is an integral part of a psychic “drama” between viewed object and viewing subject: the ‘plastic’ in Dali’s associative systems is “no longer in the formal domain, but in the far more evasive and complicated domain of [...] psychic phenomena.”¹³¹ This “more evasive and complicated domain”—a delirium—is activated by different kinds of real and imagined movement between the object and the subject.

Dali’s distinction between the ‘plastic’ as an associative system and the plastic as a figural dimension shares a certain attitude with Maria Hassabi’s insistence on the distinction between “poses” and “positions” in her choreographies for *PLASTIC*.¹³² Hassabi describes her first experiments with the choreographies that constitute *PLASTIC* as movement research that involved holding “poses”; she found that this practice, however, “did not resemble images at all.”¹³³ It was not until she reconceived the ‘holds’ as positions with “counts” and transitions, that the *PLASTIC* choreographies began to generate the sense of “stillness” she identified with the image.¹³⁴ In her MoMA interview with curator Phillip Bither, Hassabi aligns her practice with Merce Cunningham’s definition of dance as “space, time and the body,” describing her work as exploring the “relationship of the body to image as defined by sculptural physicality and extended duration.”¹³⁵ This combination of physicality and duration is also in Dali’s description of his “*activité paranoïaque-critique*” (paranoiac-critical activity) for which a psycho-physical conceptualization of the ‘plastic’ is central.¹³⁶ Dali defines this “paranoiac-critical activity” as

¹³⁰ Dalí, *Le Mythe Tragique de l’Angélus de Millet*, 26.

¹³¹ Ibid.

¹³² Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

¹³³ Ibid.

¹³⁴ Ibid.

¹³⁵ Ibid.

¹³⁶ Dalí, *Le Mythe Tragique de l’Angélus de Millet*, 14.

simultaneously both “soft” (“*paranoïaque: molle*”) and “hard” (“*critique: dure*”).¹³⁷ “This book,” Dali writes of *The Tragic Myth of Millet’s Angélu*:

is proof that the human brain, in this case the brain of Salvador Dali, is capable—thanks to the paranoiac-critical activity [...]—of functioning like a clumpy cybernetic machine. It is from the ferocious limits of its self-contradicting coefficients of elasticity and viscosity in implacable ethical structures of moral strictures that works of art are always generated.¹³⁸

Dali’s “tragic myth” of the ‘plastic’ is centered around his obsession with the painting *L’Angélu* (The Angelus, 1857-1859) by Jean- François Millet (fig. 91).¹³⁹ Millet’s *Angelus* shows two peasants—a man and a woman—praying in a field at dusk in the famously picturesque French commune of Barbizon. The man has removed his hat from his head and holds it in front of his torso with his two hands. Next to him is the long handle of a rake, which he has speared into the ground to stand erect. The woman bows in prayer with her two hands clasped in front of her chest. Dali’s “tragic myth” is an attempt to explore the dynamics behind how *Angelus* works to spur obsessive strings of associations. One of the principle ways in which it achieves this feat in Dali’s book is through its reproduction. The painting’s reproduction by mechanical means both allows it to be seen in actual appearance within a variety of absurd contexts, while also making it the source of hallucinatory apparitions in scenarios with which it would otherwise never have been associated. What Dali describes in his account of “the tragic myth of Millet’s *Angelus*” is a mid-20th century paranoiac-critical experience of the same phenomenon of

¹³⁷ Ibid.

¹³⁸ My translation. “Ce livre est la preuve que la cerveau human, en l’occurrence le cerveau de Salvador Dali, est capable grace à l’activité paranoïaque-critique (paranoïaque: molle; critique: dure) de fonctionner comme une machine cybernetique gluante, hautement artistique. C’est de la contrainte féroce des coefficients a l’élasticité et de viscosité jésuitiques par las structures éthiques implacables des tables de la morale que naissent toujours les grandes oeuvres d’art.” Dalí, *Le Mythe Tragique de l’Angélu de Millet*, 14.

¹³⁹ Jean-François Millet, *L’Angélu* (The Angelus, 1857-1859), oil on canvas, 21.85 x 25.98 in (55.5 x 66 cm), Musée d’Orsay, Paris, France. Millet is said to have claimed that the idea for The Angelus came to him from a personal memory: “I remembered that my grandmother, hearing the church bell ringing while we were working in the fields, always made us stop work to say the Angelus prayer for the poor departed.” In the Musée d’Orsay’s description of the painting’s popularity as a “world-famous icon,” Dali’s obsession with it is mentioned between the “unbelievable rush of patriotic fervour” that was “triggered” when the Louvre attempted to buy it in 1889, and the painting’s “lacerat[ion] by a madman” in 1932. “Jean-François Millet, The Angelus,” *Musée d’Orsay*. Published 2006. Accessed February 10, 2017. [http://www.musee-orsay.fr/index.php?id=851&L=1&tx_commentaire_pi1\[showUid\]=339](http://www.musee-orsay.fr/index.php?id=851&L=1&tx_commentaire_pi1[showUid]=339)

commodity reproduction that befell Piet Mondrian's Neo-Plastic paintings in the mid and late-20th century.¹⁴⁰ This fate was also shared by Dali's works, in particular *The Persistence of Memory* (1931) which has been reproduced in various iterations on jigsaw puzzles, pillowcases, shower curtains, watches, backpacks, t-shirts and many other wearable, portable surfaces.¹⁴¹

Dali begins the book with two photographs of himself alleged to have been taken around 1934: the first is captioned *Commencement d'érection de Dali se faisant photographier en Angélu*s (The beginning of Dali's erection as he is having himself photographed as *Angelus*) (fig. 92, left); the second is *Dali, en pleine action, travesti en Angélu*s (Dali in full action, disguised as *Angelus*) (fig. 92, right).¹⁴² In the first photograph, Dali stands on a small round table in white socks and white leggings with inkstands surrounding his feet. His shoes and a scattering of papers, spoons, and a plate (serving what appear to be two fried eggs), are on the ground around the table. Dali holds a large fish in his right hand and wears two embroidered pillowcase reproductions of Millet's paintings: *The Gleaners* (1857) is on his head, and the *Angélu*s is on his chest. In the second photograph, Dali has descended from the table and takes another victorious pose with what looks like a large white canvas wrapped around a long pole. He has put on his shoes and trousers, and there appears to be a tiny skull on his right knee. He still wears the same two pillowcases on his head and chest. A long sheet behind him provides a background of

¹⁴⁰ Troy, *The Afterlife of Piet Mondrian*, 169-228.

¹⁴¹ "Dali – Jigsaw Puzzle – The Disintegration of Persistence of Memory (1952-1954)," *Musart Boutique*. Published 2016. Accessed January 10, 2017. <https://musartboutique.com/shop/office/dali-jigsaw-puzzle-the-disintegration-of-persistence-of-memory-1952-54/>; Supplier Hong Kong, "New The Persistence of Memory by Salvador Dali Pillow Case Cover Free Shipping," *ebay*. N.d. Accessed March 10, 2017. <http://www.ebay.com/itm/New-The-Persistence-of-Memory-by-Salvador-Dali-Pillow-Case-Cover-Free-Shipping-/252408397071>. "Portrait of Dali The Persistence of Memory Shower Curtain by Jerome Stumphauzer," *fineartamerica*. N.d. Accessed March 10, 2017, <http://fineartamerica.com/products/portrait-of-dali-the-persistence-of-memory-jerome-stumphauzer-shower-curtain.html>; "Salvador Dali's Persistence of Memory Inspired Melted Wristwatch," *Cool Pile*. N. d. Accessed March 10, 2017. <http://coolpile.com/style-magazine/salvador-dalis-persistence-memory-inspired-melted-wristwatch>; "Salvador DALI Persistence of Memory Fine Art Print T Shirt Mens M L XL Short Sleeve," *Art Print Clothing Dot Com*. N.d. Accessed March 10, 2017. <https://artprintclothing.com/products/salvador-dali-persistence-of-memory-fine-art-print-t-shirt-mens-xl-short-sleeve>

¹⁴² Dalí, *Le Mythe Tragique de l'Angélu*s de Millet, 10 and 20.

contrast with his dark suit and is held in place on the floor with a series of rocks. Next to him is a metal stand with what appears to be an Auguste Rodin plaster.

After these two photographs—which are interspersed among other images including an obscene American cartoon titled *Hard Times on the Farm* (a farmer ‘sowing his seed’ in freshly tilled earth), a cryptic x-ray of a bottom section of the *Angelus*, an elaborate ink autograph by Dali, and a print reproduction of Millet’s original painting—Dali begins with a description of what he calls the “*Phénomène Délirant Initial*” (“initial delirious phenomenon”).¹⁴³ In this “initial delirious phenomenon” Dali recounts how, in 1932, Millet’s *Angelus* “present[ed] itself immediately to his spirit without, any reminder nearby or any conscious association permitting an explanation [...]”¹⁴⁴ This phenomenon is thus contrasted with his previous description of the “*visage paranoïaque*” (paranoiac face) he had experimented with in his paintings (e.g., *Visage Paranoïaque*, 1934-1935) (fig. 93)¹⁴⁵:

in the *visage paranoïaque*, it suffices to indicate with the point of a pencil the different associative configurations provided by ‘*plastiques-figuratifs*’ pretexts. In order to make the new “delirious drama” provoked by the *Angélus* appear, it is necessary to make reemerge the associative systems that are no longer in the ‘formal domain,’ but that are in that far more inexhaustible and complex realm, that of psychic representations and phenomena.¹⁴⁶

Thus, the plastic that was previously in the realm of figure and form—the two-dimensional and the three-dimensional—has now moved into the alternate dimensions of the psyche.

To better explain this ‘new plastic,’ Dali proceeds to outline two “secondary delirious phenomena” (*Phénomène Délirant Secondaire*), encounters with paranoiac visions of the *Angelus* image.¹⁴⁷ In the *Première Phénomène Délirant Secondaire* (the first secondary delirious phenomenon), Dali recounts an episode inspired by what he calls “*petits conflits plastiques et*

¹⁴³ Ibid., 25-26.

¹⁴⁴ Ibid.

¹⁴⁵ Salvador Dali, *Visage paranoïaque* (c. 1935), oil on panel, 7.28 x 8.86 in (18.5 x 22.5 cm), Gala-Salvador Dali Foundation, Figueres, Spain.

¹⁴⁶ Dalí, *Le Mythe Tragique de l'Angélus de Millet*, 17.

¹⁴⁷ Ibid., 27-32.

‘*évocateurs*’” (“little plastic, evocative conflicts”) in stones he finds in a visit to the beach.¹⁴⁸ He tells of an experience “spending hours under the sun occupied with the fashioning of a multitude of little ‘monumental’ objects,” configurations of “stones and pebbles on the beach.”¹⁴⁹ Touching the smooth surfaces of some of the stones produces “illusions of an almost fleshy consistency;” others, “gnawed upon by erosion, offered “skinned forms, riddled with holes, [...] tortured and dynamic surfaces that recalled the strange skeletons of animals in ferocious attitudes.”¹⁵⁰ Pleased by the effect of these stones, Dali felt inspired to pose two of them, one facing the other. The “involuntary placement” instantly evoked a “strong emotion”: the couple from the *Angelus* painting by Millet appeared before him.¹⁵¹

Dali’s *Deuxieme Phénomène Délirant Secondaire* (the second secondary delirious phenomenon) is an episode in six parts.¹⁵² It begins with a “collision with a fisherman” in a field.¹⁵³ In the encounter, Dali and the fisherman exchanged a series of gestures that were “identical and corresponded like those of a single man and his image in a mirror.”¹⁵⁴ After this incident, Dali claims to have “seen very distinctly the *Angelus* painting that he had stopped thinking about” after the beach incident.¹⁵⁵ The second episode in this multi-part scenario recounts a vision that occurred during an excursion to Cap de Creus in the northeast of Catalonia near the French border.¹⁵⁶ This incident is what Dali calls a “*véritable délire géologique*,” (“veritable geological delirium”) during which he imagines sculptures of the two figures from Millet’s *Angelus* carved into the highest boulders surrounding him.¹⁵⁷ The third episode occurs at

¹⁴⁸ Ibid., 27.

¹⁴⁹ Ibid.

¹⁵⁰ Ibid.

¹⁵¹ Ibid., 28.

¹⁵² Ibid. 29-32.

¹⁵³ Ibid., 29.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid., 29-30.

¹⁵⁷ Ibid., 29.

dusk in Madrid during a visit to the Museum of Natural History.¹⁵⁸ In the hall of insects (where Dali later suggests he may have been inspired by a resemblance between the bowing pose of the female figure in Millet's painting and the neck of the preying mantis)¹⁵⁹ he finds himself seeing his Cap de Creus vision of the couple from Millet's *Angelus* reproduced in colossal sculpture, before him in the museum.¹⁶⁰ Upon exiting the museum, he claims to have consummated this vision in a spontaneous violent sexual encounter with his wife, Gala, at the deserted entrance to the building.¹⁶¹ Later sections of the book look back at this encounter and associate it with a fear inspired by the popular misconception that the female preying mantis always consumes her partner after mating with him.¹⁶² Dali publishes an exchange of letters with the Belgian entymologist J.-P. Vanden Eeckhoudt, who writes to Dali that such a phenomenon only occurs in captivity or in other situations where the "habits of the animals have been completely disrupted."¹⁶³

The fourth episode in the multi-part "delerious phenomenon" is an imagined experiment with the *Angelus* and various liquids.¹⁶⁴ Dali imagines dipping the painting in different liquids to see the effect that would result. One imagined vision involves dipping half of *Angelus* in a bucket of warm milk. Dali claims he had imagined submerging the painting in the milk longitudinally, but then completely forgot which figure was engulfed by the liquid—the man or the woman. Only later did he become certain that it was the man who had been covered; however, when he surveyed a number of friends on the point, none of them could imagine the partial immersion of the painting covering the male figure.

¹⁵⁸ Ibid., 30.

¹⁵⁹ Ibid., 67-78 and 104-111.

¹⁶⁰ Ibid., 30.

¹⁶¹ Ibid.

¹⁶² Ibid.

¹⁶³ Ibid., 106.

¹⁶⁴ Ibid., 30-31.

Like the first delirious secondary phenomenon, the penultimate episode of the second occurs at dusk.¹⁶⁵ This time the incident involves the delirium of speed in the street, rather than stillness on the beach. Driving in his car on a road of the Catalonian coastal village, El Port de la Selva, Dali noticed a stall with a complete porcelain coffee service in which each small cup was ornamented with a color reproduction of the *Angelus* painting (fig. 94). The repetition of the theme made the “*image obsédante*” (“obsessive image”) take on the character of an “*stéréotypie atroce et bouleversant*” (“atrocious and distressing cliché”).¹⁶⁶ The literally clichéd image (clichéd in both the sense of mechanically-reproduced and stereotyped) evoked what Dali calls the “*effet inexplicablement angoissant*” (“inexplicably anguishing effect”) of the coffee service resembling a chicken surrounded by its chicks.¹⁶⁷ This anguishing image is comically perturbing as an absurd instantiation of the Chaplinesque trope whereby a hungry individual hallucinates another person as a consumable animal (i.e., a chicken). In this instance the metaphoric connection is made by greater degrees of separation—whereas in the delirium of hunger in Charlie Chaplin’s *The Gold Rush* (1925), Chaplin’s human flesh is hallucinated as chicken flesh by the character Big Jim,¹⁶⁸ in Dali’s paranoiac delirium a porcelain service is hallucinated as a bird with her young. According to Dali, this association was encouraged by the fact that each reproduction on the service, seen from a distance, resembled a fried egg: the cadmium-hued middle of the *Angélus* reproductions—each of which was surrounded by a circular form like a “halo”—looked like the yellow of the egg surrounded by its albumen.¹⁶⁹ The association recalls

¹⁶⁵ Ibid., 31.

¹⁶⁶ Ibid.

¹⁶⁷ Ibid., 31.

¹⁶⁸ *The Gold Rush*, directed by Charlie Chaplin (1925; San Francisco, CA: Kanopy Streaming, 2014) Internet Resource.

¹⁶⁹ Dalí, *Le Mythe Tragique de l'Angélus de Millet*, 31.

the performance photograph Dali took of himself, his torso covered with an *Angelus*-embroidered pillow case and a plate of fried eggs at his feet.¹⁷⁰

Finally, in the last episode, Dali recounts going through his papers in his library and finding a chromolithograph of a bowl of cherries, some red others yellow.¹⁷¹ Even though the reproduction was “clear and realistic,” he nonetheless confused it with his postcard of the *Angèlus*: “the confusion had all of the visual evidence of a hallucination and caused a violent shock accompanied by a sense of anguish.”¹⁷² The sense of anguish to which Dali returns repeatedly in his description of the secondary delirious phenomena is what he calls the “*sentiment de ‘toujours connu’*” (the feeling of the “always known”) or, more simply put, “*deja connu*” (already known).¹⁷³ Dali contrasts this feeling with that of “*deja vu*” (already seen).¹⁷⁴ As Dali writes, “psychoanalysis explains the phenomnon of *deja vu* as a projection into the external world of that which had already been experienced unconsciously.”¹⁷⁵ *Deja vu* is “simply a superimposition in the unconscious of two analogous conflicts in the psyche.”¹⁷⁶ “In contrast with that which occurs with *deja vu*,” he continues, “the illusion of ‘*deja connu*’ is roused by a combination of “confusion between the real and the imaginary,” and a sense of “interpretative clairvoyance” that is not a result of projection, but rather a symptom of introjection—the adoption into the psyche of the attitudes of surrounding objects.¹⁷⁷ This confusion and clairvoyance is not produced by an internal world of the individual invested in the external world, rather it is generated by “a certain number of cirumstances and coincidences in the objective world [...]

¹⁷⁰ Dalí, *Commencement d'érection de Dalí se faisant photographier en Angèlus* (1934) in Dalí, *Le Mythe Tragique de l'Angèlus de Millet*, 10.

¹⁷¹ Dalí, *Le Mythe Tragique de l'Angèlus de Millet*, 32.

¹⁷² *Ibid.*

¹⁷³ *Ibid.*, 91.

¹⁷⁴ *Ibid.*

¹⁷⁵ *Ibid.*

¹⁷⁶ *Ibid.*

¹⁷⁷ *Ibid.*

capable of motivating a superimposition of ‘analogous’ representations” in the individual.¹⁷⁸ New technologies like vehicles for moving through space at high speeds and means of image reproduction that reproduce images on various surfaces, increase the conditions of possibility for these circumstances and coincidences in the objective world. The play between appearance and apparition that Dali describes recalls Duchamp’s notes on the “plastic duration” (1912-1920; 1966)¹⁷⁹ and his coinciding interest in the aeronautical engineer J.W. Dunne’s *An Experiment with Time* (1927); Dunne’s book was also an attempt to understand a sensation of *deja connu*—the sensation of “clairvoyance” that induces individuals to feel they “habitually observe events before they occur.”¹⁸⁰

A similar ‘anguish’ is at the core of Hassabi’s *PLASTIC*. It emerges in a variety of ways from the different choreographies that comprise the live installation. In the choreographies on the Gund Lobby staircase and the fourth-to-fifth floor stairwell, this ‘anguish’ is the difference between what Hassabi calls the “fear of falling” and the “chance of falling.”¹⁸¹ There is no real “fear” of falling in the choreography; it is rather the “chance” of the fall, of abruptly breaking a smooth transition or collapsing out of a position without control, that pervades the dance. The chance of falling is a sensation from the world of objects. To attribute to objects a fear of falling would be to anthropomorphize them; to dance with the chance of falling accomplishes the reverse, investing the dancer with a certain intuition for the disequilibrium that animates objects. Meanwhile, in the choreography in the Marron atrium, the ‘anguish’ of the ‘plastic’ instead comes from intimate interactions between dancers and viewers in a context where the rules of engagement are not clearly defined.¹⁸² There is a “chance” that viewers will behave

¹⁷⁸ Ibid.

¹⁷⁹ Duchamp, *À l’Infinifitif*, op. cit.

¹⁸⁰ Dunne, *An Experiment with Time*, vi.

¹⁸¹ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

¹⁸² Ibid.

inappropriately; that they will come too close to a performer, or even touch one of the dancers.¹⁸³ This chance, which is “scary,” is also “exciting.”¹⁸⁴ As in the chance of falling, it is also a sensation that belongs to the realm of objects: many objects on display in art museums are presented outside of display cases without clearly demarcated boundaries indicating appropriate distance and proximity. Often times, the role of warning viewers about proximity is left to the museum guard who asks viewers to step away from a painting, or to be careful when moving around a configuration of sculptures.

The *deja connu* is built into all the choreographies of *PLASTIC* in an interesting way: a dance performance is always “already known” through its identity as a rehearsed choreography is something that audiences of dance are not typically given the opportunity to experience in a formal presentation. Hassabi’s *PLASTIC* formalizes aspects of rehearsal through an approach to repetition that brings the dynamics of practice into performance by looping various choreographies across an unusually long duration—the seven hour day of museum operation.

¹⁸³ Ibid.

¹⁸⁴ Ibid.



Fig. 93 Salvador Dalí, *Visage paranoïaque* (c. 1955), oil on panel, 7.28 x 8.86 in (18.5 x 22.5 cm), Fundació Gala-Salvador Dalí, Figueras. Image: Fundació Gala-Salvador Dalí, Figueras.



Fig. 94 Carl Andre, *Wall* (undated). Image: Contemporary Art Museum Buffalo.

8

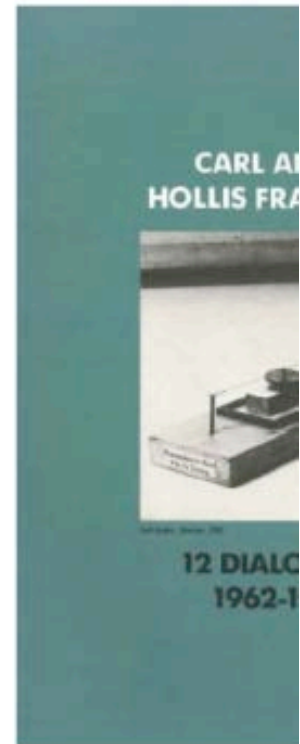
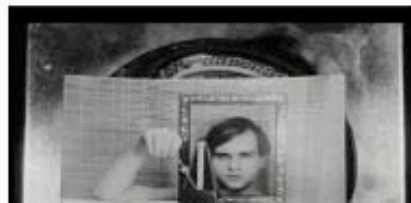


Fig. 95 Carl Andre and Hollis Frampton, *1962-1963* (1980, edited by Carl Andre and Hollis Frampton), Nova Scotia College of Art and Design Press. Image: photograph of author.



Chapter Eight / Dialogues, Theses, and Quasi-Surveys on the ‘Plastic’

Carl Andre and Hollis Frampton in *12 Dialogues, 1962-1963*

On November 11, 1963, artist Carl Andre¹ playfully announced to his friend, artist Hollis Frampton,² that he had “evaded the issue long enough”: “I propose to pin you wriggling to a definition of the plastic,” Andre declared.³ Andre’s proposition arrived not in verbal discussion, but on a sheet of paper in a typewriter that Andre kept in the Brooklyn apartment he shared with another artist, the painter and and sculptor Rosemarie Castoro.⁴ The twelve dialogues in which

¹ Carl Andre (Quincy, Massachusetts b. 1935) is an American minimalist known primarily for his concrete poetry and sculpture. In his work with words he created the neologism “clastic,” meaning “broken or preexisting parts, which can be put together or taken apart without joining or cementing.” Andre’s ‘clastic’ sculptural works move away from carving and modeling to pursue the creation of volumes made from stacks, scatterings and configurations of blocks of material. He also created linear compositions from ribbons of material or ribbon-like configurations of blocks. His floor works made from industrial metal plates using simple mathematical concepts are among his most well-known works. Carl Andre, “I want wood as wood and steel as steel... (1970),” *Cuts: Texts 1959-2004*, ed. James Meyer (Cambridge, MA: MIT Press, 2005), 142.

² Hollis Frampton (Wooser, Ohio 1936 – Buffalo, New York 1984) was a filmmaker, photographer and critic and is respected as an important figure of the American avant-garde. He is considered a pioneer of structuralism and is famous for a 35-hour-long calendrical film cycle titled *Magellan* that he left incomplete at his death. His work with 16mm filmmaking explores the potential of cinematic language using various aesthetic, literary, mathematical and sculptural modes, beyond narrative, to construct a film. See “The Hollis Frampton Collection,” *Harvard Film Archive*. Published 2017. Accessed March 3, 2017. <http://hcl.harvard.edu/hfa/collections/frampton.html> “A Hollis Frampton Odyssey,” The Criterion Collection. N.d. Accessed March 3, 2017. <https://www.criterion.com/films/27945-a-hollis-frampton-odyssey>.

³ Carl Andre and Hollis Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, ed. Benjamin H.D. Buchloh (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981), 41.

⁴ Benjamin Buchloh, “Editor’s Note,” *12 Dialogues 1962-1963*, ed. Benjamin H.D. Buchloh (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981), vii. Rosemarie Castoro (Brooklyn, New York 1939 – 2015) is known as a “central protagonist among the New York Minimalists and one of the few highly recognized female painters in [the] milieu.” Her work is described as “two- and three-dimensional objects [that] us[e] a variety of media, including wood, graphite, wire, concrete and steel.” Her earliest exhibited works are gestural paintings that explore the form of the letter “Y.” These works later evolved into what she called “free-standing works”—“wood and masonite panels covered with the strokes of her earlier paintings,” but which appear to hover in space. She also did a series of conceptual works covering sidewalks and buildings with a silver tape that appeared like thin fissures in the built environment. “Rosemarie Castoro,” *Broadway1602. Artists*. N.d. Accessed March 3, 2017. <http://broadway1602.com/artist/rosemarie-castoro/>; “Rosemarie Castoro (1939 -),” *North American Women Artists of the Twentieth Century: A Biographical Dictionary*, ed. Jules Heller and Nancy G. Heller (New York, NY: Garland Publishing, 1995), 1534.

Andre's proposition appears has been described as "comparable to [...] a chess-game."⁵ Frampton regularly travelled from Manhattan to visit Castoro and Andre on weekends and the dialogues were written on the evenings of these visits, over the course of a little more than a year.⁶ Art historian Benjamin Buchloh—who published the dialogues in 1980—recounts that "while one participant was typing, the other was sitting on the bed, reading, waiting for his turn to reply."⁷ For Buchloh, *12 Dialogues 1962-1963* (fig. 95) is "an astonishing document of the formation of avantgarde aesthetic thought in the beginning of the sixties, more precisely, in the formation of the work of one of the most radical and significant sculptors [Andre] (fig. 96) and fig. and one of the most consequential filmmakers [Hampton] (fig. 97) of that period."⁸

The dialogue "On Plasticity and Consecutive Matters," is the fourth of the twelve dialogues.⁹ It follows other dialogues on "sculpture," "photography," "a journey to Philadelphia," and "painting" and is, in turn, followed by seven subsequent dialogues on "music," "literature," "the movies," "forty photographs" Frampton took of Andre's work, "poems," and painter "James Rosenquist."¹⁰ All of the titles of the dialogues follow the format, "On [the topic] and Consecutive Matters" except for the dialogue on Rosenquist, which is humorously and irreverently titled "On James Rosenquist and Other Inquisitions."¹¹ According to Buchloh, several of the dialogues were lost or discarded by the authors and others remain as fragments.¹² Buchloh chose not to include the fragments in the dialogues. In addition, two complete dialogues were "withdrawn from the manuscript upon Carl Andre's request," because they "detail the work

⁵ Buchloh, "Editor's Note," *12 Dialogues 1962-1963*, vii.

⁶ Ibid.

⁷ Ibid.

⁸ Ibid.

⁹ Benjamin Buchloh, "Contents," *12 Dialogues 1962-1963*, ed. Benjamin H.D. Buchloh (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981), not paginated.

¹⁰ Ibid.

¹¹ Ibid.

¹² Buchloh, "Editor's Note," *12 Dialogues 1962-1963*, vii.

of [...] contemporaries and peers” with “critical aggression and humorous annihilation.”¹³ Since Buchloh considers the manuscript to be “one of the most pertinent and complex introductions into the ideas and problems of the arts of the sixties and their broader background in twentieth century art history,”¹⁴ the definition of the ‘plastic’ explored in the fourth dialogue can be considered a representative response to ideas in circulation among artists, critics and art historians at the time.

In his preface to the collection of dialogues, Frampton (fig. 98) “urge[s] that [they] be read [...] as anthropological evidence pertaining to a rite of passage and to the nature of friendship.”¹⁵ He describes the “rhetoric” in the dialogues as “that of an aesthetic Cotton Mather downshouting himself in an imported mirror;” as “ragged discontents”—“the paralyzing scarlet of oilcloth on a kitchen table, [...] diaseses, between paragraphs, of walks to the corner after Ringness Beer...or a slip of the tongue upon which I shall always regret having acted too cautiously.”¹⁶ And yet, the dialogues also have a certain magic for Frampton:

making my way to a subway station, after what was to have been the last of these dialogues (and that one that is not here, was lost) I saw and heard, in soft snow, a man improvising music in Fort Green Park: 15 years later I understood him to be Sonny Rollins, and that, that audition may have been one convergence secretly prepared by the evenings Carl Andre and I spent at the typewriter.¹⁷

At the beginning of the fourth dialogue, when Frampton finds himself “pin[ned] down wriggling to a definition of the plastic,” he immediately discards the notion that the plastic is simply a designation for sculpture, responding that “sculpture [...] is plastic by custom only.”¹⁸ This statement is his conclusion to describing the “plastic” as a property between flexibility and fixity: “while it’s still soft, you can push it around. When it gets hard, it pushes you around.”¹⁹

¹³ Ibid.

¹⁴ Ibid.

¹⁵ Hollis Frampton, “Preface by Hollis Frampton,” *12 Dialogues 1962-1963*, ed. Benjamin H.D. Buchloh (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981), xi.

¹⁶ Frampton, “Preface by Hollis Frampton,” in Andre and Frampton, *12 Dialogues 1962-1963*, xi.

¹⁷ Ibid.

¹⁸ Andre and Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, 41.

¹⁹ Ibid.

Frampton makes reference to dictionary definitions: “it means pliable, impressionable, capable of being molded or modelled;” “in art” it is “characterized by being modelled, hence sculptural in form or effect.”²⁰ It is with regard to this latter definition that he makes his principle objection. Not all sculpture is really plastic, it has only come to be understood as such by convention.

Andre’s response immediately questions Frampton’s focus on form and the plastic as a tactile relationship with raw material, asking “are there not dimensional arts and durational arts?”²¹ An exchange ensues over this distinction between the dimensional and the durational in the plastic. Andre argues that “shape is the product of dimension, hence plastic.”²² He therefore appears to be insisting that the plastic is a property of the “dimensional arts.”²³ At the same time, however, he shows himself to be unattached to the distinction, asserting “these categories are as false or useful as any others.”²⁴ Frampton, on the other hand, argues that music might be considered a “durational art,” but that the “real” music is its “read[ing] out into the air” which, he seems to be arguing, would make it “dimensional”—between the two-dimensional page and the alter-dimensional surrounding spatial continuum.²⁵ “Does not my reading of a painting, or my revolution about a sculptural piece, explicate it in time?” he asks in his argument for the “durational” nature of painting and sculpture.²⁶ In response, Andre appears to disagree, claiming that “the real music is in the agitation of the molecules of air;” music as agitation is durational.²⁷ Likewise “poetry and [...] almost all literary forms are durational in structure.”²⁸

²⁰ Ibid.

²¹ Ibid.

²² Ibid.

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid.

Andre (fig. 97) notes that a “stop sign functions plastically,” and that “perception” is itself “durational”—“you change and unfold if you truly perceive,” he states.²⁹ Frampton’s response asserts that time does not exist: “there is no such thing as time.”³⁰ Just as the plastic is, by custom, taken for granted as a designation for sculpture, “time is a set of conventions for bracketing qualitative variation.”³¹ “The adverbs firstly and secondly,” he explains, “are pegs we use in our sentences when we wish to emphasize that those sentences imitate actions.”³² Andre disagrees: “Time as rate certainly is a thing,” he retorts.³³ To prove his point he uses the occasion to distinguish between “rate” and “duration”: “time” moves from being “rate” to being “duration” when it is “given a certain amount of energy to discharge or a certain distance to cover.”³⁴ He thus describes “plasticity” as a property that is “fixed in the painting or sculpture or building.”³⁵ When “plasticity” is “fixed” it no longer has a “rate of discharge or distance to cover.”³⁶ For Andre, it appears that this is what makes painting, sculpture and architecture “dimensional arts” rather than “durational arts”: in their structures, “plasticity” has been “fixed,” whereas in “durational art,” it is agitated.³⁷ Thus, the experience of painting, sculpture and architecture is fixed plasticity coming into contact with the “rates of perception” in different viewers.³⁸

Frampton agrees: “I accept time as a directional stress obtaining among a set of palpable things or qualities.”³⁹ What Frampton does not agree with, however, is “the notion of time as a tank of fluid in which everything floats, and which transmits only a displacement of any single

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

³³ Ibid.

³⁴ Ibid.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Ibid.

³⁸ Ibid.

³⁹ Ibid.

particle without itself moving or changing, much like the old fluid aether of wave mechanics.”⁴⁰ As Frampton defines them, “dimension and duration” are “aspects of the same thing.”⁴¹ His example is cinema: the film “is a ribbon of cellulose acetate, cranked through a projector at a constant rate of 16 frames per second (a speed which has to do with our average rate of failure to perceive separate images.”⁴² Frampton explains that “any one of the millions of frames might be considered as a separate event. But, coiled up in the can, no frame is more than a couple of handspans from any other.”⁴³ In Andre’s response, “time and plastic” are equated with “duration and distance,” shifting the plastic from the realm of the “dimensional” to a question of proxemics.⁴⁴ Andre suggests substituting both pairs of concepts with the polarity “moving and still,” thus associating the plastic with a question of stillness in the same way he had previously associated plasticity with fixity.⁴⁵

“Some art objects,” Andre concludes, “must be moved to be revealed.”⁴⁶ Frampton finds this claim confusing: “For the cinematographer who edits his own film, and sees a clear sensuous connection between the flickering moving image on his screen and his chopped and spliced and measured celluloid ribbon, the tangible coil of film is his ‘art object.’”⁴⁷ For Frampton, the same is true in the case of the “composer” and his “score.”⁴⁸ Thus, Frampton suggests a return to a theme introduced in a previous dialogue, during which Andre wrote of “poems organized ‘plastically.’”⁴⁹ Frampton suggests that it may be possible for them to “come closer to a clear idea of plasticity via meter,” since he had always been taught to understand poems as being organized

⁴⁰ Ibid.

⁴¹ Ibid.

⁴² Ibid.

⁴³ Ibid.

⁴⁴ Ibid.

⁴⁵ Ibid.

⁴⁶ Ibid., 42.

⁴⁷ Ibid.

⁴⁸ Ibid.

⁴⁹ Ibid.

“metrically.”⁵⁰ Frampton sees the plastic in the “note-divisions between the composer’s barlines,” in the “short bits of film the cinematographer splices together to fill his measure,” and in the “iambus and trochaeus” of poetic meter.⁵¹ Andre objects, returning to his distinction between durational and dimensional by asserting that the examples cited by Frampton are all “read from left to write.”⁵²

“Meter,” Andre argues, “is a controlled rate of sounded reading from left to right.”⁵³ According to Andre, it took developments by poet Ezra Pound and composers Igor Stravinsky and Alexander Scriabin to redefine meter as “the articulation [...] of whole works.”⁵⁴ “Painting [...] does not read from left to right,” Andre insists: “a well-composed painting” is dimensional in that it is “not an interesting middle surrounded by deteriorating lefts and rights, tops and bottoms.”⁵⁵ “Only bad paintings can be read in a metrical way,” he insists.⁵⁶ These bad paintings have what he calls “an all-at-once appearance.”⁵⁷ A painting by Jackson Pollock, for example, “cannot be read,” it is “*entered* right at the dead level.”⁵⁸ And, whereas “the best Renaissance easel painting employed the edge of the painting as a framing device” cutting the “view [...] as if by a window frame,” Pollock uses the edge of the painting “like a political boundary” as if to say “this much I painted, the rest is yours.”⁵⁹ In response to Andre, Frampton attempts to clarify his argument: “I am trying to define the splice, foot, bar-line and boundary as systole and diastole: the storage, release and standing aside from a movement of energy.”⁶⁰ This was, in fact, the way

⁵⁰ Ibid.

⁵¹ Ibid.

⁵² Ibid.

⁵³ Ibid.

⁵⁴ Ibid.

⁵⁵ Ibid.

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Ibid.

Frampton had first set out to define the plastic—the “soft” and the “hard,” not as tactile impressions, but as energetic sensations, as systole and diastole.⁶¹

Andre also restates his position: “I have tried to indicate my idea of plasticity as having to do with the manipulation of dimensions.”⁶² As Andre explains, in his understanding of plasticity, “time, meter, etc” are in “contrast” with the plastic.⁶³ After reasserting this position, he returns to Frampton’s “soft” and “hard” polarity—“I am rather bugged by one aspect of plasticity,” he admits: “hard-edge as against thumb imprinted.”⁶⁴ As he explains it:

one can pour concrete into a form and let it set. Remove the form and one is no longer confronted by the mud, but by hard smooth stone. Then again, one can take the concrete mud and throw it about, cutting, wounding, bruising it. When it sets, it sets not as hard smooth stone, but as hard and clotted scab. I am disturbed because my bruised mud or paint always congeals in a peculiarly brutal and vulgar way.⁶⁵

“My question, doctor, is this,” Andre posits ironically, “is there a hierarchy of forms and scabs?”⁶⁶

Frampton once again returns to his original premise, defining the plastic as a dynamic between pushing around and being pushed around: “one of the major technical problems in plastic art,” Frampton asserts, “is restraining the artist.”⁶⁷ Referring back to Andre’s experiments with concrete, Frampton suggests,

you are confused, perhaps, by the seeming indirection of making the wooden form [for moulding the concrete] first. You’re not so sure you should not exhibit the wood form, rather than the what comes out of it [the concrete form]. Your main chance for control is in building the mould.⁶⁸

⁶¹ Ibid., 41.

⁶² Ibid., 42.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ Ibid., 42-43.

⁶⁶ Ibid., 43.

⁶⁷ Ibid.

⁶⁸ Ibid.

It is at this point that Andre finds it necessary to disavow the association of the plastic with a certain culture of virtuous tacity: his plastic is intentionally “plastic clumsiness.”⁶⁹ As he writes, “I am not interested in the disciplines which develop plastic tact.”⁷⁰ He uses a painting by Willem de Kooning to more clearly define “plastic tact”: *Easter Monday* (1955-1956), he explains, is “an anthology of gestures derived from years of sign painting and figurative painting.”⁷¹ He argues that, in contrast, his work is “experimental”: “all ideas are equal except in execution,” and Andre’s “executions” as he describes them “are tests of ideas rather than attempts at [manipulating] plastic virtuosity.”⁷² Andre outlines what he means with an anecdote about his former preference for “the hard edge style or crystal mode” over the “problem of the thumb print.”⁷³ He tells of how he decided to toss this preference aside when he “happened to read a text on crystal nurture in which the otherwise well-informed author insisted upon the moral superiority of crystalline patterns.”⁷⁴ There are no “pleasures of conjugation” in crystals—or rather, as Andre puts it rather brutally, “not a single fuck in a pound of chrome alum”—“the poor crystals [...] extend themselves only by accretion.”⁷⁵ After this discovery, Andre writes, “crystals and straight lines suddenly seemed beside the point to me.”⁷⁶

Frampton comments that crystallization is “matter win[ning] its argument with ionic dissolution”—“logic is an invention for winning arguments,” and “crystalline structure is a habit of matter arrested at the level of logic,” he contends.⁷⁷ The crystal, like the logical argument, “cannot change, it can only extend itself into a set of tautological consequence.” Frampton then takes on Andre’s description of his work as “experimental”: “experimentation means moving data

⁶⁹ Ibid.

⁷⁰ Ibid.

⁷¹ Ibid.

⁷² Ibid.

⁷³ Ibid., 42.

⁷⁴ Ibid., 43.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ Ibid.

from theoretical ground into the precincts of personal, tactile, experience.⁷⁸ That is not the same thing as testing or embodying ideas.”⁷⁹ “There are no ideas except in execution,” he declares—“an idea is a shape in my head.”⁸⁰

Andre counters with a resounding “No,” and this final response is also the conclusion to the published version of the dialogue: it is the checkmate that exhausts the game.⁸¹ Just as Andre had described the “real music” Frampton asked him to identify as the “agitation of the molecules of air,”⁸² he describes the “idea” as “a pattern of electrical potentials in the cells of the human brain.”⁸³ This “pattern of electrical potentials”—which he deftly catches Frampton metaphorically referencing in the notion of “idea” as a “shape” in the head—“obey [...] laws of electrical circuitry” that are “quite different” from the “matters with which ideas concern themselves.”⁸⁴ Through word-play, Andre associates “matter” with the “concern” of ideas,” and “electrical potentials” with an imagined, not-executed “shape.”⁸⁵ It helps Andre make his final point about plasticity as interchange between internal and external. The “idea” is only an “analogue or model” that must be “tested in conditions which are consistent with the external phenomenon,” writes Andre.⁸⁶ “To execute an idea,” he states definitively, “is to recreate the intellectual model in terms of the external phenomenon.”⁸⁷

In conclusion, Andre turns to situate the plastic at the center of a “new use or value for the arts.”⁸⁸ For Andre, the question of the plastic appears to be an issue he believes will help the artist “split” the “hoax” of art from the science of art the way “astronomy and astrology,”

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Ibid.

⁸¹ Ibid.

⁸² Ibid., 41.

⁸³ Ibid., 43-44.

⁸⁴ Ibid., 44.

⁸⁵ Ibid.

⁸⁶ Ibid.

⁸⁷ Ibid.

⁸⁸ Ibid.

“chemistry and alchemy” were “divided.”⁸⁹ “Perhaps the hoax of art,” Andre writes, ending the dialogue,

will some day be discarded and a system of detailed, accurate, and illuminating perception will become an anchor post for a civilization we have not yet achieved. That means tossing out the magic and the mystery, but I think it means introducing equally the full white light all around. [...] I have no coherent thought, only a double image. There is the tree of cells, chemicals, atoms. To be human and humane is to want to know and understand that tree. But to be human and humane is to want to sit in its shade and watch the bell leaves change the sky. Somehow it seems to me not a defect of science that trees cannot thrive in our cities, but a defect in our art.⁹⁰

In the years following the *12 Dialogues*, one of the ways that Andre appears to have responded to this “defect in our art” was the creation of a poetic neologism to describe his working process. In his work with words, he coined the term “clastic,” which in a 1970 interview he explained means “broken or preexisting parts, which can be put together or taken apart without joining or cementing.”⁹¹ In the interview, Andre defines the “clastic” alongside the “plastic” which he describes as the “flowing of form.”⁹² With the term “clastic,” it appears Andre fully absorbed Frampton’s attempt to define the plastic in energetic terms against his own tactile terms: in the 1970 interview, Andre describes his sculptures as working with “units” (“particles”) he calls “cuts across [a] mass spectrum,”⁹³ echoing Frampton’s attempt in *12 Dialogues* to “define the splice, foot, bar-line and boundary as systole and diastole: the storage, release and standing aside from a movement of energy.”⁹⁴ For Andre, the “clastic way” allows him to combine a “set of units [...] according to laws which are particular to each particle [or unit], rather than a

⁸⁹ Ibid.

⁹⁰ Ibid.

⁹¹ Carl Andre, “I want wood as wood and steel as steel...(1970),” *Cuts: Texts 1959 – 2004*, 142.

⁹² Andre, “I want wood as wood and steel as steel...(1970),” *Cuts: Texts 1959 – 2004*, 142.

⁹³ Ibid.

⁹⁴ Andre and Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, 42.

law which is applied to the whole set, like [...] riveting or welding.”⁹⁵ The “clastic” fuses Andre’s tactile definition of the ‘plastic’ with Frampton’s energy-based concept.

Art historian James Meyer explains that for Andre, the “plastic” was a “mode of arrangement” in which “components” are “read as a coherent entity: a body, perhaps, or an abstract image. The work’s parts suggest a form that a viewer can read, just as the words of a syntactical sentence or phrase suggest a legible meaning.”⁹⁶ In Andre’s “clastic way” the parts that are put together “do not suggest a stable meaning, or any meaning, other than their material existence in the sculpture with other units of the same kind.”⁹⁷ Put more succinctly, Meyer asserts that Andre’s “clastic” produces a “visual pattern of uncertain meaning.”⁹⁸ Meyer thus creates a sharp contrast between the “plastic” and the “clastic,” making them into two opposing modes. For Meyer, the “plastic” is a “category that encompasses Western sculpture from antiquity through cubism and David Smith”; it is perhaps because of this very limited definition of the plastic—the understanding of it as a designation for “Western sculpture”—that Meyer overlooks the continuity between the “plastic” and the “clastic.”⁹⁹ This understanding of the ‘plastic’ is an example of what Andre called the “hoax of art”:¹⁰⁰ just as “astronomy and astrology,” and “chemistry and alchemy”¹⁰¹ were divided, so must the plastic and the clastic be split. This “split,” however, does not do away with the plastic, rather it demystifies it—hence, the word “clastic” contains within it the memory of the “plastic.” The “clastic” and the “plastic” form the two sides of a Moebius strip, with the “-lastic” being the twist in the strip that connects them. Flowing and cutting are bound partners, a reality that one might even say Andre goes out of his way to

⁹⁵ Ibid.

⁹⁶ James Meyer, “Introduction: ‘Carl Andre, Writer,’” *Cuts: Texts 1959-2004*, ed. James Meyer (Cambridge, MA: MIT Press, 2005), 12.

⁹⁷ Meyer, “Introduction: ‘Carl Andre, Writer,’” *Cuts: Texts 1959-2004*, 13.

⁹⁸ Ibid.

⁹⁹ Ibid.

¹⁰⁰ Andre and Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, 44.

¹⁰¹ Ibid.

articulate in a recent work, *20 Rubber Slither* (2000) (fig. 99),¹⁰² where flowing and cutting combine in a configuration of rubber blocks.

Rosemarie Castoro's 'Cracks' in Andre and Frampton's *12 Dialogues*

A spectral presence haunts the Andre-Frampton dialogue. After reading it to its conclusion, one cannot help but wonder what it would have sounded like if Andre's wife at the time, Rosemarie Castoro, had participated in the exchange.¹⁰³ During the period in which it was being written, Castoro was living in the apartment with Andre and working as the "president of the dance workshop and the theater workshop" at the Pratt Institute where she was studying.¹⁰⁴ The first work she choreographed was a "five-person group piece."¹⁰⁵ As she describes it in an interview, it had a "raised platform" that she had built, so the dancers became "sculptures on the platform." The dancers would get off the platform to do different "things" and then eventually return to the platform.¹⁰⁶ According to Castoro, the choreography was "something Carl [Andre] saw and [...] thought [...] was so terrific."¹⁰⁷ Indeed, from the dialogue on plasticity, it appears Castoro's dance could have appeared to him to be in the vein of his own experiments between "form and scab," between the recognizable "straight-edge" form of erect human figures moving around, and the strange "scab" like appearance of them on the surface of their pedestal platform.¹⁰⁸

Castoro is an absent presence in the Andre-Frampton dialogues. With this in mind, returning to Hassabi's *PLASTIC* feels like an appropriate way to pose the what-if of Castoro's

¹⁰² Carl Andre, *20 Rubber Slither* (2000), rubber truncated pyramids, 1 x 12 x 5.7 in (2.5 x 30.4 x 14.6 cm), private collection.

¹⁰³ Buchloh, "Editor's Note," *12 Dialogues 1962-1963*, vii.

¹⁰⁴ Alex Bacon, "Rosemarie Castoro with Alex Bacon," *The Brooklyn Rail*, October 5, 2015. Accessed January 10, 2017. <http://brooklynrail.org/2015/10/art/rosemarie-castoro-with-alex-bacon>

¹⁰⁵ Bacon, "Rosemarie Castoro with Alex Bacon," op. cit.

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ Andre and Frampton, "On Plasticity and Consecutive Matters (November 11, 1962)," *12 Dialogues 1962-1963*, 42-43.

voice in the dialogues. Watching Hassabi's dancers on the MoMA stairways while reading the Andre-Frampton dialogue makes Castoro's absent presence tangible—somehow, her movement around the one-room apartment where Frampton and Andre typed out their interchange, becomes perceivable. A voice manifests without any speculation about what specifically Castoro might have been thinking during the exchange, or what words she might have contributed to the back-and-forth.

The first insight this thought experiment offers regards use of the terms 'plastic' and 'plasticity.' Frampton and Andre use the words "plastic" and "plasticity" interchangeably in their dialogue;¹⁰⁹ like Phillip Bither, the curator who interviewed Hassabi for her MoMA presentation of *PLASTIC*, Andre feels it is somehow necessary to introduce plasticity into discussion of the meaning of the plastic.¹¹⁰ Frampton could have questioned the equivalence Andre set up between plastic and plasticity, but it appears he did not think the confusion of terms was significant. Where it occurs in the dialogue, however, is revealing—a fact that perhaps can only be appreciated with hindsight, once the dialogue takes the form of a completed conversation. Andre shifts the discussion from the "plastic" to "plasticity" when—in his attempt to claim that the plastic is what distinguishes "dimensional art" from "durational art"—he refers to how "plasticity" "is "fixed" in painting, sculpture and building."¹¹¹ Does this mean that plasticity is what occurs to the 'plastic' when it has been "fixed"? The relevant passage in the dialogue comes after Andre had transitioned into thinking about ways in which the "durational art" of words in poetry and literature "functions plastically."¹¹² His example for this kind of functioning is the stop sign.¹¹³ It appears, however, that with this example Andre is not referring to the performative aspect of language—the fact that the word "stop" induces people to stop—but rather that the octagonal sign

¹⁰⁹ Ibid., 41.

¹¹⁰ Museum of Modern Art, New York, "Maria Hassabi in Conversation with Philip Bither," op. cit.

¹¹¹ Andre and Frampton, "On Plasticity and Consecutive Matters (November 11, 1962)," *12 Dialogues 1962-1963*, 41.

¹¹² Ibid.

¹¹³ Ibid.

upon which the word “stop” is painted, helps the word function via plastic sense. Whereas the circular street sign references motion, the stop sign uses the octagon’s geometric transformation of the circle from a continuous looping curve into a configuration of eight lines, to suggest the deceleration and cessation of movement. The example does not help to clarify how poetry and literature function plastically between durational and dimensional art. Unfortunately, Frampton does not notice the inconsistency in Andre’s argument.

Hassabi’s “paradox of stillness”¹¹⁴ between fixity and flexibility, between moving, holding and transitioning, resonates with Andre’s suggestion to substitute “moving and still” in place of “time and plastic, [...] duration and distance.”¹¹⁵ In fact, all of the conceptual word pairs that appear in Frampton and Andre’s dialogue on the plastic (which becomes a dialogue on plasticity) are shared by Hassabi’s *PLASTIC*: the “soft” and the “hard,” the “pushing” and the “being pushed,” the “dimensional” and the “durational,” the “moving” and the “still,” the “read” and the “entered,” “systole” and “diastole,” “virtuosity” and “clumsiness,” the “form” and the “scab,” the “smooth” and the “bruised,” the “thumb-print” and the “crystalline,” “restraint” and “experiment,” and lastly, the “idea” as “a shape in the head” and the idea as a “recreat[ion] of an intellectual model in terms of [...] external phenomenon.”¹¹⁶ At one point in the dialogue, when Frampton responds to Andre’s counterargument against meter—that “meter is a controlled rate of sounded reading from left to right”—he insists that “any work of art is *something*, surrounded by *everything* else” and that, as such, “we read it in whatever direction it leads us.”¹¹⁷ When he attempts to delay the dialogue to restate his position after this passage, he breaks the patterns of dialectical pairs the dialogue rhetoricizes with, and inserts a trinity in the middle of a polarity: he defines “systole and diastole” as “the storage, release and standing aside from a movement of

¹¹⁴ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

¹¹⁵ Andre and Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, 41.

¹¹⁶ *Ibid.*, 41-44.

¹¹⁷ *Ibid.*, 42.

energy.”¹¹⁸ Unfortunately, this definition of the plastic in interstices—in “the splice, foot, bar-line and boundary”—is lost by the end of the dialogue.¹¹⁹ Hassabi’s work with transitions returns to it—the absent-presence of Castoro’s artistic research between dance, sculpture and painting, hovering around the dialogue, support its importance in the discussion.

The earliest works that Castoro exhibited are said to have been “gestural, abstract paintings, many exploring the letter ‘Y.’” (fig. 100)¹²⁰ A ‘Y’—this trinity pressed out of a polarity—is also Frampton’s definition of systole and diastole: not only a polarity of the “storage” and “release” from “a movement of energy,” but a splicing that introduces the motion of “standing aside” into the frame.¹²¹ Frampton’s description of the plastic as “storage, release and standing aside from a movement of energy,” would undoubtedly have interested Castoro’s movement-based research. In fact, an interest in splits, cuts, and crossroads led her to work in the late 1960s with a series of what she called “cracks” (fig. 101), lines of aluminum tape that she crossed through various spaces, from the exhibition rooms of the Paula Cooper gallery to the halls of the Seattle Center World’s Fair complex; from a city block on 14th street and a network of city streets between downtown and midtown Manhattan, to the surfaces of her own face—from her forehead, around her ocular orb and over the bridge of her nose.¹²²

¹¹⁸ Ibid., 42.

¹¹⁹ Ibid., 42.

¹²⁰ “Rosemarie Castoro (1939 -),” *North American Women Artists of the Twentieth Century*, 1534. For examples of work, see Rosemarie Castoro, *Interference/Infinity* (exhibition at Broadway 1602, New York, 2016): *Guinness Martin* (1972), masonite, gesso, graphite and moeling paste 36 x 180 in (91.44 x 457.2 cm), Broadway 1602, New York; *Orange Ochre Purple Yellow Y* (1965), acrylic on canvas, 83.5 x 83 in (212.09 x 210.82 cm), Broadway 1602, New York.

¹²¹ Andre and Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, 42.

¹²² “Rosemarie Castoro (1939 -),” *North American Women Artists of the Twentieth Century*, 1534. Rosemarie Castoro, *Face Cracking* (1969), self-timed polaroid (self-portrait of the artist) 3x4 in (7.62 x 10.16 cm), Broadway 1602 Gallery, New York; Rosemarie Castoro, *Crackings: Streetworks II* (1969), offset print documenting project on city block around 13th, 14th streets, 5th & 6th Avenues, 5 to 6 pm, Broadway 1602 Gallery, New York.

According to James Rosenquist, one time, he, Carl Andre and Robert Rauschenberg got into an argument—“Your work is shit!”¹²³ Andre reportedly declared to the artist who in *12 Dialogues* he called an “inquisition.”¹²⁴ And, as Rosenquist recounts, while “he’s going on like that, [...] [Rauschenberg] gets down behind him [and] I push him over”; Castoro “comes up fighting, punching” Rosenquist. Andre says to her “Rosemarie, it’s okay, don’t hit him! Don’t hit him! It’s just a *conceptual* argument.”¹²⁵ The anecdote, like Castoro’s work, indicates Castoro had a habit of bringing a third factor—the corporeal—into conceptual binary oppositions. In fact, it is perhaps no accident that the missing art in the dialogue between Frampton and Andre is dance—this is the third factor Castoro’s silence brings to the manuscript. Reading Castoro’s presence into the Andre-Frampton dialogue provides a means for understanding how Hassabi’s new work contributes to the conceptual history of the plastic. Maria Hassabi’s live installation—her exploration of “space, time and the body” in *PLASTIC*—splits the durational and the dimensional of the Andre-Frampton dialogue “on plasticity,” with corporeal “consecutive matters.” It shifts the discussion back to a body that is no longer just a metaphor, a body quite literally “pin[ned] [...] wriggling to a definition of the plastic.”¹²⁶

Mutation or Niche Construction? Mark Rothko on Plasticity

Between 1940 and 1941, the abstract-expressionist painter Mark Rothko, wrote a book he tentatively titled *The Artist’s Reality*.¹²⁷ On the cover of the folder that held the manuscripts for this now well-known text (first published in 2004, more than thirty years after the artist’s

¹²³ James Rosenquist, *Painting Below Zero: Notes on a Life in Art* (New York, NY: Alfred A. Knopf, 2009), 350.

¹²⁴ Carl Andre and Hollis Frampton, “On James Rosenquist and Other Inquisitions,” *12 Dialogues 1962-1963*, ed. Benjamin H.D. Buchloh (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981), 97-92.

¹²⁵ Rosenquist, *Painting Below Zero*, 350.

¹²⁶ Andre and Frampton, “On Plasticity and Consecutive Matters (November 11, 1962),” *12 Dialogues 1962-1963*, 41.

¹²⁷ Christopher Rothko, “Introduction,” in Mark Rothko, *The Artist’s Reality: Philosophies of Art* (New Haven, CT: Yale University Press, 2004), xvii

suicide), there is another word under the hand-pencilled title, "Artists Reality": the word, "Plasticity," capitalized and written in ink, appears on the paper surface of the folder amid a constellation of droplet stains, inkwash circles in dark gray and sepia that suggest the folder was kept at hand in Rothko's studio space.¹²⁸ "Plasticity" is crossed out with a thick crayon as though originally conceived as the title of the book, only to be discarded for the title it now takes.

In the early 1940s, Rothko was still experimenting with surrealism. As his surrealism has been described, "he did not espouse all the philosophical ideas of [the] movement, but [...] certainly adopted some of the stylistic trappings, along with [the] fascination with mythic realms and the contents of the collective unconscious."¹²⁹ Among the most well-known examples of Rothko's surrealist experiments is *Slow Swirl at the Edge of the Sea* (1944) (fig. 102)¹³⁰ a relatively large canvas with a title that exemplifies the surrealist fascination with mythology and the unconscious. The title creates a timeless, dramatic scenario for Rothko's complex composition while referencing the ultimate archetypal figure for the unconscious, the sea.

Both the literary title and aspects of the painting's execution are an example of "stylistic trappings"¹³¹ of surrealism. Two mysterious figures, bulbous vertical columns that bulge and taper, appear to spin in the foreground—a spiral turns itself around the tapered middle of the figure on the left, and another circles on itself inside the teardrop center of the figure on the right. Amid the swirling movement implied in the spirals that are around, and in, the two figures, is a star-like configuration of transparent shards that splits the painting in half under a large, curling, orange arabesque. A similar, barely visible figure is on the far left, at the edge of the painting. Its midsection is also star-like, a burst of gray over a small red sphere hovering in a swirl of light

¹²⁸ Mark Rothko, *The Artist's Reality: Philosophies of Art* (New Haven, CT: Yale University Press, 2004), cover.

¹²⁹ Rothko, "Introduction" in Mark Rothko, *The Artist's Reality*, xvii.

¹³⁰ Mark Rothko, *Slow Swirl at the Edge of the Sea*, (1944). Oil on canvas. 75.35 x 84.76 in (191.4 x 215.3 cm), Museum of Modern Art, New York. "Mark Rothko, *Slow Swirl at the Edge of the Sea*, 1944," *Collection. Museum of Modern Art, New York*. Published 2017. Accessed January 10, 2017. <https://www.moma.org/collection/works/79691?locale=en>

¹³¹ Rothko, "Introduction" in Mark Rothko, *The Artist's Reality*, xvii.

white lines. The almost invisible presence stands under two thick black appendages that extend to the top of the painting like insect antennae.

The figures resemble characters in Arshile Gorky's compositions from the same period (i.e., *Anatomical Blackbeard*, [1943];¹³² *The Liver is the Cock's Comb*, [1944]¹³³) (fig. 103); Gorky also worked with the biomorphic forms developed by surrealism-inspired painters like Joan Mirò and Roberto Matta, though Rothko's palette is far less saturated and dense, more translucent and more diluted. Rothko had actually taken a class with Gorky in 1925 at the New School of Design in New York, but the two were close in age, and it seems that the similarities are less a result of influence than an example of the way experimentation with surrealism brought them to similar solutions in abstract expressionism.¹³⁴ Though stylistically the works share affinities, it seems clear that Rothko was more interested in movement than Gorky. Gorky's figures appear piled on on top of each other in a weighted chaos of biocentric fleshiness; Rothko's shapes bubble and sparkle, not with enthusiasm, but with a certain foreboding of something left in the wake of something else, a kind of effluvial melancholy—it is the nostalgia of a beautiful vapor that is also a toxic residue, an odorous fume of death emanating from foam left by distant waves on the beach.

Thus, like Robert Motherwell in his 1944 talk on “plastic automatism,”¹³⁵ when Rothko was writing the bulk of his book, he was between abstraction and surrealism. In his essay on Motherwell's approach to surrealist automatism, philosopher Arthur Danto uses the example of what he calls Rothko's “dogmatism” to define Motherwell in opposition to Rothko, as a

¹³² Arshile Gorky, *Anatomical Blackbeard* (1943), drawing on paper, dimensions not specified. Estate of Arshile Gorky. “Anatomical Blackbeard. Gorky, Arshile. 1943,” *Artstor.org*. Published 2007. Accessed March 9, 2017. <http://library.artstor.org/library/iv2.html?parent=true>

¹³³ Arshile Gorky, *The Liver is the Cock's Comb* (1944). Oil on canvas. 73 x 98 in (185.42 x 248.92 cm). Albright-Knox Art Gallery. The Carnegie Arts of the United States Collection. “The Liver is the Cock's Comb (1944). Gorky, Arshile. 1944,” *Artstor.org*. Published 2007. Accessed March 9, 2017. <http://library.artstor.org/library/iv2.html?parent=true#>

¹³⁴ James E. B. Breslin, *Mark Rothko: A Biography* (Chicago, IL: University of Chicago Press, 1993), 56. Hayden Herrera, *Arshile Gorky: His Life and Work* (New York, NY: Farrar, Straus and Giroux, 2003), 130.

¹³⁵ Motherwell, “The Modern Painter's World (1944),” *The Writings of Robert Motherwell*, 35.

“criticalist.”¹³⁶ Danto defines “dogmatism” through the words of Immanuel Kant, as “a procedure of pure reason *without previous criticism of its own powers.*”¹³⁷ As Danto explains, the “dogmatist” is not only “dogmatic in the articulation of [his] beliefs,” but dogmatic in the “more Kantian sense of attempting to lay down deep metaphysical truths without first investigating the adequacy of their methods to do so.”¹³⁸ According to Danto, whereas Motherwell had “no interesting theses to which he was committed about the nature of reality or of the mind,” Rothko did.¹³⁹ And, in fact, Rothko’s *The Artist’s Reality* can be considered the articulation of these theses. Not incidentally, Rothko’s exploration of the plastic in his book is far more systematic than Motherwell’s experiment with the term in his talk. While it is of course possible that Motherwell’s unpublished notes contain a more deliberate definition of the term, in Motherwell’s published writings, the plastic does not meet with the same kind of rigorous articulation Rothko applies to the task of defining it.

The section titled *Plasticity* appears in Rothko’s book as its tenth chapter.¹⁴⁰ Reasserting the importance that the folder of the original manuscript gives the concept, Rothko begins the section with the sentence, “this book is devoted mainly to the description of the plastic elements.”¹⁴¹ The second sentence of the chapter already recognizes that in order to proceed with such a description, “it is necessary [...] to define what we mean by plasticity.”¹⁴² Thus, once again—as would be the case both twenty years later in the dialogue between Andre and Frampton, and more than seventy years later in curator Philip Bither’s interview of dancer Maria Hassabi—plasticity is invoked as a way to define the plastic.

¹³⁶ Danto, “The ‘Original Creative Principle,’” 16.

¹³⁷ *Ibid.*, 16.

¹³⁸ *Ibid.*,

¹³⁹ *Ibid.*,

¹⁴⁰ Rothko, *The Artist’s Reality*, 43-55.

¹⁴¹ Rothko, *The Artist’s Reality*, 43.

¹⁴² *Ibid.*

Like both Piet Mondrian¹⁴³ and Alois Riegl¹⁴⁴ in their discussions of the “plastic” before him, Rothko recognizes that a single meaning is difficult to locate: there is “no common agreement as to the exact limits of the meaning of this word [plasticity].”¹⁴⁵ Nonetheless, like contemporary philosopher of plasticity Catherine Malabou,¹⁴⁶ Rothko’s text acknowledges that among all of the various uses of it, “never has the word been used as an indicator of undesirable qualities”¹⁴⁷: Plasticity always has positive connotations. As Rothko recounts, “different groups at different times have employed this word to describe desirable attributes in a painting, and they have also described the shortcomings of a work by noting the absence of its plastic qualities.”¹⁴⁸ “A painting,” however, “has never been considered bad because it was plastic.”¹⁴⁹ “Obviously,” Rothko continues, “plasticity is a virtue”; “a painting will not be considered excellent unless it contains plastic qualities.”¹⁵⁰

Rothko immediately establishes what, in Danto’s words, could be called his “dogma,”¹⁵¹ and distinguishes between two kinds of painters: the “modern” and the “academic.”¹⁵² “Modern painters” define the “plastic” as a quality that gives a painting “weight,” that makes its “space [...] real,” a space of “substance” rather than a “vacuum”—a space in which “texture” is “tangible.”¹⁵³ On the other hand, “academic painters” seem to focus on motion: they “deny that things move in space” in “modern paintings” and insist that in modern pictures the “textures” fail

¹⁴³ In a 1921 essay on “neo-plasticism” and music, Mondrian explained that though “the conception of the word ‘plastic’ has [...] been limited by individual interpretations,” “in a deeper and broader sense, ‘plastic’ means ‘what produces an image’ and only that.” Piet Mondrian, “The Manifestation of Neo-Plasticism in Music and the Italian Futurists’ *Bruiteurs* (1921),” *The New Art—The New Life*, 151.

¹⁴⁴ In *The Origins of Baroque Art in Rome*, Riegl comments that the “plastic” had shown itself to be a “notion” that when “not generally agreed upon,” creates divergences in the most “basic conceptions.” Alois Riegl, *The Origins of Baroque Art in Rome*, 102.

¹⁴⁵ *Ibid.*

¹⁴⁶ “In science, medicine, art and education, the connotations of the term ‘plasticity’ are always positive.” Malabou, *Ontology of the Accident*, 3.

¹⁴⁷ Rothko, *The Artist’s Reality*, 43.

¹⁴⁸ *Ibid.*

¹⁴⁹ *Ibid.*

¹⁵⁰ *Ibid.*

¹⁵¹ Danto, “The ‘Original Creative Principle,’” 16.

¹⁵² Rothko, *The Artist’s Reality*, 43.

¹⁵³ *Ibid.*

to “give [...] any sensations of actual existence.”¹⁵⁴ According to Rothko, this polarity of assessments between the “modern” and the “academic” has less to do with the paintings themselves than with how each perspective “views the nature of reality.”¹⁵⁵ It appears that this may have been the reason why Rothko chose to change the title of his book—plasticity in painting is determined by the artist’s reality.

Rothko describes the world of painting as mired in a dialectic between two competing, unrelenting dogmas. The “notion of plasticity” is subordinate to this competition: “the notion of plasticity [...] implies that the artist has convincingly imparted the feeling of existence to the picture.”¹⁵⁶ “Plasticity” is presented by Rothko as that which “impart[s]” an *a priori* “feeling of existence” to the object of the “picture”; the term is not described as a quality or capacity discovered in the process of painting. In Danto’s discussion of Motherwell’s “plastic automatism” as “creative principle,” the former is the way he understands what he calls Motherwell’s “criticalism” in opposition to Rothko’s “dogmatism”: Motherwell was a “pure painter in the Kantian sense of being interested purely in the act of painting, without specific commitment to content.”¹⁵⁷ Both Rothko’s paintings and his writings show that plasticity is conceptual ‘content’ to which Rothko clearly demonstrated a very ‘specific commitment.’

To define plasticity, rather than focus on two contemporary artists and the way they talk about their work (the way Carl Andre and Hollis Frampton would in the 1960s), Rothko turns to a turn-of-the-century art critic, Bernard Berenson, and painter, Edwin Blashfield, and their respective writings on the work of the Florentine Renaissance painter Giotto.¹⁵⁸ The choice of these late 19th- and early 20th-century sources at first appears rather odd and arbitrary; neither Berenson nor Blashfield are particularly well-known for writing about the plastic—why not, for

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Danto, “The ‘Original Creative Principle,’” 16.

¹⁵⁸ Rothko, *The Artist’s Reality*, 43.

example, write about Adolf Hildebrand and Piet Mondrian whose writings were accessible and in circulation? And yet, though Rothko does not explain the selection, he does choose two perspectives from popular academic literature on art that represent how notions of the plastic from the philosophy of perception, physiology and art theory had been absorbed into mainstream discussions of art. The quotes he attributes to Blashfield come from *Italian Cities* (1900)¹⁵⁹ by Blashfield and his wife, Evangeline Wilbour Blashfield, an author, arts administrator, and prominent New York socialite.¹⁶⁰ *Italian Cities* (1900) was a two volume set for travellers that guided art-lovers through the art history of various Italian cities.

The passages Rothko cites from Berenson are from the critic and connoisseur's *The Florentine Painters of the Renaissance* (1896).¹⁶¹ Philosopher William James reviewed the volume in 1896 calling it "the first attempt [...] to apply elementary psychological categories to the interpretation of higher works of art."¹⁶² James summarizes Berenson's book as arguing that "pictures have a 'life-communicating value'" because in their "rendering of movement [...] we feel the motor life of the figure in ourselves and a heightened sense of our own capacity results."¹⁶³ Though interested in the argument, James writes that Berenson "has to add 'spiritual significance' to his other terms of 'life-enhancing value'" to "account for the sense of preciousness that some paintings diffuse." Thus James is not sure that Berenson's book really

¹⁵⁹ Edwin Howard Blashfield and Evangeline Wilbour Blashfield, *Italian Cities* (1900), Vol. 2, (New York, NY: Scribner's 1903), 120-121.

¹⁶⁰ "Blashfield Mosaic and Memorial Fountain," *Fieldguide to U.S. Public Monuments and Memorials*. American Markings, Inc. Published 2005. Accessed February 2, 2017. <http://www.monumentsandmemorials.com/report.php?id=1219>. Sources cited on his webpage include: *Catalogue of the Works of Art Belonging to the City of New York*, Vol II, September, 1908, to January, 1920, p. 8 and facing; Gayle and Cohen, *Guide to Manhattan's Outdoor Sculpture*; SIRIS; David W. Dunlap, "A Colorful Mosaic is Restored," *The New York Times*, June 1, 2003; Erika Kinetz, "A Shadow From the Past, Back Into the Light," *The New York Times*, June 8, 2003; Notes on Current Art, "Memorial to Mrs. Blashfield," *The New York Times*, May 11, 1919; and Obituary Notices, *The New York Times*, November 20, 1918.

¹⁶¹ Bernard Berenson, *The Florentine Painters of the Renaissance* (1896) (New York, NY: G. P. Putnam's Sons, 1909).

¹⁶² William James, "The Florentine Painters of the Renaissance, by Bernard Berenson (1896)," *Essays, Comments and Reviews* (Cambridge, MA: Harvard University Press, 1987), 523.

¹⁶³ James, "The Florentine Painters of the Renaissance, by Bernard Berenson (1896)," 523.

helps readers “get much deeper into the secrets of art-magic [...]”¹⁶⁴ There is some indication that it may perhaps have been to James’ critique of Berenson that Rothko was indirectly responding, though he does not explicitly reference James. This indication appears towards the end of the section on plasticity when Rothko discusses the two different types of plasticity he outlines through Blashfield and Berenson, in relation to the magic of the “realm of the imagination,” “supernatural beings and forces,” and “imagined fantasies.”¹⁶⁵

Rothko begins his definition of plasticity citing Berenson on the relationship between sight and touch that creates what he calls an “accurate sense of the third dimension.”¹⁶⁶ Touch and the “test of reality” are inextricably intertwined for Berenson, who associates the development of both with the “unconscious years” of childhood.¹⁶⁷ The child “cannot persuade himself of the unreality of Looking-Glass Land until he has touched the back of the mirror,” states Berenson in Rothko’s lengthy, quoted passage.¹⁶⁸ “Every time our eyes recognize reality, we are, as a matter of fact, giving tactile values to retinal impressions,” he explains; thus, the task of the painter is to “rouse the tactile sense,” giving the “illusion of being able to touch a figure.”¹⁶⁹ This “illusion” is literally in the “varying muscular sensations inside my palm and fingers” and “correspond[s] to the various projections of [the contemplated] figure.”¹⁷⁰ For Berenson, the early Renaissance painter Giotto was the “supreme master” of the “power to stimulate the tactile consciousness.”¹⁷¹ Thus, in Berenson’s thinking about Giotto, Rothko identifies the “foundation of plasticity” as a “notion of tactile reality.”¹⁷²

¹⁶⁴ Ibid.

¹⁶⁵ Ibid., 524.

¹⁶⁶ Bernard Berenson as quoted in Rothko, *The Artist’s Reality*, 43.

¹⁶⁷ Ibid., 44.

¹⁶⁸ Ibid.

¹⁶⁹ Ibid.

¹⁷⁰ Ibid.

¹⁷¹ Ibid.

¹⁷² Ibid.

Rothko identifies a different notion of “pictorial reality” in painter Edwin Blashfield’s assessments of Giotto’s work.¹⁷³ As Rothko outlines, for Blashfield, Giotto is no “supreme master” of reality.¹⁷⁴ There is only “slight modelling” carried out in Giotto’s frescoes because this is the modelling that was “suited to the kind of decoration which [Giotto] was doing”; in drapery, the painter “arranged his folds simply and grandly [...] pushing them as far as he could.”¹⁷⁵ Nonetheless, the fact remained that he “had not yet learned to paint them realistically.”¹⁷⁶ On the other hand, fields of grass presented considerable problems: whereas “drapery was one piece, and he could arrange it in a few folds, [...] the blades of grass were all there, and he thought he must draw every one.”¹⁷⁷ Giotto was thus no “master of generalization,” incapable of understanding that “a general effect of mass would be truth” to the observer: though “no human being could see every blade of grass separately defined,” Giotto insists on rendering each of them individually.¹⁷⁸ Rothko summarizes the differences between Berenson’s analysis and Blashfield’s as an example of two contrasting “views” of the “nature of reality”: in the first, reality is “commensurate with [the] sense of touch; in the other, reality is “commensurate with the idea of sight divorced from every other sense.”¹⁷⁹

Though it has been said that “Rothko takes the side of Berenson”¹⁸⁰ in this discussion, it is important to respect the fact that Rothko explicitly asserts his goal is not to “justify one school of thought at the expense of the other.”¹⁸¹ His objective is rather to “mak[e] a definition of plasticity” that “will serve to explain the nature of the means that we consider pivotal in our investigation”—in other words, a definition that is capable of embracing both the reality of

¹⁷³ Rothko, *The Artist’s Reality*, 44-45.

¹⁷⁴ Edwin Blashfield as quoted in Rothko, *The Artist’s Reality*, 44.

¹⁷⁵ *Ibid.*

¹⁷⁶ *Ibid.*

¹⁷⁷ *Ibid.*

¹⁷⁸ *Ibid.*

¹⁷⁹ Rothko, *The Artist’s Reality*, 45.

¹⁸⁰ Gunter Figal, *Aesthetics as Phenomenology: The Appearance of Things* (Bloomington: Indiana University Press, 2015), 200.

¹⁸¹ Rothko, *The Artist’s Reality*, 45.

Berenson and that of Blashfield.¹⁸² In line with Danto's assessment of Rothko as a dogmatist, Rothko sets out to establish what Danto calls a "deep metaphysical truth" about the "plastic" and "plasticity" without really "investigating the adequacy of [his] methods to do so."¹⁸³ This is less a critique of the objective Rothko sets out for himself than simply an observation about the tact he takes. He legitimizes this conceptual move by asserting that "the picture [of plasticity] would be more confusing if we added the opinions of still others[...]."¹⁸⁴ Rothko is thus interested in identifying a structuralist "basic difference" in approaches to plasticity: he does not seem to be concerned with whether or not this impulse to establish difference through binary opposition will obscure the object of his thinking (the "plastic" and "plasticity").¹⁸⁵ In order to set up a definition, he asserts that this definition must be "equally applicable" to contrasting cases. This is why he selects to focus on the binary opposition rather than on any nuances in-between: the definition "must operate successfully in the fulfillment of both of these aims which, on the surface, seem so divergent and antagonistic."¹⁸⁶ The ultimate aim of Rothko's process of defining is not to take a side, but to reconcile the antagonism between the two "views."¹⁸⁷

Rothko seeks to synthesize two sides in a binary opposition, and he chooses this approach over a critical exploration of what the antagonism between them could mean for the concepts of the plastic and plasticity. For example, Rothko could just as easily have ascertained that the two views were not two perspectives on one absolute reality, but rather two views of two realities corresponding to different visualities—a pictorial reality produced by optic visuality and a plastic reality produced by haptic visuality. He avoids making this distinction between the pictorial and the plastic, however, because he wants to make sure that the plastic is understood as part of the pictorial, not confused with sculpture and three-dimensionality. Nonetheless, it seems

¹⁸² Ibid.

¹⁸³ Ibid.

¹⁸⁴ Ibid.

¹⁸⁵ Ibid.

¹⁸⁶ Ibid.

¹⁸⁷ Ibid.

important to note that whereas the entity Robert Motherwell referred to as “body-and-mind” in his 1944 talk on the “Modern Painter’s World,”¹⁸⁸ was simultaneously both generated by and generating of various realities, Rothko’s “nature of reality” is static, only changing through individual perspective: this is perhaps where, what Danto calls, Rothko’s “dogmatism” exerts itself most forcefully.¹⁸⁹

Rothko ultimately defines “plasticity” as “the quality of the presentation of a sense of movement in a painting.¹⁹⁰” As he explains it, “this movement may be produced either by the inducement of an actual physically tangible sensation of recession and advancement, or by the reference to our memories of how things look when they go back and move forward.”¹⁹¹ In the way Rothko describes it, “plasticity” appears to be a painting’s sense of its own movement, a kind of internal kinesthetic system; “pictorial experience,” on the other hand, is what “plasticity” in the painting inspires in the viewer’s vision—“movement in relation to the picture plane—away from it, toward it, and simultaneously across it.”¹⁹² In other parts of the chapter, “plasticity” is also described as a quality “achieved by a sensation of movement both into the canvas and out from the space anterior to [its] surface.”¹⁹³ Thus, Rothko proposes a kind of feedback loop between “plasticity” and “pictorial experience” in an interchange among the artist, the object (“the picture”), space, and the viewer (“the spectator”). “Actually,” he explains:

the artist invites the spectator to take a journey within the realm of the canvas. The spectator must move with the artist’s shapes in and out, under and above, diagonally and horizontally; he must curve around spheres, pass through tunnels, glide down inclines, at times perform an aerial feat of flying from point to point, attracted by some irresistible magnet across space, entering into mysterious recesses [...] and [...] do so at varying and related intervals.¹⁹⁴

¹⁸⁸ Motherwell, “The Modern Painter’s World (1944),” *The Writings of Robert Motherwell*, 32.

¹⁸⁹ Danto, “The ‘Original Creative Principle,’” 16.

¹⁹⁰ Rothko, *The Artist’s Reality*, 55.

¹⁹¹ *Ibid.*

¹⁹² *Ibid.*, 48.

¹⁹³ *Ibid.*, 47.

¹⁹⁴ *Ibid.*

“This journey,” Rothko writes, “is the skeleton, the framework of the idea.”¹⁹⁵ In and of itself, it must be “sufficiently interesting, robust, and invigorating.”¹⁹⁶ It must “pause [the spectator] at certain points and [...] regale him with especial seductions at others [...] to maintain interest.”¹⁹⁷ The fact that the “journey [is] undertaken at all” depends on “the promise of these especial favors”—“these movements that constitute the special essentialness of the plastic experience.”¹⁹⁸ “Without taking the journey,” Rothko concludes, “the spectator has really missed the essential experience of the picture.”¹⁹⁹

To better explain this experience, Rothko uses the “analogy” of music: “an auditor can lie back in his chair and be overcome by the sensuous waves of tone [...]. He may even find the pleasure of beating with his foot, enjoying each momentary change of interval.”²⁰⁰ Rothko also appeals to experience of the natural world: “in the case of the flower, the plastic journey is up and down the crags of petals, down its curving sides, passing through the crevice between the petals, and climbing up the curved inclines of the next.”²⁰¹ This same passage then likens the “plastic journey” to the viewer’s experience of a “metal flower,” an artificial iteration of the natural world—“one [...] gain[s] knowledge of the flower by taking a topographical tour.”²⁰² In a painting, it is the “plastic elements” that change to serve the same ends—the ends of the “plastic journey”: “color advances and recedes[;] line gives the direction, the attitude, and the tilt of shapes.”²⁰³ The functions of each of these elements in the plastic scheme are unique, additive, and

¹⁹⁵ Ibid.

¹⁹⁶ Ibid.

¹⁹⁷ Ibid.

¹⁹⁸ Ibid.

¹⁹⁹ Ibid.

²⁰⁰ Ibid., 47.

²⁰¹ Ibid., 48.

²⁰² Ibid.

²⁰³ Ibid., 48.

essential,” but all must relate to the “world of space” for it is what determines how all elements “function in the picture.”²⁰⁴

In thinking about the way different objects “impart” plasticity, the distinction between time and space is important to Rothko. He recognizes that with the acceptance of the general theory of relativity developed in the early 20th-century, “our own notions of time and space today are prone to be combined in a single formula called *timespace*,” nonetheless, he insists that “this conception, [...] popularly alluded to as ‘the fourth dimension,’ must remain an abstraction, for to our senses still, space and time are measured by two different standards.” Thus, though paintings may attempt to “produce a sense of time through rhythmic intervals,” the “relation” between space and time still “needs an intellectual process for its combination.” Rothko asserts that “space is the philosophical basis of painting,” and space alone determines the way the painting’s “plastic elements” are made to “function within the picture.”²⁰⁵

“The word *plastic* is generally applied to such materials that are malleable,” Rothko explains.²⁰⁶ Though some painters have worked with the “literal association” between the “plastic” and the notion of “pliable material” by using thick paint for “the effect of relief” or the “incision of drawing in a fresco,” “how,” he asks “can we transfer the use of the word *plasticity* to the realm of painting, where most of its practitioners have not attempted any type of modeling effect?”²⁰⁷ “Plasticity” in a painting is the “sense of things going back and coming forward in space” through “advancements and recessions,” “aggressions and recessions,” “back-and-forth pulses”—“a series of rhythmic movements” that are not “rhythmic” in the sense of giving us a sense of temporal interval, but rather rhythmic in “caus[ing] our eye to follow their course up and down, in and out, under and above, contriving for us a spatial journey.”²⁰⁸ “Plasticity in painting,”

²⁰⁴ Ibid., 48.

²⁰⁵ Ibid., 55.

²⁰⁶ Ibid., 46.

²⁰⁷ Ibid.

²⁰⁸ Ibid.

Rothko declares, “is the process in which reality is achieved by causing forms to progress and recede.”²⁰⁹ “[T]hat is why,” he asserts, “the word *plastic* is applied to both painting and sculpture.”²¹⁰ The plastic in painting is not about making painting sculptural, it is about qualities within the painting itself.

“Plastic elements,” explains Rothko, are “the means and the devices which painters employ to produce these effects of movement in space.”²¹¹ In a painting, the malleability expressed by “plastic elements” will differ depending on the two different “schools” of plasticity and the accompanying “views” of the “nature of reality” that they are both shaped by and responsible for shaping. The two different schools are the “tactile type” and the “visual, or illusory, type.”²¹² Once again, Rothko specifies that “illusory” is not intended as a term used in a “critical sense”—his aim in describing these types is not to select one as superior and ascribe to it.²¹³ His description of “visual plasticity” as “illusory” is simply “the most vivid” way of describing the “type of sensation” this kind of plasticity “evokes.”²¹⁴

The “tactile type of plasticity” is that which “modern art, in its objective reanalysis of the plastic processes,” found to be “the most basic” and thus “employed.”²¹⁵ According to Rothko, “modern art” has even made this “type” of plasticity “a prerequisite” of what it considers “legitimate painting.”²¹⁶ Since Rothko asserts he is not criticizing the “visual, or illusory, type” of plasticity, he sets himself apart from the latter trend.²¹⁷ Plasticity and tactility are not interchangeable in Rothko’s thinking, rather, the “tactile type of plasticity” is considered the “natural, basic method for plastic expression,” an expression with a more direct relationship to the

²⁰⁹ Ibid., 47.

²¹⁰ Ibid.

²¹¹ Ibid., 47.

²¹² Ibid., 54.

²¹³ Ibid.

²¹⁴ Ibid.

²¹⁵ Ibid.

²¹⁶ Ibid.

²¹⁷ Ibid.

body, while “visual plasticity [...] depends upon [...] resemblance to things seen, or remembered as being seen.”²¹⁸ Visual plasticity relies on complex cognitive processes like memory, resemblance, recognition, allusion and reference.

“Form” and “weight” are the principle ways by which Rothko engenders the distinction between “tactile plasticity” and “visual plasticity.”²¹⁹ Form is defined as “the validation of a shape for us through the recognition of its weight.”²²⁰ With “illusory” or “visual plasticity,” weight is perceived through “a sense of comparative densities [...] based on the comparison of two appearances of substances.”²²¹ It is through the “comparative densities of the two substances represented [that] we have some sensation of comparative form,” Rothko asserts.²²² For example, “if a [representational] painting showed a metal bedstead with pillows on it, and the pillows were also recognizably painted, we would realize that the iron is heavier than the pillows,” and infer the pillows contain feathers.²²³ The “tactile way of representing form” or “tactile plasticity,” instead uses the “abstract quality of density”: “some things actually give the sensation of being more dense than others.”²²⁴ For example, “absorptive textures” appear “heavier” than “translucent substance.”²²⁵ Rothko had played with this in his *Slow Swirl at the Edge of the Sea* where the contrast between weighty absorptive textures in the black and orange arabesques in the upper part of the painting counter the translucent substance of floating figures extending from top-to-bottom across the composition. “Cubes [...] look heavier than spheres of the same material,” Rothko also notes.²²⁶ In both these cases, the “sensation of comparative

²¹⁸ Ibid.

²¹⁹ Ibid., 53.

²²⁰ Ibid.

²²¹ Ibid.

²²² Ibid.

²²³ Ibid.

²²⁴ Ibid.

²²⁵ Ibid.

²²⁶ Ibid.

weights does not depend on recognizing a specific material,” but is a result of qualities in the forms themselves.²²⁷

There is also another distinction between the two “schools” of “plasticity”: this distinction is what Rothko calls “plastic force” and “the illusion of power.”²²⁸ “Plastic force” actually gives the viewer a “physical sense of weight”: for example, when “massiveness of [...] forms” is achieved in a painting, its leaning figures make the viewer “feel their potentiality of falling with a crash in response to the force of gravitation”—this is tactile.²²⁹ The “illusion of power” on the other hand simply makes a figure “look powerful”—this is appearance.²³⁰ In “plastic force,” the viewer “perceive[s] the feeling of weight and massive movement from the tactility of form;” in the “illusion of form” the viewer’s perception requires the recognition that a figure with “such a powerful and tortured expression must be powerful.”²³¹ “Plastic force” is “divorced from our experience of a human being,” while the “illusion of form” depends on it.²³² Thus the “illusion of force” and its “visual plasticity” require a set of “visual laws” be “in place as the basis of picture composition.”²³³ They require convention. Rothko suggests that “tactile plasticity” and “plastic force” do not require the same kind of customs. For Rothko, the “tactile type of plasticity” is more connected to the nature of human development and makes “things” more “concrete”—it gives a “concrete sense of reality to symbols” experienced as “concrete reality” without having to be excessively cognized.²³⁴ The “tactile type” gives “no visual prototypes,” only “images” that are “actual emodiments.”²³⁵

²²⁷ Ibid.

²²⁸ Ibid.

²²⁹ Ibid.

²³⁰ Ibid.

²³¹ Ibid.

²³² Ibid.

²³³ Ibid.

²³⁴ Ibid., 54.

²³⁵ Ibid.

It is for this reason that Berenson had based his assessment of mastery in Giotto's work on the demand that "a picture be reality in itself, that its textures and [its] movements satisfy directly a physical sense of touch" through sight: when Berenson's eye has the sensation that it "can actually touch forms and textures, he knows that the picture exists," Rothko writes.²³⁶ Blashfield, on the other hand, required that "a picture remind him of how things look": the picture's task is to "create an illusion that will be identical [...] with what he observes through his sense of sight."²³⁷ Though both Berenson and Blashfield are requiring a "convincing sense of existence" from a "picture," the former is a "reality" sought in terms of "tactility"; the latter is sought in terms of "appearance."²³⁸

In a previous book chapter titled *The Integrity of the Plastic Process*, Rothko had described art as "a species of nature."²³⁹ In this fourth chapter of his manuscript, he had written of "producing art as a fulfillment of the biological necessity for self-expression," defining "self-expression" as a "drive" experienced by the individual artist.²⁴⁰ The "definite laws" and "definite properties" of the drive for self-expression in art, however, are fixed in its "plastic elements."²⁴¹ It is "by the constant rearrangement of these properties" that "art, like every other species, proceeds according to logic through stages of change that we can call growth."²⁴² Through "plastic elements," art "grows logically, definitely, step by step from the exhibition of one set of characteristics to another."²⁴³ In this promise, its manifestations are "always related to its past equipment" while at the same time "bearing the promise of the future."²⁴⁴ The "work of each

²³⁶ Ibid., 50.

²³⁷ Ibid., 51.

²³⁸ Ibid., 50-51.

²³⁹ Ibid. 14.

²⁴⁰ Ibid.

²⁴¹ Ibid.

²⁴² Ibid.

²⁴³ Ibid.

²⁴⁴ Ibid.

artist” within this paradigm “functions as an accretion.”²⁴⁵ This accretive “function” is actually a “dual function.”²⁴⁶ The individual artist “further[s] the integrity of the process of self-expression in the language of art,” while at the same time “protecting the organic continuity of art in relation to its own laws.”²⁴⁷ Art is “like any organic substance” in that it “must always be in a state of flux”—whether the tempo is “slow or fast [...] it must move.”²⁴⁸ The artist manipulates this flux and its tempo.

The circumstances of an artist’s “environment” can therefore explain to a limited extent “why the artist’s part in the plastic continuity shows this or that peculiarity”; however, this same peculiarity cannot explain all the changes in the “plastic process” for which the artist’s self-expression is only partially responsible.²⁴⁹ The artist’s “environment provides [...] the clue for the examination of differences;” however, “the laws of painting in themselves,” Rothko insists, are “[...] the inevitable constant [...], the measure that makes differences relate to each other and intelligible.”²⁵⁰ For Rothko, art’s “plastic processes” cannot be explained by “reduc[ing] art to the position of a mere minion, obsequious to society’s whims, [...] changing its hues chameleonlike in the interests of adaptability.”²⁵¹ Such a reduction is never capable of describing how, even though the “history of many artists is more often a defiance of the prescriptions and proscriptions of the environment than it is a resignation to them,”²⁵² the history of art “reads as ‘the demonstration of the continuity of [...] plastic process’ and its ‘inevitable logic [...] from point to point.’”²⁵³ “There are a million factors,” Rothko insists, “which daily would lead to the

²⁴⁵ Ibid.

²⁴⁶ Ibid.

²⁴⁷ Ibid.

²⁴⁸ Ibid.

²⁴⁹ Ibid., 16.

²⁵⁰ Ibid.

²⁵¹ Ibid.

²⁵² Ibid.

²⁵³ Ibid., 14.

artist's destruction."²⁵⁴ Here he compares the "artist's reality" to the reality of a "plant."²⁵⁵ The artist works in a "struggle" for the "survival" of the "plastic process"—the "preservation of the identity, purpose, and function of [its] properties."²⁵⁶ This struggle is fought through the drive for self-expression, and in it "art often is in danger of complete annihilation."²⁵⁷ Thus "the story of art is a story of ingenious circumventions and outsmartings of those who would thwart it"—among these 'thwarters' are, at times, the artists themselves who necessarily flirt with annihilation in the struggle for art's survival.²⁵⁸ In the artist's circumventions, the artist may even outsmart himself, but Rothko has faith in the autonomy of art's "plastic process": "art may be temporarily deflected, to appear as something it is not[,] [b]ut more often it will disguise its true appearance, and at the first opportunity throw off this disguise and appear as it should in its rightful domain."²⁵⁹

With its plastic processes, art develops its various guises in order to survive destruction and annihilation; however, "in art, as in biology," Rothko claims, "there is a phenomenon that can be described as mutation."²⁶⁰ Like Rothko's "plastic process," Piet Mondrian's term of choice, the "neo-plastic" was also biocentric and described patterns of abnormal growth.²⁶¹ In mutation as Rothko describes it, "appearances radically change at a tempo much more rapid than that at which they normally proceed."²⁶² As a result of the speed with which these changes take place, it is difficult to "determine the process by which [the] radical change occurs"; and yet, according to Rothko, it is always possible to identify mutation as "a reaction to a form of congestion"—to

²⁵⁴ Ibid., 16.

²⁵⁵ Ibid., 16.

²⁵⁶ Ibid.

²⁵⁷ Ibid., 17.

²⁵⁸ Ibid., 16.

²⁵⁹ Ibid.

²⁶⁰ Ibid., 17.

²⁶¹ *The London Lancet*, op. cit., 115. The article specifically discusses a "neoplastic formation observed in syphilitic retinochoroiditis."

²⁶² Rothko, *The Artist's Reality*, 17.

overcrowding, saturation or overproduction.²⁶³ In the phenomenology of its “mutation,” Rothko believes art shows itself to be a variation on the “human organ”: “mutation” is a “desperate change” that occurs “when the stimulus to additional growth is sluggish and a rapid rejuvenation is needed so that art, through disuse, does not atrophy like an unused organ.”²⁶⁴ Though it is deforming and distorting, “mutation” is the “plastic process” by way of which “new plastic worlds are born.”²⁶⁵ “New plastic worlds” are therefore generated by a form of self-destruction that reforms and renews—for Rothko, art “renews its traditions by marriage with alien traditions” that generate within it a self-reflexive “reexamination of its own processes.”²⁶⁶ The self-destruction in art does not “constitute a change in [art’s] properties”—it does not change art’s “plastic process,” which Rothko understands as being fixed; rather, art’s inherently self-imposed self-destruction occurs in the domain of the artist’s drive to self-expression.²⁶⁷ It is in the artist’s drive to self-expression that the “plastic process” of art find a vector for their own radical reconstitution: “mutation involves a more conscious evaluation of art’s inheritance and the redirection of that inheritance where it can be continued with greater force.”²⁶⁸

Rothko’s description of mutation in art gives a certain directedness to mutation that is not usually attributed to mutation as a selective process in evolutionary biology.²⁶⁹ Rothko’s evolutionary paradigm is contradictory—art is an organism that risks annihilation through its necessary interaction with human self-expression; however, the internal logic of art’s plastic process guarantees an inevitable progression within what Rothko calls a “continuous, logical, and

²⁶³ Ibid.

²⁶⁴ Ibid., 18.

²⁶⁵ Ibid.

²⁶⁶ Ibid., 18.

²⁶⁷ Ibid.

²⁶⁸ Ibid.

²⁶⁹ For a description of the role of mutation in evolutionary biology, see F. John Odling-Smee, Kevin N. Laland and Marcus W. Feldman, *Niche Construction: The Neglected Process in Evolution* (Princeton: Princeton University Press, 2003), 33.

explicable picture.”²⁷⁰ Thus, art’s mutation in Rothko’s narrative is directed selection: the plastic process of art restrains change so that change can only occur with regard to the ultimate fitness of art. This is less like mutation than it is like what evolutionary biologists have come to call “niche construction.”²⁷¹ Since, by definition, mutation reconfigures the organism’s life properties, its hereditary material, mutation in art would—against Rothko’s claims—have to necessarily “constitute a change in [art’s] properties” that does not always correspond to what it needs to thrive.²⁷² Niche construction, on the other hand, is a “selective process that, distinct from other evolutionary processes (e.g. drift, mutation) [...] introduces directedness” into the evolutionary paradigm.²⁷³

In niche construction, the “niche” is “the sum of [...] selection pressures to which the [resident] population [of a niche] is exposed.”²⁷⁴ The organism acts on the niche by modifying it, and migrating to or from it. If the niche construction paradigm is applied to Rothko’s thinking about the plastic, then what he calls the “plastic processes” of art would be the equivalent of art’s niche: the “plastic process” of art would be the sum of selection pressures to which art is exposed, including the artist’s self-expression.²⁷⁵ In the theory of niche construction, “factors” are the constituting elements of the organism’s environment, and “features” are the constituting elements of the organism itself.²⁷⁶ In Rothko’s “plasticity,” the term “factors” could be used to describe sub-systems of art’s “plastic process” (including the self-expression of the artist and the environment of the artist) and “features” could describe formal aspects of the art object.

“Niche construction” is defined as occurring:

when an organism modifies the feature-factor relationship between itself and its environment by actively changing one or more of the factors in its environment,

²⁷⁰ Rothko, *The Artist’s Reality*, 14.

²⁷¹ Odling-Smee, Laland and Feldman, *Niche Construction*, 33.

²⁷² Rothko, *The Artist’s Reality*, 18.

²⁷³ Odling-Smee, Laland and Feldman, *Niche Construction*, 33.

²⁷⁴ *Ibid.*, 40.

²⁷⁵ Rothko, *The Artist’s Reality*, 14.

²⁷⁶ Odling-Smee, Laland and Feldman, *Niche Construction*, 41, 43, 45 and 48.

either by physically perturbing factors at its current location in space and time, or by relocating to a different space-time address, thereby exposing itself to different factors.²⁷⁷

In Rothko's "plasticity," the art object compels the modification of the feature-factor relationship between its "plastic process" of art and the artist's self-expression and environment. It does so either by influencing the physical disruption of factors in the artist's environment by its presence, or by relocating to a different space-time address through an exhibition, thus exposing itself to different factors. Rothko insists that the "environment" may provide "a clue" for some aspects of the art object's "features," but that art is never merely a response to an environment, or even to the artist's self-expression—it is constrained by the "laws" of its own plastic processes.²⁷⁸ Likewise, the theory of niche construction asserts that in order for organisms "to gain the resources they need and to dispose of their detritus, [they] cannot just respond to their environments[,] they must also act on their local environments and by doing so change them [...]."²⁷⁹ Through this feedback between the environment and the organism, organisms actively and deliberately engage in "process[es] [that] convert free energy to dissipated energy," affecting not only their own bodies, but through accretion and its accumulated impacts, the bodies of distant descendants.²⁸⁰

Niche construction shows how "evolution is contingent on the capacity of organisms to use their environments in ways that allow them to gain sufficient energy and material resources from their environments, and to emit sufficient detritus into their environments, to stay alive and reproduce."²⁸¹ Similarly, "art," as Rothko understood it, "cannot inbreed very long without losing its incentives to continue; it needs the rejuvenation of new experiences and new blood."²⁸² Like

²⁷⁷ Ibid., 41.

²⁷⁸ Rothko, *The Artist's Reality*, 16.

²⁷⁹ Odling-Smee, Laland and Feldman, *Niche Construction*, 168.

²⁸⁰ Ibid.

²⁸¹ Ibid.

²⁸² Rothko, *The Artist's Reality*, 18.

other organisms, art-as-organism seems to “violate the second law of thermodynamics”²⁸³ not only by surviving, but by reproducing—regenerating and recreating itself. The law “dictates that net entropy always increases and that complex, concentrated stores of energy will inevitably break down.”²⁸⁴ The second law of thermodynamics applies to both “niche-constructing organism[s]” and “human-engineered artifact[s],”²⁸⁵ thus the comparison between organism and art in this case is no mere metaphor. “Open, dissipative systems”²⁸⁶ like organisms and art “maintain their far-from-equilibrium states relative to their environments” by “constantly exchanging energy and matter with their local environments”²⁸⁷ (in the case of art, both with the environment and the artist’s self-expression). Thus the “closed system”²⁸⁸ of the “plastic process” that defines art, continues to survive by using the art object, the artist, and the artist’s environment to find sources of “free energy from [...] external source[s] [...] to fuel its own energy consumption.”²⁸⁹ In this paradigm, the closed system of the “plastic process” in art becomes the open system of the artistic act.

Mutation can be influenced by external forces, but is ultimately a process that occurs within the organism itself, changing the hereditary material of life; art in niche construction, however, combines the internal and external relations of art-as-organism in interactions between biotic and abiotic factors—both biological, living factors like human artists, and physical factors devoid of biological life like other art objects and their components. The theory of niche construction is important in evolutionary theory because it “demonstrates how cultural processes are not just a product of human genetic evolution, but also a cause of human genetic

²⁸³ Odling-Smee, Laland and Feldman, *Niche Construction*, 168.

²⁸⁴ *Ibid.*

²⁸⁵ *Ibid.*, 171.

²⁸⁶ *Ibid.*, 168.

²⁸⁷ *Ibid.*

²⁸⁸ *Ibid.* 172-173.

²⁸⁹ *Ibid.*, 172.

evolution.”²⁹⁰ It expands the role that material culture has been understood to have in human evolution and offers new insights on ecosystem engineering. Indeed, with niche construction:

the ecological consequences of natural selection are no longer local, as characterized by standard evolutionary theory, but involve chains of events in which [...] niche construction generates modified [...] selection pressures and, in the process, [...] guides additional niche construction.²⁹¹

Thus, the so-called extended evolutionary theory within which niche construction is considered a central process, takes a more ecological perspective on evolutionary processes granting abiotic agents a critical role. It is interesting that Rothko’s metaphor of mutation actually resembles niche construction far more than it does mutation; with his writing on “plasticity” and the “plastic process,” it is as if Rothko worked out certain aspects of the theory of niche construction through art fifty years before it was theorized.

In Rothko’s theory of the evolution of art through mutation, truly maladaptive behavior is never possible. This refusal of a truly destructive plasticity in Rothko’s conception of art implies potentially tragic consequences for the artist. Art’s “plastic processes” always keep the potential for real maladaptation in art in check, but this energetic potential needs to find its expression somewhere. As previously discussed, mutations in evolutionary biology are, in fact, random and, unlike Rothko’s mutation in art, can occur whether or not they assist the fitness of the organism. There is therefore a destructive potential in mutation that is denied of the art-as-organism as Rothko conceives it. Just as the directedness of the selective process of mutation does not quite align with the natural processes that Rothko wants to associate with it, neither does this lack of possibility for maladaptation. Rothko’s suicide (fig. 104) is particularly disturbing when read in this context, but it does offer insight into an aspect of the theory of niche construction that may still perhaps be lacking. The theory of niche construction does important work in resituating

²⁹⁰ Ibid., 27.

²⁹¹ Ibid., 195.

“environmental change [...] as another aspect of the expression of biological evolution;”²⁹² and yet, for the most part, niche construction has focused on how “organisms live at their environment’s expense,”²⁹³ neglecting the fact that maladaptation could be considered an example of the way niches form at their organisms’ expense. Rothko’s theorization of self-expression as a biological drive in the artist that often works on behalf of the niche at the artist’s expense, suggests a way that theorists of niche construction could experiment with a shift in perspective. This shift would accommodate the notion that the environment and its abiotic components may have their own agendas in the evolutionary paradigm—they push this agenda by using organisms as vectors for niches. Rethinking niche construction along the lines of Rothko’s “plastic process” in art, might provide new insights into the ecological dynamics of evolutionary processes.

The ‘Plastic’ in Post-Conceptualism: Warren Neidich and Maria Hassabi

In contemporary art, the visual plasticity that Rothko associates with the early 20th-century painter Edwin Blashfield, could be updated by aligning the notion with the work of post-conceptual artist Warren Neidich (b. 1958).²⁹⁴ The tactile plasticity Rothko associates with the critic and connoisseur Bernard Berenson, could be similarly reconsidered in current terms by aligning the notion with the recent work of dancer and artist Maria Hassabi (b. 1973). Both

²⁹² Ibid., 171.

²⁹³ Ibid., 170.

²⁹⁴ Warren Neidich, *Blow-up: Photography, Cinema and the Brain* (New York, NY: Distributed Art Publishers, 2003). See also Warren Neidich, *The Duende Diagram*, 2014 from the exhibition Connecting Sound Etc. Cable Works, Cable Sounds, Cables Everywhere, curated by Georg Weckwerth. June 5 - August 24, 2014. Freiraum Quartier21 INTERNATIONAL / MuseumsQuartier Wien, Vienna, Austria. Neidich describes the diagram as follows: “A cartographic map of the different flows that constitute my theories of a becoming cultured brain. More specifically how noise and improvisation through their bringing about difference and variation in the cultural landscape producing other neural architectures and the possibility for alternative forms of thought.” “Duende Diagram (2014),” *Warrenneidich.com*. Artist website. N.d. Accessed March 3, 2017. <http://www.warrenneidich.com/duende-diagram-2/> For more on this installation and its accompanying lecture performance in the context of discussions about the “neuroplastic” in art, see Franco “Bifo” Berardi, “The Neuroplastic Dilemma: Consciousness and Evolution,” *e-flux journal*, no. 60 (December 2014). Published 2014. Accessed December, 2014. <http://www.e-flux.com/journal/60/61034/the-neuroplastic-dilemma-consciousness-and-evolution/>

Hassabi and Neidich are artists who have experimented with the term “plastic” in their work. In Neidich’s work, the derivation of the ‘plastic,’ “plasticity”—specifically “neuro-plasticity”—is the critical term.²⁹⁵ Neidich works with lecture performance and critical theory, thus words abound in his work; Hassabi’s work with words is sparse, confined for the most part to the titles she gives her works. She maintains the more simple, but more cryptic term “plastic” for her 2016 eponymously titled live installation.²⁹⁶

Neidich includes a glossary in his book *Blow-Up: Photography, Cinema and the Brain* (2003) (fig. 105): in the glossary, there is no separate entry for the “plastic” or “plasticity,” there is only “neuroplasticity.”²⁹⁷ And, in fact, throughout the book, Neidich rarely refers to artist or art historian-defined notions of the “plastic” or “plasticity;” the “plasticity” he experiments with comes pre-defined from the neurosciences. The glossary defines “neuroplasticity” as “the process by which the nervous system can respond to change;” a “form of nervous adaptability.”²⁹⁸ The central example of neuroplasticity that Neidich presents in his book is “remapping”: “the process by which one area of the brain takes over the function of an adjacent area following damage or lack of input to the latter.” “Remapping,” as Neidich describes it “depends on the brain’s plasticity.”²⁹⁹

Interestingly, though Neidich’s book never makes any reference to Rothko, it uses the life sciences paradigm of “mutation” to describe a selective process by way of which plastic adaptability takes place in art.³⁰⁰ Neidich cites what he calls literary critic and political theorist Frederic Jameson’s theory of the “Mutated Observer”: in *Postmodernism, or, The Cultural Logic of Late Capitalism* (1991), Jameson writes of “a biological imperative to grow new organs, to

²⁹⁵ Maria Hassabi: *Plastic*, op. cit. “Maria Hassabi: Plastic,” *Calendar. The Museum of Modern Art, New York*. Published 2016. Accessed February 2016. <https://www.moma.org/calendar/exhibitions/1611>.

²⁹⁶ Museum of Modern Art, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

²⁹⁷ Neidich, *Blow-up*, 179.

²⁹⁸ *Ibid.*, 152-155 and 161-173 and 179.

²⁹⁹ Frederic Jameson as quoted in Neidich, *Blow-up*, 168-169.

³⁰⁰ *Ibid.*

expand our sensorium, in the face of [a] new architectural and cultural habitat” he called “hyperspace.”³⁰¹ Jameson had identified “hyperspace” as a “mutation in building space itself.”³⁰² According to Jameson, “no equivalent mutation in the subject has followed the mutation in the object,” and this had resulted in human beings not “possess[ing] the perceptual equipment to match the new hyperspace.”³⁰³ Through his interest in “neuroplasticity,” Neidich interprets Jameson’s “Mutated Observer” as a condition in which “the modernist observer cannot understand the postmodern object because it is beyond the ability of a nervous system sculpted by modernist spatial and temporal paradigms to perceive and comprehend it adequately.”³⁰⁴ For Neidich, the objective of the post-conceptual artist in the new millenium is therefore to create the conditions of possibility for a “future generation of observers”: “generations whose micro-neurobiological structure has been sculpted by a field of post-modern objects and their relations.”³⁰⁵

After a ‘Decade of the Brain’ (1990-1999) designated such by U.S. President George H.W. Bush,³⁰⁶ the new millenium’s “fine-tuni[ing] of the postmodern observer” that Neidich proposes “must necessarily occur in the ‘mutated brain.’”³⁰⁷ It must occur in neural networks reformed in interchange between the post-modern object and its own “form[ing] on the screen,” its “moving therein as an immaterial presence, almost an apparition, that forms the [observer’s] objects, object relations and visual landscape.”³⁰⁸ In a College Art Association conference session that Neidich chaired titled *Some Stories Concerning the Construction of the New Observer* (2003), Neidich explicitly proposed “link[ing]” Jameson’s cultural theory with the

³⁰¹ Ibid.

³⁰² Ibid.

³⁰³ Ibid.

³⁰⁴ Neidich, *Blow-up*, 169.

³⁰⁵ Ibid.

³⁰⁶ “Project on the Decade of the Brain, Presidential Proclamation 6158. George H. W. Bush, July 17, 1990. Filed with the Office of the Federal Registrar, July 18, 1990.” *Library of Congress*. N.d. Accessed March 5, 2017. <http://www.loc.gov/loc/brain/proclaim.html>

³⁰⁷ Neidich, *Blow-up*, 169.

³⁰⁸ Ibid.

neurobiological theory of Gerald Edelman who published studies about “selective pressures [...] caus[ing] changes in populations of synapses all over the brain [and] that over time have resulted in new mental capacities.”³⁰⁹ Between Jameson and Edelman is the “cultural dimension” that Neidich proposes as “reconfigur[ing] the neural-synaptic organization of the brain”—culture “through such mediators as pop culture and cinema,” Neidich writes, “might in fact sculpt the neurons, neural synapses and neural networks of the brain.”³¹⁰

In *Blow up*, Neidich proposed experimenting with this “cultural dimension” through a project he called “Remapping,” using the term from neurobiology that describes adaptive compensation between brain areas.³¹¹ Putting this term to use as an analogy, the project series was intended to explore what Neidich called the “remapping of cinema into architecture and the subsequent construction of the postmodern observer.”³¹² One example of the way Neidich uses remapping is a series of what have been described as “10 foot long digitally collaged photos of a Los Angeles office building with a mirrored facade”³¹³—the photographs are rather didactic about their ‘remapping’ and take on the appearance of celluloid film strips, with each window acting like a separate film frame in what becomes an architectonic moving picture. An exhibition at the Storefront for Art and Architecture in New York exhibited the *Remapping* digital prints along with a video titled *Blind Man’s Bluff* (fig. 106), shot at the same office building. From digital print to digital video to architectural intervention, the objects in the Storefront exhibition shifted between screens and surfaces, including the installation of what have been described as several “stainless steel panes [fixed] to the inside and outside of four vertically rotating panels”

³⁰⁹ Warren Neidich, “Abstract of Session: Some Stories Concerning the Construction of the New Observer,” *Some Stories Concerning the Construction of the New Observer*, College Art Association Annual Conference, 2003. <http://138.23.124.165/exhibitions/neidich2/essay3.html>

³¹⁰ Neidich, “Abstract of Session: Some Stories Concerning the Construction of the New Observer,” op. cit.

³¹¹ Neidich, *Blow-up*, 161-173.

³¹² Ibid., 169-170.

³¹³ Warren Neidich, *Remapping* (2002), September 14 – October 14, 2002. Storefront for Art and Architecture, New York. “Warren Neidich, Remapping: Storefront for Art and Architecture,” e-flux, September 7 2002. Accessed February 2, 2017. <https://www.e-flux.com/announcements/43412/warren-neidich-remapping/>

on the facade of Storefront’s building (fig. 107).³¹⁴ The panels—designed by artist Vito Acconci and Steven Holl ten years prior (1993)—reportedly “reflect[ed] moving images of the street into the gallery and images of the gallery onto the street.”³¹⁵ They also permitted for viewer interaction, with “visitors encouraged to adjust the angles of the [building’s] doors” so as to “manipulate” the “optical effects.”³¹⁶

Like Neidich’s repurposing of the Los Angeles building facade as film frame, and his retrofitting of the New York building facade as “perspectival device,” the video *Blind Man’s Bluff* ‘remaps’ a bald human head to serve as a projection screen.³¹⁷ The projection is a street scene reflected in a building with mirrored windows. The viewer watches a stream of passing traffic distorted in both reflection on the windows and projection on the bald head, until a metal object rattles on cement. With this sound, the montage jump-cuts to the quick shot of a man with dark glasses seen through a car window. There is a loud explosion that sounds like a gun-shot and the montage returns to the street scene. A close-up moves in on a grotesque but benign clown mask worn by a motorist (perhaps the unmasked man previously seen?). Through several cuts, a pedestrian folds-up what sounds like a blindman’s walking stick, and is shown walking across the street determinedly to a car pulled over on the side of the street. The camera follows the pedestrian’s reflection in the mirrored windows of the office building. His body shifts scale in the windows growing smaller and larger through a funhouse-like distortion. He pulls out a gun as he approaches the clown and shoots. The circular shape of the clown’s mouth doubles as a hole in the bald head that serves as the projection screen; the barrel of the gun suddenly appears pointed at the bald head, not at the clown mask in the projected video. Another clown mask suddenly appears after another jump-cut. This mask is far more menacing—it has sharp teeth in a

³¹⁴ “Warren Neidich, Remapping: Storefront for Art and Architecture,” op. cit.

³¹⁵ Ibid.

³¹⁶ Ibid.

³¹⁷ Warren Neidich, *Blind Man’s Bluff* (2002). Single Channel Video, 1 min 58 sec. Warren Neidich, “Blind Man’s Bluff,” Warren Neidich. Artist’s website. N.d. Accessed January 10, 2017. <http://www.warrenneidich.com/blind-mans-bluff-2002/>

wide grin, green hair, and a wild stare. Another gun shot sounds. The red LED display of a digital alarm clock appears on the head as the rest of the video projection goes black. The display reads 4:59, and with the shift to 5:00 after a few seconds, a digital beeping sounds. A voice gasps as if surprised, suddenly awoken.

Neidich conceives of the film as an illustration or visualization of his theories: “the flow of the video from the screen to the skull to that of the screen again concerns the notion of the mutated observer. That in fact the brain and the mind are sculpted more effectively by artificial stimuli.”³¹⁸ The most interesting moment of tension in the video occurs when the bald head that serves as the projection screen becomes a part of the image, no longer only its projection surface. This is the instant when the pedestrian pulls out his gun the first time to shoot the character Neidich calls the “friendly clown.”³¹⁹ Though Neidich does not explicitly discuss the plastic processes of his work, its exploration of plastic duration in shifts of dimension between the actual space of a constructed performance videoed on the street, and a simulated dream sequence digitally edited, or the interchange between scopic and vocative relations through screens and surfaces, are instances where he finds a perturbing plastic sense in the zero-dimensional value of the digital image. One wonders how the direction of Neidich’s verbal performance-based and screen-and-surface focused work might change if the history of the concept of the ‘plastic’ in art was given the same importance as the neuro-centric ‘plasticity’ with which he works.

Maria Hassabi’s “plastic” is not the plastic of Neidich’s “plastic brain”: as she herself explains, the term came to her through the notion of both “plastic art.”³²⁰ She also recognizes the association it can evoke with the cheap, ephemeral, throwaway materials people associate with material plastics. In interview on *PLASTIC*’s MoMA performance, Hassabi presents herself as a relativist about the term, and does not forcefully assert a particular definition: she wants to

³¹⁸ Neidich, “Blind Man’s Bluff,” op. cit.

³¹⁹ Ibid.

³²⁰ Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

maintain an openness that allows viewers to bring their own associations to the title. In this sense, Hassabi is a “criticalist”³²¹ who looks to discover interactions among the word “plastic,” space, time and the body through presentation of her work. This distinguishes her conceptual approach from that of Neidich who, in the philosopher and art critic Danto’s terms, could be understood as working with a “dogmatist”³²² stance on the concept of “plasticity.”

Though conceptions of the brain as “plastic”—a morphogenetically malleable organ with a mutable cellular structure³²³—have been proposed by laboratory scientists since as early as the 1970s, the “actual emergence of a genuinely plastic brain” —“a brain that is no longer essentially fixed and in which functional, synaptic plasticity is not the only dynamic element”—is said to have “occurred only after 2002.”³²⁴ Science studies scholar Tobias Rees has asserted that though the notion of the “plastic brain” has at times been traced back to 19th-century research in psychology, psychiatry, neurology and anatomy, none of these preceding uses of the term actually work with the “continuous birth of new yet unspecified and hence literally plastic tissue (on the level of cells, axons, dendrites, spines, synapses)” that was the “large-scale conceptual event” of the early 21st-century “plastic brain.”³²⁵ Presenting these uses as “precursors,” equates “functional plasticity” with actual material malleability. Rees thus asserts that “plasticity research is an event of the late twentieth and early twenty-first century only.” It is only in 2002, that adult neurogenesis research—research on the plastic, “continuous birth of new yet unspecified [...] tissue” in the brain—confirmed long-term, large-scale structural plasticity in the brain with the work of neurobiologists Karel Svoboda and Alain Prochiantz.³²⁶

³²¹ Danto, “The ‘Original Creative Principle,’” 16.

³²² Ibid.

³²³ Tobias Rees, *Plastic Reason: An Anthropology of Brain Science in Embryogenetic Terms* (Oakland, CA: University of California Press, 2016), xii and 255.

³²⁴ Rees, *Plastic Reason*, 255. Rees cites research on adult hippocampal neurogenesis by Michael Kaplan. Kaplan attempted to generalize “a conception of the brain as plastic” from his observations; however, according to Rees, “he offered too much [concept work]” and not enough research to support his claims.

³²⁵ Rees, *Plastic Reason*, 94.

³²⁶ Ibid., 255

While in the 1970s, experimental neurobiology was speculating about the morphogenetically plastic brain, the term ‘plastic arts’ was beginning to give way to that of the ‘visual arts.’ As a result of the “overlap between art and design,” and the overlap among “art, media and digital reality,” the “very concept of plastic art along with it the ideal of a philosophical explanation of it” is now considered by some to be “something past its sell-by-date”—“it is no longer clear what would even count as philosophical explanation [of the concept of plastic art], as opposed to a sociological, historical, or critical one.”³²⁷ “The very concept of plastic art” is “increasingly obscure.”³²⁸ Ironically, this shift between what might seem a more open concept of the “plastic” to a more limited notion of the “visual” came at a time when a range of new approaches was expanding artistic fields and breaking down divisions between what had previously been considered minor and major arts.³²⁹

Defining ‘Plastic Art’ from the *Encyclopédie* to Lord Shaftesbury

The concept of ‘plastic art’ is said to have emerged through interchange between French and English thinkers in the 18th-century.³³⁰ Denis Diderot’s *Encyclopédie, ou Dictionnaire* differentiates between “*sculpture*” (sculpture) and “*plastique*” (plastic) by asserting that though the latter is considered “a kind of sculpture” (“*une partie de la sculpture*”), it is distinguished from it as an approach that achieves the figure “by removing that which is superfluous” (“*en ôtant*

³²⁷ Daniel Herwitz, “The Sell-By Date,” *Action, Art, History: Engagements with Arthur C. Danto*, ed. Daniel Herwitz and Michael Kelly (New York, NY: Columbia University Press, 2007), 143.

³²⁸ Herwitz, “The Sell-By Date,” 143.

³²⁹ Virginie Devillez, “Abstract: To be in or behind the Museum? The Visual Arts in the post-68 years.” *Center for Historical Research and Documentation on War and Contemporary Society*. Published 2007. Accessed February 2016. www.cegesoma.be/docs/media/chtg_beg/chtg_18/chtg18_Resu_Angl_Devillez.pdf For the full article in French, see Virginie Devillez, “To be in or behind the museum? Les Arts Visuels dans les années 68,” *Cahiers d’histoire du temps présent*, no. 18 (2007). Published 2007. Accessed February 2016. http://www.cegesoma.be/cms/cahiers18_en.php?go=y&truv=devillez

³³⁰ “Plastic, the plastic arts, *bildende Künste*,” *Dictionary of Untranslatables: A Philosophical Lexicon* ed. Barbara Cassin, Emily Apter, Jacques Lezra, Michael Wood (Princeton, NJ: Princeton University Press, 2014), 47-48.

ce qui est superflu”) from a preexistent “block” (“*bloc*”).³³¹ According to the *Encyclopédie*, the general term “sculpture” refers to additive processes. The definition itself appears contradictory: sculpture is additive, but the plastic is a kind of sculpture which is based on removal. The *Encyclopédie* does not specifically characterize the plastic as materially subtractive: it leaves the material consequences of what it means to “remove the superfluous” open to interpretation. It also does not restrict the substances that the plastic can work with: it specifies that “plastic” can comprise figures made in a variety of materials: “plaster, clay, stucco, etc.”³³² The “etc.” leaves the field open.

Above the entry for “*plastique, plastice, Sculpt., art plastique,*” there is another entry for a different, capitalized version of the term, “*PLASTIQUE,*” supplemented with the instruction “*v. natures plastiques*” (“see plastic natures”).³³³ The “plastic” from “plastic natures” (*natures plastiques*) is a term from metaphysics, “a principle that some philosophers claim serves to form organized bodies, & which is different from the life of animals.”³³⁴ Like the plastic in sculpture, it is defined as in-between perspectives: first, there is the perspective that “in the formation of organized bodies, everything takes place fortuitously without the direction of any intelligence;” second, the perspective that “God himself forms the lesser animals and all their little parts.”³³⁵ The theory of “plastic natures” asserts that neither of these theories is sustainable. Though it is “very difficult to conceptualize [plastic natures],” the encyclopedia entry claims that “Aristotle teaches how they can be conceived, when he states that if the art of building ships was in the

³³¹ My translation. “*Plastique, Plastice (Sculpture),*” *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc.*, eds. Denis Diderot and Jean le Rond d'Alembert. (Chicago, IL: University of Chicago: ARTFL Encyclopédie Project, Spring 2016 Edition, ed. Robert Morrissey and Glenn Roe, 2016), 12:732.

³³² “*Plastique, Plastice (Sculpture),*” *Encyclopédie*, 12:732.

³³³ My translation. “*PLASTIQUE (Metaphysique),*” *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers, etc.*, eds. Denis Diderot and Jean le Rond d'Alembert. (Chicago, IL: University of Chicago: ARTFL Encyclopédie Project, Spring 2016 Edition, ed. Robert Morrissey and Glenn Roe, 2016), 12:729.

³³⁴ “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 47.

³³⁵ My translation. “*PLASTIQUE (Metaphysique),*” *Encyclopédie*, 12:729.

wood, then this art would act like nature.”³³⁶ This “nature” is “plastic nature,” a nature which “acts internally & immediately, without instrument & without clamor, in a hidden manner & with great ease; there is no exertion in what it has to do, [and] it always acts without changing or correcting that which it has done.”³³⁷

The *Encyclopédie* attributes the concept of “plastic nature” to 17th-century British philosopher Ralph Cudworth (1617-1688).³³⁸ According to scholarship on Cudworth, the philosopher understood “plastic nature” as “animate but insensitive matter,” which he distinguished from both “insensitive inanimate matter” and the “sensitive beings” of animals.³³⁹ In his book *True Intellectual System of the Universe* (1678), Cudworth describes “plastic nature” as an “incorporeal substance” that “has an internal energy and self-activity.”³⁴⁰ It is this “internal energy and self-activity” that makes plastic nature “more perfect than “mere matter.”³⁴¹ As Cudworth describes it, “plastic nature” acts in a manner that is similar to “habitual bodily action,” i.e., “in which [...] the legs and body of a ‘skilful Dancer’ move ‘without *Deliberation* or *Studied*

³³⁶ Ibid.

³³⁷ Ibid.

³³⁸ Ibid. Ralph Cudworth (Aller, United Kingdom 1617 – Cambridge, United Kingdom, 1688) was among the so-called “Cambridge Platonists” associated with the University of Cambridge in the 17th-century. All of the thinkers in the group “held the philosophy of Plato and Plotinus in high regard,” hence the designation “Platonist”; however, the Cambridge Platonists “drew on a wide range of sources besides Platonism” including Aristotle and Stoicism, as well as, Descartes, Hobbes, Spinoza, Bacon, Boyle and the Royal Society—they were allegedly among the first English intellectuals to read Descartes. They followed the approach to ancient philosophy of Italian Renaissance humanist Marsilio Ficino to pursue a sense of the “relevance of classical philosophy to contemporary life.” They all had a theological background and were convinced of the “compatibility of reason and faith.” They generally held an “optimistic view of human nature” that emphasized “the freedom of the will” and their “anti-determinism lead them to propose arguments for human autonomy.” All of the Cambridge Platonists are considered to be “dualists for whom mind is ontologically prior to matter, and for whom the truths of the mind are superior to sense-knowledge.” Nevertheless, they are considered “moderns” in natural philosophy for accepting “post-Galilean science,” and “propound[ing] an atomistic theory of matter”. Cudworth’s work on the concept of “plastic natures” is evidence of their “repudiat[ion of] mechanistic natural philosophy in favour of the view that spirit is the fundamental causal principle in the operations of nature.” Sarah Hutton, “The Cambridge Platonists,” *Stanford Encyclopedia of Philosophy*, October 3, 2001; revised November 11, 2013. Accessed March 3, 2017. <https://plato.stanford.edu/entries/cambridge-platonists/>

³³⁹ Keith Allen, “Cudworth on Mind, Body, and Plastic Nature,” *Philosophy Compass* 8/4 (2013), 342-343.

³⁴⁰ Allen, “Cudworth on Mind, Body, and Plastic Nature,” 344.

³⁴¹ Ibid.

Consideration.”³⁴² This does not mean, however, that it does not act for “the sake of ends”—it acts for the sake of ends, however, it does so without either the “natural instinct of animals,” or the “knowledge and understanding of the reasons for its actions” that allow humans to “perform or act freely.”³⁴³ Among the functions of “plastic nature” that Cudworth describes is the “transferring [the quantity of motion in the universe] from one material object to another.”³⁴⁴ Thus, “plastic nature” is a kind of inanimate animating substance present not only in various kinds of organisms, but in abiotic or non-biological life, as well. Incidentally, it is also the “animate but insensitive matter”³⁴⁵ of mineral materials like “plaster, clay, stucco, etc.”³⁴⁶ that is the principle matter of “plastic art.”

Cudworth made it a point of distinguishing between “plastic powers” and what would otherwise be understood as “occult qualities”—phenomena for which there simply appear to be no explanation.³⁴⁷ There is nothing occult about “plastic nature”—it poses itself as a legitimate explanation for certain phenomena. At the moment when Cudworth devised the concept, it preserved a space for those “forms or qualities that the mechanistic theories of the seventeenth century aimed to eliminate,” while at the same time, also saving them from those that were not eliminated altogether from consideration by being categorized as simply unknowable.³⁴⁸ “Plastic nature” was also “essential” to Cudworth’s “account of the relationship between mind and body” and his resistance to 17th-century mind-body dualism.³⁴⁹ “Plastic nature” was a way of describing the “vital sympathy” between mind and body: neither the mind nor the body are “Material and Mechanical,” Cudworth insisted.³⁵⁰ Neither the mind nor the body simply

³⁴² Ralph Cudworth as quoted in Allen, “Cudworth on Mind, Body, and Plastic Nature,” 344.

³⁴³ Allen, “Cudworth on Mind, Body, and Plastic Nature,” 344.

³⁴⁴ *Ibid.*

³⁴⁵ *Ibid.*, 343.

³⁴⁶ “Plastique, Plastice (Sculpture),” *Encyclopédie*, 12:732.

³⁴⁷ Allen, “Cudworth on Mind, Body, and Plastic Nature,” 345.

³⁴⁸ *Ibid.*, 346

³⁴⁹ *Ibid.*

³⁵⁰ Cudworth as quoted in Allen, “Cudworth on Mind, Body, and Plastic Nature,” 346.

passively receives input and gives output, there is always “something of active vigour” in the interchange.³⁵¹ Thus the mind can move the body by an indirect process that does not command “moving the diaphragm in respiration,”³⁵² but that accomplishes this movement through a series of sympathetic, symbolic processes across various substances in the body. Likewise, although “sensation is ‘obtruded’ upon” internally by external stimuli, the body does not simply receive this stimuli, it participates in its reception.³⁵³

In the early 18th-century, Anthony Ashley Cooper (known as Lord Shaftesbury),³⁵⁴ who was counted among the most important philosophers of his era, explicitly brought the two terms, “plastic art” and “plastic nature,” together.³⁵⁵ In his writings, Lord Shaftesbury not only compared the artist’s “ability to shape a unitary and organic work” to Prometheus, who he called that “sovereign artist or Universal Plastic Nature,” he also described the painter working with “*materia plastica*” as “begin[ning] by working first *within*”:

Here the imagery! Here the plastic work! First he makes forms, fashions, corrects, amplifies, contracts, unites, modifies, assimilates, adapts, conforms, polishes, refines, etc. forms his *ideas*: then his hand: his strokes.³⁵⁶

Shaftesbury was at the forefront of efforts to both “explicat[e] aesthetic experience” and “defend political liberty and tolerance,”³⁵⁷ and is said to have “exerted an enormous influence on European thought throughout the eighteenth and nineteenth century,” though attention to his ideas

³⁵¹ Ibid.

³⁵² Allen, “Cudworth on Mind, Body, and Plastic Nature,” 346.

³⁵³ Cudworth as quoted in Allen, “Cudworth on Mind, Body, and Plastic Nature,” 346.

³⁵⁴ Lord Shaftesbury (Anthony Ashley Cooper, 3rd Earl of Shaftesbury) (London, United Kingdom 1671 – Naples, Italy 1773) is said to have “exerted an enormous influence on European thought throughout the eighteenth and nineteenth centuries.” His philosophy is characterized as putting forth the notion that “humans are designed to appreciate order and harmony, and that proper appreciation of order and harmony is the basis of correct judgments about morality, beauty, and religion.” He connected aesthetic experience, moral sense, political liberty and tolerance, and argued for “religious belief based on reason and observation rather than revelation or scripture.” Shaftesbury asserted that the “purpose of philosophy was to help enable people to live better lives.” Michael B. Gill, “Lord Shaftesbury (Anthony Ashley Cooper, 3rd Earl of Shaftesbury),” *Stanford Encyclopedia of Philosophy*. March 13, 2002; revised September 9, 2016. <https://plato.stanford.edu/entries/shaftesbury/>

³⁵⁵ “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 47.

³⁵⁶ Ibid.

³⁵⁷ Michael B. Gill, “Lord Shaftesbury (Anthony Ashley Cooper, 3rd Earl of Shaftesbury),” op. cit.

allegedly waned with modernism.³⁵⁸ Interestingly, his notion of “plastic art” is rarely referenced in English writings on art, but is said to have been made part of the “French critical and philosophical vocabulary” by Felicité Robert de Lamennais’s *Esquisse d’une philosophie* (1840) and Hippolyte Taine’s *Philosophie de l’Art* (1864-1869).³⁵⁹

The term *Plastik* (plastic) found its way into German thinking through the term *bildenden Künste*.³⁶⁰ The latter term is typically translated as “plastic arts,” but is derived from the German word *Bild*, from the noun meaning “image,” and the verb (*bilden*) meaning “to form.”³⁶¹ It thus combines the image and the “plastic work” of “form” that were also present in Shaftesbury’s “plastic nature”/“plastic art” hybrid.³⁶² It was principally through the late 18th-century writings of philosopher Johann Gottfried von Herder (1744-1803),³⁶³ that the German word *Plastik* explicitly brought with it a special attention to tactility. Herder’s linking of tactility to truth might at first appear to contrast with Shaftesbury’s account of the “plastic art” of “plastic nature”—after all, for Shaftesbury, the hand appears subordinate to the idea. However, it is also true, that Shaftesbury describes the internal “imagery” and “plastic work” of the painter with a string of verbs that could easily be read as both tactile and abstract—contraction implies physical compression; amplifying implies physical extension; polishing implies literal burnishing. It could be argued that Shaftesbury’s passage on plastic art in painting foregrounds what Cudworth had understood as the “vital sympathy” between mind and body, and intuited Herder’s “promotion” of the “tactile

³⁵⁸ Ibid.

³⁵⁹ “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 47.

³⁶⁰ Ibid., 48.

³⁶¹ Ibid.

³⁶² Ibid., 47.

³⁶³ Johann Gottfried Herder (Morag, Poland 1744-Weimar, Germany 1803) is considered to be an immensely influential philosopher whose ideas influenced some of the most important thinkers of the 19th-century including G.W.F. Hegel, Friedrich Nietzsche and John Stuart Mill. According to some accounts, “Hegel’s philosophy turns out to be essentially an elaborate systematic development of Herderian ideas.” Herder is said to have established the “methodological foundations of 19th-century German classical scholarship,” and more specifically, to have developed “modern interpretation-theory, or hermeneutics” and devised the fundamental principles for the interpretative work of anthropology. Michael Forster, “Johann Gottfried von Herder,” *Stanford Encyclopedia of Philosophy*. October 31, 2001; revised September 27, 2007. <https://plato.stanford.edu/entries/herder/>

values” of the plastic, and haptic visuality, as “a criterion of beauty” over the supremacy of optical visuality.³⁶⁴

Both Hassabi and Neidich seek to emphasize the same “vital sympathy” between mind and body that is at the center of Cudworth’s “plastic nature” and Shaftesbury’s appropriation of it in his theory of “plastic art.”³⁶⁵ It is also true, however, that Cudworth is generally understood as having developed the concept of “plastic nature” in opposition to Thomas Hobbes claim in *Leviathan* (1651) that “all ideas in the mind originate in sensation” and that “sensation, knowledge, and understanding are really just motions in the material brain (‘nothing else, but a tumult of the mind, raised by externall things that presse the organical parts of the mind’).”³⁶⁶ Cudworth located “plastic nature” in-between these “externall things” that Hobbes claimed “presse[d] the organical mind.”³⁶⁷ In “plastic nature,” he created a paradoxical “incorporeal” that is corporeally-rooted in symbolic space not only between the inside and outside of the body, but among the various parts of the body itself.³⁶⁸

Whereas Neidich’s work with “neuroplasticity” is Hobbesian in the sense that it stresses the direct connection between the work of art and the “plastic brain” (in Neidich’s art theory reception of the work of art literally presses new connections into the neural networks of the observer), Hassabi’s “plastic” calls attention to the presence of “plastic nature” in the human body, the art object, and architecture. In *PLASTIC*, the animate and sensitive human body moves in a manner that emphasizes the “plastic nature” bodies share with the animate but insensitive matter of museum-collected art objects. Hassabi stresses the way in which the choreographies in her “live installations”³⁶⁹ bring attention to the way breath moves the bodies of the dancers in moments when they struggle to hold positions of stillness (fig. 108). This manipulable but never

³⁶⁴ “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 48.

³⁶⁵ Allen, “Cudworth on Mind, Body and Plastic Nature,” 346.

³⁶⁶ Thomas Hobbes in Allen, “Cudworth on Mind, Body and Plastic Nature,” 338.

³⁶⁷ *Ibid.*

³⁶⁸ *Ibid.*

³⁶⁹ The Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” *op. cit.*

completely commandable ‘plastic nature’ that moves the diaphragm in respiration, compliments the ‘vital sympathy’ that Hassabi stages between architectural elements, like the staircase, and the bodies of performers: in *PLASTIC* the dancer’s body does not respond mechanically to the staircase the way museum visitors do, but rather performs its free will to exercise actual participation in ‘receiving’ the staircase form, exploring its surfaces and amplifying its temporalities.

Movement-as-Object in Minimal, Post-Minimal and Post-Conceptual Art

In his *Plastik, Einige Wahrnehmungen uber Form und Gestalt aus Pygmalions bildendem Traum* (Plastic: Some Observations on Shape and Form from Pygmalion’s Creative Dream, 1778) the philosopher Herder had written, “sculpture [*Bildnerei*] is truth, whereas painting is a dream.”³⁷⁰ For Herder, ‘sculpture is truth’ because of the way its object more directly engages the ‘plastic,’ an empathetic dimension of haptic visuality. This empathetic dimension exists between the object of sculpture created by the touch of the sculptor, and the distant vision of it that the rarefied societal function of art imposes on the viewer, prohibited from touching the sculpture. Despite this value that Herder gave to the ‘plastic,’ it was not until the Minimal and post-Minimal generation of the late 1960s, and artists like Carl Andre, that art began to literally “decompose” [the] mythified construction techniques and production procedures”³⁷¹ of sculpture to foreground the plastic. Indeed, who better exemplifies the Diderotian definition of “plastic art” as “removing the superfluous,”³⁷² than the artists of the so-called “Minimal” generation?

³⁷⁰ “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 48.

³⁷¹ Benjamin H.D. Buchloh, “Michael Asher and the Conclusion of Modernist Sculpture (1980)” in *Neo-Avantgarde and Culture Industry: Essays on European and American Art from 1955 to 1975* (Cambridge, MA: MIT Press, 2000)

³⁷² “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 48.

Among the objects that best represent this “decomposition” and demythification of sculpture in the 1960s is Carl Andre’s *Pyramid (Square Plan)* (1959) (fig. 96).³⁷³ Filmmaker Hollis Frampton had, in fact, photographed this object for Andre while the two ruminated on the “plastic” and “plasticity” in their *12 Dialogues* manuscript. *Pyramid (Square Plan)* is an object made literally of ‘pieces’: it is a 72 x 36 1/4 x 36 1/4 inch stack comprised of a series of cedar planks, measured and arranged in such a way as to make the chiasmic form of an ‘X’ emerge from all four sides of what is otherwise a parallelepiped volume of fir wood—a block of fragmentary pieces. In Andre’s sculpture, additive and subtractive processes play off of each other so that neither is clearly defined: is the sculpture additive because it is accretive, accomplished through an aggregation of fir planks? Or is it subtractive because each constituting plank of the object was cut from a trunk, then modified according to specific measurements in order to create the configuration? The object engenders the *Encyclopedie* definition of plastic art understood both in opposition to sculpture and as a kind of sculpture—a kind of sculpture (defined as always involving additive processes) that is created by a process of removal of the “superfluous,” a process that logically seems to require the subtractive. This approach resounds with what Andre would later call his “clastic way.”³⁷⁴

Hassabi’s live installation, *PLASTIC*, intuits that its position as an artwork is between explorations of the plastic by Minimalist objects like Andre’s *Pyramid (Square Plan)*, and works that post-Minimal artists created “develop[ing] the relations between plastic spatial arts and [...] choreographic temporal arts.”³⁷⁵ Benjamin Buchloh has written that dancer Yvonne Rainer’s 1966 essay *The Mind is a Muscle (A Quasi Survey of Some Minimalist Tendencies in the*

³⁷³ Another version of this sculpture, *Pyramid (Square Plan)* (1959) (1970, remade), is conserved at the Dallas Museum of Art, Dallas, Texas. *Pyramid (Square Plan)*, New York, 1959, wood, 2” x 4” fir, destroyed, 74-unit stack, 18 tiers of 4 interlocking units each, converging on 1 tier of 2 interlocking units, 2 in x 4 in x 31 in each, 68 7/8 in x 31 in x 31 in., 114.

³⁷⁴ Andre, “I want wood as wood and steel as steel... (1970),” *Cuts: Texts 1959-2004*, 142.

³⁷⁵ Benjamin H.D. Buchloh, “Process Sculpture and Film in Richard Serra’s Work (1978)” in *Neo-Avantgarde and Culture Industry: Essays on European and American Art* (Cambridge, MA: MIT Press, 2000), 410.

Quantitatively Minimal Dance Activity Midst the Plethora, or an Analysis of Trio A (fig. 109) could be considered “a programmatic exposition” of the latter conceptual developments in dance: the “very title” of Rainer’s essay “suggests the combination of plastic and temporal art, the synthesis of physiological and psycho-mental practice” that was a “logical sequel” to experiments like Andre’s.³⁷⁶ This combination of “plastic and temporal art,” of “physiological and psycho-mental practice,” is differentiated by Buchloh from collaborative works like those of John Cage, Merce Cunningham, and Robert Rauschenberg that “had been aiming to integrate the various performing arts in some sort of [Wagnerian] *Gesamtkunstwerk* [total art work].”³⁷⁷ Unlike these works, the experiments by artists like Rainer were “based on an awareness of the objective correspondence of the investigations in the plastic and temporal arts”³⁷⁸ —the kind of awareness illustrated in the dialogue on the plastic and plasticity between the sculptor Andre and the filmmaker Frampton. The work of Rainer, and others engaged with this “correspondence,” was, as Buchloh writes, “somewhat ambiguously labeled ‘performance’” because, at the time, the term had implied an “amalgam of static plastic art and temporal art.”³⁷⁹ In 1978, when Buchloh was writing, “performance” had already acquired the more “neo-theatrical and expressive literalization” which it is now associated with it.³⁸⁰ As someone who is described as working in both theatre and the so-called “visual arts,” Hassabi is acutely aware of this; in fact, rather than call *PLASTIC* a “performance,” she deliberately detheatricalizes the expressivity of the work in such a way as to museify it as an experiment between space, time, and the body, referring to it as “live installation.”³⁸¹

³⁷⁶ Buchloh, “Process Sculpture and Film in Richard Serra’s Work (1978),” 410-411

³⁷⁷ *Ibid.*, 410.

³⁷⁸ *Ibid.*

³⁷⁹ *Ibid.*

³⁸⁰ *Ibid.*

³⁸¹ The Museum of Modern Art, New York, “Maria Hassabi in Conversation with Philip Bither,” *op. cit.*

Buchloh sees Rainer's 1966 essay as a "programmatic" outline of the principle concerns explored by the new investigations into transitions between spatial and temporal fields.³⁸² As "a continuation of the systematic analysis of the relations between the perceiving subject and the sculptural object [...] initiated in Minimal sculpture" by artists like Andre, Rainer's concerns were:

objectification of cognition, dis-individualization, and non-psychological forms of representation; dissolution of the traditional manufacture of the artwork and destruction of its commodity state; general dissemination and accessibility of the work through its reproducibility by technical means.³⁸³

The principle discovery of these investigations was that of "a spatial continuum that is experienced by the viewer physiologically and phenomenologically as a mode of transition to the temporal continuum."³⁸⁴ Buchloh presents Richard Serra's *Gutter Corner Splash: Night Shift* (1969/1995) (fig. 110)³⁸⁵ as an example of the discovery of continuity between spatial and temporal continua. It uses the gutter of a room—the point that joins the floor of a room to its side walls—as a cast for molten lead thrown from a cauldron with a large hand-held ladle in repeated tosses. Buchloh describes Serra's *Splashing* works or "process sculptures" as both "dissolv[ing] the traditional mode of appearance of a rigidly defined (geometrical) body" and "emancipat[ing] its shape (that which is separate from space) from the clear division of the figure-ground relation."³⁸⁶ Indeed, when removed from the corner of the room where they were cast, and flipped so that their corners point to the ceiling, the objects produced for *Corner Splash* are long irregular, triangular strips. This triangular character makes them "geometrical bodies," but in no way are they "rigidly defined": their edges are ragged from the splashing molten lead, and they

³⁸² Buchloh, "Process Sculpture and Film in Richard Serra's Work (1978)," 410.

³⁸³ *Ibid.*, 420.

³⁸⁴ *Ibid.*, 418.

³⁸⁵ Richard Serra, *Gutter Corner Splash: Night Shift* (1969/1995), lead, 19 x 108 x 179 in (48.26 x 274.32 x 454.66 cm), SFMOMA (San Francisco Museum of Modern Art), San Francisco, California. "Richard Serra, *Gutter Corner Splash: Night Shift* (1969/1995)," SFMOMA. Artwork. N.d. Accessed January 3, 2017. <https://www.sfmoma.org/artwork/91.30>.

³⁸⁶ Buchloh, "Process Sculpture and Film in Richard Serra's Work (1978)," 418.

lay irregular in contrast with the clearly defined confines of the room. And yet, not only do they seem to be a part of the architecture of the room because their dimensions are scaled to the room, but they literally *are* a part of the room because cast from a component of the room. What Buchloh calls the “transition from spatial to temporal field”³⁸⁷ takes place through the repeated throwing of the molten lead into the gutter, which is the only gesture that would allow for the creation of this particular kind of expansive form. Pouring would produce a line; instead, splashing allows the lead to spread itself out from the gutter onto the floor and the bottom of the wall. One splash is not enough to create a form substantial enough to be pulled away from the wall and exist as a ‘body’—thus, not only repetition, but consistency in the toss and a certain regularity in the gesture are required.

Rainer opens her essay *The Mind is a Muscle (A Quasi Survey)* (fig. 109) by making what she calls a “one-to-one relationship between aspects of so-called minimal sculpture and recent dancing.”³⁸⁸ She groups the “chart” into two categories “objects” and “dances” that should be “eliminate[d] or minimize[d]” and those which should be “substitute[d].”³⁸⁹ In support of Buchloh’s point about performance, she equates “performance” in dance with “illusionism” in objects, and asserts both illusionism and performance are therefore qualities that should be eliminated or minimized.³⁹⁰ Also included in this list are “phrasing” in dance which she equates with the “role of artist’s hand” in the fabrication of the object.³⁹¹ In fact, it could be said that one of the reasons why the distinction between the plastic and sculpture outlined in the 18th-century became even more evident in late 20th-century Minimal art was the deliberate distinction that the latter made between plastic values and tactile values. Rainer pushes this to its most extreme

³⁸⁷ Ibid.

³⁸⁸ Yvonne Rainer, “The Mind is a Muscle (A Quasi Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Midst the Plethora, or an Analysis of Trio A),” *Work 1861-1973* (Halifax: Press of the Nova Scotia College of Art and Design, 1974), 63.

³⁸⁹ Rainer, “The Mind is a Muscle (A Quasi Survey),” 63.

³⁹⁰ Ibid.

³⁹¹ Ibid.

conclusion by eliminating the hand-made object altogether as superfluous and working with the body itself: if for Herder, sculpture was truth and painting a dream, for post-minimal art—and the plastic as it is experimented with by Rainer—the body is truth and sculpture is a dream. Rainer worked not only with the same “task-oriented”³⁹² movement that can be found in Serra’s *Gutter Corner Splash* (fig. 110), but worked with this “movement-as-task”³⁹³ to accomplish an “object-body”³⁹⁴ she called “movement-as-object.”³⁹⁵ The “movement-as-task” did not *result* in an object, but *was* an object (fig. 111, detail right).

Rainer’s dance *The Mind is a Muscle, Trio A* (fig. 111) aimed to accomplish “movement-as-task” and “movement-as-object” by creating a movement sequence in which “there are no pauses between phrases.”³⁹⁶ The “phrases” combined a series of task-like movements, what in her essay she calls “consecutive limb articulations—‘right leg, left leg, arms, jump,’ etc.’—but the end of each phrase merges immediately into the beginning of the next with no observable accent.”³⁹⁷ In contrast with Hassabi’s *PLASTIC*, Rainer’s plastic is achieved by making sure that “the limbs are never in a fixed, still relationship, and they are stretched to their fullest extension, only in transit.”³⁹⁸ She equates the “energy equality” in this movement and its “tasklike activity” with the “factory fabrication” of the objects of Minimal Art and their “literalness.”³⁹⁹ The outcome of this approach to phrasing which paradoxically works to eliminate or minimize phrasing, is “the impression that the body is constantly engaged in transitions.”⁴⁰⁰ Rainer identifies “another factor contributing to the smoothness of the continuity”: the fact that “no one

³⁹² Ibid.

³⁹³ Rainer, “The Mind is a Muscle (A Quasi Survey),” 66.

³⁹⁴ Carrie Lambert-Beatty, *Being Watched: Yvonne Rainer and the 1960s* (Cambridge, MA: MIT Press, 2008), 168.

³⁹⁵ Rainer, “The Mind is a Muscle (A Quasi Survey),” 66.

³⁹⁶ Ibid.

³⁹⁷ Ibid.

³⁹⁸ Ibid., 66-67.

³⁹⁹ Ibid., 63.

⁴⁰⁰ Ibid., 67.

part of the series is made any more important than any other.”⁴⁰¹ She comments that the fact that the movement shapes in the dance are “of equal weight and are equally emphasized” is “probably attributable both to the sameness of physical ‘tone’ that colors all the movements and to the attention to the pacing.”⁴⁰² Both concerns—the sameness of physical tone and attention to pacing—are fundamental to Maria Hassabi’s post-conceptual “paradox of stillness,”⁴⁰³ which though choreographed with the aim of continuously finding limbs in the ‘fixed, still relationship’ Rainer worked against, manages to achieve the same impression as Rainer’s *The Mind is a Muscle, Trio A*—“the impression that the body is constantly engaged in transitions,”⁴⁰⁴ but through pauses rather than movement. Hassabi’s *PLASTIC* thus almost seems to pose a philosophical challenge about space-time to Rainer’s *Trio A*.

Rainer claims that “the execution of each movement” in her dance “conveys a sense of unhurried control”—this sense of control is the “weighty” body, “completely relaxed” being “geared to the *actual* time it takes the *actual* weight of the body to go through the prescribed motions.”⁴⁰⁵ Hassabi’s *PLASTIC* has the effect, however, of making this ‘weighty’ and ‘completely relaxed’ body of ‘task-like movements’ appear conditioned by “an adherence” to what Rainer calls “an imposed ordering of time,”⁴⁰⁶ one created by dance phrasing. Hassabi’s extreme use of phrasing—her emphasis on the “maximal output[s] or ‘attack[s]’” and their “suspended moment[s] of climax” critiqued by Rainer in *The Mind is a Muscle (A Quasi Survey)*—makes Rainer’s “neutral doer,” into a performer “exhibit[ing] character and attitude.”⁴⁰⁷ Hassabi’s *PLASTIC* conveys a sense of the body’s effort that each person learns to no longer perceive through habitual actions. It could be said that it is the weight of ‘plastic nature’ in the

⁴⁰¹ Ibid.

⁴⁰² Ibid.

⁴⁰³ The Museum of Modern Art, “Maria Hassabi in Conversation with Philip Bither,” op. cit.

⁴⁰⁴ Rainer, “The Mind is a Muscle (A Quasi Survey),” 67.

⁴⁰⁵ Ibid.

⁴⁰⁶ Ibid.

⁴⁰⁷ Ibid., 65.

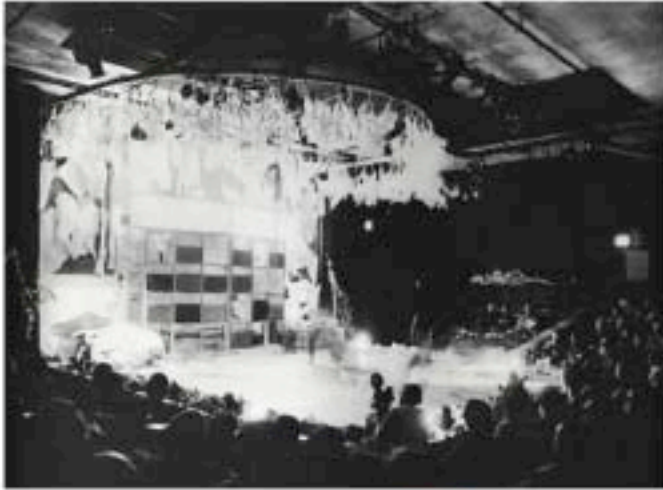
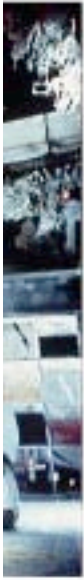
body—that ‘incorporeal substance’ rather than the corporeal substance of task-like, functional movements—that is expressed in Hassabi’s own iteration of the movement-as-object.

In the late 1960s, Rainer created another *Trio* work called *Stairs* using a small staircase she designed, carpeted and put on wheels (fig. 112, left).⁴⁰⁸ The stair was designed with two tiny steps at the top and two larger steps on the bottom. The two larger steps took the exact height of a high stool and chair that Rainer had been using to help her recover movement after hospital convalescence from an illness. The two tiny steps were inspired by a dream a friend had recounted. In the dream, Rainer and two friends were having difficulty climbing a staircase with tiny steps. Part of the movement on the staircase involved making the task-like movement of climbing stairs strange with the insertion of awkward gestures: dancers took turns “pulling or assisting each other up, down and off the stairs by means of passing one hand through the other’s legs and holding the crotch or [...] a breast” (fig. 112, right).⁴⁰⁹ These were “funny sexual references” that the dancers played with reacting to: some responded in “a nonchalant manner” while others exhibited a facial response, showing “a startled expression.”⁴¹⁰ In this work, Rainer is interested in the task of climbing stairs as a kind of pathos-formula, a sedimented expressive formula in the body that produces movement the way Serra’s splashing produces forms. Rainer also plays with the chance of falling in *Stairs*, but is more interested in the psycho-social implications of the movement than in its material consequences. Hassabi’s *PLASTIC*, on the other hand, deconstructs the very trained choreographed movement of climbing stairs, to try to explore what the actual time and actual weight of this motion is in a body in which movement has become an object (fig. 108).

⁴⁰⁸ Yvonne Rainer, “Some non-chronological recollections of *The Mind is a Muscle*,” *Work 1861-1973* (Halifax: Press of the Nova Scotia College of Art and Design, 1974), 81.

⁴⁰⁹ Rainer, “Some non-chronological recollections of *The Mind is a Muscle*,” 81.

⁴¹⁰ *Ibid.*



Still of Carolee Schneeman, *Snows* (1967), 16mm film (color and black-and-white), performance and performance environment. Video: Electronic Arts Intermix.

9

Chapter Nine / The ‘Plastic Body’ and the ‘Plastic-Pictorial’ in the Artistic Act

The ‘Plastic Body’: Carolee Schneeman and Andy Warhol

It has been said that whereas “[Yvonne] Rainer explores the exercise of control over the body as image, [Carolee] Schneeman explores the body as it loses control, a state brought on in some way by its contact with images.”¹ In early 1967, Schneeman wrote a letter to a friend describing a conversation with a producer from New York’s Martinique theatre that led to the creation of *Snows* (fig. 113), a “kinetic theatre performance.”² The piece was performed as part of the same Week of Angry Arts festival for which Rainer had performed her variations on *The Mind is a Muscle: Trio A*, including *Stairs*. In recounting the conversation, Schneeman uses the term “plastic body” to describe the way she and the theatre producer had talked about the United States:

we talked about a country without a connection to conscience, an artworld/a culture vapid, intensely self-absorbed, devorative, frenetic, corrupt, mechanical in its emotions and insane with cold lusts to be *gotten at*, to feel and so armored nothing could strike empahy, root viscera in its snobbish plastic body. A deluded, warped, self-righteous, mythic society.³

The letter continues with Schneeman’s description of *Snows*, what she calls a “slow mysterious collage” that took “over a month” to build. The massive “collage”—which Schneeman constructed with the help of five technicians—allegedly cost the producer \$1,000 for each week he kept the theater empty for its construction:

I covered seats with miles of white shining plastic scraps, hammered and nailed a huge water lens onto the stage, took away all his curtain and collaged the walls with shards of paper; closed the entrances and built a fat plastic, pink mouth from floor to ceiling, fat and foamy which the audience would have to squeeze through. We wired the seats with contact microphones so when the audience shifted about the noise was picked up, amplified and fed by SCRs [sustainable

¹ Erica Levin, “Dissent and the Aesthetics of Control: On Carolee Schneeman’s *Snows*,” *World Picture* (Summer 2013), 8.

² Carolee Schneeman, *Imagining Her Erotics: Essays, Interviews, Projects* (Cambridge, MA: MIT Press, 2002), 39

³ Carolee Schneeman, “Letter to Joseph Berke, Feb 14 1967,” *Correspondence Course: An Epistolary History of Carolee Schneeman and her circle* (Durham, NC: Duke University Press, 2010), 113.

cell rates] into the light system, dimming, raising streaks of revolving lights. It was gorgeous and ominous; icy white, purpled cold, penetrating and ecstatic.⁴

The “penetrating and ecstatic” in this “collage”⁵ of “kinetic theatre”⁶ was also non-choreographed movement based in games of “capture and collapse,” “take-over and arrest.” Early in the live action,

performers pair[ed] off, slowly circling one another just out of arms’ reach. Each concentrates on the weight and shifting position of the other. At a certain point, one lunges and pulls the other down. The other reacts [...] giving in to the attack. After collapsing together, both performers rise to repeat the entire series of actions again in quick succession with other partners.⁷

The movements recall aspects of Rainer’s *Stairs* (fig. 112) except that the central impulse of taking-down rather than helping-up is an opposing inclination. These movements were not fixed through improvisation sessions into choreographies, rather they required “each performer to react kinesthetically to the micro-movements of the other.”⁸ Rainer’s “precise control” is countered by “hyper-attention” among bodies,” a kind of “kinesthetic empathy” that Rainer’s *The Mind is a Muscle: Trio A* (fig. 111) “shuts down.”⁹

Schneeman described the *Snows* “collage” (fig. 113) as “built out of my anger, outrage, fury and sorrow for the Vietnamese”¹⁰ victims of the Vietnam War. It was accomplished with the help of a group of five performers who she describes as “Japanese, Negro, reddish, whitish”—the “six of us,” she recounts, “turned on, turned out like one fantastic bloom together.”¹¹ The aim of the show was:

to concretize and elucidate the genocidal compulsions of a viscious, dijunctive technocracy gone beserk against an integral, essentially rural culture. The grotesque fulfillment of the Western split between matter and spirit, mind and body, individualized ‘man’ against cosmic natural unities. Destruction so vast as

⁴ Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

⁵ Ibid.

⁶ Schneeman, *Imagining Her Erotics*, 39

⁷ Levin, “Dissent and the Aesthetics of Control,” 8.

⁸ Ibid.

⁹ Ibid.

¹⁰ Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

¹¹ Ibid.

to become randomized, constant as weather. Snowing...purification, clarification, homogenization, obliteration...

A flashing strobe light disrupted the continuity of motion in performers “cover[ing] one another’s faces in white grease paint.”¹² The paint transformed into a ghostly flesh that the performers pressed into each other’s skins—it glowed under the light effects like a face flash-photographed. The photograph and the body melted into one another in this sequence.

What does it mean to refer to an entire country as a ‘plastic body’? Schneeman does not claim that her ‘collage’ in the theatre was intended to literally corporealize the qualities of the ‘plastic body’ she had described in her conversation with the producer; instead, she describes the relationship between the two images as indirect, a relationship mediated by her “anger, outrage, fury and sorrow.”¹³ Both the ‘plastic’ as material plastics, and the ‘plastic’ as a shifting among splits—whether the split between the two-dimensional and the three-dimensional, the temporal and the spatial, or that between “matter and spirit, mind and body”¹⁴—emerge from the description of the ‘collage’ and the related content of the Schneeman’s conversation with *Snows*’ producer. “I say ‘I use materials’,” Schneeman wrote in 1963, “but I often sense that they use me as vision from which they reemerge in a visual world which could not speak without them.”¹⁵ The ‘vision’ of the U.S. as a ‘plastic body’ is an example of this. Schneeman’s ‘plastic body’ is not a metaphor. Material plastics are critical to the “disjunctive technocracy” Scheeman describes¹⁶—they are part of the rites of “purification, clarification, homogenization, obliteration” Scheeman identifies.¹⁷ In the construction of her massive large-lipped theatre-sized ‘collage,’

¹² Levin, “Dissent and the Aesthetics of Control,” 8.

¹³ Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

¹⁴ Ibid.

¹⁵ Carolee Schneeman as quoted in Levin, “Dissent and the Aesthetics of Control,” 7.

¹⁶ Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

¹⁷ Ibid.

material plastics “use” Schneeman to “reemerge”¹⁸ in action that denaturalizes plastic as both a physical material and abstract property without turning the entire operation into allegory.

Rather than create a caricature that puts the ‘plastic body’ on display for an audience, Schneeman produced an environment of “feedback and control” among projected images, bodies and props that “fold[s] the embodied reactions of the audience back into the performance in real time.”¹⁹ Thus, the real time of performance, the near past of the instant snapshot (simulated by strobe lights), the past time of found and diary film footage in projected films, and the future time of associations between the stream of images and the world to come, all overlapped. This is Schneeman’s “plastic body.”

The ‘Plastic-Pictorial’ in Mikhail Bakhtin’s Theory of ‘Aesthetic Activity’

Recent scholarship on philosopher Mikhail Bakhtin and the visual arts has posed a relevant question: “what does it mean to refer to a viewer as having or being a plastic body?”²⁰ In Schneeman’s letter the “plastic body” is not a single viewer, but a collective viewership, an entity whose entertainment and titillation only serves as a means through which the audience can be sculpted out of passive blankness, what Schneeman (playing on the fashion for interest in Zen Buddhism) called a “Fro-Zen” sensibility.²¹ Citing Bakhtin’s insistence on the “pictorial-plastic” as a key component to his conception of the artist’s “answerability,” scholarship on Bakhtin assigns the “plastic body” to a way of conceiving “the body of the observer” as:

a material screen that filters the sensations of the body in the world. The body of the observer is a living surface on which the projected image is embodied and made flesh: a *plastic body* that functions as a material intermediary necessary for the reception of the moving image.²²

¹⁸ Carolee Schneeman as quoted in Levin, “Dissent and the Aesthetics of Control,” 7.

¹⁹ Levin, “Dissent and the Aesthetics of Control,” 8.

²⁰ Miriam Jordan-Haladyn, *Dialogic Materialism: Bakhtin, Embodiment and Moving Image Art* (Bern, Switzerland: Peter Lang, 2014), 11.

²¹ Ramsay Burt, *Judson Dance Theater: Performative Traces* (London, UK: Routledge, 2006), 88-115.

²² Jordan-Haladyn, *Dialogic Materialism*, 11.

In this definition, the term “plastic” has nothing to do with artificiality or material plastics, instead, it is used to emphasize the body as an “awareness” that includes the “tactile, aural, and [...] other bodily sensations.”²³ This term “plastic body” uses Bakhtin’s concept of the “plastic-pictorial”—originally theorized to explain the relationship between the author of a novel and the hero that the author writes into the novel—to describe the relationship among artist, art object, and “observer”: “the plastic body of the observer is a sensorium, a feeling and thinking body in which the text lives.”²⁴ Though this is a use of the term ‘plastic’ that follows the way the plastic arts have been understood by artists, philosophers and art historians, its appropriation of Bakhtin’s “plastic-pictorial” for a discussion of the embodied observer, distorts the very different original context of his concept.

The focus on the embodied observer in recent visual arts-focused studies of Bakhtin defines the “artwork” as an entity that emerges between the artist and the observer: it asserts dogmatically that “an artwork that takes place in the consciousness of one individual is not an artwork at all.”²⁵ It claims that “any aesthetic event is dependent upon at least two consciousnesses—that is two *separate* people who always remain separate—to unfold.”²⁶ Bakhtin’s “plastic-pictorial,” however, is indeed about the aesthetic event in a single person: it is about the dilemma of the aesthetic event between two consciousnesses—that of the author and that of the hero—within a *single* person—the author.²⁷

Recent Bakhtinian theory on the “plastic body” has insightfully associated Bakhtin’s “plastic-pictorial” with “[Friedrich] Nietzsche’s metaphorical moment of the shadow at noon: where there is no past, there is no present, there is only now and in that moment one becomes

²³ Ibid.

²⁴ Ibid.

²⁵ Ibid., 10

²⁶ Ibid.

²⁷ Mikhail Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923), *Art and Answerability: Early Philosophical Essays by M. M. Bakhtin*, ed. Michael Holquist and Vadim Liapunov, trans. Vadim Liapunov (Austin, TX: University of Texas Press, 1990), 4-256.

two.”²⁸ Bakhtin’s “pictorial-plastic moment” is a Nietzschean moment in which “the illusory world and the experiential world meet”: “the observer embodies the artwork and in doing so returns the gaze of the artist.”²⁹ Whereas the reference to Nietzsche is relevant, the shift to applying the “plastic-pictorial moment” to reception theory risks distorting a concept Bakhtin came up with to describe “the spatial whole of the hero” within the author.³⁰ This is a very different relationship than that between author and viewer: it is a self-reflexive relationship between the author and the author, in which the author function must other itself in order to generate a hero.

The relation between the author and the author is more akin to the kind of othering that the artist must engage in internally in the process of creating an object. It is a process like that which Rainer was engaging by devising a formula to transform Minimal Art’s constraints in relation to the object, to constraints in dance in relation to the body.³¹ It was fundamentally this process that Carolee Schneeman was criticizing when she attacked “an artworld/a culture vapid, [...] mechanical in its emotions and insane with cold lusts [...]so armored nothing could strike empathy, root viscera in its snobbish plastic body.”³² The concern for both Schneeman and Rainer was how to modulate what Bakhtin calls the “plastic-pictorial moment” so that the body could become something other than itself: whereas Schneeman sought out ways to help “material” use her body as its “vision” (fig. 113),³³ Rainer’s aim was to assert that “action, or what one does, [...] can best be focused on through the submerging of the personality”—“ideally one is not [...] oneself, one is a neutral “doer” (fig. 111).³⁴ The “problem of the author’s relationship to the

²⁸ Jordan-Haladyn, *Dialogic Materialism*, 7.

²⁹ *Ibid.*

³⁰ The section in which Bakhtin discusses the “plastic-pictorial moment” is titled “The Spatial Whole of the Hero and His World in Verbal Art: The Theory of Horizon and Environment.” Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923),” 92-99.

³¹ Rainer, “The Mind is a Muscle (A Quasi Survey),” 63.

³² Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

³³ Carolee Schneeman as quoted in Levin, “Dissent and the Aesthetics of Control,” 7.

³⁴ Rainer, “The Mind is a Muscle (A Quasi Survey),” 65.

hero” as Bakhtin describes it,³⁵ is more akin to the problem of the artist’s relationship to the art object, and though this relationship includes the figure of the artist-as-viewer, it is altogether different from the artist’s relationship to the viewer. Bakhtin’s “plastic-pictorial moment”³⁶ and “plastic-pictorial aspect”³⁷ is not about shaping a reader, an observer, a viewer or an audience, it is a response to Bakhtin’s question of the “hero as an artistic form.”³⁸

Bakhtin defines “aesthetic form” in several ways.³⁹ First, it is “both an inner and outer, or empirical, form.”⁴⁰ In this sense, his thinking aligns with Lord Shaftesbury’s “plastic art” as “plastic nature” which describes an interchange between inner and outer in the interaction between the “incorporeal substance” animating bodies and the external forces visibly acting upon them.⁴¹ Bakhtin acknowledges that “aesthetic form” may also be the “form of the aesthetic object, i.e., the form of the world which is constructed on the basis of a given work of art but does not coincide with that work.”⁴² What he means by the idea that this “form” does not “coincide with that work,” is that this “aesthetic form” is different from the “form of the work of art itself, i.e., a material form.”⁴³ This “aesthetic form” is the world that the material form generates: in the novel, it would be the world of the novel that results from the form the hero takes through the artist’s writings; in Rainer’s work, it would be the world of “movement-as-object”;⁴⁴ in Schneeman’s work (fig. 113), the world in which the U.S. is shown to be “a country without a connection to conscience”.⁴⁵ This is what Bakhtin calls the “cognitive-ethical reality [...] which is

³⁵ Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923),” 4.

³⁶ *Ibid.*, 95.

³⁷ *Ibid.*, 99.

³⁸ *Ibid.*, 93.

³⁹ *Ibid.*

⁴⁰ *Ibid.*

⁴¹ “Plastic, the plastic arts, bildende Künste,” *Dictionary of Untranslatables*, 47.

⁴² Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923),” 93.

⁴³ *Ibid.*

⁴⁴ Rainer, “The Mind is a Muscle (A Quasi Survey),” 66.

⁴⁵ Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

justified and consummated in it artistically.”⁴⁶ The aesthetic form that Bakhtin calls “world”—“the world consummated in the aesthetic object”—takes shape as “an external spatial form” (as it does in painting, drawing or sculpture), or as only an “inner spatial form” (as occurs in verbal art).⁴⁷ This does not mean, however, that in painting, the “aesthetic object consists [...] of nothing but lines or colors”—it takes shape in both external and inner spatial forms.⁴⁸

After defining “aesthetic form,” Bakhtin asks “how this inner spatial form gets actualized”—must it be “reproduced in [...] a visually full and distinct representation” or is it that “the only thing that gets actualized is an emotional-volitional *equivalent* of it, i.e., a feeling-tone.”⁴⁹ Again, Bakhtin reasserts that “even in the visual arts, inner spatial form is never actualized as a visually full and complete form.”⁵⁰ The properties of “fullness and completeness are proper only to the external or material form of a work.”⁵¹ The inner spatial form is created by “transpos[ing]” the “qualities of [...] external form [...] upon the inner form.”⁵² Whereas the external form is experienced by sensorial impressions, “the visual inner form is experienced emotionally and volitionally.”⁵³ The fundamental issue for the artist is the fact that this “inner form [...] can never be a really actualized representation.”⁵⁴ At this point, Bakhtin introduces the concept of “the plastic-pictorial moment or constituent in [...] creation.”⁵⁵ This “moment” is split between the “necessary and inalienable moment of being as a given”—the fact that the human being’s “outer body is *given*; [its] outer boundaries and those of [its] world are given”; the “extra-

⁴⁶ Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923),” 93.

⁴⁷ *Ibid.*, 93-94.

⁴⁸ *Ibid.*, 94.

⁴⁹ *Ibid.*

⁵⁰ *Ibid.*

⁵¹ *Ibid.*

⁵² *Ibid.*

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*, 95.

aesthetic givenness of life”—and the moment of art in which the artist “aesthetically receive[s], recreate[s], fashion[s], and justify[s]” this “givenness” of the body, its boundaries and its world⁵⁶.

For Bakhtin, “givenness” is “meaninglessness” and needs to be “rendered valid artistically” in order to be “rendered meaningful.”⁵⁷ The “external form” can be either described and carefully “visualized” or “experienced only in emotional-volitional terms”—either way it is “a consummating form”: it is both “expressive” and “impressive” in the sense that it is both external form and internal form, both externalized and internalized.⁵⁸ Bakhtin stresses that it is “the position of being situated outside the hero that enables the author to produce the aesthetic value of the hero’s exterior.”⁵⁹ “The spatial form *of* the hero expresses the author’s relationship *to* the hero,” thus “the author must assume a firm stand outside the hero and his world and utilize all the transredient features of the hero’s exterior.”⁶⁰ Interestingly, Bakhtin never presents a separate figure of a reader or observer in this passage, rather the observer is always hybridized with the author in the figure of the “author/holder.”⁶¹

Bakhtin’s discussion of the “mediating value-category of other”⁶² is not asserting that the artwork only exists with a separate viewer or a reader: a “holder” or “contemplator” who is necessarily a separate person from the author.⁶³ Rather his theory of the artistic act is asserting that “form” can only “find any inner foundation and validation from within the the author/contemplator’s self-activity,” if the author function—embodied in the single person of the author (who is also always contemplator and holder), others itself into occupying “the boundaries of two consciousnesses,” that of the author and that of the hero.⁶⁴ The “boundaries of

⁵⁶ Ibid.

⁵⁷ Ibid.

⁵⁸ Ibid.

⁵⁹ Ibid., 96.

⁶⁰ Ibid.

⁶¹ Ibid.

⁶² Ibid., 97.

⁶³ Ibid.

⁶⁴ Ibid.

the body” in what Bakhtin calls “visual art” is the “encounter” between the body of the artist and the art object in both its outer and inner spatial forms.⁶⁵ When Bakhtin writes that “it is only thanks to this category of the other that it becomes possible to transform the hero’s exterior into an exterior that encompasses and consummates him totally”—that “fit[s] the hero’s own directedness to meaning [...],” that “give[s] it life [...] to create a whole human being as a unitary value”—there is no trace of insistence upon the necessary presence of an audience.⁶⁶ Bakhtin’s “plastic-pictorial” is not about the ability of the artist to empathize with an audience; it is about the artist’s use of the “mediating value-category of other” in relationship with the art object.⁶⁷ The “plastic-pictorial aspect” of creation generates “emotional-volitional equivalents [...] that correspond in the aesthetic object to the meaning-independent plastic and pictorial whole.”⁶⁸ This “whole” is comprised within it the “two possible ways of coming the outside world with a human being”: “from within,” which Bakhtin calls “horizon,” and “from outside” which he calls “environment.”⁶⁹ The “plastic-pictorial” is the author/ beholder’s movement in and out between his own horizon and environment and that of his hero, the art object.

The ‘Plastic Inevitable ‘ or ‘Warhol’s Success Depends on his Failure.’

There is, perhaps, no better example of an artist who worked through this “mediating value-category of other”⁷⁰ to shape his own image through the image of the art object, than “plastic man,”⁷¹ Andy Warhol. A few hours after the artist Valerie Solanas was arrested for attempting to assassinate Warhol, a group of activists from the anarchist organization Up Against the Wall, Motherfucker, circulated a leaflet that defended the shooting, proclaiming, “Andy

⁶⁵ Ibid., 95-97.

⁶⁶ Ibid.

⁶⁷ Ibid.

⁶⁸ Ibid.

⁶⁹ Ibid., 99.

⁷⁰ Ibid., 97.

⁷¹ Valerie Solanas as quoted in Caroline A. Jones, *Machine in the Studio: Constructing the Postwar American Artist* (Chicago, IL: University of Chicago Press, 1996), 252.

Warhol shot by Valerie Solanas. Plastic Man vs. the Sweet Assassin.”⁷² “VALERIE LIVES!”

the leaflet proclaimed,

face of the plastic fascist smashed -- the terrorist knows where to strike -- at the heart -- a red plastic inevitable exploded -- nonman shot by the reality of his dream as the cultural assassin emerges -- a tough chick with a bop cap and a thirty-eight -- the true vengeance of Dada -- tough little chick -- the hater of men and the lover of man -- with the surgeon's gun -- Now -- the Camp master slain by the slave -- and America's white plastic cathedral is ready to burn. Valerie is ours and the Sweet Assassin lives. SCUM in exile.⁷³

In the late 1960s, when the assassination attempt occurred, the “separatist models” of homosexuality in which “women-loving women and men-loving men” were “at precisely opposite ends of the gender spectrum,” pre-dominated: as ar historian Caroline Jones has written, in Solanas’ *SCUM Manifesto*, “Warhol’s homosexuality made him more masculinist” and Warhol’s “wanting to be a machine” (his studio was famously called The Factory, and Solanas was among the artists who frequented it) “made him [...] ‘plastic *man*,’ the mechanized opposite of Solanas’ flowing female principle,” the “sweet assassin.”⁷⁴ Filmmaker Emile de Antonio, a friend of Warhol’s, referred to the ‘flowing’ male equivalent of the sweet assassin’s rival, plastic man, as the “swish.”⁷⁵ The “swish” bothered everyone, including other “homosexual artists” like Jasper Johns and Robert Rauschenberg: “the major painters try to look straight,” De Antonio once tried to explain to Warhol, “you play up the swish—it’s like an armor with you.”⁷⁶ The armor and offense of “plastic man” was later literalized by Warhol in the “plastic and alloys” of an audioanimatronic robot he had a former Disney imagineer design in his image.⁷⁷ The never-

⁷² Jones, *Machine in the Studio*, 252.

⁷³ Valerie Solanas as quoted in Jones, *Machine in the Studio*, 252.

⁷⁴ Jones, *Machine in the Studio*, 253.

⁷⁵ Adam Frank, *Transferral Poetics, from Poe to Warhol* (New York, NY: Fordham University Press, 2015), 144.

⁷⁶ Frank, *Transferral Poetics, from Poe to Warhol*, 144.

⁷⁷ Meikle, *American Plastic*, 232.

completed robot was to be the “star” of a show called *Andy Warhol’s Overexposed: A No-Man Show* (1984), which remained unfinished upon Warhol’s death in 1987.⁷⁸

The 1969 *New York Magazine* article “Plastic Man Meets Plastic Man” puts philosophical Plastic Man Andy Warhol and material Plastics Man, sculptor Les Levine in conversation about the possibility of a trade of artworks (fig. 114): Warhol would get Levine’s plastic *Star Machine* (1966), a “walk-through bubble” made from “clear acrylic sheets vacuum-formed into oblong hemispheres and hung on an aluminum frame” (fig. 114, left) in exchange for either one of Warhol’s *Car Crash* series (c. 1963) (fig. 114, right) or one of his “floating silver pillows” from *Silver Clouds* (c. 1966), ballons fabricated from metallicized polyester film and filled with helium (fig. 114, below).⁷⁹ The exchange never happened but instead became a battle of wills between Warhol’s indifference and Levine’s insecurities, voyeuristically staged for *New York Magazine’s* readership. At one point during the article, Warhol asks the author who had set up the exchange, “have you discovered any second-rate artists recently?”⁸⁰ When asked why he was interested, he responded “you look around and see what the second-rate artists are doing, and then you do the same thing, but better. [...] I want to do whatever Les Levine is doing, but I want to do it first.”⁸¹ While Levine was the “plastic man” known for working with material plastics—the artist who even had a plastic suit, a white vinyl suit he wore on “special occasions”⁸²—Warhol’s plastic was his demeanor. Warhol emphasizes this distinction himself when he presses Levine to try to find out where to buy plastic and asks him to explain what plastic is made from.⁸³ Warhol’s famous “passivity” his “affinity for artificiality” led one biographer to call him “a void

⁷⁸ Ibid.

⁷⁹ David Bourdon, “Plastic Man Meets Plastic Man,” *New York Magazine*. Vol. 2, No. 6. February 10, 1969, 44-45.

⁸⁰ Andy Warhol as quoted in Bourdon, “Plastic Man Meets Plastic Man,” 46.

⁸¹ Ibid., 46.

⁸² Ibid., 45.

⁸³ Ibid., 45.

toward which others gravitated with their anxieties, their ambitions, and occasionally, their useful ideas.”⁸⁴

Nonetheless, Warhol’s *Diaries* are full of references to “plastic”—to “plastic surgeons,”⁸⁵ to material plastics, and to plastic people (“Nobody likes Jerry Hall, they think she’s plastic, But I like her. She’s so cute.”)⁸⁶ Warhol notices plastic. He describes Halloween at Studio 54 where the dance hall was “done up” so “there were mice in plastic running under your feet”;⁸⁷ at an Easter meal he served to “poor people at the Church of the Heavenly Rest,” he recounts “some people [...] collecting [...] plastic knives and forks” to take with them;⁸⁸ he describes a “plastic sidewalk” constructed for people so they would not have to walk in the street to get to an AIDS benefit;⁸⁹ he writes of a press call asking his opinion on “Campbell’s soup having new plastic cans, the crushable kind” (“Oh yeah, sure, great idea, great, great!”);⁹⁰ there is the incident with a “good plastic ring from the twenties” that he broke and that made him think “I should break something once a week to remind me how fragile life is;”⁹¹ and the present from Salvador Dali—a “plastic bag full of his used-up palettes”;⁹² finally, among many other descriptions of encounters with plastic, there is a trip to the Fiorucci fashion house—“it’s so much fun there. It’s everything I’ve always wanted, *all plastic*.”⁹³

The only moment when Warhol uses the term “plastic” as “plastic art” in the *Diaries* is an account of a visit to a museum where a “Gauguin to Moore exhibition” was on view: “Henry Moore gave this museum all these plastic things,” he writes matter-of-factly, “nobody knows why

⁸⁴ Warhol biographer Carter Ratcliff as quoted in Meikle, *American Plastic*, 232.

⁸⁵ Andy Warhol, “Sunday, November 6, 1977,” *The Andy Warhol Diaries* (New York: Grand Central Publishing, 2014), epub, not paginated.

⁸⁶ Warhol, “Tuesday, February 14, 1978,” *The Andy Warhol Diaries*, epub, not paginated.

⁸⁷ Warhol, “Wednesday, October 31, 1979,” *The Andy Warhol Diaries*, epub, not paginated.

⁸⁸ Warhol, “Sunday, March 30, 1986,” *The Andy Warhol Diaries*, epub, not paginated.

⁸⁹ Warhol, “Sunday, December 7, 1986,” *The Andy Warhol Diaries*, epub, not paginated.

⁹⁰ Warhol, “Thursday, April 5, 1984,” *The Andy Warhol Diaries*, epub, not paginated.

⁹¹ Warhol, “Tuesday, October 29, 1985,” *The Andy Warhol Diaries*, epub, not paginated.

⁹² Warhol, “Sunday, March 19, 1978,” *The Andy Warhol Diaries*, epub, not paginated.

⁹³ Warhol, “Wednesday, December 21, 1983,” *The Andy Warhol Diaries*, epub, not paginated.

he gave them so much.”⁹⁴ And yet, when Warhol defines Pop art as “taking the outside and putting it on the inside, or taking the inside and putting it on the outside,” this description of “spatial and subjective interpenetration”⁹⁵ shares a strange affinity with Bakhtin’s “plastic-pictorial moment.” Warhol as “plastic man” could be seen as the author-function completely absorbed in the “mediating value-category of other,”⁹⁶ annihilating himself to manifest the author’s hero. In his diaries, the numerous references to material plastics and plastic surgery confirm this impression of an outside to inside, inside to outside “plastic-pictorial”⁹⁷ creating both an outer spatial form and an inner spatial form—the external form of a face transformed into a mask under the surgeon’s knife, and the internal form of an impassive world consumed by an aesthetics of mask-like blankness.

In writing about his working relationship with the scenarist Roland Travel, Warhol explained: “I enjoyed working with him because he understood instantly when I’d say things like, ‘I want it simple and plastic and white.’ Not everyone can think in an abstract way but Ronnie could.”⁹⁸ Travel returned the compliment describing Warhol as the “‘destructive’ artist” of an “operation-theatre” where “we at first resentfully feel ourselves to be the patient [but] [...] are audience as always, suddenly alive and watching.”⁹⁹ In this ‘plastic’ surgery of the inside folding outside, and the outside opening inside, is the plastic “modeled by the *Exploding Plastic Inevitable*,”¹⁰⁰ the famous discotheque project Warhol organized to run concomitantly with *Silver*

⁹⁴ Warhol, “Friday, November 20, 1981- New York-Toronto,” *The Andy Warhol Diaries*, epub, not paginated.

⁹⁵ Andy Warhol as quoted in Branden Joseph, “‘My Mind Split Open’: Andy Warhol’s Exploding Plastic Inevitable,” *Grey Room*, Vol. 8 (Summer 2002), 94.

⁹⁶ Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923),” 97.

⁹⁷ *Ibid.*, 95.

⁹⁸ Douglas Crimp, “Our Kind of Movie”: *The Films of Andy Warhol* (Cambridge, MA: MIT Press, 2012), 36.

⁹⁹ Crimp, “Our Kind of Movie,” 36.

¹⁰⁰ Joseph, “‘My Mind Split Open,’” 94.

Clouds (fig. 115).¹⁰¹ The pamphlet on “Plastic Man vs. the Sweet Assassin” referenced it when it proclaimed: “face of the plastic fascist smashed -- the terrorist knows where to strike -- at the heart -- a red *plastic inevitable exploded* -- nonman shot by the reality of his dream as the cultural assassin emerges.”¹⁰²

Media theorist Marshall McLuhan’s *The Medium is the Message* (1967) included photographs from the *Exploding Plastic Inevitable* (*EPI*) (fig. 115), which the book used as an example of new constructions of “auditory space,” of “seamless web[s]” in which listeners are “enveloped by sound.”¹⁰³ Such a plastic “field of simultaneous relations” articulated through “interpenetrating” parts was likened in other writings by McLuhan as “the kind of order that tends to exist in a city or a culture. It is a kind of orchestral resonating unity.”¹⁰⁴ McLuhan had previously written about the “TV image,” a key characteristic of which was the closeness to the monitor that viewers—in particular children—felt compelled to engage television’s low-resolution “mosaic” screen.¹⁰⁵ McLuhan described the “mosaic” texture of the “TV image” as encouraging “a convulsive sensuous participation” that was “profoundly kinetic and tactile.”¹⁰⁶ Performers in Warhol’s *EPI* described its “aims” in similar terms, even suggesting the project’s objectives were best articulated through McLuhan’s assertion that the “new environment” of electronic media created by phenomena like the “TV image,” demanded “commitment and participation.”¹⁰⁷ “We have become irrevocably involved with, and responsible for, each other,”

¹⁰¹ In April 1966, *Silver Clouds* was exhibited at the Leo Castelli Gallery while *Exploding Plastic Inevitable* was at the Open Stage, “an experimental performance venue on the top floor of the social hall Polski Dom Narodowy (Polish National Home), commonly known as the “Dom” on Saint Mark’s Place [...]” Rebecca Lowery, “A Timeline,” *Regarding Warhol: Sixty Artists, Fifty Years*, ed. Mark Rosenthal, Marla Prather, Ian Alteveer and Rebecca Lowery (New Haven, CT: Yale University Press, 2012), 254.

¹⁰² Valerie Solanas as quoted in Jones, *Machine in the Studio*, 252.

¹⁰³ Marshall McLuhan as quoted in Joseph, “‘My Mind Split Open’,” 89.

¹⁰⁴ *Ibid.*, 90.

¹⁰⁵ Joseph, “‘My Mind Split Open’,” 90.

¹⁰⁶ McLuhan as quoted in Joseph, “‘My Mind Split Open’,” 89.

¹⁰⁷ Joseph, “‘My Mind Split Open’,” 91.

Warhol's factory collaborators explained.¹⁰⁸ The descriptions of "expanded cinema" in *EPI* took on a more sinister tone in the accounts of other Factory performers who defined it as "a paradigm for an entirely different kind of audiovisual experience [...] that expresses not ideas but collective group consciousness."¹⁰⁹ The aim was fundamentally narcissistic: "we will be reunited with our reflection."¹¹⁰

The plastic sense of the *EPI* did not create the kind of synthesis of the senses sought in experiments with the total work of art; instead, as art historian Branden W. Joseph has defined it, *EPI* created a "contradictory, experimental space," that "trafficked in emergent technological forces still lingering on the threshold before their complete subsumption within the market."¹¹¹ "As opposed to naturalization," Joseph writes, "*EPI* produced a dislocating, environmental montage where different media interfered and competed with one another, accelerating their distracting, shocklike effects to produce the three-dimensional, multimedia equivalent of a moiré."¹¹² "It doesn't go together. But sometimes it does," critics commented after seeing *EPI* (97)—"random and confusing [...]. You want to scream, or throw yourself about [...]."¹¹³ "Dehumanizing," "disintegrating," "corrupting," "decadence" and "perversion," were other words used to describe the experience.¹¹⁴ As Joseph has described it, "Warhol's multi-media presentation linked contemporary, capital-driven, technological dislocations with more volatile forms of social and libidinal transformations";¹¹⁵ however, these "transformations" occurred not only in the contents of the films Warhol played within the environment, and in the lyrics of the Velvet Underground songs played live, but between the stasis of the moving image in Warhol's films projected into the environment, and the frenzy of the surrounding frame: strobe lights, slide

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Gene Youngblood as quoted in Joseph, "'My Mind Split Open'," 91.

¹¹¹ Ibid., 97.

¹¹² Ibid.

¹¹³ Art critics as quoted in Joseph, "'My Mind Split Open'," 91.

¹¹⁴ Ibid., 82

¹¹⁵ Ibid., 97.

projectors movable by hand, moving spots with colored gels, pistol lights, a mirror ball, props, dancers and loudspeakers playing different records simultaneously. Artist and critic David Antin called this “the doubleness of affect.”¹¹⁶

After experiencing the *EPI*, Antin wrote: “The doubleness of affect is especially peculiar to Warhol’s films.”¹¹⁷ Filmmaker Jonas Mekas had praised the *EPI* for being “the loudest and most dynamic exploration platform” for “intermedia shows and group,”¹¹⁸ and yet the films shown as part of *EPI* included some of Warhol’s most static explorations of cinema: *Eat* (1964), *Harlot* (1964), *Mario Banana* (1964), *Blow Job* (1964), *Couch* (1964), *More Milk*, *Yvette* (1965), and *Vinyl*, (1965).¹¹⁹ Of the “doubleness of affect” in *Blow Job*, Antin writes: “when Allen Ginsberg saw it he was reported to have said, ‘the whole theater lit up when he came.’ While Paul Blackburn told me, ‘the thing never came off at all; he was like hung-up, man.’”¹²⁰ This is clear-cut contradiction,” Antin comments, asserting, “it was a case of reading out the proposition from the image of a face.”¹²¹ After all, he asserts, “how do we know anything was going on at all in *Blowjob*? All we saw was the image of a face, peculiarly blank. Perhaps what we recognize is that enigmatic, introspective smile of one turned back upon himself.”¹²²

“We will be reunited with our reflection,”¹²³ Warhol’s collaborator Gene Youngblood had stated, describing this ‘doubleness of affect’ in *EPI*. Antin had visited the “barnlike upstairs hall of the Polski Dom Narodne” to see the *EPI* “on a Wednesday night.”¹²⁴ “With few people present,” he recounts, “three films are preprojected simultaneously toward the stage”: on the left, *Eat*, the “silent” and “self-conscious” consumption of a “mushroom”; in the center, *Vinyl*, a

¹¹⁶ David Antin, “Warhol: The Silver Tenement,” *Radical Coherency: Essays on Art and Literature, 1966 to 2005* (Chicago, IL: University of Chicago Press, 2012), 18.

¹¹⁷ Antin, “Warhol: The Silver Tenement,” 18.

¹¹⁸ Joseph, “‘My Mind Split Open’,” 82.

¹¹⁹ *Ibid.*

¹²⁰ Antin, “Warhol: The Silver Tenement,” 18.

¹²¹ *Ibid.*

¹²² *Ibid.*, 19.

¹²³ Youngblood as quoted in Joseph, “‘My Mind Split Open’,” 91.

¹²⁴ *Ibid.*, 20

“ludicrous torture arrangement, which [...] is all preparation;” and on the right, *Banana*, the reflective aftermath after “the banana has [already] been eaten.” “The movies,” Antin assesses, have a consistently attractive, ratty look.”¹²⁵ Meanwhile,

rotary mosaic mirrors and stroboscopes flash light through the rather windy depths of [the] upstairs hall. There is intermittent high-decibel rock and roll and a few dancers. A little man walks around quietly emptying ashtrays. [...] After a while there are no more films and there is much more dancing.¹²⁶

“The most remarkable effects,” Antin writes, “seem to depend on the hall being empty for quite some time.”¹²⁷ When the “little man walks around quietly emptying ashtrays,” this is when it is possible to appreciate the “slow buildup [...] more typical of Judson Church,” where Yvonne Rainer was presenting her dances, “than a discotheque”.¹²⁸ “Otherwise,” Antin comments, “it turns into just another discotheque.”¹²⁹ “Warhol’s success depends on his failure”—it is his “precisely pinpointed defectiveness that gives his work its brilliant accuracy.”¹³⁰ Antin’s essay intuits that it is the absence of the contemplating viewer, the absence of an audience in the spectacular frame of the discotheque, that revealed the real plastic work of aesthetic form in Warhol’s *EPI*.

¹²⁵ Ibid.

¹²⁶ Ibid.

¹²⁷ Ibid.

¹²⁸ Ibid.

¹²⁹ Ibid.

¹³⁰ Ibid.



by Kitasono Katue (no. 110). Image: Collection of John Solt; (center left) Kitasono Katue, Plastic Poem (Even
ono Katue, Forgotten Man (Plastic Poem) (1975). Image: Collection of John Solt; (left) Plastic Poem Homage
ary 1968. Image: Collection of John Solt.

10

Chapter Ten / Plastic Value as a Destructive Principle

...from Kitasono Katue and Andy Warhol to the magazine *Valori Plastici*

Through the process of accretive writing about the concept of the ‘plastic,’ it has slowly become clear that it is indeed, in part, a destructive principle; whether understood as the ‘plastic’ that shifts dimensions, or as the ‘plastic’ that folds inside-out and outside-in, the ‘plastic’ in art is creation that necessarily risks annihilation. The Japanese surrealist Kitasono Katue explained this in his description of a series of photographs he called “plastic poems” published in the avantgarde magazine *VOU* (1965-1978) (fig. 116):

Modern photography can be divided into the four categories of news, documentary, commercial, and *zokei* [“plastic”; literally: “create” + “form”]. Needless to say, our object is plastic photography. The word ‘plastic’ is used in contradistinction to the term “experimental photography” bantered about by young photographers and photo-journalists. Experimental photography concerns itself primarily with displaying technical discoveries and applies to the genres of news, documentary and commercial photography. *Plastic photography destroys the general concept of what a photograph is and attempts to reconceptualize photography.* Therefore, it objectively includes many anti-photography characteristics. Also, being at an extreme, plastic photos are filled with a desire to expand the possibilities of photography.¹

During the same period when Katue was working on his “plastic poems,” Carolee Schneeman created her micro-cosmic “collage” of the United States as “plastic body.”² In this “plastic body,” human bodies became vectors for the “visions” of material³—visions that were then used by the artist to sculpt audiences. Meanwhile, in the ‘plastic’ of Yvonne Rainer’s *Trio A*, the distinction between body and object disappeared through task-like movements, easily recognizable, never-precious gestures, sequenced to externalize the space-time continuum in “movement-as-object.”⁴

¹ John Solt, *Shredding the Tapestry of Meaning: The Poetry and Poetics of Kitasono Katue (1902 – 1978)*, (Cambridge, MA: Harvard University Press, 1999), 303-305.

² Carolee Schneeman’s *Snows* (1967, Martinique Theater, New York) as described by the artist in Schneeman, “Letter to Joseph Berke, Feb 14 1967,” 113.

³ Schneeman as quoted in Levin, “Dissent and the Aesthetics of Control,” 7.

⁴ Yvonne Rainer’s *Trio A* (1966) as described by the artist in Rainer, “The Mind is a Muscle (A Quasi Survey),” 66.

In Richard Serra's *Splashing* works⁵ the same continuum was internalized in the object to become 'object-as-movement.'

Meanwhile, Warhol as "plastic man"⁶ and the "no-man"⁷ worked to destroy the general concept of 'man,' reconceptualizing the human through a passive post-human dehumanization (fig. 115)—a letting go of humanist ideals, including those about the artist and the author. Warhol's *A, A Novel* (1968) was planned as twenty-four hours of conversation in the life of one of his Factory superstars, the actor, Ondine (Roberto Olivo).⁸ Not surprisingly, some have claimed that the idea of creating fictional characters was allegedly an "unimaginable artistic process" for Warhol.⁹ The writer Stephen Koch claims that when he talked to Warhol about a novel he was writing, "he looked at me doubtfully, with his peculiar worried look. 'But you need an awful lot of people for that, don't you?' I answered that I didn't really need a very large crowd. 'Oh...oh...uh,'" Warhol responded, "'you mean you just make people *up*?'"¹⁰ Perhaps it was not so much that the process was 'unimaginable' to Warhol, as it was that he feared it as an all-consuming one that he knew all too well. In *A, A Novel* he kept a distance of several transcribing typists and a tape-recorder¹¹ between him and his hero, Ondine. And, in fact, it is arguable as to whether the hero in *A, A Novel* is actually Ondine or the character-consuming amphetamine that takes over the novel completely by its conclusion. By the end of the novel, a chapter titled "ON DINE SO LILOQUY" begins with a conversation between Ondine and Billy Name (Billy Linich, the photographer of Warhol's Factory who changed his name so it would

⁵ Richard Serra, *Gutter Corner Splash: Night Shift* (1969/1995), lead, 19 in. x 108 in. x 179 in. (48.26 cm x 274.32 cm x 454.66 cm), SFMOMA (San Francisco Museum of Modern Art), San Francisco, California. "Richard Serra, *Gutter Corner Splash: Night Shift* (1969/1995)," op. cit.

⁶ Valerie Solanas as quoted in Jones, *Machine in the Studio*, 252.

⁷ *Andy Warhol's Overexposed: A No-Man Show* (1984) as cited in Meikle, *American Plastic*, 232.

⁸ Editors' Introduction to Andy Warhol, "from *A: A Novel*," *Against Expression: An Anthology of Conceptual Writing*, ed. Craig Dworkin and Kenneth Goldsmith (Evanston, IL: Northwestern University Press, 2011), 555.

⁹ Reva Wolf, *Andy Warhol, Poetry and Gossip in the 1960s* (Chicago, IL: University of Chicago Press, 1997), 142.

¹⁰ Wolf, *Andy Warhol, Poetry and Gossip in the 1960s*, 142.

¹¹ Editors' Introduction to Andy Warhol, "from *A: A Novel*," 555.

look better on a poster for *EPI*).¹² The conversation starts out discussing amphetamines, and ends with paranoia:

Supposed, supposed, it's just amphetamine—you know? I don't like This is a supposedly long m-on-o-logue about whatever it is that I talk about uh—I'm no brain—and I never have had a brain—and I don't want one; I dun no what else to say—this tape should be finished—I wish I were a brai-n Twelve br?idges t o roll abate—uh—I've ih name a v ero its J. Fallow, fath er an d gay, Mr. Pickwi ck's aunt—twelve—thir ty—n d all all a l l al l all—u ch. It's not funny t o when you're takin g amph etamine and you want t o sleep. [...] WH O WALKED IN? Wh o walke d in? I'll n e ver f i nd o ut this way [...] What am I magic n umbe r

(¹³

The 'plastic' is a continuous process that destroys, expands and reconceptualizes its objects, its actors and even its very notion of itself, through a splitting and doubling of consummating self-consumption. There is an order to this steady practice of dissolution, this state of permanent revolution associated with the concept of the 'plastic.'

In 1918, the critic and painter Mario Broglio founded the magazine *Valori Plastici* (Plastic Values, 1919-1922) in Rome (fig. 117).¹⁴ The founding of the magazine corresponded with what scholars call the "red biennium," two years of "land and factory occupations" that resulted from the post-war economic crisis that had intensified social conflict between property-owning elites, and urban and rural labor.¹⁵ *Valori Plastici* proposed "*Il Ritorno all Ordine*" (the Return to Order) as its reponse to the end of the First World War that Italian Futurism had so ardently celebrated would be the "hygiene of the world."¹⁶ This was a period in which "there was considerable dissension on the subject of how a culture may arrogate power to itself. [...] Does it come only through "necessary" wars?"¹⁷ This question was of critical importance to the founding

¹² Steven Watson, *Factory Made: Warhol and the Sixties* (New York, NY: Pantheon Books, 2003), 263

¹³ Andy Warhol, *A, A Novel* (New York, NY: Grove Press, 1968, 1998), 445.

¹⁴ Luca Somigli, "Italy," *The Cambridge Companion to European Modernism*, ed. Pericles Lewis (Cambridge, UK: Cambridge University Press, 2011), 88.

¹⁵ Somigli, "Italy," 88.

¹⁶ F.T. Marinetti, *The Founding and Manifesto of Futurism* (1909), *Futurism: an Anthology*, ed. Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009), 51.

¹⁷ Kiala Jewell, *Art of Enigma: the De Chirico Brothers and the Politics of Modernism* (University Park, PA: Pennsylvania State University Press, 2004), 80.

of *Valori Plastici* and the explicit commitment that its name, “Plastic Values,” made to redefining and reasserting a different perspective on the ‘plastic.’

Among the most important contributors to the magazine were the painters Giorgio De Chirico (fig. 118)¹⁸ and his brother Alberto Savinio (fig. 119),¹⁹ both of whom experimented with literary forms including prose, novels and memoirs. De Chirico had been explicit about setting himself “in opposition to what he perceived to be the failures of Futurist thought and practice.”²⁰ “What if the war had not been necessary?” De Chirico asked.²¹ “Let’s go back to Futurism: in my opinion Futurism was only necessary in the way the war was: it came about, just as the war did, because it was fated to, but we could have done perfectly well without it.”²² In his memoir, *Ricordi di Roma* (Memories of Rome), De Chirico describes the period in which *Valori Plastici* was “*in gestazione*” (in gestation”) as “*i cosiddetti tempi eroici*” (“the so-called heroic times”).²³ With his typical sense of ironic and irreverent self-aggrandizing, de Chirico presents *Valori Plastici* as among the “great literary and artistic events that matured”—the grandiose “events destined to open new paths and above all to show Italians the straight and narrow (“*la via retta*”) of Art and literature”—while at the time asserting he “always nurtured serious doubts about both

¹⁸ Among the most representative works of Giorgio de Chirico’s *Metafisica* is the painting *The Song of Love* (1914), oil on canvas, 28 ¾ x 23 3/8 in (73 x 59.1 cm), Museum of Modern Art, New York; De Chirico painted *The Faithful Servitor* (1916-1917) shortly before becoming active with the ‘Return to Order’ movement and *Valori Plastici*. Giorgio de Chirico, *The Faithful Servitor* (1916-1917), oil on canvas, 15 1/8 x 13 5/8 in (38.2 x 34.5 cm), Museum of Modern Art, New York.

¹⁹ For examples of works by Savinio, see Alberto Savinio, *L’Isola Portatile* (Portable Island, c. 1930), oil on canvas, 16.14 x 12.20 in (41 x 31 cm), Galleria Civica d’Arte Moderna e Contemporanea, Torino, Italia; Alberto Savinio, *Le Voyage au bout du monde* (The Voyage to the End of the World, 1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino; Alberto Savinio, *Senza Titolo* (Untitled, 1929), oil on canvas, 25.59 x 32.01 in (65 cm x 81.3 cm), Sotheby’s London. The Italian Sale. October 15, 2015. “Alberto Savinio, Lot #29,” *Blouin Art Sales Index*. N.d. Accessed December 10, 2015. <http://artsalesindex.artinfo.com/auctions/Alberto-Savinio-5978720/Senza-Titolo-1929>

²⁰ Jewell, *Art of Enigma*, 80.

²¹ Paolo Fossati quoting De Chirico in a catalogue in Jewell, *Art of Enigma*, 81.

²² *Ibid.*

²³ Giorgio de Chirico, *Ricordi di Roma* (Roma, Italia: Editrice Cultura Moderna, 1945), 111.

the heroism [...] and the necessity to ‘win the battle’²⁴ that had been put forth by the bellicose avant-gardes.

Valori Plastici is generally understood as having emerged from De Chirico’s *Metafisica*, his metaphysical painting and was the expression of a “desire to recover the artistic patrimony that Futurist painters had once polemically denounced [in Futurist Manifestoes] as ‘*tarlato, sudicio*’ (moth-eaten, [filthy]) and ‘*corroso da tempo*’ (corroded by time).”²⁵ At the same time, the magazine maintained a definite distance from the Fascist political aesthetics proposed by Margherita Sarfatti’s *Novecento* movement which “attempted to combine traditional and modern pictorial elements to create an art representative of a new Fascist Italy.”²⁶ *Valori Plastici* has been described by scholars as involving “a more philosophical exploration of the metaphysical relationship between subject and object”—its “recourse to the kinds of traditional forms rejected by the avant-garde constituted only one aspect of sophisticated investigation into the relationship between the modern individual and the external world—the world of objects, materials and discernible forms.”²⁷ It was De Chirico’s “manipulation of traditional tropes and techniques such as perspective, classical figures and statuary” from this self-consciously paradoxical avant-garde perspective, that generated that pertrubing sense scholarship recognizes as permeating his *Metafisica* paintings—“a sense of mystery and unease lurking behind the composure of the surface of the canvas.”²⁸ *Valori Plastici* stopped publication in 1922, the year of the “March on Rome.” On October 28, 1922, after refusing to permit army intervention to stop Fascist revolts,

²⁴ De Chirico, *Ricordi di Roma*, 111.

²⁵ The quoted phrases come from *Il Manifesto dei Pittori Futuristi* as referenced in Allison Cooper, “Gender, Identity, and the Return to Order in the Early Works of Paola Masino,” *Italian Modernism: Italian Culture between Decadentism and Avant-garde*, ed. Luca Somigli and Mario Moroni (Toronto, Canada: University of Toronto Press, 2004), 379.

²⁶ Keala Jewell, “De Chirico’s Heroes: The Victors of Modernity,” *Italian Modernism: Italian Culture between Decadentism and Avant-garde*, ed. Luca Somigli and Mario Moroni (Toronto, Canada: University of Toronto Press, 2004), 355 and Cooper, “Gender, Identity, and the Return to Order in the Early Works of Paola Masino,” 379.

²⁷ Cooper, “Gender, Identity, and the Return to Order in the Early Works of Paola Masino,” 379.

²⁸ Somigli, “Italy,” 88.

King Victor Emmanuel III attempted to appease rebellion by appointing Fascist leader Benito Mussolini as prime minister. The appointment began the *ventennio*, the twenty-years of authoritarian Fascist rule that brought its own iteration of a ‘return of order’ to the liberal Italian state.

Some scholars have asserted that *Valori Plastici* was proposed to “challenge the notion that conflict and war were necessary to change, artistic or otherwise.”²⁹ The aim was “to take “change” out of the mythic narrative of victory and defeat.”³⁰ Though the “title” of the magazine, “plastic values,” is said to have been “important” with respect to the notion of “recuperating the past [...] as a vector toward modernity”—as a ‘Return to Order’ (*Ritorno all’Ordine*) rather than a return to the past or a regressive revival of tradition—this is typically explained in connection with the “senso architettonico” (architectonic sense) that De Chirico and others from *Valori Plastici* praised in the ancient Greek “way of conceptualizing nature.”³¹ As De Chirico wrote, “nature itself was seen by the classical painter with the eye of the architect and builder.”³² This ‘architectonic sense’ of order in what might otherwise be perceived as the disorder of nature, was indeed important to the ‘plastic values’ the magazine and its contributors proposed; however, it is only one of a series of values associated with the ‘plastic’ in *Valori Plastici*. The most important value—antithesis—is overarching, and pervades the sense of permanent revolution, even revolution against the avant-garde—that the reassertion of ‘plastic values’ aimed to push forward. The best illustration of this is in the definition of “plasticity” in a prose poem titled *PLASTICITÀ* (PLASTICITY) that the very first issue of *Valori Plastici* printed for its readers.³³ This definition of “plasticity” indicates that the aim of contributors to *Valori Plastici* was not so much “to take

²⁹ Jewell, *Art of Enigma*, 80.

³⁰ *Ibid.*

³¹ *Ibid.*, 5.

³² *Ibid.*

³³ My translation. Luciano Folgore, “*PLASTICITÀ*,” *Valori Plastici*, Vol. 1, No. 1 (1919), 8-9. From Biblioteca di Archeologia e Storia dell’Arte (BiASA) Periodici Italiani Digitalizzati, N.d. Accessed May 2014. http://periodici.librari.beniculturali.it/PeriodicoScheda.aspx?id_testata=69

‘change’ out of the mythic narrative of victory and defeat,”³⁴ but to replace the focus on political change advocated by the Futurists, with a focus on the aesthetic change of transformative potential characterized by the ‘plastic’ in art.

An Ambiguous ‘Return to Order’ in *Valori Plastici*’s *PLASTICITY*

Valori Plastici is yet another instance in which the definition of the term “plastic” is undertaken through its derivative term, “plasticity.” The prose poem *PLASTICITY* was written by Futurist poet Luciano Folgore and represents his only contribution to the magazine. What scholars have called Folgore’s “dichotomous career” is divided between his active involvement in Futurism from 1909 to 1920, and his “parodic turn” in 1922.³⁵ This latter turn was based on Folgore’s belief that “during the second part of their career, authors should know how to caricature their first artistic phase.”³⁶ The “revisions and parodies” from this period are described by scholars as “infused” with both “irony” and a “ludic purpose.”³⁷ Between 1919 and 1922—during the process of his parodic dissociation from Futurism—Folgore wrote what is considered to be his last futurist work *Città Veloce* (Fast City, 1919) while also contributing work to a variety of publications, including *Valori Plastici*.³⁸ Just as Folgore’s Futurist writings had retained elements that Futurists aimed to radically eliminate—i.e., nominal sentence structure, conjugated verbs, indirect expression, etc.—Folgore scholar Stefano Magni writes that his parodic turn also “wavers between futurist tones [...] and crepuscular notes.”³⁹ Magni thus questions the assumption that in his parodic phase, Folgore had completely cut ties with Futurism.

³⁴ Jewell, *Art of Enigma*, 80.

³⁵ Stefano Magni, “Lucano Folgore’s Self-Parody: End or Renewal of Futurism?” *The History of Futurism: Precursors, Protagonists, and Legacies*, ed. Geert Buelens, Harald Hendrix and Michelangela Monica Jansen (Lanham, MD: Lexington Books, 2012), 247.

³⁶ Magni, “Luciano Folgore’s Self-Parody,” 248.

³⁷ *Ibid.*, 247.

³⁸ *Ibid.*, 253.

³⁹ *Ibid.*, 248.

The fact that Folgore's *PLASTICITY* appears in *Valori Plastici* in the period between his militant Futurist phase and his equally militant parodic phase, is fundamental to the definition of the 'plastic' it presents to readers. The work exemplifies the plasticity of the artist's very identity in relation to artistic movements—a plasticity sustained not for the sake of the artist's individuality, but for the autonomy of art. It appears that Folgore had begun distancing himself from Futurism at the conclusion of the First World War. Folgore had initially enlisted as a lieutenant of the artillery, and then served in antiaircraft defense when he was declared ineligible for active duty.⁴⁰ Considered among the "most active and most militant" Futuists, Folgore had even changed his given name, Omero Vecchi, to Luciano Folgore taking the last name of "Folgore"—Italian for "lightning bolt" or "flash"—to fully absorb that angst for Marinettian hygiene that characterized Futurism. The enthusiasm in this gesture is excessive to the point of being comic. Knowing how Folgore's work would develop, one wonders if he was parodying Futurism all along. The question thus asserts itself: is *PLASTICITY* a parody, and if it is, who is it parodying and to what purpose?

Folgore's parodies have been defined as "parody" that becomes "satire"—they are writings intended to generate something new from the dialogue they establish with imitated works.⁴¹ This 'something new' emerged from what the reader knew about the "referenced work."⁴² As Folgore explained,

The ideal reader of the parody, the target reader would be one that knows the referenced work well, and comes to it seriously and with enthusiasm, reading it with gratification. An inadequate reader would not be able to understand the parodic message in its entirety as he would not have the tools with which to interpret the references of the meta-text.⁴³

⁴⁰ Giada Viviani, "Luciano Folgore," *Encyclopedia of Italian Literary Studies*, ed. Gaetana Marrone and Paola Puppa (New York, NY: Routledge, 2007), 754.

⁴¹ Magni, "Luciano Folgore's Self-Parody," 256.

⁴² *Ibid.*, 251.

⁴³ *Ibid.*, 251

In Folgore's description of what he aimed to accomplish with his parodic writing, the reader not only reads the text of the parody, but interprets it as "meta-text." The shift between text and meta-text produces something other than either the text or the meta-text: this movement between poetic dimensions and artistic identities is Folgore's 'plastic.'

In some of the parodies, the authors of the reference texts are anonymized in the sense that Folgore does not connect them to individual poems, but rather lists them at the beginning of a book and then parodies them in chronological order.⁴⁴ In other instances, Folgore references the author in the title of his "meta-text" in order to be explicit about "who is the victim." In general, all of the parodies are less focused on reinterpreting content than on imitating style.⁴⁵ In *PLASTICITY*, there is no such titular reference to a specific 'victim,' rather there are playful indications that seem to signal Folgore is already beginning the second phase of his 'dichotomous career' with a parody in *Valori Plastici*. These two references—read within the play with the stylistic strategies of the manifesto that Folgore employs—indicate that Folgore was already experimenting with parodying avant-garde movements, including Futurism, the Return to Order's avant-garde against the avant-garde, and others.

The first in-text reference in *PLASTICITY* is almost as direct as the titular references Folgore would make in his later parodies. It occurs in the twelfth line of the prose-piece, about a third of the way through the work. With this line, Folgore is in the midst of a passage of *paragone* (comparison) among the arts, and is differentiating the concerns of "literature" with "other laws, other measures" that "govern our attitude if we want to be in the world of the plastic and color":

As a poet or a musician marveling at visual spectacle, I can comfortably consider any nature that is a pure external representation.

Not to investigate, not to penetrate. It's enough to preserve a dusting of impressions after a serene shipwreck in joy.

⁴⁴ Ibid., 250.

⁴⁵ Ibid.

But if I become a painter, my contemplative inertia immediately transforms into a disquieting activity that eliminates the contentment of the beholder and replaces it with work.⁴⁶

The phrase “serene shipwreck in joy” (“*un sereno naufragio nella gioia*”) would have been immediately recognizable to anyone acquainted with Futurism. Though the poet Giuseppe Ungaretti was never a militant Futurist like Folgore, in 1915 he had published several poems in *Lacerba*, the leading Futurist magazine.⁴⁷ Ungaretti is typically associated with Hermeticism, a movement for which his own work was the leading example just as Marinetti’s work was for Futurism. The “serene shipwreck in joy” reads like a reference to Ungaretti’s *Allegria di naufragi* (The Happiness of Shipwrecks, 1919) published the same year as Folgore’s *PLASTICITY*. The phrase reads as if Folgore were intent on bringing the war home. He brings what scholars call Ungaretti’s poetics of the “dehumanizing effects of the war”—his poetic fragmentation, and use of “direct and evocative language,” his “horrors of trench warfare” and “existential loneliness of human beings confronted by their own mortality”⁴⁸—to the terrace is the site of ruminations on the plastic in *PLASTICITY*. After the manifesto-like beginning with which *PLASTICITY* begins—“Looking out onto the world at dawn and watching, should not be limited to fresh abandon, to the senses dissolving in that sudden stupor before reality that is created by means of light; it has to actively comprise a desire for structure”—Folgore announces comically, “There is a terrace.”⁴⁹ “Closed in by its four heavy walls,” he describes, “I find myself here at the end of night. I search my surroundings with a useless strain of the eyes [...]”⁵⁰—thus begins his intimate and melancholic exploration of the plastic, an exploration punctuated in moments by what read like comic and ironic shifts of tone.

⁴⁶ My translation. Luciano Folgore, “*PLASTICITÀ*,” 8.

⁴⁷ Ernesto Livorini, “Ezra Pound and Giuseppe Ungaretti: Between Haiku and Futurism,” *Ezra Pound and Europe*, ed. Richard Taylor and Claus Melchior (Amsterdam, Netherlands: Rodopi, 1993), 131

⁴⁸ Livorini, “Ezra Pound and Giuseppe Ungaretti,” 131.

⁴⁹ My translation. Luciano Folgore, “*PLASTICITÀ*,” 8.

⁵⁰ *Ibid.*

Like the Futurists, Ungaretti had worked on “dismantl[ing] the highly stylized conventions of Italian poetry”;⁵¹ however, he had “also spoken about the need for poetry not to present this world in its matter-of-fact, prosaic reality, but rather to subject it to an inventive reinterpretation; to see it “*come continua invenzione dell’uomo*” (“as man’s continual invention”).⁵² *Allegria di Naufragi* was a sparse poem that presented the “shipwreck as the beginning of a journey rather than the end”: as Ungaretti had explained, “it is the point at which that exultation of a second is released, that joy, which only ever has as its source the feeling of the presence of death, a death to be exorcized.”

<i>E subito riprende</i>	And immediately retakes
<i>Il viaggio</i>	The voyage
<i>Come</i>	Like
<i>Dopo il naufragio</i>	After shipwreck
<i>Un superstite</i>	The surviving
<i>Lupo di mare</i>	Sea-wolf ⁵³

The poem works with antithesis⁵⁴ and paradox,⁵⁵ an “attraction of opposites” in “mood swings.”⁵⁶ The “*lupo di mare*,” translated as sea-wolf, is an expression used to refer to an experienced sailor. The term infers there is something transformative, something not only inhuman, but as alien as the wolf is to sea, about the impulse to begin again, to continue sailing after the shipwreck.

Folgore returns to this transformative principle of metamorphosis in his description of what occurs when the protagonist of his prose-piece—its “I”—becomes a painter: “if I become a painter,” the character explains, “my contemplative inertia immediately transforms into a disquieting activity that eliminates the contentment of the beholder and replaces it with work.”⁵⁷

⁵¹ Somigli, “Italy,” 71.

⁵² Vivienne Suvini-Hand, *Mirage and Camouflage: Hiding Behind Hermeticism in Ungaretti’s ‘L’Allegria’* (Market Harborough, UK: Hull Italian Texts, 2000), 71.

⁵³ My translation. Suvini-Hand, *Mirage and Camouflage*, 53. Suvini-Hand presents a translation of Ungaretti’s poem that does not follow the line breaks or any line-by-line correspondence: “And like a surviving sea-wolf after the shipwreck, he immediately starts on the journey again.”

⁵⁴ Vivienne Suvini-Hand, *Mirage and Camouflage*, 56

⁵⁵ *Ibid.*, 71

⁵⁶ *Ibid.*, 69.

⁵⁷ My translation. Luciano Folgore, “*PLASTICITÀ*,” 8.

The “desire of the picture” takes over.⁵⁸ It “begins with intuition [...] swing[ing] eratically between groups of elements in a quest from thing to thing that seeks out unusual relationships almost unconsciously. At first turbid and tottering, everything is made clearer and more certain. A *sense of architecture* finds precision with an illuminating promptness.”⁵⁹ It is in the latter phrase that another reference emerges. This reference is to the “sense of architecture” promoted by the ‘Return to Order.’⁶⁰ It referred to appreciation for the way the Ancient Greeks were understood as seeing “form” everywhere, always investing nature with an “architectural sense.”⁶¹ According to scholars, *Valori Plastici* asserted the position of De Chirico that “modern art should take a cue from antiquity to consider forms as values; for example, the circle [as] ideal, the arch harmonious. Forms serve the purpose of edification in both senses of the term,” that is, in both the sense of spiritual edification and in the sense of providing structure and order in composition.”⁶² De Chirico praised this sense of form-as-value, or sense of the architectural, in the Etruscan bed. As literary scholar Keala Jewell writes, for De Chirico, the Etruscan bed was the “achievement of a perfect geometrical form.”⁶³ In De Chirico’s novel *Ebdomero*, the protagonist’s father tells him that “Etruscans had understood this matter of beds.”⁶⁴ They “always laid their statues on perfectly flat surfaces” not on “saw-backed mountains” like “spring mattresses whose surface is convex in the middle” and whose “much vaunted softness [...] is only an illusion, or at least a very ephemeral virtue.”⁶⁵ As Jewell writes, with his “plastic values,” De Chirico understood that “geometries have dire consequences” for bodies.⁶⁶ In *Ebdomero*, the author recounts the protagonist’s “horror of beds with spring mattresses”:

⁵⁸ Ibid.

⁵⁹ Ibid.

⁶⁰ Jewell, *Art of Enigma*, 5.

⁶¹ Ibid.

⁶² Ibid.

⁶³ Ibid.

⁶⁴ Ibid.

⁶⁵ De Chirico as quoted in Jewell, *Art of Enigma*, 63-64.

⁶⁶ Ibid.

His ideal was a wire mesh on very low wooden legs supporting a perfectly flat mattress. As for a pillow, he claimed he could never rest on those long cylinders sheathed in white cotton that give the sleeper such terrible nightmares but only on a bolster [...] which seen in section, formed an isosceles triangle.⁶⁷

And yet, in parodic fashion, after seeking a “sense of architecture” in a later section of *PLASTICITY*, Folgore suddenly launches into an aggressive pronouncement:

*I will not crystalize the varied rocking of the waves in geometric forms; I will not dissolve the sharp contours of objects to have them present themselves in patches; I will not look for a green triangle in a tree; I will not establish plastic harmonies nor counterpose tone to tone; words have only an intentional value and don't create pictures. Anything but, they merely offer decoration.*⁶⁸

As devoted as encyclopedia definitions claim Theo Van Doesburg was to “achiev[ing] an ideal unity through projecting the tension of opposites [...] a dialectical formation [...] articulating and then annulling issues of the individual versus the universal, nature versus spirit, particular versus general,”⁶⁹ it is funny to imagine him reading this passage in the process of writing a review he published of *Valori Plastici* in *De Stijl*. Van Doesburg himself wrote a piece for *Valori Plastici* in which he asserted that *De Stijl* was committed to the struggle against “modernist dilettantism and snobism.”⁷⁰

In *PLASTICITY*, the protagonist of Folgore’s prose-piece is just as passionate about his commitment to the ‘plastic’; at the same time, however, his devotion is confusing, beset by contradiction. He begins his definition of “plasticity” denouncing any sense of abandonment that makes the senses dissolve before reality, only to end with a variation on expressing this very dissolution. “Beyond [the] terrace” of structure and architectural sense, Folgore writes of “throw[ing] bridges of rainbows over the sea and the earth,” then recounts “suddenly realiz[ing]

⁶⁷ Ibid., 63.

⁶⁸ My translation. Luciano Folgore, “*PLASTICITÀ*,” 9.

⁶⁹ “De Stijl,” *Encyclopedia of Twentieth Century Architecture*, ed. Stephen Sennott (New York, NY: Fitzroy Dearborn, 2004), 348.

⁷⁰ Theo van Doesburg as quoted in Hubert F. Van Den Berg and Gillis J. Dorleijn, “Modernism(s) in Dutch Literature,” *Modernism*, ed. Astradur Eysteinnsson, Vivian Liska (Amsterdam, Netherlands: J. Benjamins Publishers, 2007), 979.

that over the wall, just two steps from [him] is a bottle full of water.”⁷¹ The effects of light “pass[ing] into it and turn[ing] around it [...] scatter [...] fresh pale hues into the surrounding world.”⁷² The very same effects occur within him when he passes the four solid walls of his terrace and ventures to “cross the city”: “the warmth that makes itself felt [...] infuse[s] [his] blood with sensations of velvet” and he “slide[s] through the streets softening everything and everyone with the impression of the smooth cloth.”⁷³ This permeability—this infusion of inside with outside, and outside with inside—concludes *PLASTICITY* with the image of “women dressed in spring fabrics and elastic men [...] brush[ing] by [him] with an almost rustling rhythm,” as he “stop[s] for a coffee” in a locale “where the bottles, little tables, and platters” are transformed into “satin mirrors” by the “soft atmosphere” of “liquors and metals.”⁷⁴ The whole scene of reflections forms what Folgore calls a “supple picture.” He consummates his creation, committed to a Return to Order, with the ultimate gesture of permeable plasticity, he “orders a shot of *menta* [a mint-flavored drink] so as to have on [his] lips [the] same feeling of fields greening fresh and sweet” in him as around him.⁷⁵

PLASTICITY – Looking out onto the world at dawn and watching, should not be limited to the fresh abandon, to the senses dissolving in that sudden stupor before reality that is created by means of light; it has to actively comprise a desire for structure.

There is a terrace. Closed in by its four heavy walls, I find myself here at the end of night. I search my surroundings with a useless strain of the eyes. Recreating the landscape by memory, I stay within the flat plan of the usual lines. In the end, all I can do is skim memory’s album to track down its fixed photograph of visual appearances.

In the dark, nature is nothing more than a play of shadows, some more dense and others less. If there is a clearing anywhere, it attracts the flow of senses and imprisons them in a point. Then all the rest blurs into a continuous rush of grey and imprecision.

But here is the twilight. A red breath. A nocturnal violet wearing thin. A transparency that rises in the heavy superimposition of planes. They begin to revive the depths and the eye follows the rising of the light that measures them.

⁷¹ My translation. Luciano Folgore, “*PLASTICITÀ*,” 9.

⁷² *Ibid.*

⁷³ *Ibid.*

⁷⁴ *Ibid.*

⁷⁵ *Ibid.*

The sky is no longer a strong dome, a convexity in which the zenith is constantly the highest point. It becomes something that moves and shifts, a complex of blue lines and masses where the vertical and horizontal distances no longer balance themselves out in the summit overhead.

The sun—when at last it shows itself on the edge of the world—opens an angle of light in which reality begins to solidify.

When the sun separates from the earth and the sea, and its red weight lightens into a luminosity without precise color, it becomes possible to forget that its there and look around.

Water, mountains and plants are now born for the senses.

Poetry could track down the visible and invisible connections that unite the self with things and, either restore the magnificent sensation of the world stolen from the eyes, then recreated in the *architecture of images*; or otherwise (and this is far less important) it could express psychological and metaphysical reactions of the spirit in touch with the fresh reality of the world blooming from the dark.

Either way, it all remains literature, which nurtures certain external and internal particulars, making use of its specially expressed music, that phenomenon best perceived by closed eyes.

Other laws, other measures, govern our attitude if we want to be in the world of the plastic and color.

As a poet or a musician marveling at visual spectacle, I can comfortably consider any nature that is a pure external representation.

Not to investigate, not to penetrate. It's enough to preserve a dusting of impressions after a serene shipwreck in joy.

But if I become a painter, my contemplative inertia immediately transforms into a disquieting activity that eliminates the contentment of the beholder and replaces it with work.

The desire of the picture begins with intuition; it swings erratically between groups of elements in a quest from thing to thing that seeks out unusual relationships almost unconsciously.

At first turbid and tottering, everything is made clearer and more certain. A *sense of architecture* finds precision with an illuminating promptness.

Before me, I have the world. Familiar figure for me, for you, when we are calm beholders.

For the creative faculties: a complicated gathering of masses variously colored in lines differently crossed.

The mountain is not mountain, the sea is not sea, the plant is not plant, even though the vocabulary, the memories, the everyday impressions define them as such.

My point of departure is that visible-outside down there, but the point of arrival crosses borders into new regions where faithful resemblances become myths already faded.

The color that breathes, the air that vibrates flashing tones, the photographic outline of the landscape, no longer interest the modern painter who (according to the generic criticism) looks for other values and other harmonies in the expressions of art.

There is an absolute sun, a universe of light that gives relief to the figures of men and of objects, and condenses them into masses that have a consistency and variable weight.

I will not crystalize the varied rocking of the waves in geometric forms; I will not dissolve the sharp contours of objects to have them present themselves in patches; I will not look for a green triangle in a tree; I will not establish plastic harmonies nor counterpose tone to tone; words have only an intentional value and don't create pictures. Anything but, they offer decoration.

This morning, I enriched my senses with red notes, orange blues. Strokes of chromatic pleasure. And I have, from the eyes to the brain, an ornamental motif that is a fringe of light. I can make myself a life plush with persian rugs, and yet were I to cross a resonant city, I'd still find the image of reality freshly painted with its edges dripping in color smelling of mineral spirits.

The faraway gardens have no *chiaroscuro*. They are of a singular thickness. The spring clots and composts here and there in colored planes. Trapezoid incline of roofs reflect with red strips over the white surface of a building and cut through it.

Jolts of pink and violet. Anything that walks leaves a plastic imprint on the landscape, dragging behind it—creating all around it—an atmosphere in which elements of figures, glimpses, angles, outlines of things, all rock with a rhythm that is not that of the stride, but of a kind of mysterious swaying around a nucleus that attracts forms like a solar center, and maintains them at a distance that is rule and the measure of gravity.

Beyond my terrace, I would happily throw bridges of rainbows over the sea and the earth. My instinct to undo the habitual perspectives would go ambling along them, fusing in its synthesis elements dissimilar in appearance, but tied to each other by vast affinities in color and mass.

I suddenly realize that over the wall, just two steps from me, is a bottle full of water. The light passes into it and turns around it; the transparent matter of the glass, marked by threads of various color—almost visible, but not delineable—scatters its fresh pale hues into the surrounding world. Yet they are not houses, trees, mountains of glass that I sight, but a landscape in which the air that surrounds objects has the clarity of a delicate crystal bell jar and gives a diaphanous fragile immobility to the aspects of things.

Later I will cross the city. The warmth that makes itself felt will infuse my blood with sensations of velvet and I'll slide through the streets softening everything and everyone with the impression of the smooth cloth.

I will see women dressed in spring fabrics, elastic men that will brush by me with an almost rustling rhythm, and I will stop for a coffee where the bottles, little tables, and platters, diluted in the vibrant tonality of liquors and metals under a soft atmosphere, will become satin mirrors in which changing scenes of life reflect to combine into a supple picture.

Then I will order a shot of *menta* so as to have on my lips this same feeling of fields greening fresh and sweet all around.⁷⁶

⁷⁶ My translation. Luciano Folgore, “*PLASTICITÀ*,” 8-9.

Folgore's plasticity is a 'plastic value' that supports the platform of the 'Return to Order' movement while simultaneously undermining it. Its proposed plastic order is not the solid 'architectural sense' scholars associate with the 'Return to Order' movement, but rather permeability: the interior folding outside, to in turn enfold the exterior folding inside. This same sense of permeability appears in some of the later paintings of De Chirico's brother Alberto Savinio where forests grow on the edges of tables (i.e., *L'isola portatile* [Portable Island, c. 1930]⁷⁷), an aggressive sky of bright stylized curves and zig-zags assails the feathery leaves of forest trees (*Senza Titolo* [Untitled, 1929]⁷⁸) and collections of toy-like treasures float across stormy skies (*Le Voyage au bout du monde* [Voyage to the Edge of the World, 1929]⁷⁹) (fig. 119).

Seven years after Folgore published *PLASTICITY* in *Valori Plastici*, he published a book of poems titled *Poeti allo Specchio, parodie* (1926) which includes explicit parodies of Marinetti and Ungaretti. Among the parodies is a parody of the poet Aldo Palazzeschi titled *Ritratto dal di dentro. Parodia di Aldo Palazzeschi* (*Portrait From Within. Parody of Aldo Palazzeschi*) written after the Tuscan poet Palazzeschi's *Chi sono?* (*Who am I?*):

(Palazzeschi's "hypotext")

Am I a poet?
 No, of course.
 It does not write a word, strangely,
 The pen of my soul:
 "Madness."
 So therefore I am a painter?
 Not even
 ...A musician then?
 Not even...
 Who am I?

(Folgore's "meta-text")

[...]
 A simpleton? Maybe!
 I would resemble a lot
 of crepuscular poets!
 A sacristan? No:
 It would touch me every
 morning
 having a crutch for the
 beguines.
 Instead I feel...

⁷⁷ Alberto Savinio, *L'Isola Portatile* (Portable Island, c. 1930), oil on canvas, 16.14 x 12.20 in (41 x 31 cm), Galleria Civica d'Arte Moderna e Contemporanea, Torino, Italia.

⁷⁸ Alberto Savinio, *Senza Titolo* (Untitled, 1929), oil on canvas. 25.59 x 32.01 in (65 cm x 81.3 cm), Sotheby's London. The Italian Sale. October 15, 2015. "Alberto Savinio, Lot #29," *Blouin Art Sales Index*. N.d. Accessed December 10, 2015. <http://artsalesindex.artinfo.com/auctions/Alberto-Savinio-5978720/Senza-Titolo-1929>

⁷⁹ Alberto Savinio, *Le Voyage au bout du monde* (1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino, Italia.

The acrobat of my soul.⁸⁰

A futurist? Not even:
I would have to redo the whistle
Of the train
And the verse of the plunger
And it would be very funny,
Or rather, very dumb
If I were to get myself to whistle
Myself.⁸¹

Folgore's "plasticity" extends the "metaphysical relationship between subject and object"⁸² that was identified with the work of contributors to *Valori Plastici*, to a metaphysical relationship between the objectified subject and its subjectified objects.

'Plastic Values' in Hanne Darboven's *Cultural History 1880-1983*

In *Kulturgeschichte 1880-1983* (Cultural History 1880 – 1983, 1980-1983),⁸³ a massive retrospective installation by German Conceptual artist Hanne Darboven (1941 – 2009) (fig. 119),⁸⁴ a reference to the magazine *Valori Plastici* appears in a hand-written transcription of an encyclopedia entry from a 1981 edition of the *Grosser Brockhaus*. The *Grosser Brockhaus* was a German-language encyclopedia which began publication in the late-18th century and ceased print publication in 2009, the year of Darboven's death. According to the *Encyclopedia Britannica*, "no work of reference has been [...] more frequently copied, imitated and translated" than the *Brockhaus*.⁸⁵ The reference to *Valori Plastici* is one of two instances in which the term "plastic" is directly invoked in Darboven's epochal work. The specific allusion to *Valori Plastici* occurs in a framed panel that pairs an encyclopedia transcription about Giorgio De Chirico, with a late 20th-century cover of the German weekly, *Der Spiegel* (The Mirror), that features Plasticene sculptures. In the *Der Spiegel* cover, the Plasticene sculptures are of Germany's social-

⁸⁰ Magni, "Folgore's Self-Parody," 258

⁸¹ *Ibid.*, 257-258

⁸² Cooper, "Gender, Identity, and the Return to Order in the Early Works of Paola Masino," 379.

⁸³ Hanne Darboven, *Kulturgeschichte 1880-1983* (Cultural History 1880-1983, 1980-1983). 1,590 framed works on paper and 19 sculptural objects. The Dia Foundation, New York.

⁸⁴ Hanne Darboven (Munich 1941 – Hamburg 2009).

⁸⁵ "Encyclopaedia". *Encyclopædia Britannica*. 9 (11th ed.). ed. Hugh Chisolm (Cambridge, UK: Cambridge University Press, 1910), 381–382.

democratic Chancellor Helmut Schmidt (1974 – 1982) and his 1979 conservative challenger Franz Josef Strauss (fig. 120, bottom). To accent the contraposition of content in the framed panel, formal aspects are emphasized: the transcription is framed in red; the *Der Spiegel* cover, in light blue.

The second allusion to the “plastic” occurs among a sequence of framed panels with pairs of *Der Spiegel* covers (fig. 120, top). The covers are displayed side-by-side like one of art historian Heinrich Wölfflin’s famous lantern slide comparisons (many of which were used to illustrate his distinction between “pictorial” and “plastic” values in art).⁸⁶ In one panel, a cover dedicated to the topic of “*Plastische Chirurgie*” (plastic surgery) is paired with another dedicated to “*Gewalt verbrechen*” (violent crime). In their pairing, the two covers generate “triple vision”⁸⁷: a before-and-after image of a woman with a face lift and breast implants, appears next to another before-and-after image (this one not laterally arranged but superimposed), with a woman in a wheelchair seated before the scene of her own roadside attack. In its incidental allusion to 20th-century uses of the term “plastic,” *Cultural History 1880-1983* associates body modification, prosthetic objects (i.e. the wheelchair), the political, the feminine, physical violence, and urban crisis. The plastic is destructive.

In the case of Hanne Darboven, there is much that an artist who insists “I have nothing to tell this world”⁸⁸ can show us about what Folgore called “plasticity”—the way the human body’s unself-conscious interaction with its products—its numbers, words, images, objects, sounds and shelters—have shaped and defined it. As one philosophical study of Darboven’s installations has asserted, Darboven’s practice produces new “artistic configurations” that do not show this

⁸⁶ Heinrich Wölfflin, *Principles of Art History: The Problem of the Development of Style in Later Art* (1932) trans. M. D. Hottinger (Mineola, NY: Dover Publications, 2012).

⁸⁷ Chazal, *Sens-Plastique*, 161.

⁸⁸ Artist Hanne Darboven quoted in Bettina Carl, “Hard Work Looking Easy, the Ballerinas Always Smile: Notes on the Art of Hanne Darboven.” *Afterthought: New Writing on Conceptual Art*. ed by Mike Sperlinger (London, UK: Rachmaninoff’s, 2005), 59.

plasticity by illustrating it.⁸⁹ Darboven's work does not "instrumentalize art in the service of philosophical truth"⁹⁰ the way post-conceptualist Warren Neidich's post-conceptual work does (fig. 105), nor is her work "therapeutic," offering a "public service of 'catharsis/dehysterization'"⁹¹ the way Schneeman's "plastic body" collage did in *Snows* (1967) (fig. 113).⁹² Darboven's work makes no romantic claim on truth—it does not propose that "art *alone* is capable of truth."⁹³ Darboven explained that she worked with numbers because they are "steady, limited, artificial"—"a way of writing without describing."⁹⁴ This "experience of time" that "completes it" "independent of the beholder's presence," is one that scholars associated with the Minimal Art which Darboven's work was in dialogue with in the late 1960s; her installations, however, engage with it in an altogether different way.⁹⁵ Darboven invites the viewer to "activate the work" with presence, summoning the viewer in with the lure of interpretation, but blocks the viewer from confusing the animating activation of presence with the making of meaning. The work is not there for the viewer, rather the viewer is brought into the work as a living body necessary to complete the installation's aggregation of words, numbers, drawings, objects, images and structures.

I first saw the installation *Cultural History, 1880 – 1983* in 2003 when Darboven was still alive.⁹⁶ That year, the installation (part of the New York-based Dia Art Foundation's permanent collection) was mounted at Dia:Beacon, the foundation's exhibition site in upstate New York. In a coincidence of events, the exhibition occasioned the crossing of representative

⁸⁹ Alain Badiou's term as used by Adam Lauder, "'Alien Qualities': Hanne Darboven – Constructing Time," *Technoetic Arts: A Journal of Speculative Research*. Vol. 11, No. 2 (2013), 132.

⁹⁰ Badiou as cited in Lauder, "'Alien Qualities,'" 139.

⁹¹ Ibid.

⁹² Schneeman, "Letter to Joseph Berke, Feb 14 1967," 113.

⁹³ Badiou as cited in Lauder, "'Alien Qualities,'" 139.

⁹⁴ Hanne Darboven as quoted in Lauder, "'Alien Qualities,'" 139.

⁹⁵ Pamela Lee's *Chronophobia: On Time in the Art of the 1960s* (2004) as cited in Lauder, "'Alien Qualities,'" 141.

⁹⁶ *Hanne Darboven: Kulturgeschichte 1880 – 1983*. Dia: Beacon. Beacon, New York. May 3, 2003 to March 26, 2005.

dynasties. Darboven—an heiress of Germany’s iconic Darboven coffee company—exhibited her monumental installation while George W. Bush—the heir apparent of an American political family—campaigning for a second term as President of the United States. Thirteen years later (and seven years after Darboven’s death), I saw the installation again, this time at Dia:Chelsea in downtown Manhattan.⁹⁷ It was November 9th, the day after former U.S. Secretary-of-State Hillary Clinton (the first woman to win a presidential primary) conceded the 58th Presidential election to real estate dynasty-maker and reality-television celebrity, Donald Trump (a notorious womanizer).

Amidst this ironic complex of early 21st century mass-media events in geopolitics, the effect of seeing Darboven’s installation was much like the experience of corporeal introjection that Folgore playfully described in *PLASTICITY*. In November 2016—with fresh memories of newspaper headlines like “On Election Day, the History of Fascism Matters”⁹⁸—I entered Darboven’s installation and found myself overwhelmed by the juxtapositions of domestic life in Germany’s Weimar Republic (1919-1933) with similar everyday images from the mid 20th-century rise of American empire. For five hours, I walked loops through a configuration of interpenetrating images and objects that, at every turn, crossed my body with correlations between the conditions that empowered modernism’s populist, Adolf Hitler, and those that had brought contemporary populism its own success: the U.S. election of Donald Trump.

Donald Trump’s election as the 45th President of the United States is the ultimate engendering of “fictionalization,” a phenomenon that philosopher Peter Osborne has written about as characterizing the contemporary: with fictionalization, “no fictional exaggeration,

⁹⁷ *Hanne Darboven: Kulturgeschichte 1880 – 1983*. Dia: Chelsea. New York, New York. November 5, 2016 to July 29, 2017.

⁹⁸ Ishaan Tharoor, “On Election Day, the History of Fascism Matters,” *Washington Post*, November 8, 2016. https://www.washingtonpost.com/news/worldviews/wp/2016/11/08/on-election-day-the-history-of-fascism-matters/?utm_term=.71f6ae574b42

however extreme, [can] undermine the presumption of factuality”⁹⁹. The work that Darboven produced over her lifetime was sensitive to the defining importance of fictionalization in the contemporary. In addition, her work also always recognizes that history is not only about the past and present, but about the future. In 2016, when I walked into *Cultural History 1880-1983* from out-of-the-future, the conditions existed for me to become the twentieth object among the constellation of nineteen that the installation displays amidst its enveloping grid of 1,590 framed panels: my own body acted as a synecdoche of the ‘governed’ under recent new populist phenomena. *Cultural History 1880-1983* expanded to accommodate 2016.

As Okuwi Enwezor (curator of an important expanded retrospective of Darboven’s work in 2016) has written, “the upheaval that today defines contemporary events” is “shaped by disaffection with [...] paradigms of totalization;” this disaffection did not shift the “forces of totalization,” but did “shape the emergence of new subjectivities and identities.”¹⁰⁰ In the case of Trump, these new subjectivities and identities have taken fictionalization to its most extreme consequences. Folgore’s parodic-satiric *Return to Order* in “plasticity” has become the rule in the contemporary aestheticization of politics. During my 2016 visit of *Cultural History 1880-1983*, a phrase I had not noticed in the installation in 2003, became a returning theme. Hand-written on a piece of paper mounted upside-down in one of 1,590 framed panels, it reads, “what is the difference between US + U.S.?” (fig. 121).¹⁰¹ When I hobbled out of the exhibition—my feet sore from five hours of standing—I checked my phone for calls and notifications, and noticed that while I had been writing notes about Darboven’s homonym, a *Twitter* hashtag created by a U.S.-

⁹⁹ Peter Osborne, *Anywhere or Not at All: Philosophy of Contemporary Art* (London, UK: Verso Books, 2013), 32.

¹⁰⁰ Okuwi Enwezor, “The Postcolonial Constellation: Contemporary Art in a State of Permanent Transition,” *Antinomies of Art and Culture: Modernity, Postmodernity, Contemporaneity*, ed. Terry Smith, Okuwi Enwezor and Nancy Condee (Durham, NC: Duke University Press, 2008), 232.

¹⁰¹ For more on this phrase, see also Dan Adler, *Hanne Darboven: Cultural History 1880-1983* (London, UK: Afterall Books, 2009), 11.

based German national was responding to Trump's election by trending, "#BeenThereDoneThat."¹⁰²

Like Folgore, Darboven is less interested in communication with an audience than with compelling the viewer of her installations to take responsibility for their interactions with the art object. In other words, Darboven disabuses the viewer of any sense of entitlement, of the notion that the art object is a well-earned gift. Folgore had described his "ideal reader," or "target reader," as one who would have "the tools [...] to interpret the references of [his] meta-text." This "ideal" or "target reader" is molded in the image of the hybrid author/beholder. This hybrid is not the image of the author, but the author othered. In his parodies, Folgore took on the stylistic identities of other poets to become 'other' than his own authorial voice. Darboven's "plastic values," like Folgore's, break the "contemplative inertia" of the viewer and transform it into the "disquieting activity" of the artist, "elimiat[ing] the contentment of the beholder and replac[ing] it with work." That which was once the "familiar figure" of the world for the beholder, becomes what Folgore called "a complicated gathering of masses variously colored in lines differently crossed." Darboven's installations are infused with Folgore's "plasticity": "the mountain is not mountain, the sea is not sea, the plant is not plant, even though the vocabulary, the memories, the everyday impressions define them as such." The "point of departure is that visible-outside down there, but the point of arrival crosses borders into new regions where faithful resemblances become myths already faded."

In Darboven's installations the "plasticity" that Folgore described between "myths already faded" and "new regions" across borders—that world that is a "complicated gathering of masses variously colored in lines differently crossed"—is ordered and arranged by the artist

¹⁰² Elyse Wanshel, "Viral Letter from 'People of Germany' Compares Donald Trump to Hitler," *Huffington Post*, November 7, 2016. http://www.huffingtonpost.com/entry/donald-trump-hitler-germany_us_5820a1a7e4b0e80b02cb48a3; Rick Noack, "What Germans Really Think about Those Hitler-Trump Comparisons," *Washington Post*, November 7, 2016. https://www.washingtonpost.com/news/worldviews/wp/2016/11/07/what-germans-really-think-about-those-hitler-trump-comparisons/?tid=a_inl&utm_term=.05d82e92a4cd

between *BildEvidenz* (substantiation, or the construction of historical fact through images) and the *Plastik* (plastic sense or corporealization).¹⁰³ The German term *BildEvidenz* is not easily translatable into English. “Visual evidence” is considered inadequate because of its forensic connotations; scholars therefore prefer terms like “evidentness” or “substantiation.”¹⁰⁴ To put it in more simple language, *BildEvidenz* is the way images and objects animate historical fact. As previously discussed, the term *Plastik* presents similar difficulties. It is often used interchangeably with sculpture, touch (the haptic), and three-dimensionality; however, as it has been shown here, in artist writings and art history, it has also been used to refer to a separate “sixth sense” between subject and object, inside and outside, and in the complimentary opposition of sensorial impressions.¹⁰⁵ Like synesthesia, the plastic sense and plasticity written about by

¹⁰³ I have arrived at this definition of the *Plastik* (in English, plastic) as “corporealization” through the early theoretical manuscripts (*Grundlegende Bruchstücke*) of Hamburg-born art historian Aby Warburg (1866 – 1929), whose *Mnemosyne Bilderreihen* (more commonly known as the *Mnemosyne Atlas*) is often referred to in writings about Darboven’s work. Warburg’s notes from the *Grundlegende Bruchstücke* associate the term *Verleibung* (translated by Ernst Gombrich as “corporealization”)—a complex four-fold process of image-object-body exchange— with the term *Plastische kunst* (plastic art) in a way that complicates the more simplistic English translation of *Plastik* as “sculpture.” Darboven’s installations are often compared to Warburg’s *Mnemosyne*, a series of mobile display panels, pinned with image configurations and displayed in an elliptical reading room of Warburg’s own design. See Enwezor, “Folds of the Self,” 175 and Adler, *Hanne Darboven*, 40-43. Like Darboven (of the Darboven Coffee Company), Warburg was also from a wealthy Hamburg family—the Warburg family banking dynasty—and the architecture of the institute he created was important to his scholarship in much the same way that Darboven’s family home played a critical role in her practice. For more on the definition of *Plastik* as corporealization, see Emily Verla Bovino, “On Irons, Bones and Stones, or an Experiment in California-Italian Thinking on the ‘Plastic’ between Aby Warburg’s Plastic Art, Gelett Burgess’ Goops and Piet Mondrian’s Plasticism,” *California-Italian Studies*, Volume 6 (2016).

¹⁰⁴ Richard Swedberg and Olga Agevall, *The Max Weber Dictionary: Key Words and Central Concepts*, Second Edition, (Stanford, CA: Stanford University Press, 2005, 2016) 127. For more specifically on *BildEvidenz* and Darboven, see *Hanne Darboven-Schreibzeit*, ed. Bernhard Jussen (Köln, Germany: Walther König, 2000). For more general discussions, see Heinrich Plett, *Enargeia in Classical Antiquity and the Early Modern Age: the Aesthetics of Evidence* (Leiden, Netherlands: Brill, 2012); Hartmut Böhme, “Bildevidenz, Augentäuschung und Zeugenschaft in der Wissenschaft des Unsichtbaren im 17. Jahrhundert,” in *Dissimulazione Onesta, oder, Die ehrliche Verstellung: von der Weisheit der versteckten Beunruhigung in Wort, Bild und Tat : Martin Warnke zu Ehren, ein Symposium* (2003) ed. Martin Warnke, Horst Bredekamp, Michael Diers, et. al. (Hamburg, Germany: Philo, 2007); and, Klaus Krüger, *Politik der Evidenz : Öffentliche Bilder als Bilder der Öffentlichkeit im Trecento* (Göttingen, Germany: Wallstein Verlag, 2015).

¹⁰⁵ For a description of “plastic sense” as a “sixth sense” in artist writings, see de Chazal, *Sens-Plastique* (1948), op. cit.; see also the German sculptor Adolf [von] Hildebrand’s *Das Problem der Form in der Bildenden Kunst*, 1893. As previously discussed, the German *Bildenden Kunst* is another another term that

poets like Chazal and Folgore is experienced through the interaction of senses; unlike synesthesia, however, its combined senses are not in synthesis, but in conflict.

Darboven's installations have been written about in relation to *BildEvidenz* by German art historians.¹⁰⁶ In a collection of philosophical writings about history and aesthetics, Darboven's book project, *Schreibzeit* (Writing Time, 1975 – 1999; pages of which are included in *Cultural History 1880-1983*) is discussed as an example of "historical writing as a problem of form."¹⁰⁷ While many scholars have applied the metaphor of the archive to their analyses of Darboven's installations, this analysis makes use of anachronism to write about Darboven's practice in relation to "a medieval model of historiography—one marked by copying rather than interpreting."¹⁰⁸ This scholarship also compares Darboven's practice to that of the fictional copy-clerks Francois Denys Bartholomé Bouvard and Juste Romain Cyrille Pécuchet, two protagonists in Gustave Flaubert's unfinished and posthumously published novel, *Bouvard et Pécuchet* (Bouvard and Pécuchet, 1881).¹⁰⁹ Bouvard and Pécuchet decide to abandon their ledgers (*Schreibpulte*) and turn to the pursuit of intellectual endeavor, only to find that in order to be able to "judge" all the people and all the facts of the past "impartially," they would have to "read all the historical works, all the memoirs, all the papers, all the manuscripts from which the slightest omission could lead to error."¹¹⁰ The resulting "irritation over the inexhaustibility of historical knowledge is at the same time an irritation over the conditionality of its representation in the medium of language, writing and text."¹¹¹ The former clerks venture through all varieties of academic disciplines, only to resign themselves to the fact that all they have to show for their

can be translated as "plastic art," but is usually translated as "painting and sculpture." See [von] Hildebrand, *The Problem of Form in Painting and Sculpture*, op. cit.; *Empathy, Form, and Space*, op. cit.

¹⁰⁶ Hanne Darboven: *Schreibzeit*, op. cit.

¹⁰⁷ Bernhard Jussen, "Geschichte schreiben als Formproblem: Zur Edition der "Schreibzeit"" in *Hanne Darboven: Schreibzeit*, ed. by Bernhard Jussen (Cologne, Germany: Walther König, 2000), 17 – 22.

¹⁰⁸ Bernhard Jussen's work on Darboven as it is described in Adler, *Hanne Darboven*, 80.

¹⁰⁹ My translation. Klaus Krüger, "Die Zeit der Schrift. Medium und Metapher in der "Schreibzeit," *Hanne Darboven—Schreibzeit*, ed. Bernhard Jussen (Cologne, Germany: Walther König, 2000), 43-68.

¹¹⁰ My translation. Krüger, "Die Zeit der Schrift," 43-68.

¹¹¹ My translation. Ibid.

“reflections” are “tobacco bags, newspapers, posters, serial books, etc.,” all covered in copied writing.¹¹² There is liberation in this disappointment: “text” becomes “texture”—a kind of “ornament.”¹¹³ It is said to be within this context that Darboven’s processes of writing and transcribing are best “read.”¹¹⁴

Recent philosophical writings have also explicitly associated Darboven’s work with “plasticity”¹¹⁵—not “plasticity” as it was defined by the poet Folgore, but a “plasticity of number” used to describe Darboven’s work between number and space, what could also be called form and formula. This identification of “plasticity of number” as a central value in Darboven’s work focuses primarily on two aspects of her practice: her characteristic u-shaped wavy lines (what art critic Lucy Lippard called Darboven’s “brain waves”¹¹⁶) (fig. 122, left) and her system of calculations, or “checksums” (fig. 122, right).¹¹⁷ Darboven devised her checksums to write time in what she called “progressions and/or reductions” and described as “not unlike a musical theme with variations.”¹¹⁸

In her checksums, Darboven used dates from the Gregorian calendar formatted in the little-endian sequence of day-month-year notation. Each individual number is usually taken as a single unit and added to produce a double-digit sum (i.e., 3.1.85 is $3+1+8+5=17$).¹¹⁹ The calculations produce malleable temporal maps that compress time and allow it to be spatialized. In drawings, Darboven grouped dates from the same year—or from different years—in various sets (i.e., $3.1.85=17$ can group March 1, 1985 or March 1, 1885 in the same set; this set under the

¹¹² My translation. Ibid.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Lauder, “‘Alien Qualities’,” 131 and 144.

¹¹⁶ Lucy Lippard as quoted in Carl, “Hard Work Looking Easy, the Ballerinas Always Smile,” 50.

¹¹⁷ Darboven as quoted in Zdenek Felix, “Of the Duration of This World: Hanne Darboven and Her Objects” in *Hanne Darboven: Enlightenment – Time Histories, A Retrospective*, edited by Okwui Enwezor and Rein Wolfs. (Munich: Prestel, 2015), 31.

¹¹⁸ Darboven as quoted in Felix, “Of the Duration of This World,” 31.

¹¹⁹ Susanne Kleine, “Ansichten >85<, Harburg/New York (Views >85<, Harburg/New York), 1984 – 1985” in *Hanne Darboven: Enlightenment – Time Histories, A Retrospective*, edited by Okwui Enwezor and Rein Wolfs. (Munich: Prestel, 2015), 122 – 123.

sum 17 could also include various iterations on 3.1.58, such as March 1, 1858 or March 1, 1958). Part of her practice included using these sets to generate forms (fig. 122, right) like rectangles with dimensions determined by how many dates can be listed in a set; the sets are also used to generate grids in columns of ten where the overall shape is a result of the number of units in a checksum calculation (i.e. the checksum 17 is drawn over 17 boxes on graph paper over two rows, with 10 boxes outlined in the first row and 7 boxes outlined in the second). Like the “text” that became “texture” in scholarship about the construction of visual evidence in Darboven’s installations, the plastic sense (*Plastik*) between form and formula that appears in Darboven’s drawings is an engendering of the animating force with which substantiating subjects (*BildEvidenz*) are made to emerge from aggregations of material culture and configurations of image-objects.

The words “us” and “U.S.” in the homonymic question “what is the difference between US + the U.S.” (fig. 121) are mirror images of one another that contract and amplify with capitalization, rhythmically opening and closing with the presence and absence of periods; similarly, substantiation (*Evidenz*) and corporealization (*Plastik*) run feedback loops through one another in Darboven’s practice. In order for an object to become a substantiating subject (*BildEvidenz*) of history, it must be incorporated into the human body through combinations of conflicting sensorial impressions (*Plastik*). Darboven works directly with this process. For example, in order for the question “what is the difference between US + U.S” to become visible to me at one moment, when it was formerly invisible to me at another, it was not only necessary that I be more attentive, and bring my anxieties about the conditions of my world into my perception of the work; it was also necessary that Darboven’s installation be able to respond to my projections with its own introjections.

In other words, for the note to be visible as text at one moment and invisible as texture at another (or vice versa—visible as texture, and invisible as text), it had to attend to certain formal

concerns that would make shifts in visibility possible. It had to be hand-written in blue pen so it would recede from the prevailing palette of black, white and red among the framed panels; it had to be turned upside-down and hung in a lower row of panels so a visitor would have to crouch and turn her head to read it. It had to be framed in a panel next to the photomontaged photograph of a camera on a tripod, ironically framed by another photograph of a picture frame: this *mise-en-abîme* adds depth to the configuration of image and text, and pushes the blue handwriting of the note—which would otherwise recede—into the foreground. Both the note and the framed photograph of the framed camera are indexical traces; however, the hand-written note is an actual object present on the page, while the photographed frame and photographed camera are only virtual presences. Darboven's installations show how juxtaposition, configuration, orientation, and position combine in a kinesthetic system of exchange among bodies, objects, images and space. It is by way of this empowering force that history's substantiating subjects (*BildEvidenz*) emerge from processes of corporealization (*Plastik*).

The numeric equivalent of Darboven's homonymic pairing of "us" and "U.S." is her famous numeric epigram, " $2=1,2$; $1+1=1,2$ etc," which she also includes in *Cultural History 1880 – 1983*. Like this formula, the layout of *Cultural History 1880 – 1983* takes the form of a spatial loop comprised of smaller loops. It is experienced as a sequence in plastic duration that doubles on itself in waves like the u-shaped lines that repeat as a motif in Darboven's drawings. In *Cultural History 1880 – 1983*, the installation's 1,590 framed panels from series 1 to series VII are conceived to wrap around an exhibition space, creating the sense of an enveloping grid; when elements like photographs and postcards in the grid's framed panels are repeated, there is a sense of the grid collapsing on itself.

There are also other breaks in the grid's orthogonal regularity: nineteen everyday objects found, purchased, or commissioned for fabrication by Darboven, appear at regular intervals throughout the exhibition space. They include colonial-era African tourist sculpture, department

store display props and shop window wax mannequins, an antique set of 18th-century ‘blackamoor’ candle holders, an English bible, commemorative plaster statues of important historical figures, wall clocks, framed portrait photographs, a rocking chair, paper dolls, carousel animals, a baby-doll hugging a stuffed bear, a wooden crescent, a Chinese pressure lamp and a wooden cross.

There are repeated instances in which the objects on display are directly referenced in the framed panels (fig. 123). Such repetition often occurs in photographs of their presence in other contexts, such as at exhibitions (fig. 123, middle) or in domestic display and storage at Darboven’s family home, *Am Burgberg* (fig. 123, right). Similar photographs are interspersed throughout the framed panels of series I to VII. There are also instances in which the dialogue between framed panels and displayed objects is less immediate and more of an emergent phenomenon, one that incidentally substantiates underlying play between form and formula: for example, the visitor finds herself looking at a photograph of a lightbulb sculpted from leopard-wood and notices she is standing between a never-used pressure lamp with all its original People’s Republic of China (PRC) labels, and the lit bulb on the head of a life-size wooden robot. Like history itself, Darboven’s installations are full of substantiating subjects (*BildEvidenz*) that appear planted for meaningful intent, but that could just as easily be evidence of accident or coincidence among the viewer’s conflicting sensorial impressions (*Plastik*).

Photographs of *Cultural History 1880 – 1983* indicate that the positions of its 19 objects vary with each exhibition. At times, certain objects are even withdrawn from display. In the most recent exhibition of *Cultural History 1880 – 1983* at Dia:Chelsea, the entrance to the grid of framed panels from Darboven’s series I begins with a large English bible. The bible is set on a plinth in the corner of a corridor partition built specifically for the Chelsea space. It is open to Chapter XLIV (44) of Isaiah, "The Vanity of the Idols": “they that make a graven image *are* all of them vanity,” a passage warns, “and they *are* their own witnesses; they see not nor know.” A

black-and-white photograph of the same bible open to a different page—an introductory preface—appears in panel 140 of series VII, across the dry-wall corridor from the actual object itself. The dialogue between the framed wall panel and the installation’s three-dimensional object, breaks the grid’s fixed geometry and produces a “triple vision,”¹²⁰ a transplane afterimage that makes both object and image appear alive. As a result of this enlivening, a series of questions ensue. Was the chapter flipped open to Isaiah haphazardly? Was it selected by Darboven or by the curator? If selected by Darboven, was it chosen for numeric significance (i.e., for the number 44 or for the date it was published) or for its content? Does it change the object’s status as a substantiating subject (*BildEvidenz*) if it came to be opened to Isaiah by accident, for numeric significance, or for content? There are no certain answers to the accidental discovery of evidence, thus, once again, texture becomes text, and text, texture.

The bible is positioned diagonally across a corridor from framed panels dated 1948 and 1949. Each panel in the sequence is a configuration of postcards arranged by Darboven on a green template she designed with a silhouette of her family home, *Am Burgberg*. The tower she had built as an addition to the house to accommodate her accumulations of objects, drawings and writings, is a defining feature of the building’s silhouette. A few steps away from the bible is another incorporating form, a carousel swan built from wood and surfaced in pink-painted metal plates. The swan has a hollow back that holds a small red bench just large enough for a child. On the wall behind the pink swan is a black-and-white photograph of a child playing with rabbits. Considering the presence of photographic self-portraits of Darboven throughout the installation, the photograph could easily be of Hanne as a child. Among “The Vanity of the Idols,” the silhouette of Darboven’s family home, the wood carousel swan, and the photograph of the girl with rabbits, there is image identification, architectural annexation of the body, and animal

¹²⁰ Artist and writer Malcolm de Chazal describes his “sens-plastique” (plastic sense) as “triple vision” in Chazal, “Afterword to Sens-Plastique (1948),” *Sens-Plastique*, 161.

incorporation. Darboven's installation warns against the power of the image while simultaneously encouraging abandonment to it. It defends against the power of the image with talismanic objects that distance the viewer from absorption in the hypnotic repetition of the surrounding image grid; at the same time, dialogue between images and objects facilitates the corporealization of images by drawing the body of the viewer into the middle of image-object interactions. This complimentary opposition of sensorial impressions is the plastic (*Plastik*); Darboven stages the role of plastic sense in the animation of history's substantiating subjects (*Evidenz*).

The 103 years counted in *Cultural History 1880-1983* mark what art historian Dan Adler (quoting Jonathan Crary's seminal *Techniques of the Observer*, 1990) has called a "historical moment, when society began to contend with perceptual experiences that were 'intrinsically non-rationalisable, that exceeded any procedures of normalization.'"¹²¹ These experiences had to do not only with what Adler identifies as "experiences of excess" in "rapidly enlarging urban environments,"¹²² but with experiences of austerity (e.g., Adolf Loos *Ornament and Crime*, 1910) and what architectural historian Alina Payne has identified as a changing set of interrelations between objects, bodies and architecture.¹²³ Among the theories that resulted from increased sensitivity to haptic sense (tactility)¹²⁴ and kinesthetics (the body's perception of itself)¹²⁵ (a sensitivity evidenced by growing interest in transplane image technologies like stereoscopy)¹²⁶ was a new-found "importance of small objects surrounding the body"¹²⁷ and the "central role" of "the intimacy of body contact with architecture."¹²⁸ Between the shell-like, garment-like container of the house and its objects (extensions of the body in "organ projection"), "the unself-

¹²¹ Adler, *Hanne Darboven*, 52-53.

¹²² *Ibid.*, 53.

¹²³ Payne, *From Ornament to Object*, op. cit.

¹²⁴ Garrington, *Haptic Modernism*, op. cit.

¹²⁵ Foster, *Choreographing Empathy*, op. cit.

¹²⁶ Schröter, *3D*, op. cit.

¹²⁷ Payne, *From Ornament to Object*, 125.

¹²⁸ *Ibid.*, 201.

conscious education of the body through daily contact with objects” and the “culture of the house,” became central topics of philosophical and artistic debate.¹²⁹

Contemporary writing on Conceptual Art often describes Darboven’s installations as “archive-like,”¹³⁰ and associates them with the “archive fever” of late 20th-century and early 21st-century art.¹³¹ Building on this metonym of the archive as the principle institutional fiction of post-modernism, the much-discussed administrative and bureaucratic qualities of Darboven’s practice can also be thought about in relation to “animation.”¹³² In his proposal for a new iconology of image, medium and body, art historian Hans Belting defined “animation” as the “perception of images as if they were bodies or in the name of bodies” – it is “perception of a symbolical kind” in which “the desire of our look corresponds to a given medium’s part.”¹³³ It is a critical part of the kinesthetic “self perception of our bodies (the sensation that we live in a body) [...] an indispensable precondition for the inventing of media which may be called technical or artificial bodies designed for substituting bodies via a symbolical procedure.”¹³⁴ It is Darboven’s play with form and formula in this “symbolical procedure” called “animation,” that is at the center of her exploration of substantiation (*Existenz*) and corporealization (*Plastik*) in *Cultural History (1880-1983)*. However, rather than conceive of animation as a consequence of

¹²⁹ Ibid., 79-81, 124-125, 196-197.

¹³⁰ Carl, “Hard Work Looking Easy, the Ballerinas Always Smile,” 45-62.

¹³¹ Okuwi Enwezor, *Archive Fever: Uses of the Document in Contemporary Art*. International Center of Photography, New York, New York. January 18 to May 4, 2008. Exhibition Catalogue. Gottingen: Steidl Publishers, 2008. Adler, *Hanne Darboven*, 52-53. Ruth Rosengarten, *Between Memory and Document: The Archival Turn in Contemporary Art*. Museo Coleção Berardo. Lisbon, Portugal. March 7, 2013 to May 1, 2014. Exhibition Catalogue (Cork: BookBaby, 2013). Ernst van Alphen, *Staging the Archive: Art and Photography in the Age of New Media* (London, UK: Reaktion Books, 2014). Pamela Lee, *Chronophobia: On Time in the Art of the 1960s* (Cambridge: MIT Press, 2004).

¹³² For the “aesthetic of administration” in Darboven’s work, see Benjamin H.D. Buchloh, “Conceptual art 1962 – 1969: from aesthetic of administration to the critique of institutions.” *Conceptual Art: a Critical Anthology*. ed. Alexander Alberro and Blake Stimson (Cambridge, MA: MIT Press, 1999). For Hans Belting’s theorization of “animation,” see Hans Belting, “Image, Medium, Body: A New Approach to Iconology.” *Critical Inquiry* (Winter 2005): 307.

¹³³ Belting, “Image, Medium, Body,” 307.

¹³⁴ Ibid., 306.

projection and human desire, a more object-oriented perspective focuses on corporeal introjection compelled by the object.

Narratives of human evolution recount that aggregation sites played an important role in human deep history, in particular as regards the development of consciousness and culture. Likewise, accumulation is generally accepted as a critical practice to the establishment of habitats, settlements and societies. This deep ‘pre-history’ of aggregation and habitat may provide new insight into the way Darboven used aggregation and architecture to create her historiographic installations. Not only do aspects of Darboven’s work resonate with the “plastic values” established in Luciano Folgore’s *PLASTICITY*, they also have an interesting relationship to the role of ecological plasticity in the theory of niche construction.¹³⁵ As previously discussed, niche construction is a process that was theorized to extend evolutionary theory in the late 1990s. If compared to processes of sexual selection, it is still relatively neglected in studies of anthropogenesis. Ecological plasticity in the theory of niche construction shares many similarities with the way artists and art historians have written about and experimented with the concept of the “plastic” in art.

Fore example, through repetitive niche construction, the web-building of the Peruvian *Cyclosa* spider has evolved to include the construction of so-called “dummy spiders” (fig. 124).¹³⁶ The dummy spiders are built into the web from incidentally-captured detritus that shakes and animates whenever the web is disturbed.¹³⁷ For the most part, this practice of web-building is understood as shaping the spider’s niche through a decoy by manipulating its encounters with predators. Aside from its potential use as a lure, however, the “dummy spider” is also an image the spider makes of its own likeness embedded in its niche: it is a remarkable likeness fashioned from detritus, from residue accidentally captured in the spider’s web. The “dummy spider” is a

¹³⁵ Odling-Smee, Laland and Feldman. *Niche Construction*, op. cit.

¹³⁶ *Ibid.*, 9.

¹³⁷ *Ibid.*

conceptual portrait of the spider's own niche construction. It is of course impossible to know if the spider is conscious of its production of a likeness, nonetheless, what the "dummy spider" makes evident is that the spider's body lives with an image of itself as an object that it has attained without ever perceiving its own reflection. Darboven's practice of weaving her own image into her complex installations, though clearly very different from the activity of the spider, shares certain affinities with the spider's "dummy spider" web construction. It is less self-reflexive in an autobiographical sense than in an ecological sense. Her practice is thus an opportunity to rethink history as a niche and the artistic act as one way the human organism impacts its own development, as well as that of other organisms, and its surrounding environments, through the construction of ecological, evolutionary and historical niches.

Early 21st century writings on Darboven's work tend to agree that it is the process by way of which an object becomes evidence that is of interest in her installations, not the subjective expression of any particular relationship to the objects she configures for display. The metaphor of the archive has led to this interest being identified with the "archivist's proceedings," and Darboven's ironic approach to these proceedings are interpreted as an "irritation" of "dominant narration."¹³⁸ In this context, Darboven's privileging of the form-formula dialectic over the more easily understandable form-content opposition, has been described as "alien"¹³⁹ and even "hostile."¹⁴⁰ In a manner that, on the surface, appears driven by an impulse to archive, Darboven collects, gathers and exhibits familiar late 19th and early 20th century representative objects—image-objects like postcards, and three-dimensional material culture like shop-window mannequins—and stages their transformation into substantiating subjects (*BildEvidenz*) through various systems of order. Artist and author Bettina Carl has suggested that the "irritation" to

¹³⁸ Carl, "Hard Work Looking Easy, the Ballerinas Always Smile," 58.

¹³⁹ Lauder, "'Alien Qualities,'" 140.

¹⁴⁰ Carl, "Hard Work Looking Easy, the Ballerinas Always Smile," 61.

“narration”¹⁴¹ in this work is not found in the properties of the objects presented, but rather in the “virtual emptiness” of their evidence – an “evidence of *form*, demonstrated in endless reiterations and reinforced by the trivial[,] the idiosyncratic and the abstract diluting the supposedly meaningful.”¹⁴² Through this “evidence of *form*”—what *BildEvidenz* scholars have called “texture”— Carl surmises that “Darboven takes the liberty of neither adding to a given *connaissance* nor gathering divergent strands of knowledge. Instead, she exposes the *act*, the *gesture* of empowerment underlying the archivists proceedings [my emphasis].”¹⁴³ Building on Carl’s discussion, it could also be asserted that Darboven’s interest in “proceedings” is more ecological than institutional and ideological. In other words, her “proceedings” are “acts” and “gestures” somewhere in-between those of the archivist and those of the *Cyclosa* spider.

The animating power of repetitive procedure is central to Darboven’s work. As she recounts, she “worked intensely” on “gestures” that involved “two items”: “axial symmetry and diagonal symmetry, the two opposites. The former standing for static, the latter for movement, rotation.”¹⁴⁴ This commitment to a regime of compositional variation is evident in the configurations of postcards mounted on sheets in the first series of framed panels that begin *Cultural History 1880 – 1983* (fig. 125). The configurations begin with all postcards displayed in horizontal orientation, irregardless of whether they were conceived in portrait or landscape formats. Eventually the series transitions into a mixed order, arbitrarily assigned, with some portrait-format postcards positioned horizontally and some landscape-format postcards positioned vertically (fig. 125, right). From this layout, the series moves to absolute vertical orientation, irregardless of portrait or landscape format. As Darboven describes it, the “two complexes”—“axial symmetry [as] the first order being destroyed by the second [...], the diagonal

¹⁴¹ Ibid, 58.

¹⁴² Ibid.

¹⁴³ Ibid.

¹⁴⁴ Darboven as quoted in Lauder, “‘Alien Qualities’,” 133.

symmetry”—are “brought together for a third complex—the third order [...] a new base order.”¹⁴⁵ This destructive production of a “new base order” is the plastic (*Plastik*): it generates its order from the conflictual interplay between axial and diagonal symmetry. It is by way of this new plastic “base order” that Darboven, like the Cyclosa spider, animates the material culture and image-objects she aggregated in her house, then selected for inclusion in installation display.

Darboven’s installations are an opportunity to rethink the construction of historical narratives through contemporary institutional fictions, from an ecological perspective. This perspective extends thinking about the archive beyond its function as an administrative system; it explores bureaucracy as an animating force ordering aggregation in a manner that has consequences for the human body’s perception of itself as a body. Darboven’s practice works with the plastic sense of corporeal introjection to animate substantiating subjects (*Evidenz*) through a variety of processes thus far not explored in discussions of her work: animal and architectural identification, aggregation, and niche construction. These are the processes that position Darboven’s practice on the margins of the Conceptual and Minimal Art canons, in what Darboven referred to as her “Maximal Art.”¹⁴⁶

Darboven had early training as a composer and a pianist.¹⁴⁷ It is perhaps as a result of this training that intermedial configurations in picture and music, silence and sound, visibility and audibility are always present in her installations. One of the nineteen objects included in *Cultural History 1880 – 1983* is an illuminated manuscript page of Gregorian chant notation. The framed page hangs from one point of a large wooden crescent that is usually suspended from the ceiling in exhibitions of the installation. Several framed panels in the installation also include Darboven’s design for the cover of her vinyl record, *Vierjahreszeiten 1981/1982. Opus 7. “Der*

¹⁴⁵ Ibid.

¹⁴⁶ Darboven as quoted in Carl, “Hard Work Looking Easy, the Ballerinas Always Smile,” 50.

¹⁴⁷ See Adler, *Hanne Darboven*, n. 11, 96. See also Wolfgang Marx, “From Numbers to Notes: Transcribing and Arranging Hanne Darboven’s Music” in *Hanne Darboven: Enlightenment – Time Histories, A Retrospective*, edited by Okwui Enwezor and Rein Wolfs. (Munich: Prestel, 2015), 194-202.

Mond ist Aufgegangen” (Four Seasons 1981/82. Opus 7. “The Moon Has Risen”). Darboven’s installation *Wende* >80< (*Turning Point* >80<, 1980-81) is said to have been the first translation of her numeric system into sound. In a gesture appropriate for the installation’s title, a selection of its framed panels are embedded at a compositional ‘turning point’ in the middle of the retrospective *Cultural History 1880-1983*. Among the panels Darboven selected from *Turning Point* >80< for inclusion in *Cultural History 1880-1983* is the direct reference to the concept of the “plastic” previously discussed: the hand-written transcription of an encyclopedia entry on the artist Giorgio de Chirico, which includes discussion of the modernist magazine *Valori Plastici*.

Seeing Darboven’s installations while listening to the musical transcriptions of her numerical writings, renders visible the aesthetics of progression and reduction, delay and dissonance in her installations. Darboven’s intermedial configurations facilitate the experience of her installations as durational works, sequences of looping series in a modular rhythm that folds back on itself in moments of replication and metonymic self-reference. In this sense, the notorious status of Darboven’s installations as “difficult”¹⁴⁸ is perhaps less an indication of her disinterest in communication than it is an indication of her interest in animation. As Darboven is quoted as saying about her work, “there is nothing to understand, my secret is that I don’t have one.”¹⁴⁹ There is nothing hidden to uncover in the installations: their plastic values between picture and music, between the immediacy of the image and the ephemerality of sound, between pictorial representation and non-representability, are surface qualities maximalized for all to perceive.

In *Cultural History 1880 – 1983*, the large English bible open to Isaiah’s “The Vanity of the Idols” outlines a series of intermedial processes involved in the production of “graven images.” These processes include black-smithing, carpentry and cooking, and according to the

¹⁴⁸ Darboven in Carl, “Hard Work Looking Easy, the Ballerinas Always Smile,” 45.

¹⁴⁹ Darboven as quoted in Marja Bloem, “Hanne Darboven,” *Dictionary of Women Artists*. Vol. 1, A-I. ed. by Delia Glaze. London: Fitzroy Dearborn Publishers, 1997. 435.

passage, it is from the ‘residue’ left behind by these processes that the “image” is “graven,” animated for idolatrous worship. The ‘residue’ of intermedial exchange in Darboven’s own work with images, objects, words and sound presents a history of changes in perception, animation and kinesthesia over the course of the 20th-century. These changes shaped and defined social, political and aesthetic realms of pre-digital public life, and the way in which they impacted both the images of the body in society and body-images in physical culture.

In a 2015 interview, the American minimalist, Lawrence Weiner—a self-identified “sculptor”¹⁵⁰ of “statements”¹⁵¹—was asked about “Darboven’s reaction to women’s issues, [i.e.] the feminist movement that was emerging [in the 1960s]”¹⁵²: “It didn’t interest Hanne,” he retorted, “she didn’t ally herself with other women simply because she was a woman.”¹⁵³ However, “he explains, “I would have wished that she had permitted herself to [...] *play along with the gender game* [...]. But she apparently didn’t know how.”¹⁵⁴

Weiner is an artist who works with minimal statements: he composes concise phrases, devises their graphic design, and selects architectural settings for their varied display. As a result, his words carry a very particular weight: they are not only the comments of a fellow artist and friend, but the statement of an artist who works with ‘statements.’ Weiner’s statement illuminates a critical issue in Darboven’s work: body-object exchange through processes of corporealization (*Plastik*), and history as a construction of visual evidence, or substantiation, animated by these processes (*BildEvidenz*). When Hanne Darboven’s ‘body’ of work is represented by art history, it is portrayed as the product of an ambiguously-gendered practice in-between male canons of American Minimalism, post-Minimalism, and Conceptual Art. Rarely is it discussed at any depth in relationship to Feminism. Thus, Darboven is attributed important status as one of the few

¹⁵⁰ Thomas McEvelley, *Sculpture in the Age of Doubt* (New York, NY: Allworth Press, 1999), 46.

¹⁵¹ Lawrence Weiner, “Statement (1970),” *Theories and Documents of Contemporary Art: A Sourcebook of Artists*, ed. Kristine Stiles (Berkeley, CA: University of California Press, 2012), 1004.

¹⁵² Verena Berger, *Hanne Darboven: Boundless* (Ostfilden, Germany: Hatje Cantz, 2015), 130.

¹⁵³ Berger, *Hanne Darboven*, 130.

¹⁵⁴ My emphasis. *Ibid.*

women in the Minimal and Conceptual Art canons, while at the same time being characterized as disinterested in feminism and the feminine. Rather than focus on the ideological implications of this non-feminist ‘feminist’ position, the more relevant question asks what this position reveals about relationships between body and object, object and image, the human body and the animal body, the planocentric grid and the transplane impulse, domestic space and public life, all staged in Darboven’s installations.

Gender deconstruction in Darboven’s practice has only recently emerged as a topic of interest in writing about her work. In 2015, amidst the mounting of the important retrospectives dedicated to Darboven in Munich and Bonn, Verena Berger, former culture editor of the German weekly *Der Spiegel* published a book on Darboven.¹⁵⁵ Darboven’s *Cultural History 1880-1983* famously used magazine covers of the iconic German weekly to mark dates from 1977 to 1979 in its 103-year span (1880 – 1983). In the introduction to her book, Berger explains that she conceived its format empathetically, as a verbal installation of sorts, transcribing all the critical texts about Darboven’s work that she could find, and copying out passages of Darboven’s correspondence archive.¹⁵⁶ Berger’s empathetic historical-fiction-like accounts of Darboven’s working processes are interspersed with oral histories gathered from Darboven’s friends, colleagues and collaborators, including Weiner.

Berger introduces her book on Darboven with a description of the artist dressed “in a men’s suit, her head shorn”: “a woman who had [...] long since discarded all things feminine—or what is stereotypically understood as being such.”¹⁵⁷ In this description, Darboven offers herself as a substituting body, a substantiating subject (*BildEvidenz*) of the human in a non-feminine woman whose body has “discarded all things feminine.”¹⁵⁸ This is a woman who, contrary to

¹⁵⁵ Ibid.

¹⁵⁶ Ibid., 14.

¹⁵⁷ Ibid., 13.

¹⁵⁸ Ibid.

Weiner's comments, did indeed play a "gender game,"¹⁵⁹ though certainly not the kind of game expected. Weiner's negative description of Darboven as not knowing how to play the "gender game" produces a positive effect: the acknowledgment of an absence of "gender game" becomes the recognition of its presence. Weiner's comments render Darboven's peculiar disengaged engagement with the "gender game" visible. Darboven's "gender game" is the way she objectifies her own body as visual evidence (*BildEvidenz*) among the varied images, animals, objects and technologies with which she constructs history in her *Cultural History 1880-1983*. She situates the image of her body in a position of ironic self-domestication, animating it as a symbolical substituting body nested in grids among representations of other bodies, objects, architecture and landscapes. This play with representation, animation and perception evokes the imperative from critical gender studies to "think of the body as a vexed relation."¹⁶⁰

In Darboven's *Cultural History 1880-1983*, the tension between the public image of the artist's own body in society, and the production of body-images in physical culture through mass media, is always in itself mediated by more intimate, private evidence of Darboven's 'plastic values'—her playful interest in animal incorporation and architectural annexation of the body. The issue of gender encompasses within it questions of animality, domesticity, objectification and death.¹⁶¹ In her later life, Darboven deconstructed gender to fashion her own body into a

¹⁵⁹ Ibid., 130.

¹⁶⁰ Judith Butler and Catherine Malabou, "You Be My Body for Me: Body, Shape, and Plasticity in Hegel's Phenomenology of Spirit." *A Companion to Hegel*, First Edition. Edited by Stephen Houlgate and Michael Baur. (West Sussex, UK: Blackwell Publishing, 2011), 611.

¹⁶¹ Judith Butler, *Antigone's Claim: Kinship Between Life and Death* (New York, NY: Columbia University Press, 2000). Elizabeth Grosz, "Bodies-Cities," *Sexuality and Space*, ed. Beatriz Colomina and Jennifer Bloomer (New York, NY: Princeton Architectural Press, 1992). *Performing Animality: Animals in Performance Practices*, ed. Lourdes Orozco-Garcia and Jennifer Packer-Starbuck (New York, NY: Palgrave Macmillan, 2015). Carol J. Adams and Josephine Donovan, "Sexism/Specieism: Interlocking Oppressions," *Animals and Women: Theoretical Explorations*, ed. Carol J. Adams and Josephine Donovan (Durham, NC: Duke University Press, 1995). Karen Davis, "Thinking like a Chicken: Farm Animals and the Feminine Connection," *Animals and Women: Theoretical Explorations*, ed. Carol J. Adams and Josephine Donovan (Durham, NC: Duke University Press, 1995). *Animal Acts: Reconfiguring the Human in Western History*, ed. Jennifer Ham and Matthew Senior (London, UK: Routledge, 1996). *Figuring Animals: Essays on Animal Images in Art, Literature, Philosophy and Popular Culture*, ed. Mary Sanders Pollock and Catherine Rainwater (New York, NY: Palgrave Macmillan, 2005).

substantiating subject (*BildEvidenz*) on the same level as the everyday objects and images, drawings and prints that she created, collected and selected for her works. The form of the body most immediately identifiable with *BildEvidenz*—whether translated in English as forensic “evidence” or a more philosophical “substantiation” and “evidentness”¹⁶²—is the corpse. Just as Darboven adapted her family home to her accumulations, she had her deceased father’s clothes tailored to fit her; many of the published photographs of her show her dressed in these clothes and surrounded by the aggregations of objects she accumulated inside the family home. This approach to dressing was no mere eccentricity: the relationship between dressing, housing, and objects-as-“organ projection” which Darboven’s practice emphasizes, was a focus of art historical study in the late 19th-century (designated the beginning of Darboven’s *Cultural History 1880-1983*).¹⁶³ In *Cultural History 1880-1983*, a series of framed panels featuring weaving patterns create a direct reference between the walls of the installation and textile: any reader of the late 19th-century’s immensely popular architectural theorist, Gottfried Semper, would find it difficult to avoid associating these panel’s with Semper’s theory that “the initial sheltering instinct that distinguished man [...] was not to replicate the cave but to replicate clothing [...]”¹⁶⁴

When Darboven died, her deconstructive experiments with her body and its containers continued: she was buried in a gravesite with a group of her companion goats—animals whose care was part of her daily routine at her family home, *Am Burgberg*.¹⁶⁵ As if intended as a substituting body meant to symbolically mark her own presence, one of the goats is preserved as a taxidermied sculpture at the center of the installation, *Existenz* (Existence, 1989). A carousel swan and a carousel horse—object-animals constructed for the body to fit into and climb on to—are included among the nineteen objects in *Cultural History 1880-1983*.

¹⁶² Swedberg and Agevall, *The Max Weber Dictionary*, 127.

¹⁶³ Payne, *From Ornament to Object*, 81.

¹⁶⁴ *Ibid.*, 59.

¹⁶⁵ Berger, *Hanne Darboven*, 140.

In continental philosophy, the “plastic” has been used to define this “relationship between [...] individual and [...] body, between the natural, unshaped and animal part of it, on the one hand, and the labored and spiritually sculpted part of it, on the other.”¹⁶⁶ In anthropology, some scholars prefer the term “viscosity” as a more “materialist way” of conceptualizing the “flows and clusterings of bodies.”¹⁶⁷ Viscosity is the physics among bodies creating and being created by social space. It is the chaotic dynamics of attraction and repulsion, amassing in aggregation, dispersing through exclusion. It is the “kinetics” of how a body “holds together,” giving shape and taking shape with others.¹⁶⁸ Whereas viscosity is “a self-patterning fluidity,” between liquidity and solidity,¹⁶⁹ “plasticity” is the potential for change between flexibility and explosivity.¹⁷⁰ Viscosity follows ‘flows’ immediately observable in living bodies through methods like ethnography; plasticity is durational change that requires working with the afterlife of bodies in specimens, fossils, artifacts, documents and art. As a distinctly contemporary art that binds the activities of art and historiography, Darboven’s practice requires the viewer use both of these conceptual tools in rethinking the way the body-object relationship animates historical representations.

Darboven’s “plasticity of number” is an “active idea of number” one which has been posed as capable of “combat[ing] [what philosopher Alain Badiou calls] the current ‘era of number’s despotism.’”¹⁷¹ The divergent series that are entangled in Darboven’s works produce an “inconsistent multiplicity”¹⁷² that, instead of “engag[ing] the experience of lived duration, [...] does violence to the continuity and [...] sequence of time.” She accomplishes this in external spatial form through arrangements of objects that follow axial and diagonal

¹⁶⁶ Catherine Malabou in Butler and Malabou, “You Be My Body for Me,” 611.

¹⁶⁷ Arun Saldanha, *Psychedelic White: Goa Trance and the Viscosity of Race* (Minneapolis, MN: University of Minnesota Press, 2007), 49.

¹⁶⁸ Saldanha, *Psychedelic White*, 50.

¹⁶⁹ *Ibid.*, 51.

¹⁷⁰ Malabou, *Ontology of the Accident*, op. cit.

¹⁷¹ Lauder, “‘Alien Qualities’,” 132.

¹⁷² *Ibid.*,

symmetrical orders: these arrangements have corporeal effects and occur both within the installation's single panels, in a tension among the arrangement of print reproductions and photographs among panels, and across space between panels and objects. This external spatial form is complemented by an internal spatial form of "incorporeal effects,"¹⁷³ interactions among words, numerical digits and hand-drawn forms, and a temporality of writing that is anti-biographical, or thanatographical, in the sense of being a timeless absolute temporality.¹⁷⁴ This kind of time contrasts with that sense of historiographic time which shapes the "drift" of historical evidence into progressive narratives of "grand Events."¹⁷⁵

In the *Valori Plastici* panel of Darboven's *Cultural History, 1880-1983*, the transcribed encyclopedia entry is hand-written within a template designed by Darboven. The template includes a field for an image, in which Darboven includes a black-and-white print of the Saint Alban's Anglican Church in Copenhagen, built to accommodate the city's large 19th-century British congregation. The medieval hagiography of Saint Alban recounts that in the procession to lead the martyr, Alban, to the site of his execution, the rivers interceded, drying up and returning to their natural course in accordance with Alban's will to "arrive quickly at martyrdom." After the river's performance, "the head of the most courageous martyr was struck off, and there he received the crown of life [...]. But he who gave the wicked stroke, was not permitted to rejoice over the deceased; for his eyes dropped upon the ground together with the blessed martyr's head."¹⁷⁶ With the event of the martyr's execution, historical witness to the victor is denied: the head of history's victim and the eyes of its victor fall together. Darboven's *Cultural History*

¹⁷³ Ibid., 134.

¹⁷⁴ Ibid., 135

¹⁷⁵ Clive Cazeau citing Jean-Francois Lyotard in Lauder, "'Alien Qualities,'" 136.

¹⁷⁶ "The Passion of St. Alban and His Companions, Who at that Time Shed Their Blood for Our Lord. [A.D. 305]," in The Venerable Bede, *The Ecclesiastical History of the English Nation*, Book I, trans. L. C. Jane (London: J.M. Dent, 1910) as presented for Internet Medieval Sourcebook: Bede (673735) *Ecclesiastical History of the English Nation*, Book I, ed. Paul Halsall (New Jersey: Fordham University, 1998). Published 1998; Accessed February 4, 2017. <http://sourcebooks.fordham.edu/halsall/basis/bede-book1.asp>

1880-1983 is retrospective, but it also includes the three years between 1980 and 1983 that it took her to complete the ‘writing’ of the work—its arranging, its order, its composition, its copying and transcribing. It is as if, with its tactics of aggregation and orientation, what Darboven’s work offers in the installation is both the eyes of history’s victor and the head of its victims, interrogating historiography’s “strategies of accumulation and juxtaposition.”¹⁷⁷ In this disjunctive “plasticity,” Darboven’s own body plays a critical role, introducing “viscosity” into the installation environment: the installation is not presented before the viewer, but rather, envelops and encloses the viewer. Images of the artist’s own body in the installation’s panels are a metonym for the absorption of the body of the viewer into Darboven’s aggregations and configurations of things. “Plasticity” in Darboven’s work has been defined as entangled “surface effects” and serial “dispersions.”¹⁷⁸ These surface effects of “plasticity” cannot function without the viscosity of the “plastic” found in the installation’s relationship to the body of the artist/viewer; it cannot function without the tension between Darboven’s “plasticity of number” and that ironic “plasticity” exemplified by Folgore’s *PLASTICITY*, indirectly referenced in Darboven’s invocation of *Valori Plastici*. The entangled “surface effects” and serial “dispersions” of *Cultural History, 1880-1983* are only activated by corporeal introjection. Corporeal introjection is what Folgore described as that plasticity of “air” and light spinning through a glass bottle and surrounding other objects around it with the “clarity of a delicate crystal bell jar and gives a diaphanous fragile immobility to the aspects of things”; it is animated by that “warmth” of social life that he described as infusing the blood with “sensations of velvet,” leaving the body that partakes in it to “slide through the streets softening everything and everyone [around it] with the [same] impression of the smooth cloth.”

¹⁷⁷ Lauder, “‘Alien Qualities,’” 136.

¹⁷⁸ *Ibid.*, 144.



Fig. 126 (adjacent left) Ryszard Cieslak from Jerzy Grotowski's Laboratory Theatre on the Plastiques from a television special called *The Body Speaks* (Creative Arts Television, Columbia Broadcasting System, 1975); (above left) Maja Komorowska undertaking training exercises (1965). Photograph by Zygmunt Samosiuk, courtesy of the Grotowski Institute; (above right) drawings of 'exercises plastiques' from Grotowski's Laboratory Theatre (taught by Jolanta Cynkutis), created by Angel Rodrigo Molina (2011) for his *Performance Journal* in a collaborative production directed by Jonathan Grieve (who studied under Cynkutis). Image: Jonathan Grieve and Angel Rodrigo Molina.

11

Chapter Eleven / Plastic Exercises towards *Plastes et Fictor*

Jerzy Grotowski's *Exercices Plastiques* and Aby Warburg's *Plastic Atlas*

The *exercices plastiques* (plastic exercises) of Polish theatre director Jerzy Grotowski (1933-1999)¹ (fig. 126)² were a way in which actors were psycho-physically trained in simultaneously “surpassing oneself and resigning oneself” –to both “go beyond” and “resign oneself ‘not to do.’”³ The *plastiques* have been described as “freer than Vsevolod Meyerhold’s biomechanics” but “more set than [Konstantin] Stanislavsky’s or [Yevgeny] Vakhtangov’s acting etudes.”⁴ They “consisted of specific movements—rotations, lifts and stretches of limbs, torso, head, face and eyes—which took on intensity, rhythm, and emotional coloring from whatever ‘associations’—feelings, memories, near-dreams—a person might have while executing the movements.”⁵ In creating these exercises, the key question that Grotowski attempted to confront was “for whom were the performances made; how could a textual-gestural montage be constructed; and how could the spaces of performance contain and express the overall life of the

¹ Jerzy Grotowski (Rzeszow, Poland 1933 – Pontedera, Italy 1999) is regarded as “one of the greatest reformers of 20th-century theatre.” He studied the acting techniques of Stanislavsky, Vakhtangov, Meyerhold and Tairov. His book *Towards a Poor Theatre* is considered a “textbook for [the] exploratory theatres of the 1960s and 1970s” and outlines acting methods, physical work and vocal training, as well as Grotowski’s exploration of archetypes for ancient expression. He worked with setting up “emotional confrontations” between small groups of spectators and actors and is considered “a leading exponent of audience involvement.” “Jerzy Grotowski,” *Culture.pl. Artists in the Performance Category*. N.d. Accessed March 3, 2017. <http://culture.pl/en/artist/jerzy-grotowski>. The Editors of the Encyclopedia Britannica, “Jerzy Grotowski,” *Encyclopedia Britannica*. September 4, 2015. Accessed March 3, 2017. <https://www.britannica.com/biography/Jerzy-Grotowski>

² Ryszard Cieslak from Jerzy Grotowski’s Laboratory Theatre on the *Plastiques* from a television special called *The Body Speaks* (New York, NY: Creative Arts Television, Columbia Broadcasting System, 1975) <https://search.alexanderstreet.com/view/work/658021>; Maja Komorowska undertaking training exercises (1965). Photograph by Zygmunt Samosiuk, courtesy of the Grotowski Institute; Drawings of *exercices plastiques* from Jerzy Grotowski’s Laboratory Theatre (taught by Jolanta Cynkutis), created by Angel Rodrigo Molina (2011) for his Performance Journal in a collaborative production directed by Jonathan Grieve who studied under Jolanta Cynkutis.

³ Jerzy Grotowski, Richard Schechner and Theodore Hoffman, “American Encounter: An Interview with Jerzy Grotowski by Richard Schechner and Theodore Hoffman,” Jerzy Grotowski, *Towards a Poor Theatre*, ed. Eugenio Barba (New York, NY: Routledge, 2002), 248.

⁴ Richard Schechner, “Exoduction: Shape-shifter, shaman, trickster, artist, adept, director, leader, Grotowski,” *The Grotowski Sourcebook*, ed. Richard Schechner and Lisa Wolford Wylam (New York, NY: Routledge, 2001), 475.

⁵ Schechner, “Exoduction,” 475.

event?”⁶ The “work of the actor on himself”⁷ (what in the context of the novel and the work of the author on his relationship to the hero, philosopher Mikhail Bakhtin called the “plastic-pictorial”)⁸ was critical to the way each Grotowskian theatrical production responded to these questions.

Grotowski described the “plastic exercises” as operating through a “paradoxical logical system” between “insupportable effort” (the kind of effort that can “break the control of the mind, a control that blocks us”) and “internal passivity” (“not to conduct the process [...] but [...] to be conducted.”)⁹ The poet Luciano Folgore’s prose-poem *PLASTICITY*, in *Valori Plastici*,⁹ described a similar paradox, and conceptual artist Hanne Darboven’s *Cultural History 1880-1983*—unintentionally channeling Folgore—built on it through its internalized and spatialized substantiation of historical time. In what Maria Hassabi calls the “counts” of her choreographies in *PLASTIC*, dance corporealizes incorporeal systems of number and transforms them into movement in space-time. Likewise, it was during the process of the *plastiques* that Grotowski claimed the actor found a “third rebirth” in what he called the “secure partner”: a “change in the actor’s behavior” in which the actor discovers “how to create while one is controlled by others, how to create without the security of creation, how to find a security which is inevitable if we want to express ourselves despite [being engaged in a] [...] *collective* creation in which we are controlled [...]”¹⁰ The “secure partner” is not the actor’s “stage partner” but “the partner of his own biography”—it is where the actor is first born and “begins to penetrate through a study of his body’s impulses, the relationship of this contact, this process of exchange.”¹¹ The actor is then “second born, us[ing] the other[s] [...] as screens for his life’s partner,” and “third born, between

⁶ Ibid.

⁷ Ibid.

⁸ Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923),” 95.

⁹ Jerzy Grotowski, Richard Schechner and Theodore Hoffman, “Interview with Grotowski,” *The Grotowski Sourcebook*, ed. Richard Schechner and Lisa Wolford Wylam (New York, NY: Routledge, 2001), 41-42.

¹⁰ Grotowski, Schechner and Hoffman, “Interview with Grotowski,” 41.

¹¹ Ibid., 41.

going beyond and resigning oneself not to do.¹² Hassabi's *PLASTIC* is a choreographed refinement of this process whereby each dancer is constituted and reconstituted as a dancer in repetition through rebirths. In *PLASTIC*, each dancer is given the gift of time to move deliberately through sequences and return to them, not for the sake of an audience but for the movement-as-object itself.

Warburg's Prologue Plates in the *Mnemosyne Atlas* (Tafeln A, B and C)

Hanne Darboven's *Cultural History 1880-1983* has been compared to Aby Warburg's *Mnemosyne Atlas* (1924 – 1929) (fig. 127) as a work that “do[es] not merely ‘archive’ a particular moment in history but draw[s] attention to the generative operations of the historiographer.”¹³ Like Darboven's *Cultural History 1880-1983*, Warburg's *Atlas* has been directly associated with the concept of the “plastic” and “plasticity.”¹⁴ Through its attempt to map the manifestation of pathos-formulas—sequences of intensely-felt body configurations—from antiquity to the early 20th-century, Warburg's *Atlas* also shares affinities with the three key questions that Grotowski used to devise the *exercices plastiques*. Just as Grotowski's theatre was not merely a show for an audience, but a presentation of the work each actor had done on him or herself, Warburg's plastic historiography in the *Atlas* is not a historical narrative illustrated in images for consumption by a reader—it is the active seeking of the historian, the changeable process of tenuous historiography put on display while still animated with the potential for new insights. Like Grotowski's *plastiques*, Warburg's “plastic materials”¹⁵ asked how “a textual-gestural montage”¹⁶ should be constructed so that the gestures of pathos-formulas—the energy in their traces—could be understood as (to use Grotowski's words) “a cycle of personal impulses,”¹⁷ what Warburg

¹² Ibid.

¹³ Lauder, “‘Alien Qualities,’” 136.

¹⁴ Didi-Huberman, *The Surviving Image*, 95.

¹⁵ Ibid.

¹⁶ Schechner, “Exoduction,” 475.

¹⁷ Grotowski, Schechner and Hoffman, “Interview with Grotowski,” 42.

described as intensely-felt patterns—no mere studio motifs. With the *Atlas*, Warburg asked the Grotowskian question, “how could the spaces of performance contain and express the overall life of the event?”¹⁸ In other words, how could he make this intensely-felt pattern reemerge and express itself through configurations of images; how could he reanimate the afterlife of that otherwise dead material that survives into the future from past cultures and societies?

In diaries that Warburg wrote while working on the *Atlas* in Rome between 1928 and 1929, he wrote to his collaborator and assistant Gertrud Bing with a description of the risks that the art historian must confront in the process of creating an image repertory of such intensely-felt patterns of movement. This process is not the same as collecting images because it includes processing the “engram,” the “deposit (...) of energy in a memory trace.”¹⁹ Warburg conceived of his pathos-formulas as “dynamograms,” a term that expresses the feedback between the energy of the memory trace present in the engram (or memory trace), and the body’s energetic response to the its “grammar of form.”²⁰ Warburg warns that for the historian, in “[t]aking account of the immense richness of arranged engrams acquired,” “the risk is that [...] the labor of daily drilling [...] can assume the character of a murky dilettantism. This would be dangerous.”²¹ This

¹⁸ Schechner, “Exoduction,” 475.

¹⁹ The word “engram” comes from psychologist Ewald Hering, see Ernst Gombrich, *Aby Warburg*, 241-242, as cited in Julia Reinhard Lupton, *Afterlives of Saints: Hagiography, Typology and Renaissance Literature* (Stanford, CA: Stanford University Press, 1996), 22. The neurologist Richard Semon also uses the term in his book *Die Mneme* “which describes memory with the metaphor of writing.” See Matthew Rampley, “Mimesis and Allegory, on Aby Warburg and Walter Benjamin,” *Art History as Cultural History: Warburg’s Projects*, ed. Richard Woodfield (Amsterdam, Netherlands: G & B Arts International 2001), 142. Whereas Gombrich equates Warburg’s “engram” with the symbol, Giorgio Agamben has specified the difference between the engram and symbol: engrams “are the crystallization of an energetic charge and an emotional experience that survive as an inheritance transmitted by social memory and that like electricity condensed in a Leyden jar, become effective only through contact with the ‘selective will’ of a particular period.” Giorgio Agamben as quoted in Johnson, *Memory, Metaphor, and Aby Warburg’s Atlas of Images*, 82.

²⁰ Johnson, *Memory, Metaphor, and Aby Warburg’s Atlas of Images*, 84.

²¹ “Kollege Bing sollte sich, in ihrer Erwecktheit zum Bildhaften, unerbittlicher klar machen, welchen unheimlichen Reichtum von geordneten Engrammen sie in dieser kurzen Zeit selbst erworben hat [...] Die Gefahr besteht sogar, daß dadurch das tägliche Bohrwerk am Atlas und bei Bruno den Character lastender Banausistät im Halbdunkeln bekommt, was gefährlich wäre.” (“Colleague Bing, in her awakening, must come to terms with the immense wealth of ordered engrams that she’s acquired alone in a brief period of time. The risk is that the work of quotidian drilling at the *Atlas* [...] can assume the character of a

dilettantism can become prevalent if “the excitement for superficial qualities that emerge in the beginning” is not “overcome.”²² These “superficial qualities” are connections perceived among “arranged engrams,” which “can be dangerous even for intelligent people who risk expressing a judgment in favor or against, in too hurried a manner.”²³ The *Atlas* is a way of avoiding this peril: it creates a delay and forces the historian to contemplate the dynamograms in physical form, rather than permitting their immediate absorption via the incorporeal substance of memory.

In the diary, the discussions that lead to Warburg describing the historian’s labor as a “daily drilling” are full of corporeal metaphors, including likening the risked “superficial qualities” of the historians perilous work with a pungent smell, a “bitter odor”²⁴ that never becomes more tolerable. Despite Warburg’s efforts to get Bing to feel the psycho-physical effects of the process through metaphors, Bing, a philosopher by training, still understood it in more abstract terms: as an “austere ideal of science” and a “rigorous devotion of the [historian’s] entire person.”²⁵

Bing defines the “fundamental concept of the *Mnemsoyne Atlas* as the “psychological concept of polarity as a heuristic principle,” or “the idea of change between distancing and incorporating [*Einverleibung*].”²⁶ Warburg’s response in his written dialogue with Bing adds the

burdensome and obscure dilettantism. That would be dangerous.” Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 400.

²² “die sich zunächst einstellende prickelnde Reizbarkeit der Oberflächlichkeit muß durchgemacht werden [...]” (“The tingling excitability of superficiality which is beginning to develop must be overcome [...]”) Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 401.

²³ “[...] ist selbst für intelligente Personen gefährlich im Sinne eines zu raschen günstigen oder ungünstigen Urteils.” (“[...] it is dangerous for even intelligent people who risk expressing a hurried judgment either in favor or against.”) Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 401.

²⁴ From the Italian translation of the *Tagebuch*: “odore acra” (“pungent odor”). Aby Warburg, *Diario Romano, 1928-1929*, ed. and trans. Maurizio Ghelardi (Torino, Italia: Arago, 2005).

²⁵ “austere ideale di scienza”; “severa dedizione di tutta la persona” (“austere ideal of science”; “serious dedication of the whole person”). Gertrud Bing in Aby Warburg, *Diario Romano, 1928-1929*, op. cit.

²⁶ “[...] des psychologischen Begriffs der Polarität als heuristischen Prinzips noch eine Auseinandersetzung des Gedankens von dem Wechsel zwischen Distanzsetzung und Einverleibung hinzutreten.” Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 399.

phrase “metaphor and tropes” to her definition.²⁷ This addition joins Bing’s description of a corporeal sense of distance and incorporation, with its incorporeal symbolic iteration or various levels of metaphor and trope, from simile, to metaphor to synecdoche. The “daily drilling” of the historian not only observes these processes between distancing and incorporating, between metaphor and trope, through simile, metaphor and synecdoche, but also engages with their transmutations—the historian distances and detaches, embodies and internalizes the images studied. Warburg’s *Mnemosyne Atlas* is, indeed, plastic.

In Georges Didi-Huberman’s *Disparates: ‘To Read What Was Never Written* (a catalogue essay that accompanied Didi-Huberman’s global series of exhibitions of both Warburg’s *Atlas* and his own, in Spain, France, Lebanon and Beijing),²⁸ Didi-Huberman outlines what “we know” about the gestures used to create the *Mnemosyne* project.²⁹ Under a section titled, “Heritage of Our Time: The *Mnemosyne Atlas*,” he asserts:

we know that Warburg attached the images for the atlas with little pegs to a black canvas stretched out on a frame – a ‘table’ therefore – *before taking or having someone take a photograph of them, obtaining in this way a possible ‘table’ or plate of his atlas*, after which he could dismember, destroy the initial ‘tableau’, and begin another one to destroy it in turn.³⁰

²⁷ “*Metapher und Tropen*.” Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 399

²⁸ *Atlas: How to Carry the World on One’s Back*, curated by Georges Didi-Huberman November 26, 2010 – March 28, 2011. *Museo Nacional Centro de Arte Reina Sofia*, Madrid, Spain (in collaboration with *Sammlung Falckenberg*, Hamburg, Germany and *ZKM, Museum für Neue Kunst*, Karlsruhe, Germany). “Atlas: How to Carry the World on One’s Back,” *Museo Nacional Centro de Arte Reina Sofia*. Published 2010. Accessed September 2012. <http://www.museoreinasofia.es/en/exhibitions/atlas-how-carry-world-ones-back>.

Nouvelles Histoires des Fantômes (New Ghost Stories). February 13, 2014 – September 6, 2014. *Palais de Tokyo*, Paris, France. “Nouvelles Histoires des Fantômes (New Ghost Stories),” *Palais de Tokyo*. Published 2014. Accessed March 4, 2014. <http://www.palaisdetokyo.com/en/event/georges-didi-huberman-and-arno-gisinger>. *Afteratlas*, curated by Georges Didi-Huberman and designed by Arno Gisinger. January 23, 2014 – March 22, 2014. *Beirut Art Center*, Beirut, Lebanon. “Afteratlas,” *Beirut Art Center*. Published 2014. Accessed February 2014. <http://www.beirutartcenter.org/en/single-event/afteratlas>. *Memory Burns*, curated by Georges Didi-Huberman. June 28 - October 11, 2015. *OCAT Institute*, Beijing, China. <http://www.e-flux.com/announcements/29427/memory-burns/>

²⁹ Georges Didi-Huberman, *Atlas: How to Carry the World on One’s Back* (Madrid, Spain: Museo Nacional Centro de Arte Reina Sofia, 2010).

³⁰ Didi-Huberman, *Atlas*, op. cit.

Warburg, in fact, had a number of people employed by his research institute to help him manage the technical aspects of distancing and internalizing dynamograms. These collaborators were not only responsible for the many photographs of photographs, photographs of prints, facsimiles of reproductions, and prints of manuscripts that Warburg's scholarship required; they also helped document the sites and works Warburg traveled to see because they had yet to be photographed to his liking. At times they also negotiated for Warburg's research institute, the *Kulturwissenschaftliche Bibliothek Warburg* (KBW) to get copies of reproductions already in circulation.

Between 1927 and 1929 when work on the *Mnemosyne Bilderreihen* project became the focus of KBW activity, Carl Hoff was among the three imaging technicians who worked regularly for Warburg's research institute.³¹ Donald Macbeth was mostly responsible for providing photostats of manuscripts, and reproductions of photographed artworks, from the British Library.³² Heinrich Jantsch³³ provided technical assistance, assisted in acquisitions of equipment, like the Foto-clark ("Europe's first photocopying machine")³⁴ and materials like photographic paper, and most importantly, collaborated with the institute on designs for the KBW's darkroom. Letters in the Warburg Institute archives confirm that Jantsch's sketches of a dark room for Warburg's library were given to the architect responsible for the designs of the library's new building in 1925.³⁵ The relationship was amicable: in 1926, after Warburg hosted

³¹ "Hoff, Carl," *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 588.

³² "Macbeth, Donald," *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 600.

³³ "Jantsch, Heinrich," *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 590.

³⁴ Jantsch described the "Foto-Clark" in a letter to Saxl as a "machine printing negatives and making duplicates of photographs." The library has catalogued this letter with the "institution" title "Automatische Fotodruckapparate." According to the journal *The International Blue Printer*, it was "the first photocopying camera in Europe that came on the market" and was "patented in 1910." It was German and "looked like an early model of the Photostat – but without the developing mechanism – and was intended primarily for copies of letters." For more on the Jantsch firm and the Foto-Clark, see *Jahrbuch für Photographie, Kinematographie und Reproduktionsverfahren*, Vol. 1 (1928), 51.

³⁵ "Letter from Heinrich Jantsch to Fritz Saxl, December 15, 1925," *Warburg Institute Archive, General Correspondence*, WIA/GC 16174. "Letter from Fritz Saxl to Heinrich Jantsch, December 29, 1925," *Warburg Institute Archive, General Correspondence*, WIA GC/16175.

Jantsch on a tour of the KBW structure, Jantsch sent him a copy of an article by physiologist Otto Warburg, a relative of Warburg's who would be awarded the Nobel Prize in 1931 for his work on cell respiration.³⁶ At Jantsch's suggestion, the library acquired a Foto-clark and included a darkroom in its structure for the purpose of generating funds that could help support the expenses and costs of the research institute. The idea was to improve the self-sufficiency of the library by offering a paid service for reproductions to library users. The darkroom, therefore, did not only serve the needs of Warburg, but was an integral part of the research methods it both promoted and provided as services.

In 1922, at the end of his often cited lecture on the Schifanoia frescos in Ferrara, Warburg wrote that the history of art required "*allgemeine Entwicklungs-Kategorien*" (or general evolutionary categories) and an "*eigene Entwicklungslehre*"—"an evolutionary theory of its own."³⁷ According to Warburg, these "categories" and an accompanying theoretical framework were necessary to aid the history of art in "placing its materials at the disposal of the—still unwritten—historical psychology of human expression."³⁸ It was "by taking pains to illuminate one single obscurity" (*indem sie sorgfältig sich um die Aufhellung einer einzelnen Dunkelheit bemüht*) that "an analysis [could] cast light on broad and general evolutionary processes in all their interconnectedness."³⁹ Dictionary definitions of the German term *Entwicklung* refer to three phenomena: the evolutionary biology of a species, the developmental stages in the growth

³⁶ "Letter from Heinrich Jantsch to Aby Warburg, August 24, 1926," *Warburg Institute Archive, General Correspondence*, WIA/GC 17648.

³⁷ *Die Kunstgeschichte wird durch unzulängliche allgemeine Entwicklungs-Kategorien bisher daran gehindert, ihr Material der allerdings noch ungeschriebenen 'historischen Psychologie des menschlichen Ausdrucks' zur Verfügung zu stellen*" ("Until now, a lack of adequate general evolutionary categories has impeded art history in placing its materials at the disposal of the – still unwritten – historical psychology of human expression."). Aby Warburg, "Italienische Kunst und international Astrologie im Palazzo Schifanoja zu Ferrara," *Die Erneuerung der heidnischen Antike: Kulturwissenschaftliche Beiträge zur Geschichte der europäischen Renaissance*, ed. Horst Bredekamp and Michael Diers (Berlin, Germany: Akademie Verlag, 1998), 478.

³⁸ Warburg, "Italienische Kunst und international Astrologie im Palazzo Schifanoja zu Ferrara," 478.

³⁹ *Ibid.*

of an individual organism, and the chemical development of photographs.⁴⁰ Though in his lecture, Warburg was referring solely to *Entwicklung* in the evolutionary sense, the photographic process was connected to the way Warburg went about attempting to establish new ‘evolutionary categories’ like dynamogram and pathos-formula for the history of art.

The term *Entwicklung* appears in fragmentary notes Gertrud Bing wrote down in conversation with Warburg about the *Atlas*.⁴¹ Most importantly, it emerges in the notes that accompany *Tafel C* (Plate C) of the *Atlas* as it was published posthumously in the unfinished form it took after Warburg’s unexpected death (Fig. 127, right).⁴² The diaries of Warburg’s research institute confirm that Warburg had planned the *Atlas*’s final version—which he intended on titling *Mnemosyne Bilderreihen*—as “ca. 80 Gestelle mit ca. 1160 Abb werde ca. 6 Tafeln zu *Erkenntnistheorie und Praxis d. Symbolsetzung aufstellen (A,B,C,D[...]>[...])*” (“circa 80 frames with circa 1160 fig[ure]s of which c[irca] 6 plates on epistemology and praxis of symboling configurations (A,B,C,D[...]>[...]).⁴³ The posthumously-published *Mnemosyne Atlas* is instead 63 glass slides of image plates in which a total of 971 reproductions are arranged in configurations numbered 1 through 79, with missing numbers. The *Mnemosyne Atlas* version of Warburg’s *Mnemosyne Bilderreihen* includes only three of the planned “6 plates on epistemology and praxis of symboling configurations.”⁴⁴ These plates have been called the “prologue” plates. To guide the *Atlas* user in the process of what Warburg called the “daily drilling” of the historian’s plastic image repertory, the three-plate “prologue” offers a key that instructs users in two ways: first, in how to look at the *Atlas*; second, in how to activate it as a living apparatus for

⁴⁰ “*Entwicklung*,” Collins German-English Dictionary. Published 2017. Accessed February 2, 2017. <https://www.collinsdictionary.com/dictionary/german-english/entwicklung>

⁴¹ The term *Entwicklung* is used in the fragmentary notes for *Tafel C* and *Tafel 20*. Aby Warburg, *Der Bilderatlas MNEMOSYNE*, 12-13 and 30-31.

⁴² Warburg, *Der Bilderatlas MNEMOSYNE*, 12-13.

⁴³ My translation. Aby Warburg as quoted in Van Huisstede, “Towards an Electronic Version of the Mnemosyne Atlas,” 155. For the original diary entry, see Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 551.

⁴⁴ My translation. Warburg, *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*, 551.

historiography—one that can be modified by other users or expanded upon with the creation of other *Atlases*. In fact, Warburg's own three versions of the *Atlas* expand and contract. The posthumously-published *Mnemosyne Atlas* was the last version Warburg worked on before his death.⁴⁵ The penultimate series counts 71 photographs of plates with arrangements of 1050 reproductions.⁴⁶ The first version comprised 43 photographs of plates documenting configurations of 682 reproductions.⁴⁷ The evolution of the *Mnemosyne Bilderreihen* thus proceeded through both the addition of images and their subtraction, through both accession and paring down.

In *Tafel C*, the third and last of the three prologue plates (fig. 127, right), the term *Entwicklung* is used to describe the evolution of a concept: the phrase “evolution of the concept of Mars,” begins the fragmentary notes that Bing took down from Warburg in their conversations about the plate.⁴⁸ The evolution of this concept is associated with “detachment from the notion of anthropomorphism,” and the sequence, “image – harmonic system – sign [*Bild – harmonikales System – Zeichen*]” concludes the note.⁴⁹ The plate comprises seven images, three of which are clustered into a group. Two of the images are reproductions of diagrams; one is the reproduction of a print created for a book from a drawing of an object; another is a reproduction of a print from an almanac; and the cluster of three images are reproductions of newspaper clippings and spreads scaled to fit the plate. The reproductions are not only from a variety of image media but are also a variety of image types. The newspaper clippings reprint photographs taken of the Graf Zeppelin airship over Germany, Japan and New York in 1929 (the last year Warburg worked on the *Atlas*)

⁴⁵ Van Huisstede, “Towards an Electronic Edition of the Mnemosyne Atlas,” 146 – 158.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

⁴⁸ Aby Warburg and Gertrud Bing, “Fragmentary Notes,” as quoted in *Seminario Mnemosyne*, co-ordinated by Monica Centanni, Silvia De Laude, Daniela Sacco and Silvia Urbini, “Through the Maze: Plates A, B and C, The Opening Themes of Aby Warburg's Mnemosyne Atlas,” trans. Elizabeth Thomson. *Engramma*. No. 125, March 2015. http://www.gramma.it/eOS2/index.php?id_articolo=2341

⁴⁹ Warburg and Bing, “Fragmentary Notes,” *op. cit.*

(fig. 127, right, detail).⁵⁰ This last plate of the *Mnemosyne Atlas* ‘prologue’ is, in fact, the most contemporary of the three, and includes images produced by Warburg’s own image culture and historical moment. The arrangement of images on the plate creates a parallel between 20th-century newspaper culture (bottom right)—which saturated the collective imagescape with wonders of technological innovation and the fear of its new beasts—with the 15th-century culture of *Kalendarisches Hausbuchs* (almanacs) (fig. 127, right, detail), which through the agricultural rhythms they counted, invested everyday life with the mythical monsters of astronomy.⁵¹ The intervening years of the scientific revolution are represented in the plate by two images on the left of the plate and one image in its top center.

The image in the top center is a diagram of the planetary orbits from the same *Brockhaus* encyclopedia used by Darboven in her installations (fig. 127, right, detail).⁵² Information provided by the editors of the posthumous *Mnemosyne Atlas* publication indicates that this diagram is from 1905,⁵³ the year that Albert Einstein presented his theory of special relativity on the relationship between space and time. In the diagram, the solar system comprises the orbits of eight planets, including Uranus (1781) and Neptune (1846); Pluto was not discovered until 1930. On the bottom left—diagonal to the 1905 diagram—is another diagram of planetary motion, this one based on Kepler’s *Astronomia Nova* treatise on the elliptical orbits of planets (1609) (fig. 127, right, detail).⁵⁴ It explores the relationship between the orbits of the Earth and Mars, respectively third and fourth in their distance from the sun. Directly above this diagram (which was drawn to Warburg’s specifications) is a drawing of Johannes Kepler’s model of distance relationships among the six planets known to astronomers in the 16th-century—Mercury, Venus, Earth, Mars, Jupiter and Saturn (1597, drawing signed Christophorus Leibfried. ff. Tubing) (fig.

⁵⁰ Warburg, *Der Bilderatlas MNEMOSYNE*, 12-13.

⁵¹ *Ibid.*

⁵² *Ibid.*

⁵³ *Ibid.*

⁵⁴ *Ibid.*

127, right, detail).⁵⁵ In the model, the five platonic solids, each nested in a sphere, are encased one within the other to produce six layers corresponding to the six planetary orbits. The solid between Earth and Mars is the dodecahedron. Seen in this context of juxtaposition with Kepler's model, the stretched elliptical form of the Zeppelin airship (1929) takes on the appearance of the deformed plastic extension of a platonic solid.

Christophorus Leibfried's drawing (1597) of Kepler's model of distance relationships among the six planets has an ornate base because it was a design for an object intended for fabrication. The design was for a silver beverage dispenser for the Duke of Wurttemberg: the "sphere of each planet" was to contain "a different beverage dispensed through a network of pipes at the turn of a faucet"; the bowl was allegedly never realized because of difficulties in engineering its mechanisms.⁵⁶ Even if this story of the model being designed as a beverage dispenser is pure legend, the myth of Kepler's graphic model being transubstantiated into a vessel holding beverage for ingestion is nonetheless relevant to what Warburg and Bing identified as the fundamental principle of the *Atlas*: distancing and internalizing, metaphor and trope.⁵⁷ In *Tafel C* of Warburg's *Mnemosyne*, diagonal movement from the top left corner to the bottom right corner of the plate (fig. 127, right, detail) extends from a 17th-century ornamental dispenser for beverage ingestion based on Kepler's planetary orbits, to the tragic stretched ellipsoid of the threatening, ingesting Zeppelin. Drinking punch from the dodecahedron would be a metaphor for the body consuming the relationship between the orbits of Earth and Mars: though the scientific revolution has managed to distance the human being from irrational convictions in the earthly influence of the planets and their gods (i.e., Mars, the god of war), these convictions nonetheless continue to

⁵⁵ Ibid.

⁵⁶ Siobhan Roberts, *King of Infinite Space: Donald Coxeter, the Man Who Saved Geometry* (New York, NY: Bloomsbury, 2006), 64.

⁵⁷ Emily Verla Bovino, "Wanting to See Duse or Goshka Macuga's Preparatory Notes for a Chicago Comedy (2013-ongoing) inspired by Aby Warburg-as-Amateur-Playwright (1893-1897)," *Engramma*. No. 130. (October/November, 2015). Published 2015. Accessed November 2015. http://www.gramma.it/eOS2/index.php?id_articolo=2663

exert their hold on the human imagination (fig. 127). They exert such a hold, in fact, that new technologies seem to perpetually subject the human body to mythological subordination: in the quest to subordinate natural laws to human will, human beings create the Graf Zeppelin airship which only counters the attempts at distancing by literally introjecting human bodies into the very heavenly heights that had previously only ruled them from symbolic distance. Mars, the God of War, is a foreboding presence in these 1929 images of the German airship over New York and Tokyo.

From the ‘plastic’ on display between the ingesting body of the Zeppelin and the dispenser for ingestion in the Keplerian punch bowl, *Tafel B* (fig. 127, middle) articulates another kind of ‘plastic’ between human and celestial bodies. The fragmentary notes for this panel identify its configuration with three phrases: “different degrees of influence of the cosmic system on man. Harmonic correspondences. Later, reduction of harmony to abstract geometry instead of what is cosmically determined (Leonardo da Vinci).”⁵⁸ “Leonardo da Vinci” is a reference to the reproduction at the center of the configuration, Da Vinci’s *Uomo Vitruviano* (Vitruvian Man, 1485-1490) (fig. 127, middle, detail).⁵⁹ Whereas *Tafel C* had seen Kepler experimenting with a geometric ideal of the universe by nesting platonic solids like russian dolls,⁶⁰ *Tafel B* follows this metaphor down to the proportions of the human body, articulated by establishing ideal geometries among its constituent parts.⁶¹ The soft, naturalistic *Vitruvian Man* traces its own circular orbit with the free extension of its limbs; with its feet under its hips and its arms at right angles, it draws the outline of a square that overlaps its circumscribing circle. Below *Vitruvian Man* is Agrippa von Nettesheim’s late 16th-century hermetic equivalent of Leonardo’s drawing: a diagram that superimposes circle, cross, and five-pointed star over the extended limbs of a

⁵⁸ Warburg and Bing, “Fragmentary Notes,” op. cit.

⁵⁹ Warburg, *Der Bilderatlas MNEMOSYNE*, 10-11.

⁶⁰ *Ibid.*, 12-13.

⁶¹ *Ibid.*, 10-11.

powerful stylized male body (fig. 127, middle, detail).⁶² This is less a system of proportions than it is a system of interrelations that shows the body to be a literal microcosm of the universe. The cross orients north, south, east and west, and creates quadrants for the four elements (air, water, earth and fire). The pentagram assigns an extension of the body to each of the five planets: Mars is at the head; Jupiter is at the hand on the right; Saturn is at the foot on the right; Mercury is at the foot on the left; and Venus is at the hand on the left. In this diagram, Agrippa—known for his “reification of [...] symbolism”⁶³—is insisting on the concreteness of the metaphor of man-as-microcosm between the earthly (the *iridisch* that will be cited in the fragmentary notes of *Tafel A*) and the *kosmisch* (the cosmic, also cited in the notes for *Tafel A*).⁶⁴ The two images are surrounded by seven other reproductions of prints from manuscripts and a reproduction of a 16th-century study of Albrecht Durer’s proportions by the artist Hans Von Kulmbach (1476-1528) (fig. 127, middle, detail).⁶⁵ Whereas Leonardo’s drawing superimposes square and circle to measure the relationships between the human body and itself, Agrippa’s combines the circle, the cross, and the pentagram to show man-as-microcosm of the universe; meanwhile, Durer’s schema uses the same concentric circles that appear in *Tafel C* describing the planetary motion of Earth and Mars, to assign relationships between parts of the body. The orbits through man connect the hand to the knee; the elbow to the hip; the eyes, the ears, the shoulders and the chest.

The rest of the graphic works in *Tafel B* are arranged around this triangular cluster to create three even columns and three even rows (fig. 127, middle). The only outlier among the images is in the column on the right: it is the reproduction of a folio from an 18th-century almanac printed in Hamburg (fig. 127, middle, detail).⁶⁶ All of the images except this one are mounted on back panels, indicating that the Hamburg almanac image may have been a later

⁶² Ibid.

⁶³ Brian Vickers, *Occult and Scientific Mentalities in the Renaissance* (Cambridge, UK: Cambridge University Press, 1984), 126.

⁶⁴ Warburg and Bing, “Fragmentary Notes,” op. cit.

⁶⁵ Warburg, *Der Bilderatlas MNEMOSYNE*, 10-11.

⁶⁶ Ibid.

addition. This small reproduction appears to be a woodcut that divides the human body into spheres of astrological influence. It is an instruction manual for phlebotomy, or bleeding, that specifies the zodiac signs that rule over different parts of the body. It was considered “unsafe to bleed a patient or perform surgery when the moon was in the zodiac sign which ruled the body part undergoing lesion”⁶⁷ and astrology was taught to physicians and surgeons as an aid to prognosis.⁶⁸ There were edicts that even required that almanacs be used by medical practitioners.⁶⁹ The image on the right is similar to another image in the bottom left corner, a much earlier print from a 15th-century almanac published in Basel (fig. 127, middle, detail).⁷⁰ The print in this image is a more elaborate illustration of “good and bad times” for bleeding.⁷¹ It has a central diagram that is similar to that in the almanac published 300 years later in that it also divides the body into spheres of astrological influence. Several surrounding illustrations not present in the earlier Hamburg print show a physician bleeding a patient from different parts of the body in different positions, from seated on a chair, to reclined in bed, to seated on the ground (disrobed for bleeding from the back), to crouched in contortion.

Similar to these two images from almanacs is the reproduction of a 15th-century print in the top center of the plate titled *Herakles als Weltenherrscher, seine Körperteile den Tierkreiszeichen zugeteilt* (Hercules as world ruler, his body parts assigned to zodiac signs) (fig. 127, middle, detail).⁷² The Hercules print and the reproduction in the upper left—the 12th-century Christian mystic Hildegard von Bingen’s drawing of her vision *Der Mensch im Kreis der kosmischen Gewalten* (Man in a Circle of Cosmic Forces) (fig. 127, middle, detail)—share the same basic design with the almanac images: the signs of the zodiac surround the figure in a frame

⁶⁷ Sophie Page, *Astrology in Medieval Manuscripts* (London, UK: British Library, 2002), 54.

⁶⁸ Ian Maclean, *Logic, Signs and Nature in the Renaissance: The Case of Learned Medicine* (Cambridge, UK: Cambridge University Press, 2002), 91.

⁶⁹ Maclean, *Logic, Signs and Nature in the Renaissance*, 91.

⁷⁰ Warburg, *Der Bilderatlas MNEMOSYNE*, 10-11.

⁷¹ My translation. Warburg, *Der Bilderatlas MNEMOSYNE*, 10-11.

⁷² Warburg, *Der Bilderatlas MNEMOSYNE*, 10-11.

and lines are drawn to the body to connect each zodiac sign to its corresponding part.⁷³ The formal aspect that most distinguishes the almanac images from the print of Hercules and von Bingen's drawing, is the circumscription of the human figure by a circle rather than a square. In the reproduction on the right of Hercules, this schema changes: the zodiac signs now frame the human figure, not in a circle, but in a mandala that rounds into a point over the human figure's head and under its feet (fig. 127, middle, detail). More importantly, the zodiac signs also occupy the body of the figure, stretching in a line up from its feet to its chest. The image is a reproduction from the famous 15th-century illuminated manuscript, *Très Riches Heures du Duc de Berry*, and its design of astrological figures fully incorporated into the body, is repeated in the reproduction in the middle row on the left.⁷⁴ In this 13th-century print—another chart to guide physicians in bleeding patients, and the oldest image in the group—the body is completely overtaken by astrological symbols: the scorpio acts as its throat and also plays the part of the figure's genitals; the figure stands on the two fish of pisces and is crowned by the ram of aries.

Across *Tafel C*, in the bottom right of the plate, is an image that accomplishes something similar, though in a more abstract fashion: it is Agrippa's diagram of the human hand (fig. 127, middle, detail).⁷⁵ In the diagram, even the hand is assigned areas of planetary influence. Mars, which was aligned with the head in Agrippa's man-as-microcosm diagram, is here assigned a similarly privileged position at the center of the palm. Overall (fig. 127, middle), the plate shows various degrees of distance and incorporation of cosmic influence, with the body sometimes completely overtaken by astrological control (i.e. the 13th-century bleeding manual and Agrippa's 16th-century diagrams) or the body emancipated from these connections by its self-reflexivity, a geometry of interrelations with itself (i.e., Leonardo). Interestingly, Warburg positions his reproduction of the drawing from the Durer model in such a way as to connect its

⁷³ Ibid.

⁷⁴ Warburg, *Der Bilderatlas MNEMOSYNE*, 10-11.

⁷⁵ Ibid.

orbits to the planetary orbits in *Tafel C*—as if to suggest that what appears to be just another instance of pure abstraction in the body’s proportions, may actually be signalling a return to cosmic control.

Tafel A (fig. 127, left), the first plate in the *Mnemosyne Atlas* prologue, is accompanied by the descriptive note, “different relationships in which man is integrated, cosmic, earthly and genealogical [*kosmisch, irdisch, genealogisch*].”⁷⁶ The note explains that the plate shows, “the coincidence of all these relationships in magic thought since the difference between descent, place of birth, and cosmic position presupposes an act of thought.”⁷⁷ It then outlines, “1) Orientation; 2) Exchange; 3) Social order [*1) Orientierung; 2) Austausch; 3) soziale Einordnung*].”⁷⁸ Like the three “relationships” (cosmic, earthly and genealogical) provided in the first phrase of the fragment, the three general principles—direction, exchange and social order—can be identified with the order of the three images on the plate from top to bottom.⁷⁹

The plate includes three reproductions in a triangular order: the top image in the configuration (the “cosmic” relationship, or the “orientation” principle) is reproduced as the smallest image; the bottom image (the “genealogical” relationship, or the “social order” principle) is reproduced as the largest.⁸⁰ The reproduction at the summit of the three stacked rectangles is a photographic print of a hand-colored aquatint; the reproduction in the middle of the arrangement (the “earthly” relationship or the “exchange” principle) is either an original schematic drawing, or a photograph of a schematic drawing; the bottom rectangle composed of three smaller, vertically-oriented rectangles, is either a notational drawing or a reproduction of a notational drawing. All three of the images combine words and graphics.

⁷⁶ Warburg and Bing, “Fragmentary Notes,” op. cit.

⁷⁷ Ibid.

⁷⁸ Ibid.

⁷⁹ Ibid.

⁸⁰ Warburg, *Der Bilderatlas MNEMOSYNE*, 8-9.

The notational drawing at the base of the composition (fig. 127, left, detail) is dominated by sweeping lines that vary in length and trajectory. The lines descend from three names “Tierì” in the middle, Ruggieri” on the right and “Simone” on the left.⁸¹ The name “Simone” is written lower than the names “Tierì” and “Ruggieri.” Some of the lines in the drawing are short, others are long; some swell to create curves, others stiffen to travel straight; some move left to right, or right to left, others, move top to bottom; some taper off in a tail, others begin with a bold head and end in a broad foot; others yet, are slender, steady and certain. Towards the bottom, on the left of the drawing, is the name “MEDICI” written in capital letters. The combination of lines and names indicates the notational drawing is a family tree and, in fact, it is usually described as the “family tree of the Medici/Tornabuoni.”⁸² Discussion of the plate typically focuses on the fact that it represents “genealogical order” and heredity, as indicated in Bing’s fragmentary notes. The notes, however, also refer to “social order” and this is not explained by genealogy alone.

In the bottom left corner of the genealogy (fig. 127, left, detail) there appears to be a line of text that cites the year “1393” and the name “Tornaquinci.”⁸³ The name “Tornabuoni” was first taken by Florentine nobleman Simone di Tieri di Ruggero Tornaquinci, a name which lays out his ancestry as Simone, son of Tieri Tornaquinci and grandson of Ruggero Tornaquinci. The change of name came about after a provision passed in Florence that reopened positions of public service (*I Popolani*) to a restricted number of descendents from the city’s wealthiest families (*I Magnati*).⁸⁴ The aim of this provision, pushed by Maso degli Albizzi, was to consolidate the Florentine oligarchy around him and his family; the Albizzi preferred to rule through republican governance, however their populist strategy and military campaigns eventually prepared the way for the less wealthy but more pragmatic Medici to take control of Florence under a *regime signorile* (princely

⁸¹ Ibid., 9.

⁸² My translation. Warburg, *Der Bilderatlas MNEMOSYNE*, 10.

⁸³ Warburg, *Der Bilderatlas MNEMOSYNE*, 11.

⁸⁴ Eleonora Plebani, *Tornabuoni: una famiglia fiorentina alla fine del Medioevo* (Milano, Italia: FrancoAngeli, 2002), 29.

regime).⁸⁵ As part of the Albizzi consolidation of the oligarchy, Simone di Tieri di Ruggero changed his name and his family *insegne* (emblems) to Tornabuoni; the name change signaled the Florentine family's return to public life, while at the same time retaining a reference to its ancient noble roots by keeping the first part of the name "Torna".⁸⁶ Literally translated in English, the name changed from "tornaquinci" meaning "turn from this place" or "turn from around here"⁸⁷ to "turn good." Though Simone died the same year as the name change, his descendents realized his aspirations over the next several decades, embedding the family into all areas of social, economic and political life in the city of Florence.⁸⁸ This appears to have been what Warburg intended with his reference to "social order" (*soziale Einordnung*) in the notes to *Tafel A*.⁸⁹ It is also important for the reification of the symbolic that it signifies: the name takes on a concrete relationship to the life and character of the family, rather than acting as only an arbitrary identifying marker.

The schematic drawing in the middle rectangle (the "earthly" relationship or "exchange" principle) features a group of continuous contour lines (fig. 127, left, detail).⁹⁰ These contours either outline distinct enclosed areas, or they begin and end on an edge; the contours interrupted by edges suggest that the areas outlined extend beyond the rectangular frame that confines them. With few exceptions, the paths traveled by these contour lines are highly regular in both width and ink saturation. They move with a restless precision through the most minute directional shifts, relaxing in plateaus only to quiver in sharp bends and dip in craters. The schematic drawing is identifiable as a map of the Mediterranean: the sea basin is, in fact, the center of the image. The majority of place labels mark cities in Northern Europe, though cities on the Italian

⁸⁵ "Maso degli Albizzi," *Treccani. Dizionario Biografico degli Italiani*, Vol. 2 (1960). N.d. Accessed October 2015. http://www.treccani.it/enciclopedia/maso-albizzi_%28Dizionario-Biografico%29/ Antonio Rado, *Dalla Repubblica Fiorentina alla Signoria Medicea: Maso degli Albizzi e il partito oligarchico in Firenze dal 1382 al 1393* (Firenze, Italia: Vallecchi Editore, 1926).

⁸⁶ Plebani, *Tornabuoni: una famiglia fiorentina alla fine del Medioevo*, 29-30 and 48.

⁸⁷ "quinci," *Treccani. Vocabolario*. N.d. Accessed October 2015. <http://www.treccani.it/vocabolario/quinci/>

⁸⁸ Plebani, *Tornabuoni: una famiglia fiorentina alla fine del Medioevo*, 29-30 and 48.

⁸⁹ Warburg, *Der Bilderatlas MNEMOSYNE*, 8.

⁹⁰ *Ibid.*, 8-9.

Peninsula and in Spain are also specified, as well as a spattering of cities in the Middle East and North Africa, including, among others, Alexandria, Jerusalem, Bagdad and Haran. Some cities are given special attention by being underlined and written in capital letters, others are given secondary importance by being written in capital letters but not underlined; those of tertiary importance have only their first letter capitalized. The map is a general schema that Warburg used to create what he called *Wanderkarte*, “psychogeographical” maps that trace “human inventiveness” and “memory.”⁹¹ Each of the cities named in the map was marked as a point in the transmigration of ideas. The *Wanderkarte* that Warburg designed with collaborators first mapped trade routes then mapped the “route that astrology took from East to West, starting with Plato, and then the route back from Alexandria and Rome, which he called “Hellenized antiquity” to the Orient and its further spread to Gaul.”⁹² This route explains the cities that are labeled in the map included in *Tafel A*; what is missing from this map, however, is the dense network of “lines indicating the direction of diffusion” that Warburg’s assistant and collaborator Fritz Saxl created.⁹³ Saxl had also entered “dates, names of towns, [and] of people.”⁹⁴ All of this information would have been illegible in the glass slide reproduction of the map alongside other images, thus only the schema that Warburg’s wife, Mary Warburg, created for her husband, was included. The term *Austausch* (“Exchange”)⁹⁵ listed in the *Tafel A* fragmentary notes confirms that just as it was the interchange between heredity and social order that interested Warburg in the bottom image of the plate, it was the “exchange of ideas” and migration across territories, north and south, east and west, that he wanted to emphasize in the middle image.

The rectangle at the top of the composition (fig. 127, left, detail) is a reproduction covered in fields of deep, varied grayscale suggesting that the etching photographed was among

⁹¹ Dorothea McEwan, “Aby Warburg’s (1866-1929) Dots and Lines. Mapping the Diffusion of Astrological Motifs in Art History,” *German Studies Review*, Vol. 29, No. 2 (May, 2006), 252.

⁹² McEwan, “Aby Warburg’s (1866-1929) Dots and Lines,” 255.

⁹³ *Ibid.*

⁹⁴ *Ibid.*

⁹⁵ Warburg, *Der Bilderatlas MNEMOSYNE*, 8.

the more colorful of its originally hand-painted iterations.⁹⁶ Translucent areas of watercolor darken the aquatint print: in the black-and-white reproduction, the original fields of color saturate the soft gray veils and sharp lines of underlying printed impressions. Like the map of the Mediterranean basin, this printed proof was also the product of numerous hands: a designer who created the overall composition; an etcher whose acid bath corrosions reproduced the design in using waxes and gums on a metal plate; and lastly, a printer, who manipulated ink content and print pressures to make editions.

The image reproduces a print whose original dimensions are much larger than the two drawings that accompany it on Warburg's *Tafel A*.⁹⁷ Thus, scale shifts from intimate drawings of heredity and territory made directly by hand, to an expansive print of the heavens produced indirectly through acid baths and printed impressions. The Dutch phrase *Hemels Pleyen*, emblazoned in writing on a banner held by two cherubs, confirms that the print—covered in menagerie of animals, objects and human figures—is a map of constellations. The serif-type title *Sterre Kaert of Hemels Pleyen* along the top of its double-edged frame reaffirms that the image is a star chart, a mapping of celestial bodies through mythic figures. The disembodied hind flanks of a horse on the right edge of the image, are the hind flanks of a centaur whose front-half reappears on the chart's left-edge. Disembodied legs and feet that extend eastward above the head of the centaur are parts of a winged human body, the top half of which reappears at the print's right-edge. The effect of this disappearing and reappearing act from left edge to right edge encourages the viewer to imagine rolling the chart into a cylinder. The horizontal listing of months at the top of the chart do the same. They align with the columns of vertical lines that extend across it, beginning with "October," on the left, and ending on the right, with "September." The reverse

⁹⁶ *Ibid.*, 9.

⁹⁷ The real dimensions of the map were 18.5 x 23.23 in (47 cm x 59 cm). "Celestial Chart—Elwe, Jan Barend [...] designed by Remmet Theunisse Backer." *Sotheby's. Travel, Atlases, Maps & Natural History*, London. November 12, 2013. <http://www.sothebys.com/en/auctions/ecatalogue/2013/travel-atlases-maps-natural-history-113405/lot.123.html>

orientation of the figures at the top edge of the image – the winged horses and fish positioned upside down—persist with this sense of rotation, encouraging the viewer to imagine the entire chaotic scene in a spherical space. The form of spatial orientation that was used to organize this composition of the cartographer Remmet Backer’s star chart (1684) is commonly referred to as the “Mercator Projection.”⁹⁸ This “projection” was not invented by the Dutch mapmaker Gerard Mercator (1512 – 1594), but since Mercator is attributed with being “the first to apply it to navigational charts,” the “projection” was given his name.⁹⁹ Backer’s *Himmel Pleyn* is considered by cartographers to be a “rare” and “ingenious” “equivalent of the Mercator projection”: it represents a departure from the “polar projection” that was normally used in star charts.¹⁰⁰

In accompanying notes to Warburg’s *Bilderatlas*, the star chart—whose nested spirals of propelling motion among mythic figures, is an effect of the Mercator Projection—is assigned the task of *Orientierung*, or “Orientation.”¹⁰¹ By positioning a scaled-down reproduction of Backer’s Mercator projection star chart at the top of *Tafel A*, Warburg proposes not just any “cosmic system of relations” to orient the viewer, but one with a very specific sense of motion: the illusion of a tenuously contained pulsation between centripetal and centrifugal forces. In addition to the unique projection type unusual for a star chart, the actual collection of constellations included in the chart are expanded. *Toucan*, the *Indus Circus*, *Chameleon*, *Paradisea*, *Phoenix*, *Grus* (the crane), *Hydrus*, *Pavo*, *Triangulum* and *Musca*, were all added to the Ptolomeic canon of constellations as a result of seventeenth century Dutch expeditions to the East Indies (now the Indonesian archipelago).¹⁰² The navigator attributed with introducing the twelve new constellations is Pieter Dirksz Keyser (d. 1596) who died at sea off the coast of Java after

⁹⁸ Peter Whitfield, *The Mapping of the Heavens* (San Francisco, CA: Pomegranate Art Books in association with the British Library, 1995), 86.

⁹⁹ Whitfield, *The Mapping of the Heavens*, 86.

¹⁰⁰ *Ibid.*

¹⁰¹ Warburg, *Der Bilderatlas MNEMOSYNE*, 8-9.

¹⁰² Michael E. Bakich, *The Cambridge Guide to Constellations* (Cambridge, UK: Cambridge University Press, 1995), 9-10.

documenting his observations.¹⁰³ In this star chart, orientation is disoriented, opening the world to new gods and a new sense of the body's position in space. The network of transmigrations that were outlined in Warburg's *Wanderkarte* across the Mediterranean are extended in Backer's star chart to the Indonesian archipelago.

This extensive description of the *Mnemosyne Atlas*' first three panels (fig. 127) has served to support a concluding hypothesis about the importance of the concept of the 'plastic' in art history and art historiography. The *Atlas* offers more than a "repertoire of the Western tradition."¹⁰⁴ Its repertoire is both more specific and more general than the construct of the "Western"—its breadth is global, though its philosophical bent is more specific. The *Atlas* is more about the philosophy of Hermetic Humanism that stretched from East to West, North to South (but that languished with the occidentalized idea of Europe that took hold in the latter centuries of the Enlightenment) than it is about the Western tradition *per se*. If one could write an epigram for Warburg's *Mnemosyne Atlas*, it would be the famous trope from Renaissance philosopher Giovanni Pico della Mirandola's *De hominis dignitate* (Oration on the Dignity of Man, 1486) in which—after creating man from the "nothing" that was left after "every place" had been "filled" and "all things had already been assigned to the [...] orders"—"God the supreme father and architect" tells man he has been made to be 'plastic': *plastus et factor*, the "free and extraordinary shaper" of himself.¹⁰⁵

¹⁰³ National Library of Australia, *Mapping our World: Terra Incognita to Australia* (Canberra, Australia: National Library of Australia, 2013), 61. Louis Jong, *The Collapse of a Colonial Society: The Dutch in Indonesia during the Second World War* (Leiden, Netherlands: KITLV Press, 2002), 7.

¹⁰⁴ Warburg and Bing, "Fragmentary Notes," op. cit

¹⁰⁵ Giovanni Pico della Mirandola, *Oration on the Dignity of Man (1486): A New Translation and Commentary*, ed. Francesco Borghesi, Michael Paolio and Massimo Riva (New York, NY: Cambridge University Press, 2012), 116-117.

Plastes et Fictor: Pico della Mirandola's Free and Extraordinary Shaper

The ever provocative Pico was famous for upsetting both the church and astrologists. His advocacy for human freedom through a Christian syncretism that promoted a mystical plastic selflessness did not earn him the trust of church authorities. He made no friends among the philosophers of prophecy and divination when he argued for liberation from cosmic influence using “humanist philology as a new weapon against astrology.”¹⁰⁶

Pico prepared his *Oration on the Dignity of Man* for a debate in Rome where he thought that his nine hundred theses on the theme of “philosophical harmony between Platonists and Aristotelians” would be discussed.¹⁰⁷ The theses were never given and the conference never happened: Pope Innocent VIII intervened with a commission that repudiated thirteen of the theses, then denounced all nine hundred when Pico responded with a challenge. Pico was briefly jailed when he attempted to leave Italy for France. He was eventually reconciled with the church by Pope Alexander VI and became close to Girolamo Savonarola, the “millenarian preacher” who led the *Falò delle Vanità* (the Bonfire of the Vanities) in Florence. He died six years before the new millenium, in 1494.

Though Pico never presented the theses or the *Oration*, his writings were composed in an “elegant” Latin, and his celebrity as a challenger of the church in his youth, attracted later readers. He is generally said to have “stayed famous in three ways”:

as a critic of astrology; as an expert on Kabbalah; and as the amazing Pico—as the Phoenix who blazed through a brief life in the triple glare of an old aristocratic society, a new mandarin culture of classical scholarship and, in his last years, the millenarian fantasies of Savonarola’s Florence.¹⁰⁸

¹⁰⁶ Brian Copenhaver, “Giovanni Pico della Mirandola,” *Stanford Encyclopedia of Philosophy*. August 3, 2016. Accessed November 30, 2016. <https://plato.stanford.edu/entries/pico-della-mirandola/#WorkRepu> For more on practices of astrological prediction, see Brendan Maurice Dooley, *A Companion to Astrology in the Renaissance* (Leiden, Netherlands: Brill, 2014).

¹⁰⁷ della Mirandola, *Oration on the Dignity of Man (1486)*, 109.

¹⁰⁸ Copenhaver, “Giovanni Pico della Mirandola,” op. cit.

It was in the 19th century, with neo-Kantians like Warburg's friend and colleague Ernst Cassirer, that Pico experienced a real resurgence in popularity. It was Pico's notion of man as *plastus et factor*, the "free and extraordinary shaper" of himself,¹⁰⁹ that attracted post-Kantians in the revolution of human freedom that Kant's work had brought to philosophy. Nonetheless, his work was not translated into the vulgate (first Italian then English) until the 1930s and 1940s.

Pico begins the *Oration* with two passages, one from ancient Arabic texts that he was studying under the guidance of a tutor, and another from the hermetic writings of Hermes Trismegistus also known as "Mercury" (1st to 3rd centuries AD), the hermetic philosopher highly valued by Renaissance humanists. "I have read in the ancient texts of the Arabians," Pico begins,

that when Abdallah the Saracen was questioned as to what on this world's stage, so to speak, seemed to him most worthy of wonder, he replied that there is nothing to be seen more wonderful [*admirabilius*] than man. This opinion is seconded by Mercury's saying: "A great miracle [*miraculum*], Asclepius, is man." Still, when I considered the reasons behind these maxims, I was unsatisfied by the arguments put forward by many men to explain the excellence of human nature.¹¹⁰

Among these arguments explaining the excellence of human nature, Pico writes, are the notion "that man is the midpoint between fixed eternity and fleeting time [*stabilis evi et fluxi etmporis interstitium*], the bond [*copulam*] (as the Persians say) or rather the wedding-song [*immo hymeneum*] of the world."¹¹¹ For Pico, though this reason (along with the others it is typically presented with) is "indeed great," it is not the "main grounds on which man may rightfully claim for himself the privilege of the highest admiration."¹¹² For Pico, these "main grounds" are centered on the fact that the "Master Creator" makes man "constrained by no limits": "we have made you neither of heaven nor of earth," Pico recounts that God the "Craftsman" tells his creation.¹¹³ "Neither mortal nor immortal, [...] you may, as the free and extraordinary shaper of

¹⁰⁹ Ibid.

¹¹⁰ della Mirandola, *Oration on the Dignity of Man* (1486), 109.

¹¹¹ Ibid., 111.

¹¹² Ibid.

¹¹³ Ibid., 114-117.

yourself [*tui ipsius quasi arbitrarius honorariusque plastes et factor*], fashion yourself in whatever form you prefer [*in quam malueris tute formam effingas*].”¹¹⁴

By creating a passage that uses both the verbs *plastes* and *effingas*—the present active subjunctives of *plassein* and *effingere*—Pico’s passage plays with the “Latin rhetorical terminology” wherein “*plassein* is rendered by *ingere*,”¹¹⁵ or rather, *plassein* the Greek for “shape, fashion, form” is equated with *ingere*, which denotes the making of fictions.¹¹⁶ The Greek sophist philosopher and rhetorician, Gorgias (484 BC – 376 BC), had done this in his famed work of rhetoric, the *Encomium of Helen*, where he described the plasticity of persuasion in “all those who ‘have persuaded and persuade...by fashioning a false discourse [*pseude logon plasantes*].”¹¹⁷ The rhetorical play works with the layered etymology of both terms with *plassein* “built on a root that means “spread a thin layer, coat,” and *effingere* meaning “to stroke,” “to form, fashion, mould,” as well as “to wipe clean, wipe out,” “to imitate” and “to portray,”¹¹⁸ all from the root *tingo*, “to touch” or “handle.”¹¹⁹ By being *plastes* of itself, the human being’s plastic nature makes it a being ‘spread thin,’ a ‘fiction,’ an ‘imitation’ able to ‘take form’ and ‘wipe out’ in building itself up and taking itself apart.

According to Pico’s account, the human being is a “creature of indeterminate image,” who God, the “Craftsman,” “set[s] in the middle of the world” and informs: “We have given you, Adam, no fixed seat or form of your own [...] so that [...] whatever form [...] you may judge desirable, [...] you may have and possess according to your desire and judgment.”¹²⁰ “Who will not wonder at this chameleon of ours?” Pico asks, “or rather, who will admire any other being

¹¹⁴ Ibid. 116-117.

¹¹⁵ “Plastic, the plastic arts, bildende Kunste,” *Dictionary of Untranslatables*, 47-48.

¹¹⁶ Barbara Cassin, *L’effetto sofistico. Per un’altra storia della filosofia* (Milano, Italia: Jaca Book, 2002), 221-224 and 268.

¹¹⁷ Gorgias as quoted in Plastic, the plastic arts, bildende Kunste,” *Dictionary of Untranslatables*, 47-48.

¹¹⁸ “effingo,” Charlton T. Lewis, *An Elementary Latin Dictionary* (New York: American Book Company, 1890).

¹¹⁹ “tingo,” in Charlton T. Lewis, *An Elementary Latin Dictionary* (New York: American Book Company, 1890).

¹²⁰ della Mirandola, *Oration on the Dignity of Man* (1486), 116-117.

more?”¹²¹ According to the Hermetic texts, Pico writes, man is “represented in the secret rites by Proteus because of his changing and metamorphous nature.”¹²² In the Persian texts, Pico recounts it is sustained that “man possesses no innate image but many that are extrinsic and acquired.”¹²³ Indeed, the Chaldeans had a saying that “man is by nature diverse, multiform and inconstant.”¹²⁴

Pico uses these arguments to prepare his thesis against the degradation of philosophy: “For philosophizing as a whole (and this is the misfortune of our age!) is now derided and disparaged, instead of being honoured and glorified.”¹²⁵ As Pico writes,

nearly everyone’s mind has been invaded by the ruinous and monstrous conviction that either no one or only a very few may study philosophy, as if having before our eyes and at our fingertips the causes of things, the ways of nature, the logic of the universe, the divine plan, and the mysteries of Heaven and Earth were of no value whatsoever unless accompanied by the possibility of garnering some gavour or making a profit.¹²⁶

“And I say all these things,” he declares,

not against the lords of our times but against the philosophers who believe and openly declare that no one should pursue philosophy if only because there is no market for philosophers, no remuneration given them, as if they did not reveal in this very word that they are not true philosophers. Hence insofar as[...] they are incapable of embracing the knowledge of truth for its own sake.¹²⁷

In this argument on behalf of human freedom and philosophy, Pico presents what new scholarship on his writings have called the “twin tropes” of the human being as “bond of the world” though “not [...] the bond of [it]self.”¹²⁸ Made after everything had its place, the human being’s place is that of the being who has no place—being no particular part of the world, the

¹²¹ Ibid., 122-123.

¹²² Ibid., 124-125.

¹²³ Ibid., 132-133.

¹²⁴ Ibid.

¹²⁵ Ibid., 182-183.

¹²⁶ Ibid., 184-185.

¹²⁷ Ibid., 186-187.

¹²⁸ Michael J. B. Allen, “The Birth Day of Venus: Pico as Platonic Exegete in the *Commento* and the *Heptaplus*,” *Pico della Mirandola: New Essays*, ed. M. V. Dougherty (Cambridge, UK: Cambridge University Press, 2014), 110.

human being is “simultaneously its every part, and its every part [is] him.”¹²⁹ The human being is not another world unto itself, but the plastic “bond”¹³⁰ and union of the others, which is why, as Pico explains, its plastic nature was created to “ponder the meaning of such a magnificent achievement” as the world, “to love its beauty and to marvel at its vastness.”¹³¹

‘I am Plastic’: From Jackson Pollock to Maria Hassabi

Pico’s *Oration* was reprinted in the American modernist magazine *View* (fig. 128) in 1944, when Jackson Pollock is said to have discussed it in conversation with a friend.¹³² Pico was not a new discovery for American artists. In the late 19th-century, when the Neo-Kantians Cassirer and Paul Kristeller travelled to the United States from Germany, they brought Pico along, helping to insert his name into university textbooks on “Western Civilization.”¹³³ Pico’s figure was still associated with the Renaissance painting *Portrait of a Man with a Medal of Cosimo the Elder* (also known as *Portrait of a Youth with a Medal*, 1475), the image of which, out of respect for Pico’s hermetic philosophy of human dignity, circulated in American experimental artist magazines like *The Lark* (1895-1897) (fig. 129).¹³⁴ At the time, the painting was still attributed by many to an unknown Florentine painter; when scholars attributed the work to Sandro Boticelli and agreed upon the date of the painting, it lost its identification with Pico, which was then believed disproved.¹³⁵

¹²⁹ Allen, “The Birth Day of Venus,” 110.

¹³⁰ della Mirandola, *Oration on the Dignity of Man* (1486), 110-111.

¹³¹ della Mirandola, *Oration on the Dignity of Man* (1486), 112-113.

¹³² Elizabeth Langhorne, “Jackson Pollock: The Sin of Images,” *Meanings of Abstract Art: Between Nature and Theory* (New York, NY: Routledge, 2012), 127.

¹³³ Copenhaver, “Giovanni Pico della Mirandola,” op. cit.

¹³⁴ “Pico della Mirandola by an Unknown Tuscan Master,” Supplement to *The Lark*, ed. Gelett Burgess. Vol. 1, no. 1. May 5, 1895.

¹³⁵ Enrico Barfucci and Luisa Becherucci, *Lorenzo de’ Medici e la società artistica del suo tempo* (Firenze, Italia: Gonnelli, 1964), 113.

At the time of the *Oration's* republication in *View*, Pollock was staying with Lee Krasner in Cape Cod and was taking classes with painter Hans Hofmann (fig. 130, left)¹³⁶ at his Provincetown school. At his school, Hofmann, who was “the most famous teacher of abstract art in New York,” taught his students that the “plastic” in painting was found with “the transference of three-dimensional experience to two-dimensions.”¹³⁷ “A work of art is plastic,” Hofmann explained, when its pictorial message is integrated with the picture plane and when nature is embodied in the qualities of the expression medium.”¹³⁸ In order to accomplish this, Hofmann trained his students to “draw from nature, whether still-life, figure, or landscape.”¹³⁹ According to Krasner—who became Pollock’s wife and is largely responsible for Pollock’s monumental mythologization—when Hofmann asked Pollock, “do you work from nature?” Pollock responded, “I am nature” (fig. 130, right).¹⁴⁰

Of significance to this statement are the recollections of another student of Hofmann and friend of Pollock, Fritz Bultman who, in later years, remembered Pollock telling him how much he was impressed with what he had read of Pico’s *Oration* in *View*.¹⁴¹ Bultman characterized Pollock’s understanding of the *Oration's* philosophy of the human being as *plastes et factor*, as a philosophy of man “sinking into the beast to be born again into the divine likeness.”¹⁴² This understanding aligned with Pollock’s own “reject[ion] of art as representation, [...] reflect[ing] his dream that inner and outer nature might be one of the same”—that “the same force that

¹³⁶ For an example of what Hans Hofmann was working on in this period, see Hans Hofmann, *Spring*, (1944-1945, dated on reverse 1940), oil and enamel on wood, 11 ¼ x 14 1/8 in (28.5 x 35.7 cm), Museum of Modern Art, New York.

¹³⁷ Langhorne, “Jackson Pollock,” 118-119.

¹³⁸ *Ibid.*

¹³⁹ *Ibid.*

¹⁴⁰ Langhorne, “Jackson Pollock,” 118-119. For an example of what Pollock was painting in this period, see Jackson Pollock, *Gothic* (1944), oil on canvas, 7 ft 5/8 x 56 in (215.5 x 142.1 cm), Museum of Modern Art, New York.

¹⁴¹ *Ibid.*, 127.

¹⁴² *Ibid.*

courses through nature courses through him.”¹⁴³ As Krasner explained, it wasn’t that “he mean[t] he’s God,” but rather that “he’s total. He’s undivided. He’s one *with* nature, instead of ‘That’s nature over there, and I’m here.’”¹⁴⁴ As Bultman recounts, Pollock “felt that through the image we could break through to something new” (fig. 130, right).¹⁴⁵ If Hofmann had followed up his question about nature asking Pollock if he worked with the pictorial ‘plastic,’ perhaps Pollock would have conjured Pico and responded, ‘I am plastic.’

Maria Hassabi’s *PLASTIC* makes this proposition on behalf of the human body: ‘I am plastic.’ In a 2016 article that conceptualist and choreographer Ralph Lemon (fig. 131) wrote several years after *Some Sweet Day* (his own dance project for the MoMA Marron Atrium), he reflects upon a statement he made as presenter on a 2012 Performa 15 panel titled “Why Dance in the Art World?”¹⁴⁶ Lemon recounts that as a panelist he had asserted:

I wait for the day when a museum acquires a dance. Not its artifactual qualities—its archives, hardware, and residue (sweat-stained costumes)—not even something alive that poses as a performance as an object, a performative substitute for something fixed, in the voracious, inanimate spatial politic of the fixed object. I wait for the acquisition of a moment, the collecting of memory. Nothing else.¹⁴⁷

Rethinking his statement, Lemon claims it was “a bit disingenuous.” “At the time,” he writes,

I didn’t really care whether a dance could or would be acquired. This was already happening. [...] I was more interested in how and why a room packed full of people would be interested in talking about what the acquisition of a moment, or a series of moments, might mean. [...] [H]ow the museum’s traditional approach to acquisition breaks down when there’s nothing actually tangible to acquire, nothing to file, nothing to store away (and when the hardcore choreographer, in resistance, imagines she wants nothing to do with any imposition of acquiring a dance).¹⁴⁸

¹⁴³ Ibid., 119.

¹⁴⁴ Ibid.

¹⁴⁵ Ibid., 121.

¹⁴⁶ Jennifer Piejko, “Why Dance in the Art World?” *Performa 15*. Published September 28, 2012. Accessed January 3, 2015. <http://performa-arts.org/magazine/entry/why-dance-in-the-art-world>

¹⁴⁷ Ralph Lemon, “I’d Rather Talk About the Post-part,” *On Value*, ed. by Triple Canopy and Ralph Lemon (New York, NY: Triple Canopy, 2016), 12.

¹⁴⁸ Lemon, “I’d Rather Talk About the Post-part,” 12.

Maria Hassabi's *PLASTIC* responds to Lemon's questions about the "value of a thing" and the "value of a moment" by positing a post-conceptual approach to the concept of the plastic, between the body and the object, between space and time.

As philosopher Peter Osborne has explained, post-conceptual art "registers the historical experience of conceptual art, as a self-conscious movement, as the experience of the impossibility/fallacy of the *absolutization* of [the] anti-aesthetic, in conjunction with a recognition of an ineliminably conceptual aspect to *all art*."¹⁴⁹ Post-conceptual art "reflectively incorporates the *truth* (which itself incorporates the untruth) of 'conceptual art': namely, art is necessarily *both* aesthetic and conceptual."¹⁵⁰ As post-conceptual art, Hassabi's *PLASTIC* defends the conceptual capacity of its formal elements—the delicacy of movement; the grey-tones in motion, costume and furniture; the phrasing or "counts;" the positions. In interview, Hassabi is vigilant about protecting the conceptual work that these formal elements (which are commonly conceived as part of a separate aesthetic dimension of practice that requires conceptual, theoretical scaffolding) achieve, autonomous of any externally imposed philosophical support.

In an intentionally non-linear fashion written through accretive build-up, the present Part One has shown how the notion of the plastic has shifted across bodies and objects, over time and space. To do so, it has used Hassabi's *PLASTIC* as a point of reference, treating it as an example of Warburg's pathos-formula: like the "unearthing of the *Laocoön* in 1506," the "event" of *PLASTIC* performed at MoMA in 2016, "was an outward symptom of an inward, historical process."¹⁵¹ It was "the revelation of something [...] long sought—and therefore found,"¹⁵² something lost then recovered, but in a new form conditioned by the present: the concept of the 'plastic' in art. To better understand this "event," the essay has followed the guidelines that

¹⁴⁹ Peter Osborne, "Contemporary art is post-conceptual art," *Public Lecture. Fondazione Antonio Ratti. Villa Scuota, Como* (July 9, 2010), 11.

¹⁵⁰ Osborne, "Contemporary art is post-conceptual art," 11.

¹⁵¹ Aby Warburg, "Dürer and Italian Antiquity (1905)," 558.

¹⁵² *Ibid.*

Warburg set out in his three *Mnemosyne Atlas* prologue plates. It created a *Wanderkarte* of the transmigrations the concept of the ‘plastic’ has made, moving not only from one place, and one temporality, to another, but also passing through various conceptual survivals, renewals, deaths, births, and rebirths. It has attempted to show, not only how the concept has both changed and remained the same over time, but how it has been absorbed and incorporated, engendered and experimented with. The relationship among word, image and object, among sign, message, gesture and action, have been critical to this research. While it has relied heavily on artist writings and on verbal references to the term ‘plastic,’ it has, at the same, countered this reliance by attempting to explore the way practice has conceptualized the ‘plastic’ with little verbal support. Following Warburg’s *Mnemosyne Atlas* prologue plates (*Tafeln A, B, C*) (fig. 127) it has focused not only on exchange and genealogy, but also on orientation—the various directions in which experiments with the concept have been oriented, whether to the object, to the idea, to the unconscious, to the environment, to the two-dimensional, the three-dimensional, the fourth-dimensional and the fifth-dimensional. Like *Tafel C*, on the concept of Mars as both a physical entity—a planet in space—and a mythologized entity—the God of War—it has considered the way the concept of the ‘plastic’ and its own mythologization (whether through the brain science of the 21st century, or the syncretic hermetic humanism of the Italian Renaissance) has influenced relationships among the the object, and the image, the body, and the body’s ideas about itself (*Tafel B*), in philosophy, evolutionary biology, the neurosciences and art.

Lemon titles his essay on dance in the museum, “I’d Rather Talk about the Post-Part” (fig. 131).¹⁵³ For him “the conversation about dance in museums” is now “an old conversation”: “it’s different now.”¹⁵⁴ “I’m interested in thinking about how it’s different now,” he asserts,

¹⁵³ Lemon, “I’d Rather Talk About the Post-part,” 11-22.

¹⁵⁴ *Ibid*, 11.

insisting he would “rather talk about the post-part.”¹⁵⁵ He defines the “Post-Part” with a description of movement. The “post-part” is the moment “after the bird has stilled”:

When a bird flies into a house, a room, through an open window or door, how emphatic is the shift in space. There’s what the bird becomes when it enters a foreign environment—the agitated tizzy, fluttering, darting through the same air but with a drastic deviation from where it had just been. And then there’s the transformation of the bird in the eyes of those inside the room, those who inhabit the space. A visual danger, a swirling claustrophobia, something to do with motion and helplessness. A disruption, Panic. But then one realizes that it’s just a bird, or the bird finds a corner, a place to rest, hide, and disappear. The claustrophobia becomes capacious.¹⁵⁶

Hassabi’s *PLASTIC* performs a similar swirling claustrophobia, a visual danger, disruption, panic, only its frenzy is not in agitation but in stillness (fig. 132). It is not the bird entering a foreign environment, but the human body entering a familiar, though no less strange set of surroundings in the museum. One could easily make *PLASTIC*’s choreographies of the fall down the stairs—the straight staircase of the Gund Lobby Stairway and the self-repeating half-landing stairwell between the fourth and fifth floors—into an allegory for the fall of the human figure, the mythologized construct of the human, *anthropos*, falling off its anthropocentric pedestal in a voluntary refusal of heroic humanism for the depths of a descent that reclaims the dignity of the human as *plastes et fctor*. This dignity is somewhere in-between Pollock’s “sinking into the beast to be born again into the divine likeness” (fig. 131)¹⁵⁷ and sinking into the divine likeness to be born again into the beast. But Hassabi’s *PLASTIC* is no allegory: it is an exploration of the energetics of the body as matter, and of the museum as a place where the body-as-energy has the opportunity to engage in a self-conscious way with the energetics in objects. These objects are not just any objects, they are art objects whose matter, through the artistic act, has been rearranged in ways that make the object relate to itself. It is this exchange of energetic

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.

¹⁵⁷ Jackson Pollock’s friend Fritz Bultman characterizing the artist’s understanding of Pico’s image of man as *plastes et fctor*, as quoted in Langhorne, “Jackson Pollock,” 127.

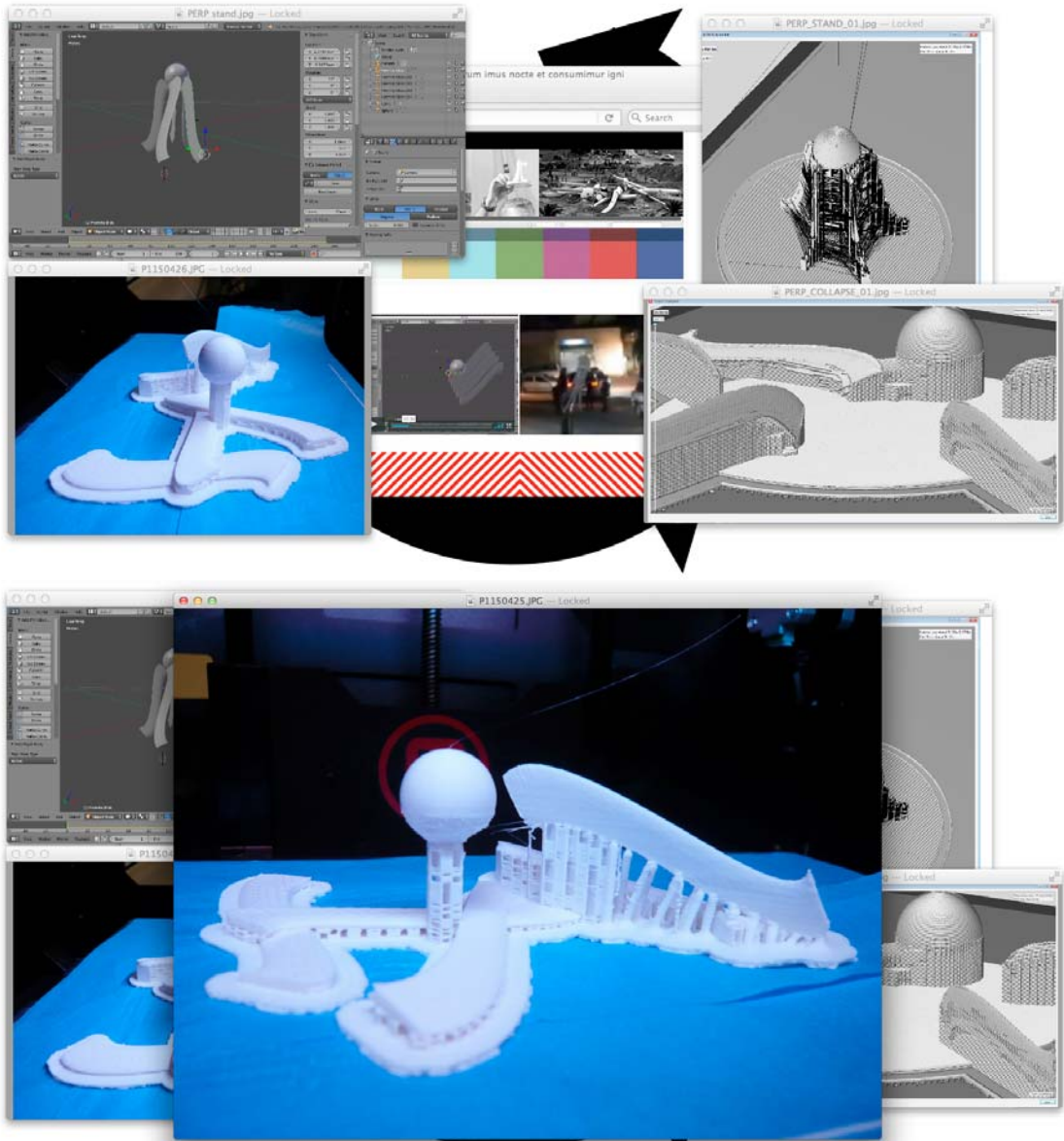
fields, both reinvigorating and potentially annihilating, that constitutes the 'plastic' in art history, artist writings and art practice.



PART TWO

Plastic Endings

For a Theory of Plastic Activism and an Art History of Formula through a Case Study of Plastic Momentum in Bahrain's fallen Pearl Roundabout (2011)



This section of the dissertation, *Part Two, Plastic Endings* was written during work on the project *The Pearl Interpolation (PERP) in a Monument to Bad Memory or how to add a perp to the herp, the lerp, and the berp already present in the library of things* (2014). The *PERP* project comprises a 3D animation and 3D printing tutorial, a short story, a two-channel video in internet scroll montage, a public performance, and a series of 3D printed objects. It was circulated online as part of the Gulf Labor Artist Coalition's initiative *52 Weeks* and is included in the publication *The Gulf: High Culture/Hard Labor* (Or Books, 2015), edited by Andrew Ross.

Components of *PERP* have been included with the dissertation on a USB drive and are accessible to the reader online through the *52 Weeks*, Gulf Labor platform at:

<http://gulflabor.org/2014/week-33-mobile-irony-valve-on-the-pearl-interpolation-perp-in-a-monument-to-bad-memory/>

or directly, through my blog at:

<http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

The PDF chapbook and an artist portfolio featuring associated images from the project are included in the dissertation's Appendix.

Chapter One / Figuring out the Roundabout

Why roundabouts? After all, they are banal utilitarian instruments [...]. Occupying a roundabout demonstrates the power of tactical acupuncture: it blocks off all routes going in and out. Congestion moves outward like a wave [...]. By pressuring a single pivotal point within a networked infrastructure, an entire city can be put under siege [...].

-Eyal Weizman, *The Roundabout Revolutions*,
2015

A roundabout! Do you know what's beautiful about a roundabout? You're never taking a wrong turn – you just end up driving some extra distance. It's life's most sublime state!

- a character in filmmaker Monica Lee's short film,
Speechless, 2004

The roundabout is a circular traffic junction that American motorists have been told they should “learn to love” (fig. 1).¹ While some argue roundabouts foster autonomy, emancipating drivers from automated off-on traffic control,² others rant against the roundabout as signaling the “decline of the live-free-or-die state.”³ On Internet video-sharing platforms across the United States, State Departments of Transportation from Wisconsin to Florida, Michigan to Missouri, have posted video lessons on how to navigate roundabouts.⁴ Across the Atlantic, British users

¹ Tom Vanderbilt, “Don’t Be So Square: Why American drivers should learn to love the roundabout,” *Slate*. July 20, 2009. Accessed October 11, 2015. http://www.slate.com/articles/life/transport/2009/07/dont_be_so_square.html

² Vanderbilt, “Don’t Be So Square,” op. cit.

³ “Mark Steyn: Roundabouts and Decline of Civilization.” *Anti-Planner*. February 20, 2010. Accessed September 22, 2015. <http://ti.org/antiplanner/?p=2777>.

⁴ Wis DOT, “WisDOT Roundabout Educational Video: Take it Slow. How to navigate a multi-lane roundabout.” Online video clip. *Youtube*. August 21, 2013. Accessed December 8, 2016. <https://www.youtube.com/watch?v=KchcFhrMtl>. Sarasota County Government (Official), “Navigating Roundabouts.” Online video clip. *Youtube*. March 24, 2016. Accessed December 8, 2016. <https://www.youtube.com/watch?v=pYpfcmwxa4U>. MichiganDOT, “How to Use a Roundabout.” Online video clip. *Youtube*. August 10, 2011. Accessed December 8, 2016. <https://www.youtube.com/watch?v=ONacAiKXe-8>. Modotvideo, “All about a Roundabout.” Online video

post footage of racing stunts around roundabouts⁵ while on the Pacific coast, post-colonial Hong Kongers upload candid smart-phone captures shaming the “stupidest” moves in roundabouts.⁶ In 2004, a Hong Kong film festival presented camera-motion through a roundabout as a representative “queer theme” of urban space.⁷ In *Speechless* (2004), a short film shown at the festival, the ecstatic vertigo of roundabout-circling engenders eroticism in the millennial post-colonial city. As one feminist philosopher of urbanism has written, eroticism in the city is “pleasure caused by the experience of social difference on the one hand and by aesthetic surprise on the other”: it “derives from the aesthetics of [the city’s] material being,” and “arises from its social and spatial inexhaustibility.”⁸ As “a place of many places, the city folds over on itself in so many layers and relationships that it is incomprehensible.”⁹ Where better to find a synecdoche for this circumvolving eroticism of the city than in roundabouts where drivers engage in intense encounters overwhelmed by the sense that “one cannot “take it in”?”¹⁰

clip. *Youtube*. June 16, 2010. Accessed December 8, <https://www.youtube.com/watch?v=X0RcTWEBtYM>.

⁵AdamC3046, “MADNESS on a roundabout – Drifting, burnouts, donuts, flames.” Online video clip. *Youtube*. October 4, 2015. Accessed September 10, 2015. <https://www.youtube.com/watch?v=61QHnGRs3Wo>. Martin Balodis, “Street Drifting uk BMW E36 328 Drifting Roundabout July 2012 3.” Online video clip. *Youtube*. July 23, 2012. Accessed September 10, 2015. <https://www.youtube.com/watch?v=XT1SSBcOTow>.

⁶ Hashwosh, “Another Stupid Hong Kong Driver.” Online video clip. *Youtube*. November 19, 2011. Accessed November 19, 2011. <https://www.youtube.com/watch?v=3m4LGyUlwn8>. Hashwosh, “Hong Kong’s Stupidest Driver #4 – roundabouts again.” Online video clip. *Youtube*. December 3, 2011. Accessed September 10, 2015. <https://www.youtube.com/watch?v=aO5IWipRA8g>.

⁷ Helen Hok-Sze Leung, *Under Currents: Queer Culture and Postcolonial Hong Kong*. (Vancouver, Canada: UBC Press, 2008), 107.

⁸ This quote is a description of political philosopher Iris Marion Young’s work with Roland Barthes’ concept of “eroticism” in city life. See Heinz Paetzold, “Rethinking Key-Concepts of Modern Urban Culture” in *Senses and the City: An Interdisciplinary Approach to Urban Sensescapes* (Wien, AU: Lit, 2011), 43

⁹ Paetzold, “Rethinking Key-Concepts of Modern Urban Culture,” 43.

¹⁰ Iris Marion Young, *Justice and the Politics of Difference*. (Princeton, NJ: Princeton University Press, 1990), 240.

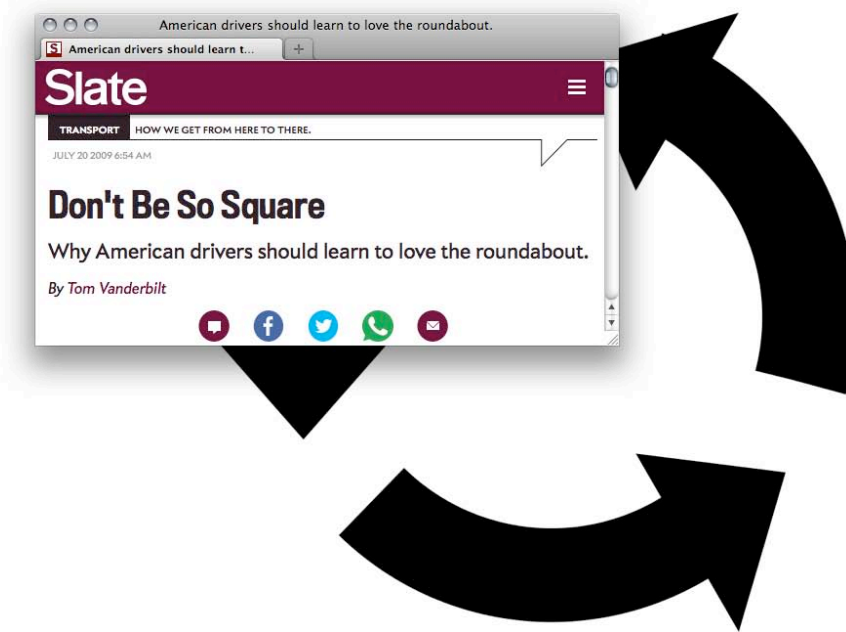


Figure 1 Screenshot configuration by the author: (left, foreground) "Don't Be So Square," a 2009 *Slate* article on roundabouts (source: *Slate*); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

In 2008—as economists reported the Great Recession’s “burst into full bloom”¹¹—the figure of the roundabout experienced an explosion of its own, a ‘swerve’ off-road from traffic planning into a commercial magazine of how-to articles and market-listings for writers. A feature article in the *Writer’s Digest* used the roundabout to teach young writers how to invent “new poetic form.”¹² The template of a five-line stanza in iambic rhythm called “Roundabout” was described by its co-creators in the magazine as an opportunity for student-poets to “throw (...) every poetic element we really lik[e]” into a single poem.¹³ Not surprisingly, the title of the first

¹¹ Joel Havemann, former editor and National and European Economic Correspondent for the *Los Angeles Times*, in Joel Havemann, “The Great Recession of 2009 – 09: Year in Review 2009”. *Encyclopaedia Britannica Online*. Published 2009. Accessed September 30, 2015. <http://www.britanica.com/topic/Great-Recession-of-2008-2009-The-1661642>.

¹² Robert Lee Brewer, “New Poetic Form: The Roundabout.” *Writer’s Digest*. July 22, 2008. Accessed September 30, 2015. <http://www.writersdigest.com/editor-blogs/poetic-asides/poetry-craft-tips/new-poetic-form-the-roundabout>.

¹³ Brewer, “New Poetic Form: The Roundabout,” op. cit.

example of student writing in the “new [roundabout] form” evoked collision: “Crash.”¹⁴ In the student-poem it appears that all the poetic elements student-authors had ‘learned to love’ in the writing exercise were elements that evoked an explosive somatic tension. Like the American anxiety, the British hysteria, and the Hong Kong ecstasy provoked by roundabouts, the poem, *Crash*, makes its rounds in spiraling rhythms of “twists and turns, and breaks and burns.”¹⁵

Seven years later, in 2015, popular culture shows the roundabout still remained an enigma. *The New York Times* continued to report that roundabouts perplexed Americans.¹⁶ The United States had yet to “figure out the roundabout,”¹⁷ still twisting and turning, breaking and burning around it. In 2016, the quest to “figure out the roundabout”¹⁸ continues to intensify due to the increasing incidence of roundabouts in U.S. cities;¹⁹ however, rather than attempt to ‘figure out’ the roundabout, the present essay uses this intensification as an opportunity to inquire into exactly what kind of ‘figure’ the roundabout is. Between building and plaza, pedestal and earthwork, open space and non-place, roundabouts are typically referred to as architectural or infrastructural form. Indeed, as evidenced above, none other than commercial writers – a segment of society that earns its very livelihood from a keen awareness of words – used this commonplace categorization of the roundabout as “form” (“poetic form”) to describe its own experiment with the figure of the roundabout in a writing exercise.²⁰

¹⁴ Ibid.

¹⁵ Ibid.

¹⁶ Eric A. Taub, “As Americans Figure Out the Roundabout, It Spreads across the U.S.” *The New York Times*. July 30, 2015. Accessed September 30, 2015. http://www.nytimes.com/2015/07/31/automobiles/wheels/as-americans-figure-out-the-roundabout-it-spreads-across-the-us.html?_r=0.

¹⁷ Taub, “As Americans Figure Out the Roundabout, It Spreads across the U.S.,” op. cit.

¹⁸ Ibid.

¹⁹ “The hottest trend of 2016? Roundabouts. What is with all the roundabout proposals?” Jessica Saggio, “BDB: Roundabouts are so 2016, another daggone shooting and Bob is 60,” *Florida Today*. Part of the USA Today Network. July 16, 2016. Accessed December 26, 2016. <http://www.floridatoday.com/story/news/2016/07/26/bdb-roundabouts-so-2016-another-daggone-shooting-and-bob-60/87531080/>

²⁰ Brewer, “New Poetic Form: The Roundabout,” op.cit.

The word choice in this context is awkward. Not form, but formula seems the more intuitive term for describing a list of how-to-write-a-poem instructions and their inspiration, the traffic-easing apparatus of the roundabout, which is itself defined by navigational rules.²¹ If historians of urban planning recognize that planning language “*forms* attitudes and projects motives that shape [...] courses of action,”²² what kind of attitudes and motives are being *formed* and projected by the matter-of-fact, yet not quite adequate, categorization of the roundabout as form? At the heart of this question between form and formula is the issue of momentum.

What is momentum? In the Aristotelian view, “continuation of motion depends on continued action of a force,”²³ thus “Aristotle maintained that the air of the atmosphere was responsible for the continuation of motion [in a hurled body].”²⁴ The 6th century Alexandrian philologist and Aristotelian commentator John Philoponus rejected this claim. Philoponus “claimed that the hurled body acquires a motive power or an inclination for forced movement from the agent producing the initial motion.”²⁵ For Philoponus, it was “this power or condition and not the ambient medium” that secured continued motion.²⁶ The “impressed virtue” was,

²¹ The word “formula” derives from the Latin diminutive of *forma* (*formula*) and has many definitions from various fields. See “Formula, n.” *OED Online*. December 2016. (Oxford, UK: Oxford University Press). <http://www.oed.com/view/Entry/73518?redirectedFrom=formula>. Accessed December 09, 2016. In common usage it is typically understood to mean “prescription or detailed statement of ingredients [as in] a recipe,” or “a set form [...] in which something is defined, stated or declared, or which is prescribed by authority or custom to be used on some ceremonial occasion.” In literary criticism, it is used “in various technical and semi-technical uses” i.e., “Each idea to be expressed in the poetry has its formula for each metrical need.” In mathematics, it is “a rule or principle expressed in algebraic symbols;” “in general scientific use, [it is used to refer to] a group of symbols and figures containing a condensed tabulation of certain facts.”

²² My emphasis. Bradshaw Hovey, “Making the Portland Way of Planning: Structural Power of Language.” *Journal of Planning History* 2, no. 2 (2003): 155.

²³ Aydin Sayili, “Ibn Sina and Buridan on the motion of the Projectile” in *From Deferent to Equant: A Volume of Studies in the History of Science in the Ancient and Medieval Near East in Honor of S. E. Kennedy*, ed. by David A. King and George Saliba. From *Annals of the New York Academy of Sciences* 500. (New York, NY: New York Academy of Sciences. 1987): 477.

²⁴ Sayili, “Ibn Sina and Buridan on the motion of the Projectile,” 477.

²⁵ *Ibid.*

²⁶ *Ibid.*

therefore “temporary,” a “self-expending inclination”: the initial “violent motion [...] comes to an end and changes into natural motion.”²⁷

In the 10th-century, the Persian polymath Ibn Sina (Avicenna) adopted Philoponos’ theory in broad terms, however rather than conceive the initial “violent motion” as “self-expending” he viewed it as “non-self-consuming.”²⁸ For Ibn Sina, the initial violence was a “permanent force whose effect [was] dissipated only as a result of external agents.”²⁹ This claim put forward a theory of a “permanent type of impressed virtue for non-natural motion” that had never before been asserted.³⁰ This “acquired virtue” would later be given the name “impetus,” and is what is usually referred to in popular parlance as momentum.³¹ Impetus, or momentum, is a force that builds in the hurled body with an initial violence, and that is only extinguished with an interruption. In order for this “virtue”³² to become impressed, there must be something in the hurled body that affects its retention. Rather than being an inert body given movement, the initial violent motion activates a property in the hurled body that it carries forth until another body interferes.

In dance research, “kinesthetic analysis [...] entails attending to the qualitative dimensions of movement, the kind of flow, tension and timing of any given action as well as the ways in which any person’s movement interacts and interrelates with objects, events and other people.”³³ In the present essay, this notion of kinesthetic analysis is given an urbanist spin. Rather than focus on “any person’s movement” it concerns itself with what it calls “movement *in*

²⁷ Ibid.

²⁸ Ibid.

²⁹ Ibid.

³⁰ Ibid.

³¹ Ibid, 480.

³² Ibid.

³³ Diedre Sklar as paraphrased in Susan Leigh Foster, *Choreographing Empathy: Kinesthesia in Performance*. (New York, NY: Routledge, 2011), 8.

the city,” a phrase it takes from a 1981 interview³⁴ with Viennese artist Valie Export (Waltraud Lehner, later Höllinger) who aspired to “a new time and space [...] inscribed with women’s body language.”³⁵ The essay will return to Export, and her photograph “Rounding-Off” (*Abrundung*, 1976) (fig. 2) at its conclusion. In the meantime, it suffices to explain that urban kinesthesia is—using Export’s words—“movement *in* the city,”³⁶ or rather—in the words of dance research—the qualitative dimensions of movement, the kind of flow, tension and timing shared among the spaces, places, objects, events, landscapes, environments, technologies and bodies that make a city.

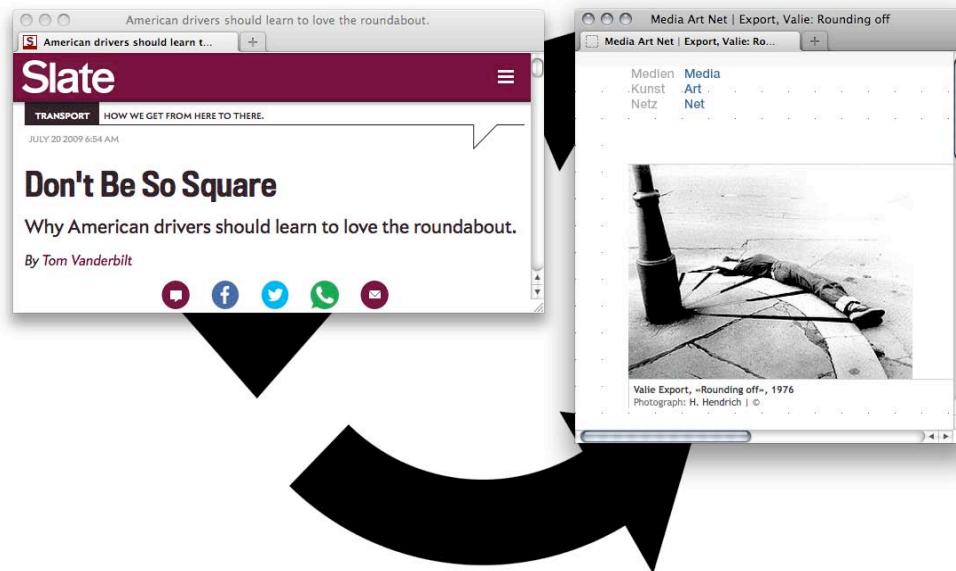


Figure 2 Screenshot configuration by the author: (left, foreground) "Don't Be So Square," a 2009 article on roundabouts (source: *Slate*); (right, foreground) Valie Export, *Abrundung* (*Rounding-Off*, 1976) (source: medienkunstnetz.de and VG Bild-Kunst 2004; photo: Hermann Hendrich); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

³⁴ My emphasis. Valie Export in Gary Indiana, “Valie Export,” *Bomb - Artists in Conversation*. August 1981. Accessed August 7, 2016. <http://bombmagazine.org/article/79/>. As Maren Lübke has written, Export’s work in the “urban sphere” was critical to the body of work she called “feminist actionism.” It draws attention to the fact that “space is a system of representations whose organisation establishes and orders social relations and, thus, also relations between the genders [...]. In this context, Export draws our attention to the (medial) conditionings of the view which go to constitute and regulate space. What takes place here [...] is the proverbial “infiltration” of patriarchal orderings of space via the (medial) shift of these conditioned view-paths.” Maren Lübke, “Wien ist anders: Eine Stadtführung mit Valie Export / Vienna is Different: A Tour of the City with Valie Export,” *Camera Austria*, Vols. 57/58 (1997): 32-36.

³⁵ Valie Export, “Aspects of Feminist Actionism,” *New German Critique*. No. 47 (Spring-Summer 1989), 88.

³⁶ My emphasis. Valie Export in Gary Indiana, “Valie Export,” op.cit.

Dance history and urban history tend to agree that, by the early twentieth century, both the experience of the body and the experience of the city had undergone a significant interconnected change. The experience of the city began a definitive shift away from normative models of the city-as-machine that had been encouraged by the industrial revolution; inspired by the biological sciences, it instead moved towards a model of the city-as-organism.³⁷ Meanwhile, “the body was no longer experienced as a mechanics of pulleys and levers, but instead as a tensile and momentum-driven force that alternately exerts and relaxes in relation to gravity.”³⁸ It is this energetics of the organism between body and city— this “movement in the city”³⁹ in the “tensile and momentum-driven force” of “flow, tension and timing”⁴⁰—to which the body becomes attuned while it turns through a busy roundabout. Momentum is the force between form and formula.

To exemplify power in “the language of structure” (a phrase used by historians of urban planning to refer to the impact on the built environment of the words chosen to describe urban structures), a recent planning history of Portland tracked the use of particular words in urban renewal and redevelopment from the mid-20th century to the present.⁴¹ In the 1960s, urban renewal planners who identified structures of hazard with words like “obsolete,” “dilapidated,” and “warranting clearance,” deployed such terms as “matters of fact, without any hint of irony,” without any concerted effort to be precise and consistent about criteria.⁴² Sophisticated activists

³⁷ For an introduction to “the city as organism” see “Lecture 4: The City as Organism” in the Massachusetts Institute of Technology open course, *Theory of City Form*. Julian Beinart, “Lecture 4: The City as Organism” in *Theory of City Form*. MITopencourseware. Spring 2013. Accessed August 7, 2015. <https://ocw.mit.edu/courses/architecture/4-241j-theory-of-city-form-spring-2013/lecture-notes/lec-4-normative-theory-iii-the-city-as-organism/>. For examples, the course considers the effect of D’Arcy Wentworth Thompson’s *On Growth and Form* on urban planning and looks at plans and theories by Ebenezer Howard, Hans Reichow and Patrick Geddes.

³⁸ Forster, *Choreographing Empathy*, 9.

³⁹ Export in Indiana, “Valie Export,” op. cit.

⁴⁰ Forster, *Choreographing Empathy*, 8.

⁴¹ Hovey, “Structural Power of Language,” 140-174.

⁴² Hovey, “Structural Power of Language,” 155.

responded not by “rebutting” these terms, but by offering “new perspective” that anthropomorphized buildings or relativized their value: activists insisted that the structures accused of blight “had character,” they were “worthy of rehabilitation,” they were “affordable.”⁴³ The battle of terms continued two generations later when “planners [...] offered a more specific, technical-seeming term for [structures] stigmatized as obsolete” – the term “economic lifespan.”⁴⁴ Structures that had surpassed their ‘lifespan,’ “[...] could be purchased, held, occupied at inflated rates, allowed to deteriorate, and then, when the market was right, simply *scraped* off the earth and replaced with denser more profitable developments.”⁴⁵ Developers abandoned the dry expositive prose in expressions like “warranting clearance” and followed cultural shifts initiated by activists to emphasize the affect of demolition itself: they started calling such structures “scrapers.”⁴⁶

Like the difference between “warranting clearance” and “scraper,”⁴⁷ the distinction between form and formula in the ‘language of structure’ used to define roundabouts is suggestive. It offers a way to ‘figure out’ why the ‘figure’ of the roundabout has become a site of ideological, somatic and even geopolitical tension. Inspired by renewed currency in German cultural historian Aby Warburg’s term *Pathos-formel* (pathos formula, 1905), innovative scholarship in New Italian Aesthetics has found it necessary to redefine form and formula in philosophical study of the symbolic in art history.⁴⁸ As philosopher Andrea Pinotti has written, “formula” is “form in which a pathos-laden psychological content immediately gives itself over to be seen.”⁴⁹ Or, to paraphrase Warburg himself: artistic emotive “formula” it is not merely a “formal motif,” but a deeply felt physical manifestation articulated in contour and dimension, that both reflects and

⁴³ Ibid.

⁴⁴ Ibid, 156.

⁴⁵ Author’s emphasis. Ibid, 157.

⁴⁶ Author’s emphasis. Ibid, 157.

⁴⁷ Ibid.

⁴⁸ Andrea Pinotti, “Symbolic form and symbolic formula: Cassirer and Warburg on morphology (between Goethe and Vischer). *Cassirer Studies* 1 (Università degli Studi di Napoli, 2008; 2009): 119-135.

⁴⁹ Pinotti, “Symbolic form and symbolic formula,” 119-135.

replicates experiences lived intimately not only by the artist, but by the surrounding society.⁵⁰ Pinotti refers to this conception of formula as form that has become type, or “*forma tipica*.”⁵¹ “Type” as it is used in this context refers to “typology” and is defined in relation to “style”: “typology” should not be understood as just “a question of the classification of styles or a cataloguing of elements of style, but rather as the *demonstration* of style as ‘typical,’ or rather, as possibilities expressed through variable iterations on how the corporeal is experienced as “type”.⁵² Thus, “typology” is a “description of stylistic types as a history of perception, that is, as a history of the conditions of possibility of sensory experience as rooted in living corporeality.”⁵³

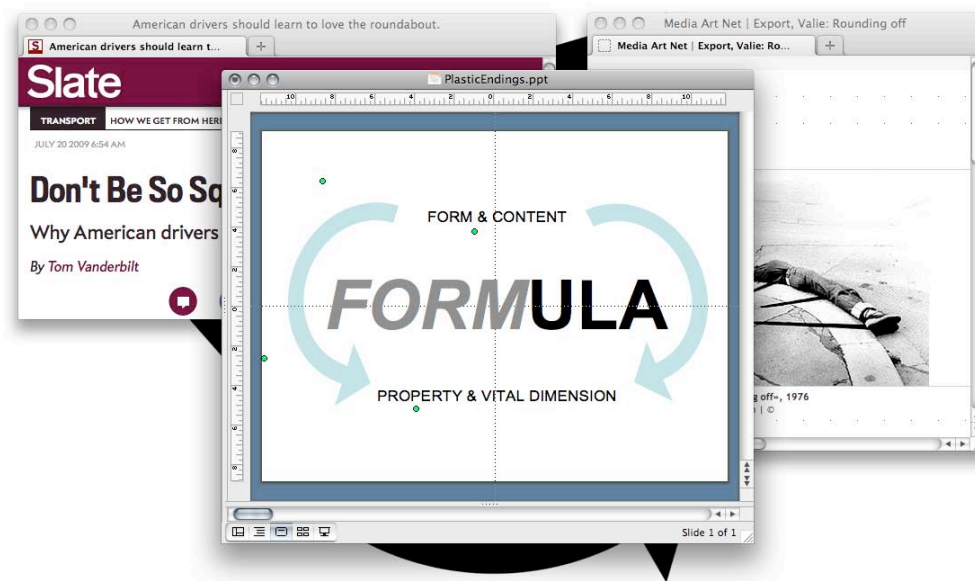


Figure 3 Screenshot configuration by the author: (center, foreground) the term “formula” shifts art historical discourse from “form and content” to a focus on “property and vital dimension”; (left, background) “Don't Be So Square,” a 2009 *Slate* article on roundabouts (source: *Slate*); (right, background) Valie Export, *Abrundung (Rounding-Off)*, 1976 (source: medienkunstnetz.de and VG Bild-Kunst 2004; photo: Hermann Hendrich); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

⁵⁰ Aby Warburg, “Durer and Italian Antiquity (1905).” *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*, trans. David Britt. (Los Angeles, CA: Getty Research Institute. 1999), 553 – 559.

⁵¹ Pinotti, “Symbolic form and symbolic formula,” 119-135.

⁵² *Ibid.*

⁵³ *Ibid.*

According to Pinotti, Warburg used the word “formula” (in German, *Formel*) in order to emphasize a conceptual distance from two late 19th century conceptions of form: first, form intended as the opposite of content, and second, form intended as mere external appearance.⁵⁴ As the young Warburg wrote in his early theoretical manuscripts: “Form and Content [*Form und Inhalt*] are concepts that are too abstract [*zu abstrakte Begriffe*] to explain the dualism in the art work [...]. They would have to be called property and vital dimension [*Eigenschaft und Lebewesen*], Subject and Predicate,” because—as Warburg insists—“the peculiarity of the artistic process lies in the fact that the predicate appears contemporaneously with the subject.”⁵⁵ Following through on Warburg’s suggestion, Pinotti has asserted that if this proposal is respected – if form is substituted with “property” and “predicate,” and content is substituted with “living being” and “subject” – the “element perceived sensorially, such as line and color, plane and volume, is always correlated to a vital dimension [*Lebewesen*] expressed in it” (fig. 3).⁵⁶

With a proverbial ‘ear to the ground’ on this recent art history-based scholarship in philosophy on form and formula, the present essay focuses its attention on the discussed “element perceived sensorially” as it manifests in the “vital dimension”⁵⁷ of the roundabout. This ‘element’ is both an expressive-formula-of-movement that the essay calls momentum, and an expressive-formula-of-spatial-configuration that the essay calls “rounding-off.” The latter term comes from the title of one of the feminist artist Export’s performance photographs in a series she described as “configuration[s] of body elements in landscape”⁵⁸ (*Körper-Konfigurationen*, or *Body Configurations*, 1972-1976). Focusing on the formulas of momentum and rounding-off in the roundabout helps keep a proverbial ‘finger on the pulse’ of that “correlat[ion] to a vital

⁵⁴ Ibid.

⁵⁵ Warburg in Ibid.

⁵⁶ Pinotti, “Symbolic form and symbolic formula,” 119-135.

⁵⁷ Ibid.

⁵⁸ Valie Export, “Body Configurations by Valie Export (1972 – 1976).” *Domus*. February 23, 2015.

dimension” that Pinotti asserts is a critical difference between form and formula.⁵⁹ This vital dimension is what makes it difficult to define a non-form form like the roundabout, which, taking a cue from the aforementioned Hong Kong short film, *Speechless*, is perhaps best understood as “queer infrastructure.”⁶⁰

Paired with the noun ‘infrastructure,’ the modifier ‘queer’ draws attention to the *infra-* in infrastructure. *Infra-*structure is a less than, or not-quite (Latin *infra*, “below, underneath; inferior to”) ‘structure,’ a spatial configuration between form and formula, between setting and instrument, between body and city. The phrase ‘queer infrastructure’ emphasizes this etymology otherwise overlooked in its pragmatic urban planning applications. The queer infrastructure of the roundabout is a non-conforming structure in-between normative notions of infrastructure, architecture and open space. The roundabout can also be considered queer infrastructure for its recent identity as a contestational site: a site that, human bodies – in interaction with both monuments at the center of roundabouts and roundabout traffic patterns – have been compelled to treat as a critical space in which to act out aesthetic, social and spatial agonies and ecstasies.

The roundabout is both a *contestational* space (a space for rebellion and revolution) and a *contested* space (a space over which different political ideologies lay claim): as per the latter, the roundabout has been the center of both communitarian city plans (as in Ebenezer Howard’s *Garden Cities of To-morrow*, 1898)⁶¹ and imperialist planning (as in the British colonial plans for

⁵⁹ Pinotti, “Symbolic form and symbolic formula.” 553 – 559.

⁶⁰ Though the present essay defines it differently, the term “queer infrastructure” is from Gordon Brent Bronchu-Ingram’s “Building Queer Infrastructure: Trajectories and Organizational Development in Decolonizing Vancouver.” *Queer Mobilizations: Social Movement Activism and Canadian Public Policy*, ed. Manon Tremblay. (Vancouver, Canada: UBC Press, 2015), 227 – 249. As defined by Bronchu-Ingram, “queer infrastructure” are the “social services, support programs, and strategic facilities” that support LGBT activism. Bronchu-Ingram, “Building Queer Infrastructure,” 227-249.

⁶¹ Ebenezer Howard, *To-morrow: a peaceful path to real reform (1898)*. (New York, NY: Routledge, 2003). Ebenezer Howard, *Garden Cities of Tomorrow (being the second edition of “To-morrow: a peaceful path to real reform,”* (London: S. Sonnenschein & Co., 1902).

Persian Gulf protectorate Bahrain, 1892 – 1971)⁶² (fig. 4). In recent years, while the Lea Bridge Roundabout in West London’s Hackney, and the Capital Avenue Roundabout in Frankfort, Kentucky, have both hosted white nationalist displays,⁶³ the centers of roundabouts from Egypt to Iran have been Arab Spring sites of “tactical acupuncture”⁶⁴ against “intersecting inequities,”⁶⁵ from cultural chauvinism, religious fundamentalism and neocolonialism to anti-migrant xenophobia and authoritarianism (fig. 5). Queer infrastructure is never *not* ambiguous: its power derives from the fact that, as a representational figure of top-down planning and a celebratory space for ruling regimes, it “has often formed the base” to the “stylistic superstructure” of “metronormativity” (or normative notions of the city),⁶⁶ while at the same time positing itself as an emancipatory space to train societies in alternative designs for more cooperative futures.⁶⁷

⁶² Mustapha Ben Hamouche, “Manama: The Metamorphosis of an Arab Gulf City,” *The Evolving Arab City: Tradition, Modernity and Urban Development*, ed. Yasser Elsheshtawy (New York, NY: Routledge, 2008) 345-346.

⁶³ Dave Hill, “Neo-Nazis in Hackney: a Nasty, Small and Pitiful Spectacle.” *The Guardian*. April 19, 2015. Accessed May 20, 2015. <https://www.theguardian.com/uk-news/davehillblog/2015/apr/19/neo-nazis-in-hackney-a-small-sad-and-pitiful-spectacle>. “Update: Neo-Nazi rally ‘peaceful’ despite heated exchanges.” *The State Journal*. April 22, 2012. Accessed May 20, 2015. <http://www.state-journal.com/2012/04/22/update-neo-nazi-rally-peaceful-despite-heated-exchanges/>

⁶⁴ Eyal Weizman, *The Roundabout Revolutions*. From *Critical Spatial Practice* 6, ed. Nikolaus Jirsch and Markus Miessen. (Berlin, Germany: Sternberg Press, 2015), 12.

⁶⁵ The phrase “intersecting inequities” as it relates to “queer infrastructure” is from Bronchu-Ingram, “Building Queer Infrastructure,” 228.

⁶⁶ Scott Herring, *Another Country: Queer Urbanism*. 154. Herring takes the neologism “metronormativity” from Judith Halberstam’s work. Halberstam uses it to define the “spatial narrative within which the subject moves to a place of tolerance after enduring life in a place of suspicion, persecution and secrecy,” in this case, from “country’ to ‘town’.” Herring writes that “metronormativity imagines “the city” as an urban mecca to which rural-identified queers must assimilate. The present essay uses the term instead in a way that is informed by these uses but shifts them into a more object-oriented perspective to define the non-conforming nature of particular urban spaces.

⁶⁷ Weizman, *The Roundabout Revolutions*, 29.

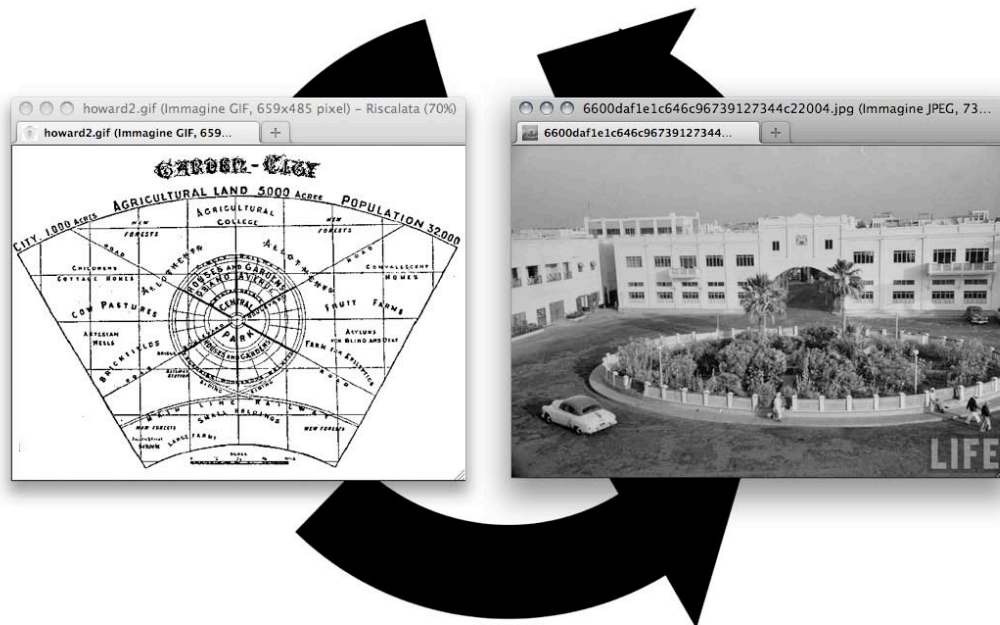


Figure 4 Screenshot configuration by the author: (left, foreground) Ebenezer Howard's *Garden City* plan from *Garden Cities of To-morrow*, 1898 (source: urbanplanning.library.cornell.edu; figure: *Garden Cities of Tomorrow*, 1898); (right, foreground) Bab Al-Bahrain (Gateway of Bahrain, built 1949) at Customs Square in Manama's former central business district (source: uk.pinterest.com and Life Magazine; photo: Walter Sanders and Life Magazine); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

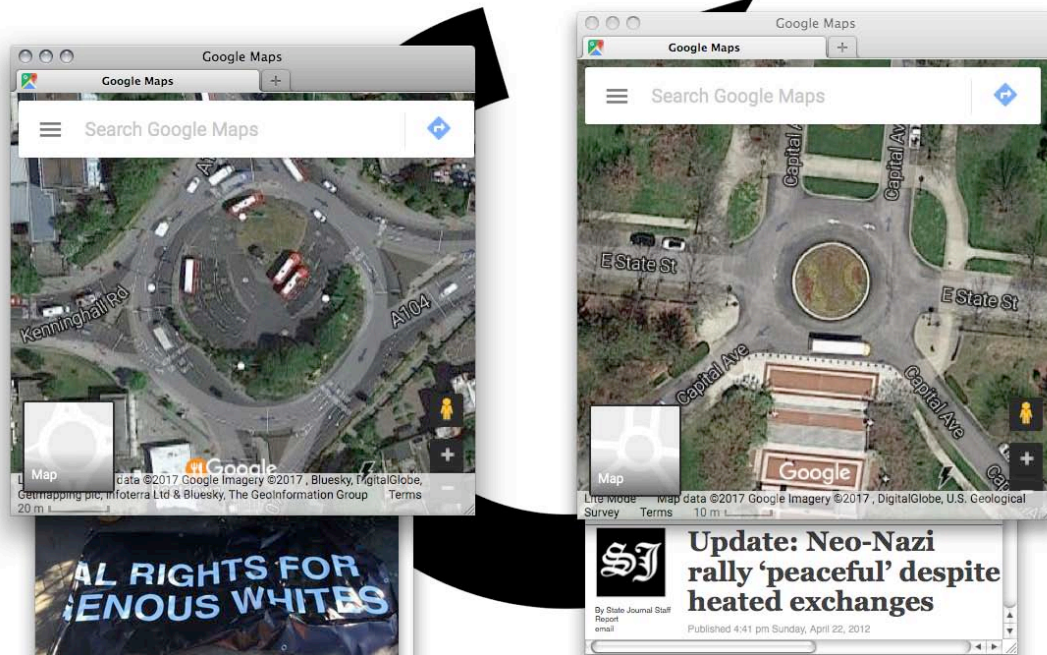


Figure 5 Screenshot configuration by the author: (left, foreground) the Lea Bridge Roundabout in West London’s Hackney, UK (source: Google Maps, 2017); (left, background) photograph of banner used at “neo-nazi” protests held at the Lea Bridge Roundabout (source: The Guardian); (right, foreground) Capital Avenue Roundabout in Frankfort, Kentucky, USA (source: Google Maps, 2017); (right, background) Headline from *The State Journal* about Kentucky roundabout protests (source: The State Journal); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

The roundabout is considered a quintessential early 20th-century urban ‘form’ for its modernist combination of “architectural setting”⁶⁸ and “utilitarian instrument.”⁶⁹ Its identity as urban ‘formula’ only became more evident as mid-20th century engineering efforts⁷⁰ recognized that circular traffic junctions could be used not only to orient and circulate traffic, but to manipulate the human body’s experience of time, space and rhythm with the insertion of yields, delays and swerves, i.e., the physical shock of rhythmic disruption and the increased sensitivity to potential collision. The roundabout, however, is also something-more and something-less than this interstitial position between setting and instrument, speed and delay, yield and swerve; it is something beyond the interstice, or rather, something that refuses to be penned in and defined by

⁶⁸ Ibid., 1.

⁶⁹ Ibid., 11.

⁷⁰ Ibid., 29-33.

what surrounds it. The roundabout simultaneously engages both the urbanist notion that the “city is manifestly a complicated thing,”⁷¹ and the feminist notion of the “body as a vexed relation.”⁷² Between bodies and cities, vexed relations and complicated things, rethinking the roundabout in form and formula uses the city-body relation, not as a laboratory to test a theory, but as an interaction from which theory can emerge from practice.⁷³

This introduction to urban formula in the figure of the roundabout has suggested that, at the turn of the new millennium, plans for rounding-off urban landscapes with roundabout spatial formulas were symptoms⁷⁴ of a problem of energy, a tensile and momentum-driven force that made itself felt between bodies and cities. Indeed, the anxiety and excitement about roundabouts always centers on momentum. Most symptomatic of this fact is a short online documentary on southwest England’s famous “magic roundabout,” a compound roundabout comprised of five mini-roundabouts around a central sixth.⁷⁵ The documentary reports on the “magic roundabout” as both a horror and a marvel: it is both a “circle of hell”—one of the “scariest traffic junctions” in the world—as well as a wondrous model of emergent behavior in which human vehicular traffic follows flocking patterns in birds.⁷⁶ Roundabout planning responds to these anxieties about animality, complexity and socialism in roundabouts with an awkward evocation of the ‘modern’: to counter negative associations with everything from mind control conspiracies to anarchy in

⁷¹ David Harvey, “Social Processes and Spatial Form: An Analysis of the Conceptual Problems of Urban Planning.” *Papers of the Regional Science Association* 25, Issue 1 (April 1970): 47.

⁷² Judith Butler and Catherine Malabou, “You Be My Body For Me: Body, Shape and Plasticity in Hegel’s *Phenomenology of Spirit*” in *A Companion to Hegel*, eds. Stephen Houlgate and Michael Baur. (Oxford, UK: Wiley-Blackwell, 2011), 611

⁷³ Harvey, “Social Processes and Spatial Form,” 47.

⁷⁴ Aby Warburg wrote about the pathos-formula in relation to an “outward symptom of an inward historical process,” “a revelation” found in “gestural and physiognomic expression.” Aby Warburg, “Dürer and Italian Antiquity (1905),” *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*. trans. David Britt (Los Angeles, CA: Getty Research Institute for the History of Art and Humanities, 1999), 558.

⁷⁵ Tom Scott, “The Magic Roundabout: Swindon’s Terrifying Traffic Circle and Emergent Behaviour.” Online video clip. *Youtube*. January 12, 2015. Accessed July 9, 2015. <https://www.youtube.com/watch?v=D22BOOGbpFM>. Wired, “See How an Insane 7-Circle Roundabout Actually Works,” Online video clip. *Youtube*. August 3, 2016. Accessed December 9, 2016. <https://www.youtube.com/watch?v=6OGvj7GZSIo>.

⁷⁶ Scott, “The Magic Roundabout,” op.cit.

unregulated traffic circles, from disorientation in poorly-designed rotaries to the inefficiency of circuitous reasoning, planners are ironically encouraged to modify the term “roundabout” with the adjective “modern.”⁷⁷ At the same time, however, groups that call themselves ‘Mods’ (for “Modernists”) seem intent on reminding planners of the avant-garde disruption in the modern: ‘Mods’ regularly perform automotive “madness” with momentum in roundabouts, optimal for stunts called “drifting, burnouts, donuts and flames.”⁷⁸

Roundabouts are queer infrastructure at the base of metronormativity that, from within normative notions of the city, curve non-conforming breaks in straight edges with “splitter islands”⁷⁹ and “flared entrances.”⁸⁰ Roundabout circles force drivers to yield as they enter junctions that are both vehicular and social; their curves generate swerves that unsettle the psychomotor memory of habitual orthogonality. Are roundabouts a mnemonic infra-structure of less-than-structure reminding the inter-human motorist—a body between skin-and-bone, plastics-and-steel— that the human has always been infra-human: a never-human-enough synthesis of functional apparatuses,⁸¹ a construct between internal organs and external tools, kidneys and cameras, immune systems and smart phones, gall bladders and roundabouts?

In 2011, the Persian Gulf city of Manama’s Pearl Roundabout (*Dowar al Lulu*) facilitated the theorization herein of this *infra-* condition of the roundabout when its central monument was demolished to collapse, and its interior circle was razed and replaced with an intersecting junction

⁷⁷ Vanderbilt, “Don’t Be So Square,” op.cit.

⁷⁸ AdamC3046, “MADNESS on a roundabout – Drifting, burnouts, donuts, flames,” op.cit.

⁷⁹ Lee A. Rodegerdts and Bruce W. Robinson, *Roundabouts: An Informational Guide* (Washington D.C.: Transportation Research Board, 2010), 1-4. Also, Thomas Hicks, *Roundabout Design Guidelines*, (Hanover, MD: State of Maryland Department of Transportation State Highway Administration, 1995), 29, 32 – 37. N.d. Accessed October 2015. <http://www.fhwa.dot.gov/publications/research/safety/00067/000676.pdf>

⁸⁰ “Roundabouts,” *Facilities Development Manual*. (Madison, WI: State of Wisconsin Department of Transportation. April 23, 2004), 9. Accessed October 2015. <http://www.k-state.edu/roundabouts/research/WIS10.pdf>

⁸¹ The idea that “man as construct is the synthesis of all his functional apparatuses” from the cell to the camera, comes from Hungarian artist Laszlo Moholy-Nagy’s 1922 essay “Production/Reproduction” which is discussed later in the essay when the term “replication” is defined. See Laszlo Moholy-Nagy, “Produktion-Reproduktion” in *De Stijl* 1922, no. 7. 97 – 101, reprinted in *Moholy-Nagy* ed. Krisztina Passuth and trans. Matyas Esterhazy. (New York, NY: Thames & Hudson, 1985), 289.

(fig. 6). The reflections on form and formula, revolution and rebellion, bodies and cities, momentum and movement presented here were inspired by the art history of the construction, occupation, destruction and replication of the Pearl Roundabout. Theorizing about roundabouts from the life and “afterlife”⁸² of the Pearl Roundabout offers insight not only into roundabouts themselves—into their formulas of rounding-off and the momentum between yielding and swerving they affect—but also initiates new object-oriented thinking about creation-from-destruction in new artistic configurations. The particular creation-in-destruction theorized here through the figure of the Pearl Roundabout goes beyond the often repeated tropes of iconoclasm, vandalism, and creative destruction. The new artistic configuration it reveals among sculpture, art and architecture is a phenomenon I have named “plastic activism.”⁸³

⁸² Artist and curator Amal Khalaf first used the term “afterlife” in relation to the Pearl Roundabout in her essay “The Many Afterlives of Lulu.” Amal Khalaf, “The Many Afterlives of Lulu,” *Uncommon Grounds: New Media and Critical Practices in North Africa and the Middle East*, ed. Anthony Downey, (London, UK: I.B. Tauris, 2014), 272 – 290. My use of the term is inspired by my readings of Aby Warburg and my understanding of his use of the German term *Nachleben*. Emily Verla Bovino, “The *Nachleben* of *Mnemosyne*: The Afterlife of the Bilderatlas.” *La Rivista di Engramma*. Issue 119. September 2014. http://www.egramma.it/eOS2/atlane/index.php?id_articolo=1618. See also Georges Didi-Huberman, *L’Image Survivante: histoire de l’art et temps des fantômes selon Aby Warburg*. (Paris, France: Minuit, 2002).

⁸³ My choice of this term is explained later in the essay.



Figure 6 Screenshot configuration by the author: (left, foreground) aerial view of the Pearl Roundabout (*Dowar Al-Lulu*) in Manama Bahrain before its demolition in 2011 (source: *Bahrain Observer*); (right bottom, background) aerial view of the fallen Pearl Roundabout in the aftermath of its government-sanctioned destruction (source: Creative Commons); (right top, foreground) aerial view of Farooq Junction, which replaced the Pearl Roundabout after its destruction (source: *bahrainonline.org*); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

Part One in this dissertation outlined a variety of experiments with the concept of the ‘plastic’ from art history, artist writings, art theory and even evolutionary biology. It is not possible to review all of the definitions of the term produced by those experiments here; however, a brief general overview is necessary to understand “plastic activism,” the new term I have introduced. As discussed in previous chapters, the 20th-century is often referred to as the “plastic age” for the cultural, social and geopolitical impact of the invention of material plastics—the discovery of celluloid circa 1870, followed by a variety of synthetic or semi-synthetic materials made from organic polymers and others substances.⁸⁴ Before the invention of material plastics, however, there was another ‘plastic age’ in which the term ‘plastic’ (in German *Plastik* or

⁸⁴ For a comprehensive overview of this history as it relates to the “plasticity of American experience,” see Jeffrey Meikle, *American Plastic: A Cultural History* (New Brunswick, NJ: Rutgers University Press) 1995.

plastische Kunst; in French *plastique* or *arts plastique*; in Italian *plastico*; all etymologically sharing the Ancient Greek root, *plastikos* from *plassein*, to mold) was used to designate sculpture (German *Plastik*), the shape of the human body (French *plastique*), scale models (Italian *plastico*), the haptic (the combination of touch and kinesthesia), the opposition of mutually annihilating equivalents, the exchange between inanimate objects and human subjects in scopic and vocative relation, and three-dimensionality in general.⁸⁵ The humanist concept of self-determining malleability between rigidity and elasticity—the capacity of the human being to reflexively mold and metamorphose (*plastes et fictus*) both literally and figuratively—dates back to fifteenth century Italian Renaissance philosophy.⁸⁶

The word “activism” is similarly layered. The first known use of the term “activism” in English is dated to 1915 when it was used to describe the “practice” of “direct vigorous action” for the achievement of political and social goals.⁸⁷ Previously, between 1905 and 1910, the philosophy of *Aktivismus* had become popular in Germany as a theory that “the essence of reality is pure activity or process”—“that the relationship between the mind and the objects of perception depends upon the action of the mind.”⁸⁸ German Nobel laureate Rudolf Eucken popularized the theory when he won the Nobel Prize for Literature in 1906.⁸⁹ In his Nobel laureate speech he

⁸⁵ “Plastik,” *PONS*. Version 7.7 (Stuttgart, Germany: PONS GmbH, 2012); “plastisch,” *PONS*. Version 7.7. (Stuttgart, Germany: PONS GmbH, 2012); “plastique,” *Larousse*. Éditions Larousse. N.d. Accessed December 10, 2016. <http://www.larousse.fr/dictionnaires/francais-anglais/plastique/61096>; “plastico,” *Garzanti*. De Agostini Scuola Spa. Published 2016. Accessed December 10, 2016. <http://www.garzantilinguistica.it/ricerca/?q=plastico>.

⁸⁶ Giovanni Pico della Mirandola, *Oration on the Dignity of Man (De Hominis Dignitate, 1486)*: A New Translation and Commentary, ed. Francesco Borghesi, Michael Papio, Massimo Riva. (New York: Cambridge University Press, 2012). In the *Oration*, Pico writes, “*Nece te celestem neque terrenum, neque mortalem neque immortalem fecimus, ut, tui ipsius quasi arbitrarius honorariusque plastes et fictus, in quam malueris tute formam effingas.*” “We have made you neither of heaven nor of earth, neither mortal nor immortal, so that you may, as the free and extraordinary shaper of yourself, fashion yourself in whatever form you prefer.” 116-117.

⁸⁷ “Activism.” *Merriam-Webster.com*. Merriam-Webster, n.d. Accessed October 2016. <https://www.merriam-webster.com/dictionary/activism>.

⁸⁸ “Activism.” *Random House Dictionary*. Published 2016. Accessed October 2016. <http://www.dictionary.com/browse/activism>.

⁸⁹ Wayne R. Dynes, “Activist Gay,” *The Encyclopedia of Homosexuality* (Abingdon, Oxon: Routledge, 1990), 11.

described the intersection among social movement, human bodies, and object-bodies that characterized *Aktivismus*:

the social movement [...] reveals man not entirely limited by a given order, but as a being that perceives and judges a given situation and is confident that it can change it essentially by its own efforts. We have come to set greater store by material things, but we value them not because of their sensual characteristics but because they serve us to enhance life and to dominate the world completely. We do not aim at an increase in sensual pleasures but at a situation in which any man and all men together can develop their full strength.⁹⁰

Due to Eucken's vocal support of Germany in the First World War, *Aktivismus* also became associated with individuals actively "urging Sweden and Belgium to join the war."⁹¹

In the 1960s, the root term "aktion-" took the place of "aktiv-" in the radical Viennese art movement, "*Aktionismus*."⁹² In contrast with *Aktivismus* (activism), artists in *Aktionismus* (actionism) valued the sensual characteristics of material over "thing-character,"⁹³ or rather, that functional value by way of which, as Eucker had put it, "[material things] serve us to enhance life and to dominate the world."⁹⁴ Actionism favored actions with real bodies, objects and substances in space and time. The objective of these actions was direct confrontation with sensory and psychic reality in all aspects.⁹⁵ Actionists proclaimed "material thinking shall free human products from their thing-character," thus Feminist Actionist Valie Export asserted,

Feminist Actionism shall free men's products, that is, women, from their thing-character. Just as action aims at achieving the unity of actor and material, perception and action, subject and object, Feminist Actionism seeks to transform the object of male natural history, the material "woman," subjugated and enslaved by the male creator into an independent actor and creator, subject of her own history.⁹⁶

⁹⁰ Micah White, *The End of Protest: A New Playbook for Revolution* (Toronto, Canada: Alfred A. Knopf, 2016) 53-54.

⁹¹ White, *The End of Protest*, 54.

⁹² "Vienna Actionism" in *Collection Focuses*. Museum Moderner Kunst Stiftung Ludwig Wien (mumok), n.d. Accessed October 2016. <https://www.mumok.at/en/vienna-actionism>. See also, *Vienna Actionism: Art and Upheaval in 1960s Vienna*, ed. Eva Badura-Triska, Hubert Klocker, Museum Moderner Kunst Stiftung Ludwig Wien (Köln: Verlag der Buchhandlung Walther König, 2012).

⁹³ Export, "Aspects of Feminist Actionism," 71.

⁹⁴ White, *The End of Protest*, 54.

⁹⁵ "Vienna Actionism," op. cit.

⁹⁶ Export, "Aspects of Feminist Actionism," 71.

Plastic activism is a constellation of these definitions and histories. It selects to work with the term “activism” over “actionism” to both emphasize the politics of sensory and psychic reality by combining “activism” with the term “plastic,” while deliberately seeking *not* the “unity of actor and material, perception and action, subject and object” but the process or “pure activity” in-between. Plastic activism is conceived within Export’s theory and practice of Feminist Actionism, and as such, aims to “free” the city from its “thing-character,” or rather, from being perceived as both a “human product” and a “men’s product.”⁹⁷

Plastic activism is an art of momentum that is made for absorption by cities. Its ultimate end is not contemplation, consumption and incorporation by people; instead, plastic activism uses reception as a means by way of which to interact with the city through its relationships with various constituting bodies, from objects to people. With roundabout reversal, plastic activism plays with inverting the commonplace perspective on cities as sites of settlement for the human bodies of artists, and as environments or contexts for their art; in plastic activism, it is the city itself that is the principal interlocutor for a message of momentum, a formula carried through the form of the human body as its vector.

⁹⁷ Ibid.

Chapter Two / What is Manamaism? An Urbanistic Doctrine of Momentum

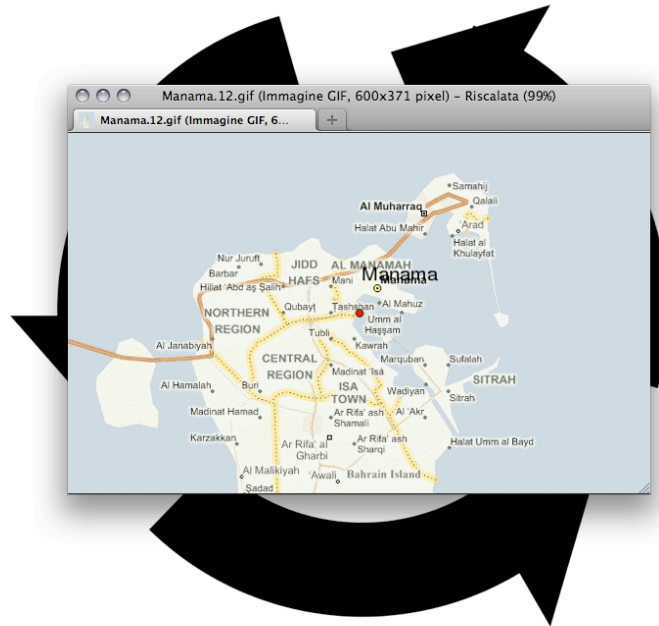


Figure 7 Screenshot configuration by the author: (center, foreground) map of Manama, Bahrain (source: weather-forecast.com); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

In *Delirious New York* (1978), architect, filmmaker and theorist Rem Koolhaas developed an “urbanistic doctrine” he named “Manhattanism” after New York’s urban island Manhattan.¹ In formulating this “doctrine,” he focused on Manhattan’s iconic high rise complex, Rockefeller Centre, and its architect, Raymond Hood.² For Koolhaas, “Manhattanism” is best defined through a quote from F. Scott Fitzgerald’s collection of essays, *The Crack-Up* (1945): “[t]he test of a first-rate intelligence,” wrote Fitzgerald, “is the ability to hold two opposite ideas in the mind at the same time, and still retain the ability to function.”³ Manhattanism is an urbanistic doctrine in which thinking “suspends irreconcilable differences between mutually

¹ Rem Koolhaas, “How Perfect Perfection Can Be: The Creation of Rockefeller Center.” *Delirious New York: A Retroactive Manifesto for Manhattan*. (New York, NY: Oxford University Press, 1978), 135-176.

² Koolhaas, “How Perfect Perfection Can Be,” 135 – 137.

³ Koolhaas, “How Perfect Perfection Can Be,” 136.

exclusive positions.”⁴ It also instantiates a condition of “no time for consciousness”—the “habit of working without thinking on account of the amount of work there is to do.”⁵

If Manhattanism is the urbanistic doctrine that Koolhaas made his focus as the 1980s approached, what kind of urbanistic doctrine should be at the forefront of thinking as the 2020s near? The present essay proposes “Manamism,” an urbanistic doctrine based on the Persian Gulf city of Manama, the 21st century’s archipelago city of Arab Spring “roundabout revolutions” (fig. 7).⁶ Theorized through the site of the city of Manama’s Pearl Roundabout (fig. 8), Manamism is an urbanistic doctrine in which authoritarian spaces open to unsanctioned occupations; it is an urbanistic doctrine that seizes “provincializing power”⁷ to turn this power back on itself—whether it be the “provincializing power” of the orientalizing British colonial-modernity that first brought roundabouts to the Gulf region through British imperialism, or that of the authoritarian governmentalities that currently reign over post-colonial Gulf cities.

⁴ Ibid.

⁵ Ibid.

⁶ Weizman, *The Roundabout Revolutions*, 7-15.

⁷ The term “provincializing power” comes from Hamid Dabashi, *Iran: The Rebirth of a Nation*. (New York, NY: Palgrave Macmillan, 2016), 144. “Provincializing power” was a driving force of “European colonial modernity” and had the effect of producing “single-sided provincialized abstraction[s] divorced of [...] contexts [...] wherever it went. All colonial encounters have by definition been in fact provincial, because the vacuous globality of the project of Europe modernity conquers and provincializes the cultures it encounters at one and the same time.” When I say that Manamism is an urbanistic doctrine in which this “provincializing power” is seized and turned back on itself, I am referring to the project to provincialize Europe. See Dipesh Chakrabarty, *Provincializing Europe: Postcolonial Thought and Historical Difference*. (Princeton, NJ: Princeton University Press, 2000).



Figure 8 Screenshot configuration by the author: (center, foreground) protesters gathering around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain at the request of Bahraini officials (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons); (center, background) the standard icon for roundabouts (source: public domain).

The designer of the now internationally famous monument at the center of the Pearl Roundabout is never named in the numerous essays, articles and media reports that have circulated about its 2011 government-ordered destruction⁸; thus, Manamaism is an urbanistic doctrine that celebrates no single identifiable architect, no particular artist, no individually-lauded human subject. Manamaism is an urbanistic doctrine between the creative passion for destruction of an opposition movement that felt compelled to occupy Manama's iconic Pearl Roundabout, and the creative passion for destruction of those who—to interrupt the momentum of Arab Spring uprising—ordered it destroyed. Manamaism is the name for momentum in plastic activism that, with the Pearl Roundabout's destruction, regenerated the force of the roundabout through infinite actual and virtual replications, between city streets and the World Wide Web.

⁸ These reports are cited throughout the essay. There are too many of them to unite altogether here.

Manamism is an urbanistic doctrine of the city as “site of corporeal contestation”⁹: it is an urbanistic doctrine that quotes, not American novelist F. Scott Fitzgerald, but Iranian-American scholar Hamid Dabashi. Like Dabashi’s writings, Manamism encourages thinking “through the active transmutation of body politics and the formation of the post-human body together.”¹⁰ In this thinking through “corporeal contestation,” the site of the “broken body, the tortured body of a state of violence, the site of a bodily transmutation of political resistance”¹¹ is also the site from whence an escape route can be burrowed to achieve new concepts of solidarity and new perspectives on what it means to be politically active. Manamism—engendered in the life and afterlife of the Pearl Roundabout—is an urbanistic doctrine that enforces the claims of another philosopher—feminist Elizabeth Grosz—who writes, “the body and the city are not megalithic total entities but collective assemblages.”¹² Manamism emphasizes Grosz’s theorization of the body and the city in a “two-way linkage” or “*interface*”¹³:

the city is [...] the site for the body’s cultural saturation, its takeover and transformation by images [...] the place where the body is representationally re-explored, transformed, contested, reinscribed [while] “in turn, the body (as cultural product) transforms, reinscribes the urban landscape according to its changing [...] needs, extending the limits of the city [...] ever towards [...] borders.”¹⁴

The body is a “hinge” and the city is a “mode for regulation and administration of subjects but also a [...] space in turn reinscribed by [...] its occupation and use.”¹⁵ The interface between the body-as-hinge and the city-as-mode is comprised of

interrelations [that] involve disparate flows, energies, events, entities, bringing together and drawing apart. [...] The city in its particular geographical, architectural and municipal arrangements is one particular ingredient in the social

⁹ Dabashi, *Iran: The Rebirth of a Nation*, 253

¹⁰ Ibid.

¹¹ Ibid.

¹² Elizabeth Grosz, “Bodies-Cities (1995),” *Feminist Theory and the Body*. ed. Janet Price and Margrit Shildrick. (New York, NY: Routledge, 1999), 385.

¹³ Author’s emphasis. Ibid, 385.

¹⁴ Ibid, 386.

¹⁵ Ibid.

constitution of the body; [...] the form, structure and norms of the city seep into and affect all the other elements that go into the constitution of corporeality.¹⁶

Whereas, Koolhaas' Rockefeller Centre-inspired Manhattanism was a constitution of corporeality in a frenzied state of "no time for consciousness,"¹⁷ Pearl Roundabout-inspired Manamaism is the constitution of corporeality in plastic activism. As synecdoches of what Grosz calls the the "two-way linkage, or *interface*"¹⁸ of the "body-city pair,"¹⁹ roundabouts present a vision of the mutually-constituting emergent "interrelations [...] [of] disparate flows, energies, events, entities, bringing together and drawing apart,"²⁰ by way of which cities transform bodies, and bodies transform cities. Roundabout navigation requires deliberation, timing and attention to the rhythms of others; it compels yielding and generates swerving; it involves disparate entities like navigational rules, pedestrians, motorists, cyclists, vehicles, gravel, asphalt, landscaping, fountains, statues and sculptures; roundabouts involve contrasting contexts and events from center cities to suburbs, from the aggrandizing commemoration of regimes, the memorialization of liberation and simple pragmatic plans to ease traffic speeds, to the monumentalization of nationalisms, the staging of rebellions, and the mere modest beautification of a flower garden. Manamaism is an urbanistic doctrine of circular junction that joins three micro-doctrines: an urbanistic doctrine of roundabout momentum between the city and the body; an urbanistic doctrine of roundabout movement in the middle of the architectural, the infrastructural, the kinesthetic and the corporeal; and lastly, an urbanistic doctrine of plastic activism whereby destruction-as-creation played out in plastic endings is a roundabout way to new beginnings.

¹⁶ Ibid, 385.

¹⁷ Koolhaas, "How Perfect Perfection Can Be," 136.

¹⁸ Author's emphasis. Grosz, "Bodies-Cities (1995)," 385.

¹⁹ Ibid.

²⁰ Ibid.

The Arab Spring: Reform-Minded Protest to Revolutionary Re-forming

By mid-February 2011, the 300-foot tall sculpture at the center of Manama's Pearl Roundabout was being reported as the "hub of Bahrain's rebellion" (fig. 9).²¹ Rebellion in the Sunni-ruled, majority-Shiite²² capital of the archipelago—among the smallest nation-states in the Middle East, and the only island-state in the Persian Gulf²³ (fig. 10)—had occupied the vast ring of grass between the Pearl Roundabout's massive cement-and-steel monument and its circling harbor-side traffic. In solidarity with what had come to be called the Arab Spring "Roundabout Revolutions"²⁴ in Tunisia and Egypt, Manama's roundabout tent-city was built to affect moral, political and physical disruption of the Manama Financial Harbor's infrastructure in response to government suppression of reform-minded street demonstrations. Confrontations between protesters and security forces during these demonstrations had left one protester dead, and another fatally wounded in clashes at the first victim's funeral procession.²⁵

According to scholarship on the Bahrain uprising, the initial street demonstrations had been organized for the February 14th anniversary of two documents drafted and passed in the early 2000s: "the referendum on the National Action Charter and the [...] proclamation of the

²¹ Martin Chulov, "Bahrain Destroys Pearl Roundabout." *The Guardian*. March 18, 2011. URL: <https://www.theguardian.com/world/2011/mar/18/bahrain-destroys-pearl-roundabout>

²² Laurence Louër, "The Political Impact of Labor Migration in Bahrain." *City & Society*. Vol. 20, Issue 1 (2008), 37 – 38. As Louër explains, "the modern State of Bahrain had been built following the military submission of the native Arab Shia population, the *Baharna* (sing. *Bahrani*) by a coalition of Sunni tribes from the center of the Arabian Peninsula (Najd) by the end of the eighteenth century. Since then the Sunni conquerors monopolized political and economic power [...] impos[ing] a quasi-feudal system of exploitation [...] which only ended in the 1920s with British reforms of the bureaucracy and the judiciary. While the Shias never revolted against the Sunni rulers, resentment was high against those they considered alien conquerors."

²³ Ewan Anderson, *Middle East: Geograpy and Geopolitics*, (Oxon: Routledge, 2000), 207-210. Rouhallah K. Ramazani. *The Persian Gulf and the Strait of Hormuz* (Netherlands: Sijthoff & Noordhoff, 1979), 5

²⁴ The Arab Spring was first written about as "Roundabouts and Revolutions" by reporter Jonathan Liu in "Roundabouts and Revolutions: The 'Arab Street' Begins and Ends in a Circle," *Motherboard*, February 20, 2011 as cited in Weizman, *The Roundabout Revolutions*, 8 and 74. The occupation of Tahrir Square and the overthrow of President Hosni Mubarak was described by urban historian Nezar AlSayyad as "Cairo's roundabout revolution" in *The New York Times*, April 13, 2011, as cited in Weizman, *The Roundabout Revolutions*, 7.

²⁵ Eugenio Lilli, "Foreign Actors: A Double-Edged Sword Hanging Over Contentious Politics in the Middle East." *Contentious Politics in the Middle East: Popular Resistance and Marginalized Activism beyond the Arab Uprising*, ed. Fawaz A. Gerges, (New York, NY: Palgrave Macmillan, 2015), 173.

constitution.”²⁶ These documents had been produced to facilitate Bahrain’s transition into a new political system of constitutional monarchy.²⁷ Demonstrations, however, were not just commemorative displays; they were acts of resistance. For many Bahrainis, the transition to constitutional monarchy had lagged and the government had failed to fulfill what was a decade-old promise for change. Protest demands targeted what leaders of opposition groups insisted were regressive policies.²⁸ These policies—it was argued— were designed to sustain the corruption that had sedimented under Bahrain’s centuries-long rule by the Al Khalifa royal family. This corruption had only been reinforced by the five neighboring Arab states (in particular Saudi Arabia and the United Arab Emirates [UAE]) which, in 1981, had joined Bahrain in the “regional integration project” known as the Gulf Cooperation Council (GCC).²⁹

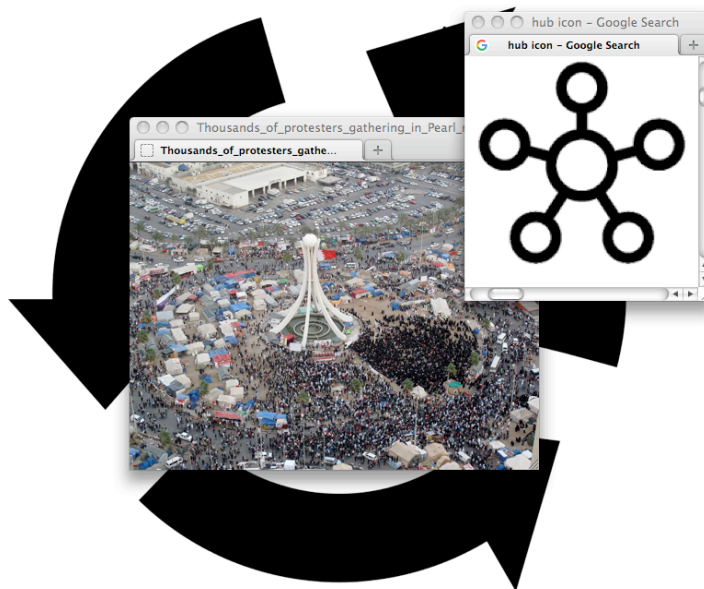


Figure 9 Screenshot configuration by the author: (center, background) protesters gathering around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain to suppress protests (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons); the standard icon for hubs, which perhaps not incidentally, could also serve as a topological diagram of the Pearl Roundabout design (source: iconarchive.com); (center, background) the standard icon for roundabouts (source: public domain).

²⁶ Eugenio Lilli, “Foreign Actors,” 172.

²⁷ Ibid.

²⁸ For more specifics, see Eugenio Lilli, “Foreign Actors,” 169 – 196.

²⁹ Adam Hanieh, *Capitalism and Class in the Gulf Arab States* (New York, NY: Palgrave Macmillan, 2011), 51.

With the formation of the GCC, the new Gulf regional bloc became a major ally of U.S. power, “minimizing the need for direct US military intervention in the event of a coup or insurgency while at the same time maximizing the facilities [...] available for such intervention should it be required.”³⁰ The aim was to be present as an absent presence. Protesters criticized the United States for its complicity in the lack of reform.³¹ Bahrain hosts the U.S. Navy’s 5th Fleet, which oversees important oil-shipping lanes in waters shared with Iran.³² Between 2007 and 2012, the U.S. had provided Bahrain with approximately \$100 million in military aide, a good portion of which was reportedly “[...] earmarked for “stabilization operations” that included training and equipping police and paramilitary forces.”³³ In 2011, the same police and paramilitary forces that benefited from these funds were deployed to suppress state-reformist demonstrations.

³⁰ Hanieh, *Capitalism and Class in the Gulf Arab States*, 51.

³¹ Ian Wilkens, “Contention and Constitutionalization in the Global Realm: Assessing the Uprisings in West Asia and North Africa and Their Impact on International Politics.” *Contentious Politics in the Middle East: Popular Resistance and Marginalized Activism beyond the Arab Uprising*, ed. Fawaz A. Gerges, (New York, NY: Palgrave Macmillan, 2015), 19.

³² Kelly McEvers, “The Crackdown: How the United States Looked the Other Way While Bahrain Crushed the Arab Spring’s Most Ill-Fated Uprising.” *Washington Monthly*. March/April 2012. Accessed October 15, 2016. URL: <http://washingtonmonthly.com/magazine/marchapril-2012/the-crackdown/>

³³ McEvers, “The Crackdown.”

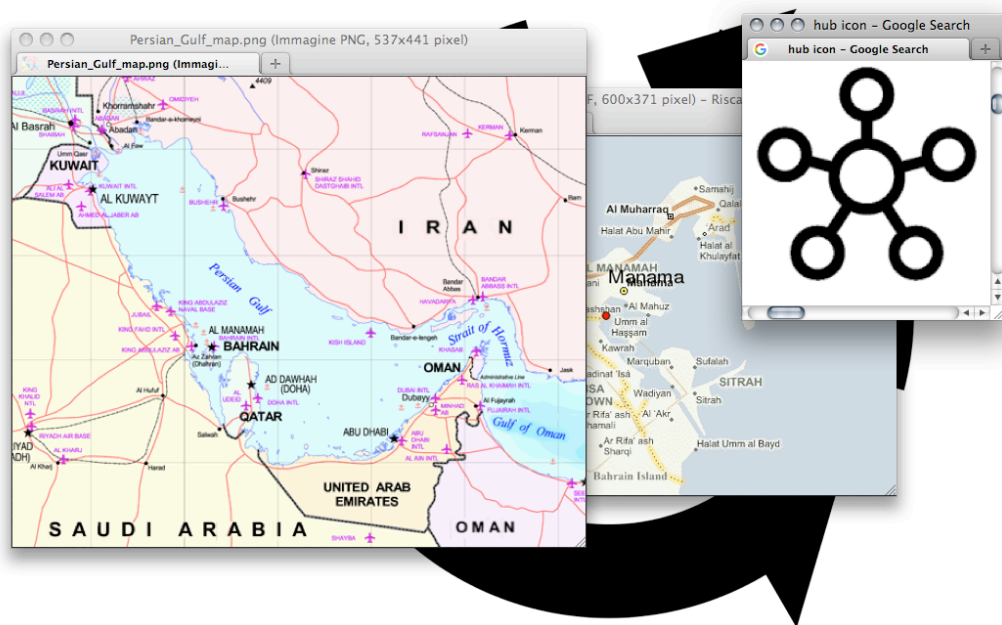


Figure 10 Screenshot configuration by the author: (left, foreground) Map of the Persian Gulf (source: public domain); (center, background) map of Manama, Bahrain (source: weather-forecast.com); (right, foreground) the standard icon for hubs, which can also serve as a topological diagram for the Pearl Roundabout design (source: iconarchive.com); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

Despite attempts to appeal to religious loyalties and related identity politics, the reform-minded protests were not sectarian: both Sunni and Shiite Muslims participated.³⁴ In addition, calls for reform came not only from outside the government and the royal family, but from within the government, and among the Al Khalifas.³⁵ Protest demands were precise: changes were needed that would give more power to Bahrain's elected parliament, policies had to be implemented that would legislate an end to Sunni gerrymandering of voting districts,³⁶ planning had to establish equal citizenship rights³⁷ with improved employment opportunities for all, including Bahrain's approximately 458,000 migrant workers (77% of the total work force),³⁸ and

³⁴ Lilli, "Foreign Actors," 172.

³⁵ Ibid.

³⁶ Ibid.

³⁷ Ahmed Kanna, "A Politics of Non-Recognition? Biopolitics of Arab Gulf worker protests in the year of uprisings," *Interface: A Journal for and about Social Movements*. Vol. 4, Issue 1 (May 2012): 146 – 164.

³⁸ "Bahrain: Abuse of Migrant Workers Despite Reforms." *Human Rights Watch*. September 30, 2012.

lastly, calls for respect of civil and human rights had to be heeded.³⁹ With the occupation of the Pearl Roundabout, the state-reformist demands that had aimed at rights-based political recognition by the state, began to move away from reform towards militant refusal. In this absolute recoil from negotiation, activists began the push for total revolution. As one online magazine article would later comment, “[...] the symbolism [in the roundabout] is almost jokingly obvious: what better place to stage a revolution, after all, than one built for turning around?”⁴⁰ From the very beginning however, there was also a certain ambiguity in this “symbolism.”⁴¹ In fact, the same article reminded readers, “a general might point out, [the roundabout is also perfect] for being encircled.”⁴² It was as if the protesters had expressed a certain will to seek out short-term failure—the will to wage a losing battle—anticipating that the violent ordeal of suppression would eventually lead to the achievement of long-term goals.

Urban historians recount that cities developed as sites of capital accumulation,⁴³ and these processes of accumulation are “predicated on the formation of a laboring class that produces (and reproduces) capital itself.”⁴⁴ As political economist Adam Hanieh has explained, “the centrality of the Gulf to the structure of the global economy means that the working classes of the Gulf [...] present a significant potential threat to capital accumulation at a global scale.”⁴⁵ It is, therefore, no surprise that migrant workers were at the center of disputes between pro-government supporters and anti-government opposition during the 2011 protests. The working classes in the

³⁹ Lilli, “Foreign Actors,” 166.

⁴⁰ Liu, “Roundabouts and Revolutions,” op. cit.

⁴¹ Ibid.

⁴² Ibid.

⁴³ David Harvey, “The Urban Process under Capitalism: A Framework for Analysis,” from *International Journal of Urban and Regional Research* (1978) in *The Urban Geography Reader* (London, UK: Routledge, 2005), 109-120.

⁴⁴ Hanieh, *Capitalism and Class in the Gulf Arab States*, 54.

⁴⁵ Ibid.

GCC are “overwhelmingly constituted by temporary, migrant workers with no citizenship rights”⁴⁶ and class formation in Bahrain follows this general trend.

In 2009, Bahrain’s migrant labor sponsorship law (*kafala*) was amended to loosen restrictions on workers and “allow [...] [migrant] employees to leave their employer without the employer’s consent.”⁴⁷ The amendment also made a government agency—Bahrain’s Labour Market Regulatory Authority (LMRA)—the official sponsor for migrant workers, rather than individuals or private companies.⁴⁸ However, after the protests in 2011, King Hamad Al Khalifa dialed back on these modest egalitarian moves, issuing a law that “prevent[ed] migrant workers from leaving their employer within the first year of employment.”⁴⁹ After passage of the decree, a group of 300 predominantly South Asian construction workers reportedly went on strike to demand a salary increase. With the King’s new law at their backs, companies felt emboldened to fire 40 workers for “illegal” work stoppage, even though Bahrain’s labor laws permit strikes.⁵⁰ With “crackdown[s] of undocumented migrants” seen “as part of the efforts of Bahrain authorities to maintain and secure its internal peace and order situation under its State of National Safety declaration [in 2011],” statements by migrant rights groups indicate these organizations felt compelled to depoliticize workers in order to protect them.⁵¹ In one press release, a Filipino

⁴⁶ Ibid.

⁴⁷ “Three Months After the Sponsorship System in Bahrain was “Scrapped,” What Really Changed?” *Migrant-Rights.org*. November 11, 2009. Accessed September 5, 2016. <https://www.migrant-rights.org/2009/11/three-months-after-the-sponsorship-system-in-bahrain-was-scrapped-what-really-changed/>

⁴⁸ “Three Months After [...],” op. cit.

⁴⁹ Ibid.

⁵⁰ “Bahrain Further Restricts Migrant Rights While Publicly Expressing Concern for Migrants.” *Migrant-Rights.org*. June 29, 2011. Accessed September 5, 2016. <https://www.migrant-rights.org/2011/06/bahrain-further-restricts-migrant-rights-while-publicly-expressing-concern-for-migrants/>

⁵¹ “Bahrain Crackdown Arrested 54 Undocumented Migrants.” *Migrant-Rights.org*. May 20, 2011. Accessed September 5, 2016. <https://www.migrant-rights.org/2011/05/bahrain-crackdown-arrested-54-undocumented-migrants/>

migrant rights organization asserted “we are quite sure that the undocumented, mostly Asian migrant workers, are not part of the antigovernment groups.”⁵²

It was not surprising that the representatives of disillusioned opposition groups refused further negotiation when the Bahraini crown prince promised that principles like representation by a parliament with full authority, anti-corruption and the end to gerrymandered districts benefiting the Sunni elite, would “guide a comprehensive national dialogue.”⁵³ After the fatal attacks on protesters, the media campaigns that associated demonstrations with attacks on south Asian migrant workers,⁵⁴ and various other instances of fomented distrust, nothing less than a new constitution would suffice.⁵⁵

The last Google Earth satellite image (March 3, 2011) taken of the Pearl Roundabout before its destruction by a government-ordered demolition crew, shows encampments raised on a dirt ring that circled the roundabout’s monument (fig. 11).⁵⁶ Foot traffic on the roundabout’s

⁵² Ibid.

⁵³ Lilli, “Foreign Actors,” 173.

⁵⁴ “Between two to eight south-Asian migrant workers have been killed in the weeks of protests in Bahrain, according to media reports. The brutal repression of the Bahraini peaceful protests was carried out by the Bahraini riot police, which is made up of mostly Sunni Muslims from south-Asian countries. The Shia of Bahrain, on the other hand, are barred from employment in the security forces, as they are seen as not loyal enough to the Al Khalifa regime. One of the grievances of the mostly-Shia protesters in Bahrain is the naturalization of foreign Sunnis, a policy intended to skew the demographic balance against the Shia majority. The xenophobic attacks on innocent migrant workers, which were condemned by opposition figures and NGOs, were also a result of government policy to force migrants to protest on behalf of the regime.” As reported in, “Bahrain Further Restricts Migrant Rights while Publicly Expressing Concern for Migrants,” op. cit. In March 2011, one of the leading organizations in the opposition movement, activist Nabeel Rajab’s Bahrain Center for Human Rights, released a statement that “condemned reports of a series of violent attacks on migrant workers [...] amidst a military crackdown on pro-democracy protesters.” According to the statement, “[a]n article in the Gulf Daily News [...] said that 34 migrant workers from Pakistan and Bangladesh had been injured in attacks over [...] six days.” Rajab, president of the BCHR was quoted as stating that “[b]ecause of the security conditions in the country [the declaration of martial law] [...], we [the BCHR] are unable to independently investigate and verify these specific cases. However, any violent attacks on peaceful migrant workers who are in Bahrain simply to earn an honest living are entirely unacceptable, and those who committed the crimes must be held accountable.” “BCHR Condemns Reported Hate Attacks on Migrant Workers in Bahrain.” Bahrain Center for Human Rights. *Bahrainrights.org*. March 23, 2011. Accessed September 2012. www.bahrainrights.org/en/node/3827

⁵⁵ Lilli, “Foreign Actors,” 174. Karen Brazell, “Photo: The Pearl of Bahrain,” *The Daily Need*. *PBS.org*. March 18, 2011. <http://www.pbs.org/wnet/need-to-know/uncategorized/photo-the-pearl-of-bahrain/8028/>.

⁵⁶ “Farooq Junction, King Faisal Hwy, Manama, Bahrain” 26°13’58.54”N and 50°33’29.11”E. *Google Earth*. March 3, 2011. Last accessed December 22, 2016. From 2011 to 2013, all the *Google Earth* images

open space had destroyed the roundabout's manicured grass lawn and left upturned dust and desert earth in its wake. In stark contrast with images taken in June the previous year (June 16, 2010) (fig. 12, top),⁵⁷ in the March image, traffic congeals in congestion around the roundabout. The daytime traffic volume captured in the satellite snapshots of the lush green roundabout the previous summer, had been significant, but, nonetheless, light. In a later image taken in the spring (April 6, 2011), the same Pearl Roundabout coordinates mapped by Google Earth return a completely different scene: the dirt ring of the occupied roundabout is replaced by a mark of total erasure, an 'x' marks-the-spot tagged with a new name: "Farooq Junction" (fig. 12, bottom).⁵⁸ "Farooq" is the name that was given to Omar ibn al-Khattab (577 AD - 644 AD), a seventh century "expert Islamic jurist" considered "one of the most powerful and influential Muslim caliphs [...] in history."⁵⁹ The "epithet Al-Farooq" means "the one who distinguishes between right and wrong."⁶⁰ The roundabout had been scraped off the site and nothing but the impression of its circle—named to monumentalize the ruler who determines what is right and wrong for the collective imaginary—remained. As an indexical trace of the Pearl Roundabout's destruction, the combination of the circular imprint and the new intersecting roads seen in bird's eye view gives the impression that the Pearl Roundabout monument was smashed, beaten, stamped-out and dragged off the site, leaving behind an asterisk-shaped traffic junction of five intersecting roads. In 2016, when I queried the Google Earth search field again with the words "Pearl Roundabout, Bahrain," the directory responded: "we couldn't understand this location."

discussed here could be found with the query terms, "Pearl Roundabout, Manama, Bahrain" and "Dowar al Lulu, Manama, Bahrain." They can now only be found under the new name, "Farooq Junction."

⁵⁷ "Farooq Junction." 26°13'58.54"N and 50°33'29.11"E. *Google Earth*. June 16, 2010. Last accessed December 22, 2016.

⁵⁸ "Farooq Junction." 26°13'58.54"N and 50°33'29.11"E. *Google Earth*. April 6, 2011. Last accessed December 22, 2016.

⁵⁹ Seyed Mostafa Azmayesh, *New Researches on the Quran: Why and How Two Versions of Islam Entered the History of Mankind* (London, UK: Mehraby Publishing House, 2015), 271.

⁶⁰ Azmayesh, *New Researches on the Quran*, 271.

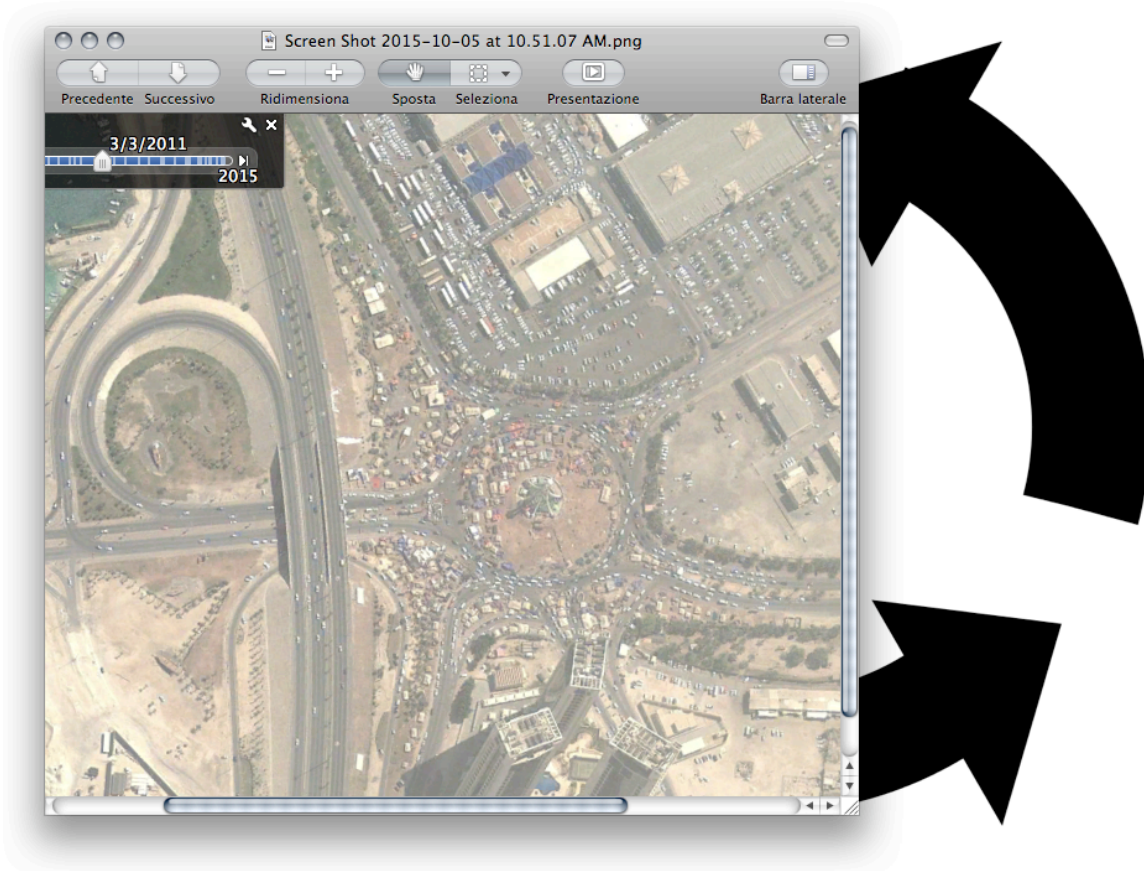


Figure 11 Screenshot configuration by the author: (left, foreground) the last Google Earth satellite image (March 3, 2011) taken of the occupied Pearl Roundabout before its destruction by a government-ordered demolition crew (source: Google Earth, 2011); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.



Figure 12 Screenshot configuration by the author: (top: left, background) the last Google Earth satellite image (March 3, 2011) taken of the occupied Pearl Roundabout before its demolition (source: Google Earth, 2011); (top: right, foreground) satellite image of the Pearl Roundabout before Arab Spring protests (June 16, 2010; source: Google Earth, 2011). (bottom: center-right, foreground) Google Earth query for Pearl Roundabout coordinates returns the scene of “Faroq Junction” (April 6, 2011; source: Google Earth, 2011). Images by the author.

Momentum in Momentous Scenes Never Seen (“We Couldn’t Understand this Location”)

What Google Earth could not record—and what any history based on its documentation ‘couldn’t understand’—are the month of events that occurred in 2011 between the polar extremes of the Pearl Roundabout occupied with opposition encampments on March 3rd, and its ‘reformed’ reformulation—“Farooq Junction”—captured at the same coordinates by Google’s satellite on April 6th.⁶¹ In this gap in-between the Pearl Roundabout and its later iteration, Farooq Junction, Bahrain security forces staged manoeuvres on the Pearl Roundabout encampments with the aim of reclaiming Manama’s Financial Harbor from the opposition movement.

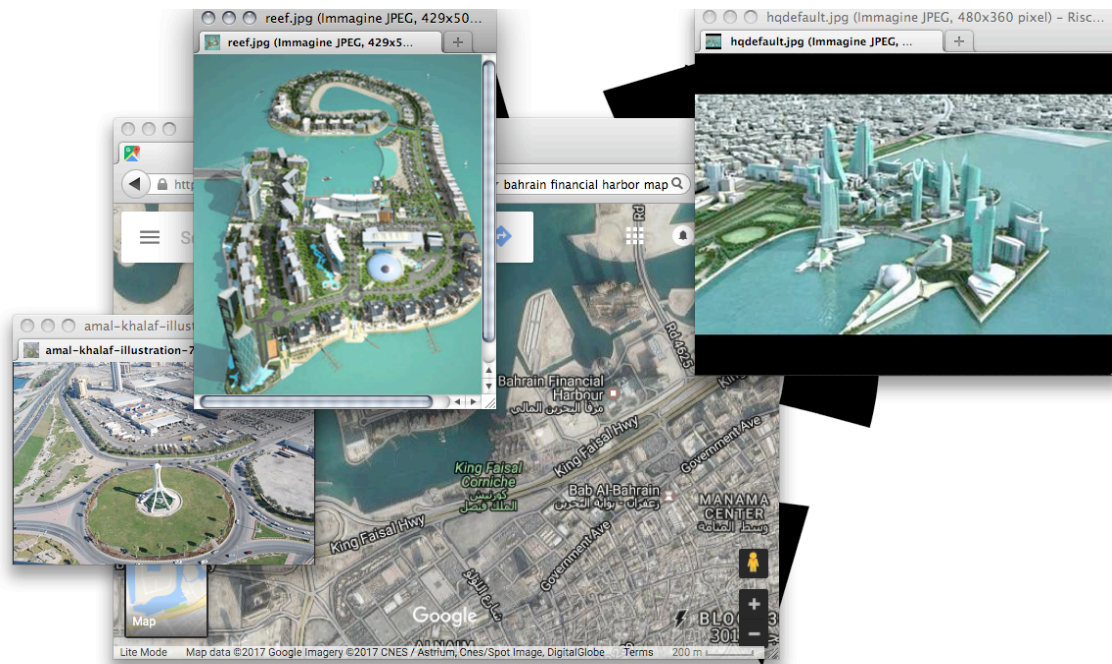


Figure 13 Screenshot configuration by the author: (center, background) satellite view of the Bahrain Financial Harbor including Reef Island and Farooq Junction (the former Pearl Roundabout site) (source: Google Maps, 2017); (left, background) aerial photograph of the Pearl Roundabout before 2011 (source: *Bahrain Observer*); (top, foreground) simulation of plans for Reef Island, also known as Lulu Island (source: *privateislandsblog.com*); (right, foreground) simulation of plans for Bahrain Financial Harbor (source: *icoreglobal.com*); the standard icon for roundabouts (source: public domain). Image by the author.

⁶¹ “Farooq Junction, King Faisal Hwy, Manama, Bahrain” 26°13’58.54”N and 50°33’29.11”E. *Google Earth*. March 3, 2011. Last accessed December 22, 2016, and “Farooq Junction.” 26°13’58.54”N and 50°33’29.11”E. *Google Earth*. April 6, 2011. Last accessed December 22, 2016.

The Pearl Roundabout was not only important because it circulated traffic through the harbor and functioned as a gateway between the periphery of the city and its center; it also served as Bahrain's national icon, the ultimate pro-government monument whose image was proudly circulated on currency, sold in souvenir shops and used in store window neon-signage.⁶² Furthermore, the Financial Harbor had been proposed as one of the most important strategic spaces for the future of Bahrain (fig. 13, right).⁶³ With the depletion of Bahrain's oil reserves, "market orientalism"⁶⁴ was in the process of transforming the country into an emerging finance and tourism capital for the Gulf region.⁶⁵ As drivers on King Faisal Highway approached the Pearl Roundabout from the south, their view of the harbor included one of Bahrain's major mega-projects in the background: an artificial island also named "Pearl" (*Lulu*).⁶⁶ The luxury real estate development exemplifies the fashionable appeal of roundabouts in urban planning. Across its 562,000 m² area, there are seven roundabouts (fig. 13, left).

The siege of the Pearl Roundabout resulted in further fatalities.⁶⁷ The ruling Al Khalifas attempted to offer some concessions to opposition groups after the incident, including permitting protestors to retake the roundabout, releasing political prisoners with pardons, and even removing some Al Khalifa family members from cabinet posts.⁶⁸ However, these gestures did not stop demonstrations.⁶⁹ Talks and negotiations continued, but protests had already transformed from reform-minded to revolutionary: opposition leaders wanted the election of a constituent assembly that would draft a new constitution.⁷⁰ The Al Khalifas refused and, fearing a coup from within the

⁶² Khalaf, "The Many Afterlives of Lulu," 274, 283-285.

⁶³ Khalaf, "The Many Afterlives of Lulu," 275.

⁶⁴ Benjamin Smith, *Market Orientalism: Cultural Economy and the Arab Gulf States*. (Syracuse, NY: Syracuse University Press, 2015), 19.

⁶⁵ Smith, *Market Orientalism*, 168 and 234; Ben Hamouche, "Manama," 348, 350-351.

⁶⁶ Ben Hamouche, "Manama," 350-351.

⁶⁷ Lilli, "Foreign Actors," 173.

⁶⁸ *Ibid.*

⁶⁹ *Ibid.*

⁷⁰ *Ibid.*, 174.

internally-conflicted Bahraini parliament, they requested the assistance of Gulf Cooperation Council (GCC) allies.⁷¹ Troops entered Bahrain from the United Arab Emirates (UAE), Qatar and Saudi Arabia,⁷² while, Kuwait's navy patrolled the harbor.⁷³ It was at this point of GCC intervention that the Pearl Roundabout and its monument (first built to commemorate the 1982 GCC convention in Manama) were ordered razed.⁷⁴ Workers who were accused of actively participating in demonstrations, or even just openly supporting them, were relieved of their jobs; students who had participated in related University of Bahrain actions were forced to sign a loyalty oath on the threat of suspension and expulsion.⁷⁵ During this period of unrest, another 35 fatalities were reported.⁷⁶

The Bahrain News Agency (BNA) released video of the Pearl Roundabout's destruction through local news outlets, and the footage was circulated internationally by users of the video-sharing platform, Youtube (fig. 14).⁷⁷ Like the Google Earth history of the Pearl Roundabout-becoming-Farooq-Junction, the BNA video of the destruction documents only its spectacular beginning and destructive ending (fig. 15). It makes an abrupt transition over the collapse, to

⁷¹ Ibid.

⁷² This intervention by Saudi troops stirred historical memory of the Al Saud historic invasion and occupation of Bahrain between 1801 and 1831. Raihan Ismail. *Saudi Clerics and Shi'a Islam* (New York, NY: Oxford University Press, 2016), 167.

⁷³ Lilli, "Foreign Actors," 174.

⁷⁴ Lilli, "Foreign Actors," 175.

⁷⁵ Ibid.

⁷⁶ Ibid.

⁷⁷ BNA video branded with the Associated Press (AP) logo was posted to a channel named "teyeodg jhtsyneb." The channel specializes in AP branded footage, however the same branded footage cannot be found on the AP's official video archive, AP Archive (<https://www.youtube.com/channel/UChTK-2W11Vh1V4uwofOfR4w/about>). It may be that this footage is not official footage, but the work of an internet activist or troll. teyeodg jhtsyneb, "WRAP Landmark demolished in Pearl Square FM news conference 2011 News." Online video clip. *Youtube*. November 4, 2013. Accessed December 2013. https://www.youtube.com/watch?v=ugQIn_0oSiQ. The same BNA footage of the monument was posted by 24x7 News, "Pearl Roundabout in Bahrain Demolished." Online video clip. *Youtube*. March 18, 2011. Accessed April 4, 2011. <https://www.youtube.com/watch?v=ZjL7ssHx15M>. This user characterizes the incident as "Pearl Roundabout in Bahrain demolished marking victory of government over anti-government terrorists in Bahrain." In the latter instance, the report accompanying the footage is given in Arabic by a news anchorwoman; in the former instance, it is dubbed in English.

directly connect the initial “teetering”⁷⁸ of the Pearl Monument—the massive structure that the BNA anchorwoman refers to in her report as the “GCC monument,”⁷⁹ (and that American media outlets have called the “Pearl statue”)⁸⁰—to a new ‘plastic’ configuration created in destruction: a heap of fragmentary remains.



Figure 14 Screenshot configuration by the author: (left, background) aerial photograph of the Pearl Roundabout before 2011 (source: *Bahrain Observer*); (center, background) protesters gathering around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons); (right, foreground) Bahrain News Agency (BNA) video of the Pearl Roundabout’s destruction as circulated on Youtube (source: Bahrain News Agency; teyeodg jytsneb and Youtube.com; N.B. though the footage is branded with the Associated Press logo, it was not posted by the official AP archive channel); (background) the standard icon for roundabouts (source: public domain). Image by the author.

⁷⁸ Khalaf, “The Many Afterlives of Lulu,” 273.

⁷⁹ The anchorwoman’s report is dubbed in English at teyeodg jytsneb, “WRAP Landmark demolished in Pearl Square FM news conference 2011 News.” op. cit. Amal Khalaf writes about the Pearl Roundabout also being “referred to by its official name—the GCC Roundabout or Dowar Majlis Al Ta’awon.” Khalaf, “The Many Afterlives of Lulu,” 281.

⁸⁰ Philip Kennicott, “Bahrain’s Pearl Statue is gone, but it remains an icon of democracy.” *The Washington Post*. March 13, 2011. Accessed September 10, 2011. URL: https://www.washingtonpost.com/lifestyle/style/bahrain-pearl-statue-is-gone-but-it-remains-an-icon-of-democracy/2011/05/10/AFKcnh2G_story.html. Shane Harris and Nancy A. Youssef, “American Journalist Anna Therese Day Detained in Bahrain,” *The Daily Beast*. February 14, 2016. Accessed December 3, 2016. <http://www.thedailybeast.com/articles/2016/02/15/american-journalist-anna-therese-day-detained-in-bahrain.html>

The BNA footage begins with a carefully composed shot of the roundabout from an elevated position (fig. 15, left).⁸¹ Long shadows stretch up the left side of the frame. The shadows indicate the camera was likely set up over the roundabout at an apartment-lookout from another Manama mega-project, the luxurious Pearl Towers (*Abraj Al Lulu*). Two demolition cranes, a yellow crane in the left of the frame, and an orange crane in the center bottom, are shown with their grips extended towards two of the monument's six curved beams (fig. 15, left). The beams engineered to elevate the monument's 'pearl' (*lulu*) were allegedly designed to be metaphorical 'sails' (*dhow*) and counted six to mark the six member states of the GCC – Saudi Arabia, UAE, Qatar, Kuwait, Oman and Bahrain.⁸² The cement sphere at the pinnacle of the converging beams is said to commemorate Bahrain's former pearl industry.⁸³ With the construction of the sculpture in 1982,⁸⁴ this commemoration and memorialization of the former pearl industry came at a moment when Bahrain was being primed to transition out of the oil economy that had replaced the pearl economy, and into a post-oil future as a Gulf finance and tourism capital.⁸⁵ Bahrain's Financial Harbor was a node of urban renewal and redevelopment in this new transition that Manama was being 're-formed' to lead. At a press conference held after the destruction of the monument, attendees waiting to hear Bahrain's Foreign Minister address the public about the demolition of the Pearl Roundabout studied pamphlets emblazoned with the word "REFORM" in red type-face (fig. 16).⁸⁶

⁸¹ teyeodg jytsneb, "WRAP Landmark demolished in Pearl Square FM news conference 2011 News." op. cit.

⁸² Khalaf, "The Many Afterlives of Lulu," 273-274.

⁸³ Ibid., 274.

⁸⁴ Ibid.

⁸⁵ Ben Hamouche, "Manama," 344-345.

⁸⁶ teyeodg jytsneb, "WRAP Landmark demolished in Pearl Square FM news conference 2011 News." op. cit.

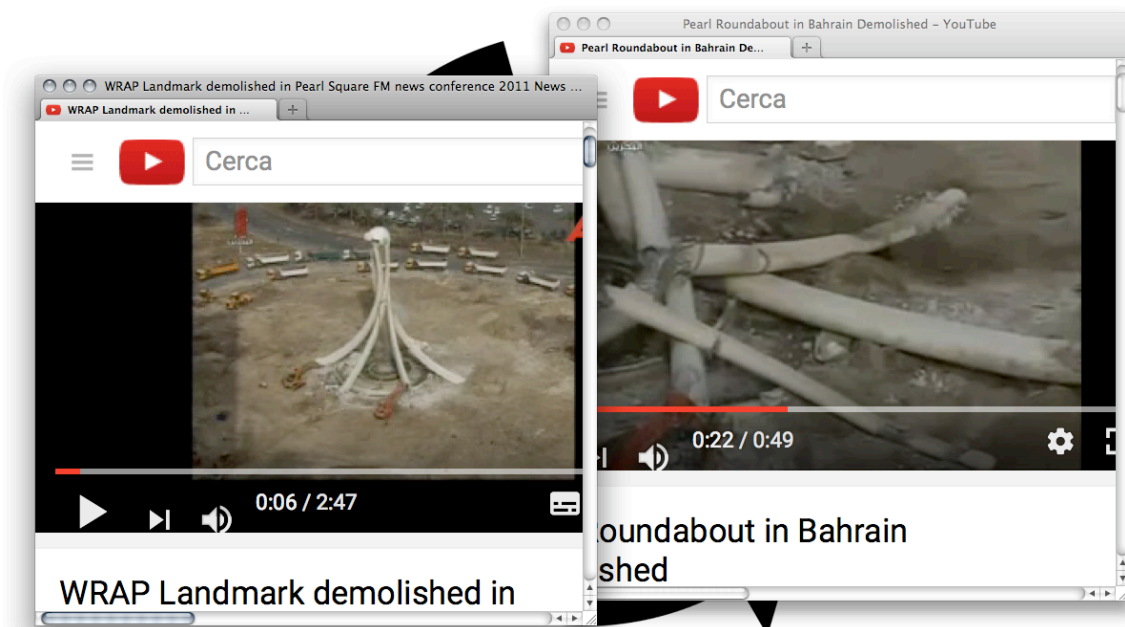


Figure 15 Screenshot configuration by the author: (left, foreground) the rotating fall of the Pearl Roundabout monument in official documentation of its destruction (as circulated on Youtube) (source: Bahrain News Agency; teyeodg jytsneb and Youtube.com); (right, background) a jump cut from the shot on the left sends the edited documentation directly to the aftermath of the collapse (source: Bahrain News Agency; 24x7 News and Youtube.com); (background) the standard icon for roundabouts (source: public domain). Image by the author.

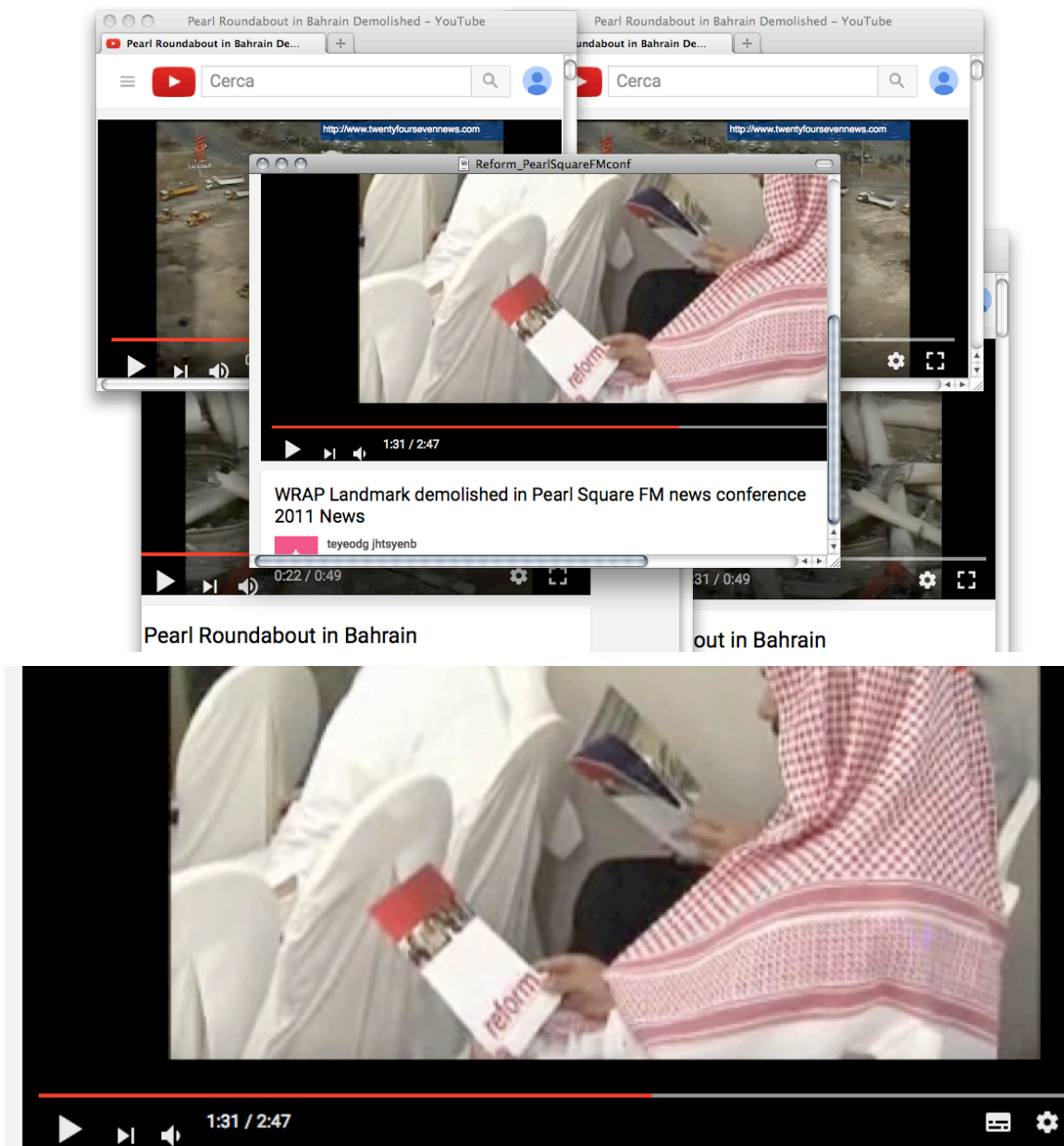


Figure 16 Screenshot configuration by the author: (top center and bottom center) footage of a press conference held after the destruction of the monument; attendees waiting to hear Bahrain’s Foreign Minister address the public, study pamphlets emblazoned with the word “REFORM” in red type-face (source: Bahrain News Agency; teyeodg jhtsyneb and Youtube.com); (top background) Bahrain News Agency (BNA) footage of the Pearl Roundabout demolition as circulated on Youtube (source: Bahrain News Agency; 24x7 News and Youtube.com). Image by the author.

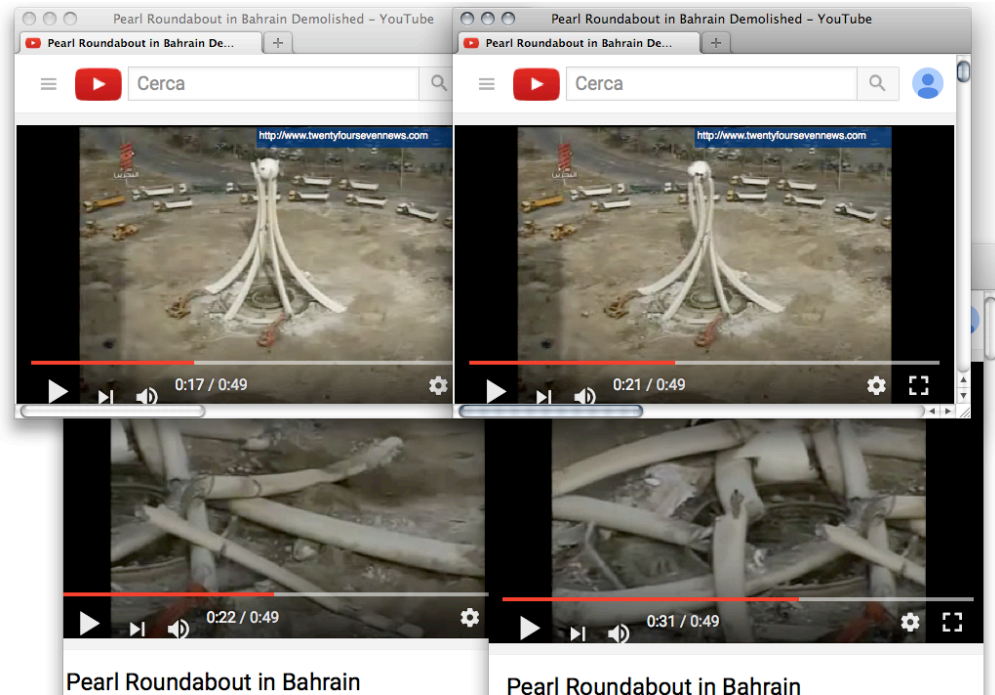


Figure 17 Screenshot configuration by the author: (left top, foreground) video-still from the beginning of documentation of the Pearl Roundabout demolition. (Right top, foreground) Video-still of the rotating fall; a jump cut from the shot of the rotating fall sends the edited documentation directly to (left bottom, background) the aftermath of the collapse; (right bottom, background) video-still of a person standing at the top of one of the monument's fallen beams or 'sails' (source: Bahrain News Agency; 24x7 News and Youtube.com). Image by the author.

The BNA video of the Pearl Roundabout destruction begins with the two demolition cranes tugging at beams that have been cut down to the 'bone' of their steel support structure.⁸⁷ The entire monument slowly begins to turn on itself (fig. 17, top left). Its 'sails' twist clockwise like petrified canvas unfrozen to gently flap with the warning winds of an approaching storm. A subtle but devastating annihilation of equilibrium begins to set in, deforming the supported 'pearl' as the 'sails' begin to pirouette into their spectacular fall (fig. 17, top right). The process of the crash is not shown; instead, the video montage cuts swiftly to the demolition heap (fig. 17, bottom left). The camera zooms in and pans from right to left over broken cement 'sails.' The 'sails' now take on the semblance of crushed ribs, bleached in Bahrain's desert coastal climate

⁸⁷ teyeodg jytsneb, "WRAP Landmark demolished in Pearl Square FM news conference 2011 News," op. cit. and 24x7 News, "Pearl Roundabout in Bahrain Demolished," op. cit.

from the long-decayed corpse of a giant. The video sequence is montaged between the initial event of broken equilibrium and the aftermath of collapse. A tiny figure appears standing atop one of the massive ‘ribs’ (fig. 17, bottom right). The figure peers down the fallen beam like a hesitant amusement park visitor looking down a giant slide, only without any sense of joy in terror. The on-looker appears frozen.

The framing of the shot cuts the crushed orange crane at the bottom of the monument’s broken rib—its collapsed ‘sail’ of a ‘slide’—out of the scene (fig. 18). In reports about the demolition, most English-language media outlets missed a short article buried in the *Gulf Daily News*: the article reported on a fatality caused by the fall of the Pearl Roundabout monument: one of the crane operators, a Pakistani migrant worker named Riaz Ahmed, was killed when the falling ‘sail’ smashed down on his crane.⁸⁸ The Youtube channel “Feb14TV” – an important social media actor in the uprising that could possibly be associated with activists from Bahrain’s February 14th Youth Coalition – responded by circulating a video it called “Scenes never seen.”⁸⁹ The Feb14TV video-post counters the media blackout of images of Pearl Roundabout’s process of collapse and Ahmed’s death, juxtaposing footage of a heavily quoted press conference, with footage of workers, authorities and officers overseeing the scene of the underreported casualty

⁸⁸ “Officials have confirmed that a Pakistani crane driver died during the demolition of the Pearl monument last week. Riaz Ahmed, 43, worked for Nass Contracting and was handling one of four machines when a piece of the monument collapsed on him last Friday. "His crane cabin was crushed when a part of the structure fell on it," said Pakistan Embassy deputy head of mission Aurangzeb. He added that Mr Ahmed died instantly. "The company is now making arrangements to repatriate Mr Ahmed's body to Gujranwala, in Pakistan's Punjab province," Mr Aurangzeb said. Mr Ahmed joined the company in December last year and is survived by his wife. A Nass Contracting official confirmed the incident, but would not comment further.” “Crane driver died during demolition of monument.” *Gulf Daily News*. N.d. Accessed August 20, 2014. <http://www.gulf-daily-news.com/Print.aspx?storyid=302514>. See also, Khalaf, “The Many Afterlives of Lulu,” 282.

⁸⁹ 14FebTV, “Scenes never seen .Online Video Clip ”مدم اللؤلؤة” *Youtube*. July 16, 2011. Accessed August 30, 2011. <https://www.youtube.com/watch?v=jpzzrH-Tcxaw>
<https://www.youtube.com/channel/UCTENa4XJoLrcTxGu7zzUd0A>

In her essay on the destruction of the Pearl Roundabout, Khalaf writes about the same video, which she refers to as “one of the hundreds of YouTube channels that have emerged out of Bahrain since 2011.” Interestingly, I came upon the video independently through Youtube ethnography before reading Khalaf’s take on it in her important essay. Khalaf, “The Many Afterlives of Lulu,” 282.

(fig. 18).⁹⁰ At the press conference, Bahrain’s foreign minister makes his famous statement about the destruction—a statement that was subsequently repeated across the international media—calling the action, “a removal of bad memory.”⁹¹ The Feb14TV footage cleverly frames this reference to a “removal of bad memory” as an unconscious *lapsus* or slip: “the removal of bad memory” is not the razing of the Pearl Roundabout, but the attempts of the construction crew to recover the broken body of Ahmed from under the broken body of the Pearl Roundabout monument (fig. 18). A red crane to the left attempts to remove a fallen concrete fragment from the crushed crane in order to get at Ahmed’s body.

⁹⁰ 14FebTV, “Scenes never seen.” Online video clip. *Youtube*. July 16, 2011. Accessed August 30, 2011. <https://www.youtube.com/watch?v=jpZrH-Tcxaw>

⁹¹ Ethan Bronner, “Bahrain Tears Down Pearl Monument,” *The New York Times*. March 18, 2011. Accessed June 1, 2011. <http://www.nytimes.com/2011/03/19/world/middleeast/19bahrain.html>; Karen Leigh, “How the Bahrain Regime Wants to Erase its Bad Memories,” *TIME*. March 18, 2011. Accessed June 1, 2011. <http://content.time.com/time/world/article/0,8599,2060367,00.html>; Robert Siegel, “In Bahrain, Iconic Pearl Monument Destroyed.” *National Public Radio. All Things Considered*. March 18, 2011. Accessed June 1, 2011. www.npr.org/2011/03/18/134665539/Pearl-Monument-Destroyed. “Bahrain Tears Down Protest Symbol.” *Al-Jazeera*. March 18, 2011. Accessed June 1, 2011. URL: <http://www.aljazeera.com/news/middleeast/2011/03/2011131823554586194.html>; Toby Matthiesen, “Battling over the legacy of Bahrain’s Pearl Roundabout,” *Foreign Policy*. February 13, 2012. Accessed June 1, 2011. foreignpolicy.com/2012/02/13/battling-over-the-legacy-of-bahrains-pearl-roundabout/; “Bahrain Tears Down Protest Symbol,” op. cit.; “The Story of Bahrain’s Pearl Roundabout,” *The Bahrain Observer*. March 2, 2013. Accessed August 10, 2013. <http://www.bahrainobserver.com/en/page/761/The+Story+of+Bahrain%E2%80%99s+Pearl+Roundabout.html> (The latter article is another version of Amal Khalaf’s essay).



Figure 18 Screenshot configuration by the author: (left top, foreground) the 14FebTV video montage begins with official Bahrain News Agency (BNA) documentation of the Pearl Roundabout demolition; (left bottom, background) it also includes footage of a press conference with international media during which Bahrain’s Foreign Minister described the demolition of the roundabout as “the removal of a bad memory.” (Bottom right, background) It then transitions into a segment titled “Scenes Never Seen Before”: this segment shows an orange crane crushed by one of the Pearl Roundabout monument’s fallen beams (source: Bahrain News Agency; 14FebTV and Youtube.com). Image by the author.

Using literary scholar Hamid Dabashi’s words, it could be said that the Pearl Roundabout “site of corporeal contestation”⁹²—sit of the broken body of the Pakistani migrant worker, Riaz Ahmed, and the broken body of the Pearl Roundabout “GCC Monument”⁹³ (the monument to Gulf economic and defense cooperation against revolutionary change)—engenders “the active transmutation of body politics and the formation of the posthuman body together.”⁹⁴ The destroyed roundabout “Pearl Statue”⁹⁵ is a new ‘plastic’⁹⁶: both a new kind of three-dimensional

⁹² Dabashi, *Iran: The Rebirth of a Nation*, 253.

⁹³ Khalaf, “The Many Afterlives of Lulu,” 281.

⁹⁴ Dabashi, *Iran: The Rebirth of a Nation*, 253.

⁹⁵ Kennicott, “Bahrain’s Pearl Statue is gone, but it remains an icon of democracy.” op. cit. Harris and Youssef, “American Journalist Anna Therese Day Detained in Bahrain,” op. cit.

construction and a new expression of the relationship between body and city, inner and outer, animate and inanimate, activism and actionism (fig. 19). It is a new artistic configuration produced from the “broken body, the tortured body of a state of violence, [and] the site of a bodily transmutation of political resistance.”⁹⁷ Indeed, following the destruction, the *Pearl Charter*⁹⁸—a list of demands drafted by opposition groups—recognized the importance of the broken body of the migrant worker fallen under Bahrain’s broken national icon. The charter includes the manipulation of class formation among its concerns and demands, which state the aim of “finding a realistic and fair solution to the problem of systematic political naturalization that has been created by the regime to change the original identity and demographics of the country.”⁹⁹

⁹⁶The term comes from artist-writer Piet Mondrian’s *The New Plastic in Painting* (1917). Mondrian defines the “new plastic” as “the *reconciliation* of the matter-mind duality [...]. The new plastic [...] expresses not only man’s deeper inwardness, but his maturing outwardness.” Original emphasis. Piet Mondrian, *The New Art-The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James. (Boston: G.K. Hall & Co., 1986), 30 and 34.

⁹⁷ Dabashi, *Iran: The Rebirth of a Nation*, 253

⁹⁸ The Pearl Charter is discussed in an interview with the February 14th Youth Coalition, see Toby C. Jones, “Bahrain’s Revolutionaries Speak: An Exclusive Interview with Bahrain’s Coalition of February 14th Youth.” *Jadaliyya*. March 22, 2012. Accessed September 10, 2012. URL: www.jadaliyya.com/pages/4777/bahrain-revolutionaries-speak_an-exclusive-interview

⁹⁹ Ibid.



Figure 19 Screenshot configuration by the author: (left, foreground) photograph of activists and protesters gathered around the Pearl Roundabout the day that Gulf Cooperation Council (GCC) troops entered Bahrain (March 14, 2011) (source: bahrain.viewbook.com and Creative Commons); (right, background) Feminist actionist Valie Export's *Abrundung* (*Rounding-Off*, 1976) (source: medienkunstnetz.de and VG Bild-Kunst 2004; photo: Hermann Hendrich); (center, background) the standard icon for roundabouts (source: public domain).

The same online article that outlines the *Pearl Charter* features a conversation with members of the February 14th Youth Coalition, and is prefaced with reference to “claims that Bahrain’s revolution has failed.”¹⁰⁰ The interviewer introduces his transcribed conversation challenging this assessment with a different claim: the rebellion went underground. “The reality is that peaceful protests, a campaign of civil disobedience and anti-Al Khalifa energy is at an all-

¹⁰⁰ *Jadaliyya* defines itself as “an independent ezine produced by ASI (Arab Studies Institute [...]). In late 2011, ASI received funding for the first time in twenty years [...] from the Social Science Research Council, the Open Society Institute. [...] All funds come with absolutely no strings attached, as is reflected in the work and production of all five organizations under the umbrella of ASI.” See www.jadaliyya.com/pages/about. For the interview with the February 14th Youth Coalition, see Jones, “Bahrain’s Revolutionaries Speak,” op. cit.

time high,” the interviewer insists.¹⁰¹ In other words, as a protest-sympathizer on the street reportedly told the British newspaper *The Guardian* after the Pearl Roundabout’s destruction: “Symbolism means nothing. We have the momentum.”¹⁰²

The government’s official domestic line about the monument’s destruction was that the demolition was part of Bahrain’s urban planning: “part of [...] traffic realignment and redevelopment” of the Financial Harbour’s network of roundabouts.¹⁰³ However, Foreign Minister, Sheik Khalid bin Ahmed Al Khalifa—apparently unable to resist the compulsion to boast victory—also justified the state’s vandalism of its own “GCC monument”¹⁰⁴ with iconoclastic motivation: news report after news report across the United States, Europe and Australia quoted Al Khalifa’s press conference declaration, that the destruction was the “removal of a bad memory”¹⁰⁵

¹⁰¹ Jones, “Bahrain’s Revolutionaries Speak,” op. cit.

¹⁰² Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

¹⁰³ Kennicott, “Bahrain’s Pearl Statue is gone, but it remains an icon of democracy,” op. cit. Also, in the BNA video posted to the Youtube channel teyeodg jhtsyneb, the female voice-over with trained anchorwoman intonation translates the original Arabic broadcast in English, “[t]he developments come due to the intensive level of traffic in that area, which is considered a junction for a number of roads used by citizens and residents. The GCC roundabout is situated in a commercial area that houses shopping malls, financial institutions, banks, hotels and entertainment sites as well as other shopping centres.” The link is accompanied by an explanatory text that counters the official narrative in the video with a different story: “[...] Bahrain’s rulers invited armies from other Sunni-ruled Gulf countries this week to help root out dissent as the month of protests spiralled into widespread calls for an end to the Sunni monarchy. In declaring emergency rule the king gave the military wide powers to battle the uprising. Bahrain’s royal family is gambling that it can survive the sectarian fault lines that splinter the kingdom and the region with the help of a 1500-strong force led by the Saudis. The US has made Bahrain home to the Navy’s 5th Fleet counting on the Sunni rulers who endured Iran’s 1979 Islamic Revolution and waves of unrest among the Shiite majority long complaining of persecution and economic inequality. But the ruling system - which just two weeks ago appealed for negotiations with majority Shiites - now appears to be trying to crush the opposition imposing a three-month emergency rule that gives the military wide powers to battle the pro-democracy uprising inspired by the revolts across the Arab world. Shiites account for 70 percent of the half-million population but are widely excluded from high-level posts. The rulers and their backers are using everything at their disposal while Shiites hope sheer demographics will be their most potent weapon.” teyeodg jhtsyneb, “WRAP Landmark demolished in Pearl Square FM news conference 2011 News.” op. cit.

¹⁰⁴ Khalaf, “The Many Afterlives of Lulu,” 281.

¹⁰⁵ 14FebTV, “Scenes never seen”; op. cit.; Bronner, “Bahrain Tears Down Pearl Monument,” op. cit.; Leigh, “How the Bahrain Regime Wants to Erase its Bad Memories,” op. cit.; Siegel, “In Bahrain, Iconic Pearl Monument Destroyed.” op. cit.; “Bahrain Tears Down Protest Symbol,” op. cit.; Matthiesen, “Battling over the legacy of Bahrain’s Pearl Roundabout,” op. cit., “Bahrain Tears Down Protest Symbol,” op. cit.; “The Story of Bahrain’s Pearl Roundabout,” op. cit.

Ironically, it was with the destruction of the roundabout, however, that bad memory was not removed, but monumentalized. At the press conference, the specific bad memory invoked was not explained at great length, rather the reference to bad memory was left up to interpretation. As a result, the reference to a single bad memory exploded into a network of bad memories. In this monumentalization of the destructive plasticity of bad memory, bad memory was multiplied on all sides of the conflict. For the Al Khalifa's and their supporters, bad memory was the momentum that reform-minded protests had gained and built into revolutionary demands. Bad memory was violent clashes with protesters that had not dissuaded, but only further motivated, the opposition movement. Bad memory was the inability to govern and self-determine without external actors: the destruction of the Pearl Roundabout had monumentalized the bad memory of foreign intervention in Bahrain. For many on both sides, GCC intervention by Saudi Arabia recalled the Al-Saud occupation of Bahrain before British colonial occupation in the early 19th century.¹⁰⁶ Furthermore, the GCC-orchestrated destruction of its own GCC symbol could also be interpreted as a bad omen. One of the motivating factors for the formation of the GCC regional bloc had originally been the aim of empowering allegiances against Iranian and Soviet (now Russian) influence in the region.¹⁰⁷ Critics of the opposition groups in Bahrain persist with Cold War conspiracy themes, claiming groups are funded and supported by Iran and other foreign

¹⁰⁶ Ismail, *Saudi Clerics and Shi'a Islam*, 167.

¹⁰⁷ "Q: Hasn't the GCC been focusing mainly in economic cooperation? A: Well, it was set up for both economic and defense cooperation, but did not get into high gear on the defense planning until about four months ago. Q: What happened then? A: Last December a group of plotters supported and supplied by Iran were caught red-handed as they were about to out into action a plan to over-throw the government of Bahrain. They came so close to pulling it off that shock waves were felt up and down the gulf, where rulers had long been concerned with the possibility that Khomeini might try to export his revolution into their countries. They have now stepped up their efforts, through the GCC, to coordinate their defense policies, and have taken measures to set up a joint military strike force, drawn from armed forces of the member states. There has even been talk of a joint military command, a collective air defense system and a common arms procurement policy." From American Educational Trust, "The ABCs of Gulf Security." *The Washington Report on Middle East Affairs (1982 – 1989)*. 1.2. April 19, 1982 (Washington DC: American Educational Trust, 1982), 2.

entities.¹⁰⁸ Thus bad memory is also the reminder that Bahrain is not just “a point of intersection” or “buffer zone,”¹⁰⁹ but a roundabout-like junction among internally-conflicted Arab, South Asian, Iranian and Muslim worlds that are in no way homogeneous.

The Pearl Roundabout has been described as a token-trophy of the “state-controlled image economy,” a “white washed concrete pearl” that foregrounded an invented “traditional Arab culture,” a tradition based on the regional history of pearl diving that forgot its broader “historical influences from the wider Arab world, the Indian subcontinent, and Persia.”¹¹⁰ Thus the demolition monumentalized not only the bad memory of tradition invented through the practices of demographic manipulation, ethnic and religious discrimination that have historians assess have characterized Al Khalifa rule since the 18th century,¹¹¹ it also threatened to cement the bad memory of a collapsed dream for the future—the gulf dream of Manama joining the region’s centers of finance.¹¹²

The bad memory of invented tradition is not only a network of bad memories for Al-Khalifa rule; it is also bad memory for opposition groups. In their interview discussion of the “Pearl Charter,” the February 14 Youth Coalition evoked an “original identity” distorted by demographic manipulation.¹¹³ Though there is indeed an Arab-speaking indigenous population in

¹⁰⁸ Jones, “Bahrain’s Revolutionaries Speak,” op. cit. See also the press conference with the Bahraini Foreign Minister in which the minister accuses opposition leaders “of relations and work being done with foreign countries.” teyeodg jhtsyenb, “WRAP Landmark demolished in Pearl Square FM news confrence,” op. cit.

¹⁰⁹ Nelida Fuccaro, *Histories of City and State in the Persian Gulf: Manama since 1800* (New York, NY: Cambridge University Press, 2009), 35.

¹¹⁰ Khalaf, “The Many Afterlives of Lulu,” 275-278.

¹¹¹ Fuccaro, *Histories of City and State in the Persian Gulf*, 35 – 61. The Al Khalifah’s migrated from Kuwait to Qatar in 1766 and then “approximately forty years later [...] continued their journey to Bahrain and founded Muharraq” (Ibid., 71). Muharraq was the seat of central administration under British protection until 1932 (Ibid., 44); Manama was the center of the pearling economy in the 1880s and the oil industry in the 1930s (Ibid., 28). “With independence in 1971, Manama became the official capital of the Arab State of Bahrain.” (Ibid., 32).

¹¹² “Ruler of Bahrain King Fahad plays a Prominent Role in Issues in Region,” *Saudi Review: The English Daily Highlighting Local and World News* (October 2, 1984): 24. This article directly relates the “gulf dream” with the “Gulf Cooperation Council” and attributes the phrase to Sheikh Issa ben Salman al-Khalifah, then ruler of Bahrain.

¹¹³ Jones, “Bahrain’s Revolutionaries Speak,” op. cit.

Bahrain—the Shiite Muslim *Baharna*— is there really any “original identity” in a country that has for so long been a site characterized by co-existence—a hub of port cities, transnationalism and cosmopolitanism? Though this invented tradition may be a bad memory shared by both sides, Al-Khalfa bad memory was for the most part only shared as good memory for opposition groups and sympathizers. For example, occupation of the Pearl Roundabout had successfully co-opted a monument to the regime’s GCC alliance, and, through this co-optation, caused the destruction of the “GCC monument.”¹¹⁴ Nonetheless, a sense of melancholy pervaded the loss of the monument: the new Pearl plastic—the new shape the Pearl Roundabout monument acquired as a heap of crushed remains—signaled the end to an outburst of above-ground activities that had appeared to augur an irreversible loss of control by elites. The specter of bad memory that followed, pursuing opposition groups, for example, in the Arab-American press, was the fatalist recollection of “deadly crackdown”¹¹⁵ in death, exile and expulsion; the bad memory of “how Bahrain [authorities] strong-armed the president of the United States”¹¹⁶ out of intervening; the bad memory of Bahrain as an Arab Spring “flashpoint”¹¹⁷ rather than an Arab Spring stronghold; and, lastly, the pessimistic final summations of “Bahrain’s arrested revolution,”¹¹⁸ its “failed” rebellion, its “uprising” that would forever be frozen “on the verge of revolution.”¹¹⁹

With the jump-cut that disseminated media erasure of the Pearl Roundabout monument’s process of collapse, this network of memories was ironically only further propelled in its momentum. It replicated itself in roundabout-like rounds of circulation across the city. Graffiti

¹¹⁴ teyeodg jytsneb, “WRAP Landmark demolished in Pearl Square FM news conference 2011 News.” op. cit. Khalaf, “The Many Afterlives of Lulu,” 281.

¹¹⁵ “Deadly Crackdown on Bahrain Protesers” *The Arab-American News*. March 2011: 2-3.

¹¹⁶ Nick Turse, “How Bahrain Strong-armed the President of the United States.” *The Arab American News*. (April 9, 2011): 10-11.

¹¹⁷ “A year on, violence erupts again at Bahrain flashpoint.” *The Arab-American News*. (February 18, 2012): 4.

¹¹⁸ Stephen Zunes, “Bahrain’s Arrested Revolution.” *Arab Studies Quarterly*. 35.2 (Spring 2013): 149 – 164.

¹¹⁹ Robert Fisk, “An Uprising on the Verge of Revolution.” *The Arab American News*. (February 26 2011): 6.

tagged the walls of Manama and surrounding suburbs with ideograms inspired by the memory of the cephalopodic body of the Pearl Roundabout monument (fig. 20).¹²⁰ Hand-sized miniatures of the ‘Pearl statue’ appeared to proliferate.

¹²⁰ Photographed for *The Nation* in Sharif Abdel Kouddous, “Scenes from a Bahraini Burial,” *The Nation*. February 20, 2013. Accessed March 4, 2013. <https://www.thenation.com/article/scenes-bahraini-burial/>; Photographed by Khalaf and reprinted in Khalaf, “The Many Afterlives of Lulu,” 278; Also in Amal Khalaf, “The Many Afterlives of Lulu: The Story of Bahrain’s Pearl Roundabout,” *Ibraaz: Contemporary Visual Culture in North Africa and the Middle East*. February 28, 2013. Accessed June 2, 2013. <http://www.ibraaz.org/essays/56>; Photographed by Rebelliouswalls.com and circulated via Al Akhbar English at “Graffiti: Walls of the People,” *Al Akhbar English*. N.d. Accessed September 20, 2015. <http://english.al-akhbar.com/node/2944>; Photographed by Matthew Cassel and circulated via matthewcassel.com, Matthew Cassel, “Bahrain: Revolution on Walls,” *matthewcassel.com*, December 8, 2011. Accessed January 10, 2012. <http://matthewcassel.com/tag/graffiti/>; Photographs circulated via the Middle East Institute, National University of Singapore by Charlotte Schriwer, “Insight 117: The ‘Pearl Effect’ and Bahrain’s ‘Spring fo Culture.’” *Middle East Institute. National University of Singapore*. September 8, 2014. Accessed December 10, 2016. https://mei.nus.edu.sg/index.php/website/publications_tmpl/insight-117-the-pearl-effect-and-bahrains-spring-of-culture; Photo by glcarlstrom posted by Mona Kareem on the platform, Twitter, as “Graffiti from #Bahrain: we will return (to #Lulu roundabout) [...]” *Twitter.com*. July 28, 2012. Accessed December 10, 2016. <https://twitter.com/monakareem/status/229395750105268224>; European Pressphoto Agency (epa) b.v. / Alamy Stock Photo, “A Young Bahraini Shiite Girl Walks by graffiti of the February 14 pro-reform movement and the Lulu roundabout, the former site of pro-reforms protests, Al-Maksha village north of the Bahraini capital Manama, 18 December 2011,” *alamy.com*. N.d. Accessed September 11, 2012. <http://www.alamy.com/stock-photo-a-young-bahraini-shiite-girl-walks-by-graffiti-of-the-february-14-100478616.html>; EPA/Mazen Mahdi, “A masked youth protester holds a placard depicting the Lulu Roundabout monument, the former site of pro-reform protests, as he walks past a wall with anti-government graffiti painted on it, in Aali village, south of the Bahraini capital Manama, Bahrain, 18 November 2011. According to local sources, thousands of people took part in an opposition rally in Aali village where the key opposition groups reaffirmed that no solution can be reach to end the country's on-going crisis with-out introducing real political reforms which include a new constitution, a fully elected parliament and government among other democratic reforms. A fact finding commission setup by Bahrain king to investigate alleged human-right violations against pro-reform protesters in a crack-down that began in mid-February is expected to present its findings and recommendations on 23 November 2011,” *alamy.com*. N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/FR9BG2/a-masked-youth-protester-holds-a-placard-depicting-the-lulu-roundabout-FR9BG2.jpg>; Photographed by Donald Rallis for *Regional Geography Blog* in Donald Rallis, “Geographies of Protest and Occupation: From Manama, Bahrain to Richmond, Virginia,” *Regional GeogBlog*. November 26, 2011. Accessed December 16, 2016. <http://regionalgeography.org/101blog/wp-content/uploads/2011/11/pearlgraffiti3.jpg>

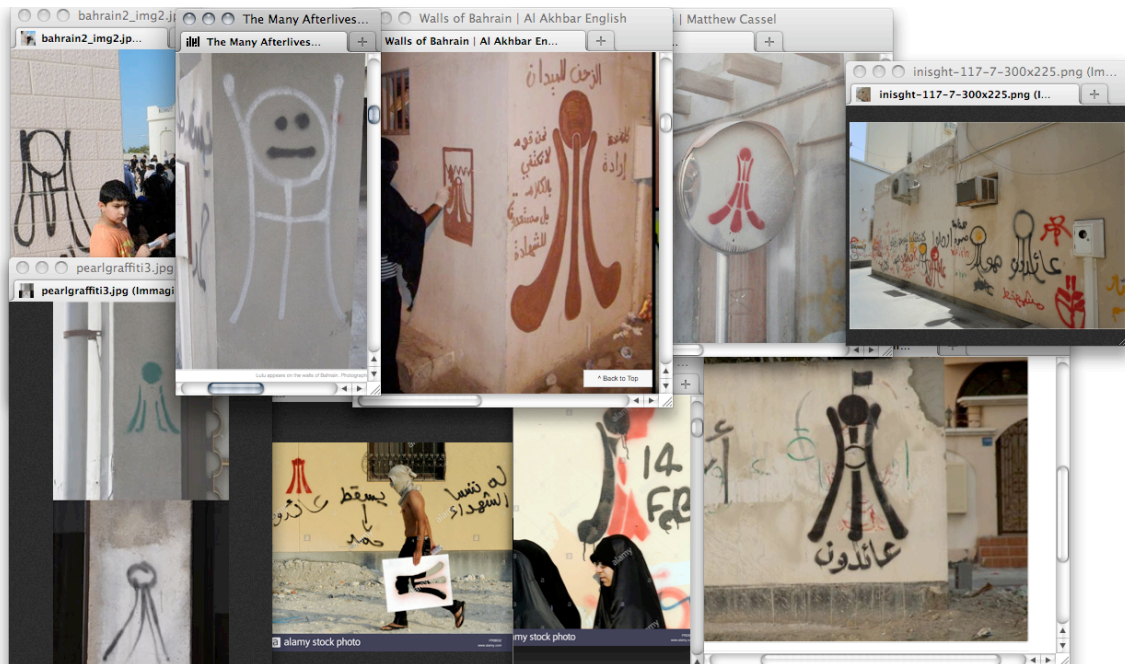


Figure 20 Screenshot configuration by the author: (clockwise from top left to bottom left) photograph of a Bahraini burial in 2013 with Pearl Roundabout spray-graffiti in the background (source: *The Nation*; photo: Sharif Abdel Kouddous); explicitly anthropomorphic Pearl Roundabout spray-graffiti on the side of a wall in Manama (source: ibraaz.org; photo: Amal Khalaf); Pearl Roundabout marker-graffiti on walls in Manama (source: *Al Akhbar*; photo: rebelliouswalls.com); stencil-graffiti of the Pearl Roundabout on a circular street mirror (source: Matthew Cassel); a wall of Pearl Roundabout graffiti ideographs (source: National University of Singapore, Middle East Institute); photograph of large Pearl Roundabout wall graffiti circulated on *Twitter* (source: Mona Kareem and *Twitter*) Stock photograph titled of Pearl Roundabout graffiti in Al-Maksha village, north of Manama (2011) (source: alamy.com; photo:); A masked individual photographed carrying a Pearl Roundabout stencil in Aali village, south of Manama (2011) (source: alamy.com; photo: Mazen Mahdi); examples of Pearl Roundabout graffiti ideographs (source: regionalgography.org; photo: Donald Rallis).

The opposition mementos distributed at Friday protest marches before the destruction¹²¹ could now appear in-hand at demonstrations against the state's condemnation of the Pearl Roundabout (fig. 21). Replications multiplied in improvised street sculpture assemblages produced from objects found along procession routes (fig. 21).¹²² Some stealthy tacticians used these improvised replications in direct action interventions designed to harass security forces: replications were left

¹²¹ Photographed by Ahlam Oun and reprinted in Khalaf, "The Many Afterlives of Lulu," 283.

¹²² Reuters/Caren Firouz, "An anti-government protester holds a model of the monument of the former Pearl Roundabout during a demonstration in Manama February 3, 2012. Thousands of Bahrainis held a demonstration in Manama calling for the fall of the government." *alamy.com*. N.d. Accessed September 13, 2012. <http://www.alamy.com/stock-photo-an-anti-government-protester-holds-a-model-of-the-monument-of-the-112205723.html>.

in streets and plazas around Manama and surrounding suburbs, and the ensuing scene was observed from a distance, recorded for social media (fig. 21).¹²³ At times the posted videos capture state security forces mobilized in teams to dismantle the miniature replications (fig. 21). Thus, the activity of replicating exploded across the digital imagescape of photographs and videos online, not only through re-iterated images of the actual Pearl Roundabout itself in graffiti and 3D-animations posted on video-sharing platforms, but also through the documentation of physical Pearl miniatures and replications (fig 22).¹²⁴ Furthermore, images of Pearl replications enjoyed

¹²³ basboos1001, "Bahrain Pearl is every where." Online video clip. *Youtube*. April 21, 2011. Accessed July 18, 2016. *Youtube*. <https://www.youtube.com/watch?v=1GrAhFWBI18>; "Bahrain:regime mercenaries scared of mini-pearl monument in Iskan AAli 15-8-2011." Online video clip. *Youtube.com*. August 16, 2011. Accessed June 30, 2012. <https://www.youtube.com/watch?v=hnueBnoTlpE>; peacebleif, "Bahrain police is destroying Pearl Roundabout symbol," Online video clip, *Youtube*. April 29, 2011. Accessed June 30, 2012. <https://www.youtube.com/watch?v=I0FQas1ZQxs>; Khalaf, "The Many Afterlives of Lulu," 287.

¹²⁴ EPA/Mazen Mahdi, "Masked pro-reform protesters carry a miniature design of Lulu Roundabout, the former site of pro-reform protests, during a march along Budaiya Highway, north of the Bahraini capital Manama, 09 March 2012. Thousands of opposition supporters marched on the outskirts of the Bahraini capital Manama, demanding democratic reforms, in one of the largest rallies to be witnessed by the Gulf island since last year's pro-reform protests. Bahraini opposition groups, including hardliners, had unified their ranks and called on their supporters to take part in Friday's rally, in a push to reflect the continued wide-spread public support for calls of reform despite more than a year long crack-down," *alamy.com*. N.d. Accessed September 13, 2012. <http://c8.alamy.com/comp/FRJABB/masked-pro-reform-protesters-carry-a-miniature-design-of-lulu-roundabout-FRJABB.jpg>; EPA/Mazen Mahdi, "Bahraini protesters setup a mock Lulu Roundabout, the former site of pro-reform protests, in a roundabout inside Aali Village south of the Bahraini capital Manama, Bahrain 14 October 2011. According to local media sources clashes between pro-reform protesters and anti-riot police were reported across the small Gulf Island on 13 and 14 October 2011 as pro-reform protests that began on 14 February 2011 entered its 9 month anniversary," *alamy.com*. N.d. Accessed December 10, 2011. <http://c8.alamy.com/comp/FT737J/bahraini-protesters-setup-a-mock-lulu-roundabout-the-former-site-of-FT737J.jpg>; EPA/Mazen Mahdi, "Bahraini women flash the 'V Sign' while seating in front a mock Lulu Roundabout monument, the former site of pro-reform protests, in Aali village south of the Bahraini capital Manama, Bahrain, 18 November 2011. According to local sources, thousands od people took part in an opposition rally in Aali village where the key opposition groups reaffirmed that no solution can be reach to end the country's on-going crisis with-out introducing real political reforms which include a new constitution, a fully elected parliament and government among other democratic reforms. A fact finding commission setup by Bahrain king to investigate alleged human-right violations against pro-reform protesters in a crack-down that began in mid-February is expected to present its findings and recommendations on 23 November 2011," *alamy.com*. N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/C9C0FM/epa03008047-bahraini-women-flash-the-v-sign-while-seating-in-front-C9C0FM.jpg>; EPA/Mazen Mahdi, "A young Bahraini girl stands in front a mock Lulu Roundabout monument, the former site of pro-reform protests, in Aali village south of the Bahraini capital Manama, Bahrain, 18 November 2011. According to local sources, thousands od people took part in an opposition rally in Aali village where the key opposition groups reaffirmed that no solution can be reach to end the country's on-going crisis with-out introducing real political reforms which include a new constitution, a fully elected parliament and government among other democratic reforms. A fact finding commission setup by Bahrain king to investigate alleged human-right violations against pro-reform protesters in a crack-down that began in mid-February is expected to present its findings and recommendations on 23 November

2011,” *alamy.com*, N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/C9C0FH/epa03008036-a-young-bahraini-girl-stands-in-front-a-mock-lulu-roundabout-C9C0FH.jpg>; EPA/Mazen Mahdi, “A Bahraini pro-reform protester seen wearing a hat symbolizing Lulu Roundabout, the former site of pro-reform protests, during a rally on the outskirts of the Bahraini capital Manama 25 November 2011. Thousands of pro-reform protesters marched on 25 November 2011 demanding the resignation of the government and demanding democratic reforms that ensure more political and rights freedoms. The march came on the heels of issuing a 500-page report by an independent human-rights commission setup by Bahrain king, sheikh Hamad bin Isa al-khalifa, to investigate violations carried out during a crack-down on pro-reform protesters. The report by the commission accused the security forces of systematic torture of pro-reform protesters and pointed out that there was no evidence of Iranian meddling in the pro-reform protests that broke-out in mid-February,” *alamy.com*, N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/FRBACB/epa03015500-a-bahraini-pro-reform-protester-seen-wearing-a-hat-symbolizing-FRBACB.jpg>; EPA, “A pro-reform protester carries a miniature design of Lulu Roundabout, the former site of pro-reform protests, face incoming march during a rally along Budaiya Highway, north of the Bahraini capital Manama, 09 March 2012. Thousands of opposition supporters marched on the outskirts of the Bahraini capital Manama, demanding democratic reforms, in one of the largest rallies to be witnessed by the Gulf Island since last year’s pro-reform protests. Bahraini opposition groups, including hardliners, had unified their ranks and called on their supporters to take part in Friday’s rally in ...,” *alamy.com*. September 3, 2012. Accessed September 13, 2012. <http://c8.alamy.com/comp/FRJABK/epa03138666-a-pro-reform-protester-carries-a-miniature-design-of-lulu-FRJABK.jpg>; Reuters/Hamad I Mohammed, “An anti-government protester holds a model of the Pearl Monument as she participates in a march held by Bahrain’s main opposition party Al Wefaq in the village of Karzakan, south of Manama, May 11, 2012.” *alamy.com*. N.d. Accessed September 13, 2012. <http://www.alamy.com/stock-photo-an-anti-government-protester-holds-a-model-of-the-pearl-monument-as-113313902.html>; EPA/Mazen Mahdi, “A Bahraini protester raises a model of the Lulu Roundabout, which was demolished by the authorities during the March 2011 crack-down on pro-reform protesters, during an opposition march in Buidiya north of the Bahraini capital Manama, 09 September 2011. Reports state that Tens of thousands of opposition supporters turned out at the 'no waiver' protest as the opposition reaffirmed its position for having a constitutional monarchy will a fully elected parliament and government being adopted as a system of governing the small Gulf island. The march came just a few hours after senior Shiite clergyman, Ayatollah Sheikh Isa Qassim, said during Friday prayer sermon that the crackdown has failed to silence the demands for reforms,” *alamy.com*. N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/FT3E30/epa02906731-a-bahraini-protester-raises-a-model-of-the-lulu-roundabout-FT3E30.jpg>; EPA/STR, “young pro-reform female protester holds a miniature Lulu Roundabout model, the landmark site of last year’s protests, during a rally near the Shakhura village, north of the Bahraini capital Manama, 08 June 2012. Heavy clashes broke-out between police and protesters across several villages and parts of the capital as they answered the call by Feb14 Coalition, an umbrella grouping for movements that spearheaded the 14 February 2011 pro-reform protests. The clashes lead to a yet unconfirmed number of injuries and arrests. Meanwhile, thousands of pro-reform protesters answered a separate call by the leading opposition groupings to march near Shakhura village, north of the Bahraini capital Manama,” *alamy.com*. N.d. August 20, 2012. <http://c8.alamy.com/comp/FPN9HD/a-young-pro-reform-female-protester-holds-a-miniature-lulu-roundabout-FPN9HD.jpg>; Josh Shahryar, “Bahrain Feature: Today’s Revival of Mass Protests,” *EAWorldView*. December 7, 2011. Accessed February 20, 2012. <http://www.enduringamerica.com/home/2011/12/7/bahrain-feature-todays-revival-of-mass-protests.html>; Scott Lucas, “Syria (and Beyond) LiveBlog: What Will Happen With Today’s Protests?” November 18, 2011. Accessed December 7, 2011. <http://www.enduringamerica.com/home/2011/11/18/syria-and-beyond-liveblog-what-will-happen-with-todays-prote.html> (The caption to the image reads: “1345 GMT: We are awaiting the report of an EA correspondent, who was at the "For Democracy" rally organised by Bahrain's five major opposition groups. Meanwhile, demonstrators in Al A'ali have put up a miniature version of the monument of Pearl Roundabout, which was demolished by the regime after security forces overran the protest camp on the roundabout in mid-March.”) Reuters/Roger Bacon, “Bahrain human rights activist Nabeel Rajab talks on his mobile phone as a miniature Bahrain Pearl Square monument is seen behind him, upon arriving home in

not only free circulation on social media and video-sharing platforms, but became economic resources through the image marketplace of stock photography sites (fig. 21).¹²⁵ What resurged in these replications was an attempt to reinvent Gulf identity through the principles supported by the diverse coalition of groups that were involved in (and sympathetic to) the Pearl Roundabout occupation. In this plastic activism, however, there was also something less representational—something more about the object of the monument itself. As the protest-sympathizer on the street had commented to *The Guardian*, this ‘something’ was “momentum.”¹²⁶ The formula of momentum had produced the Pearl Roundabout’s sublime fall, leading to new objects of plastic activism that seemed to take shape from the media era’s process of its collapse.

Budaiya, west of Manama, after being detained for over two weeks, May 28, 2012. Rajab, a prominent Bahraini opposition activist accused of organising illegal protests and insulting authorities in the Gulf Arab state, was freed from jail on Monday after being granted bail, his lawyer said.” *alamy.com*. N.d. Accessed September 10, 2012. <http://www.alamy.com/stock-photo-bahrain-human-rights-activist-nabeel-rajab-talks-on-his-mobile-phone-113346103.html>

¹²⁵ Reuters/Roger Bacon, “Bahrain human rights activist Nabeel Rajab talks on his mobile phone as a miniature Bahrain Pearl Square monument is seen behind him, upon arriving home in Budaiya, west of Manama, after being detained for over two weeks, May 28, 2012.” *op. cit.*; Reuters/Hamad I Mohammed, “An anti-government protester holds a model of the Pearl Monument as she participates in a march held by Bahrain’s main opposition party Al Wefaq in the village of Karzakan, south of Manama, May 11, 2012,” *op. cit.*; Reuters/Caren Firouz, “An anti-government protester holds a model of the monument of the former Pearl Roundabout during a demonstration in Manama February 3, 2012,” *op. cit.*; European Pressphoto Agency (epa) b.v. / Alamy Stock Photo, “A Young Bahraini Shiite Girl Walks by graffiti of the February 14 pro-reform movement and the Lulu roundabout, the former site of pro-reforms protests, Al-Maksha village north of the Bahraini capital Manama, 18 December 2011,” *op. cit.*

¹²⁶ Chulov, “Bahrain Destroys Pearl Roundabout,” *op. cit.*

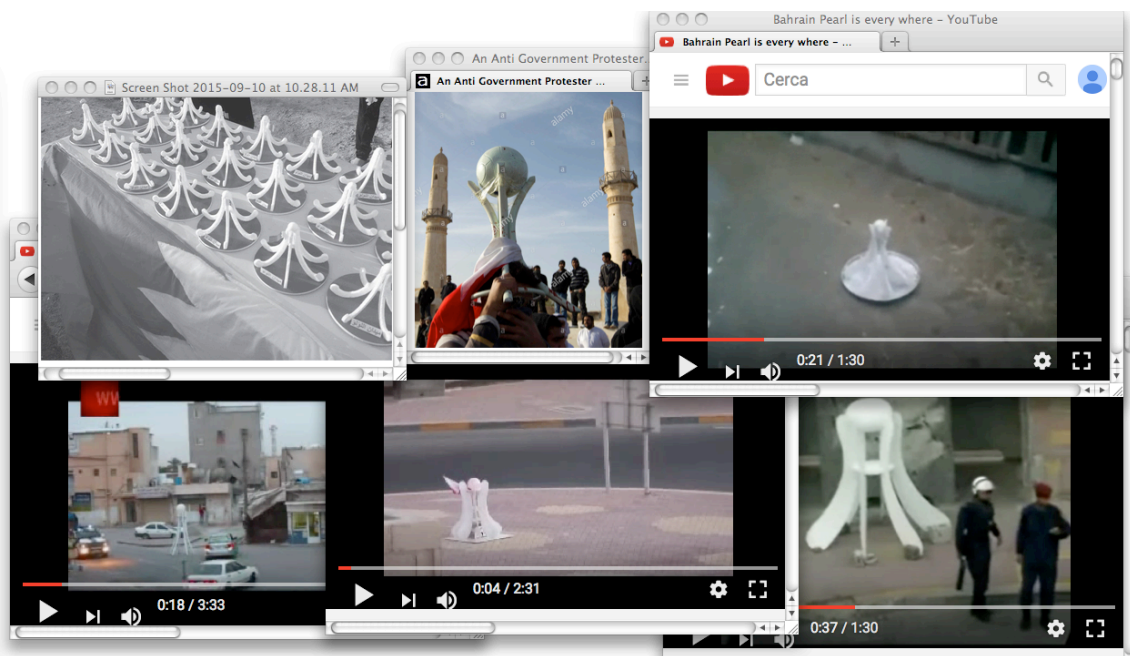


Figure 21 Screenshot configuration by the author: (clockwise, top left to bottom left): Pearl Roundabout miniatures at a protest before the 2011 razing of the roundabout (source: Khalaf, “The Many Afterlives of Lulu;” photo: Ahlam Oun); stock photograph of a Pearl Roundabout assemblage at a demonstration in Manama (2012) (source: alamy.com; photo: Reuters/Caren Firouz); stills from “Bahrain Pearl is every where” (2011), a video montage of Pearl Roundabout replications circulated online via Youtube (source: basboos1001 and Youtube); still from video montage of Bahrain “regime mercenaries scared of mini-pearl monument” documented in Iskan A’Ali (2011) (source: ; قناة البحرين المحترقة and Youtube); still from video documentation of Pearl Roundabout replication dismantling (2011) (source: peacebleif and Youtube).
Image by the author.



Figure 22 Screenshot configuration by the author: (clockwise, top left to bottom left): masked pro-reform protesters with a Pearl Roundabout replication at a rally on Budaiya highway (2012) (source: alamy.com; photo: EPA/Mazen Mahdi); protestors setting up a Pearl Roundabout replication in a roundabout in Aali, south of Manama (2011) (source: alamy.com; photo: EPA/Mazen Mahdi); two women at a protest encampment in front of a Pearl Roundabout replication in Aali (2011) (source: alamy.com; photo: EPA/Mazen Mahdi); a Bahraini child standing in front of the same large Pearl Roundabout replication in Aali (2011) (source: alamy.com; photo: EPA/Mazen Mahdi); a protester wearing a hat with a Pearl Roundabout replication at a protest on the outskirts of Manama (2011) (source: alamy.com; photo: Mazen Mahdi/EPA); a protester holding a model of the Pearl Roundabout as she participates in a march in Karzakan, south of Manama (2012) (source: alamy.com; photo: EPA); a protester holding up a Pearl Roundabout assemblage at a rally in Budiya, north of Manama (2011) (source: alamy.com; photo: EPA/Mazen Mahdi); a large Pearl Roundabout replication, with swords in place of the monument's 'sails,' installed in the suburbs of Manama (source: enduringamerica.com); a Pearl Roundabout model in a photograph of Bahraini human rights activist Nabeel Rajab (source: alamy.com; photo: Reuters/Roger Bacon); (bottom) a young protester with a Pearl Roundabout replication at a rally near Shakhura village, north of Manama (2012) (source: alamy.com; photo: EPA/STR); (background) the standard icon for roundabouts (source: public domain). Image by the author.

Chapter Three / A Monument to Bad Memory beyond Iconoclasm and Vandalism

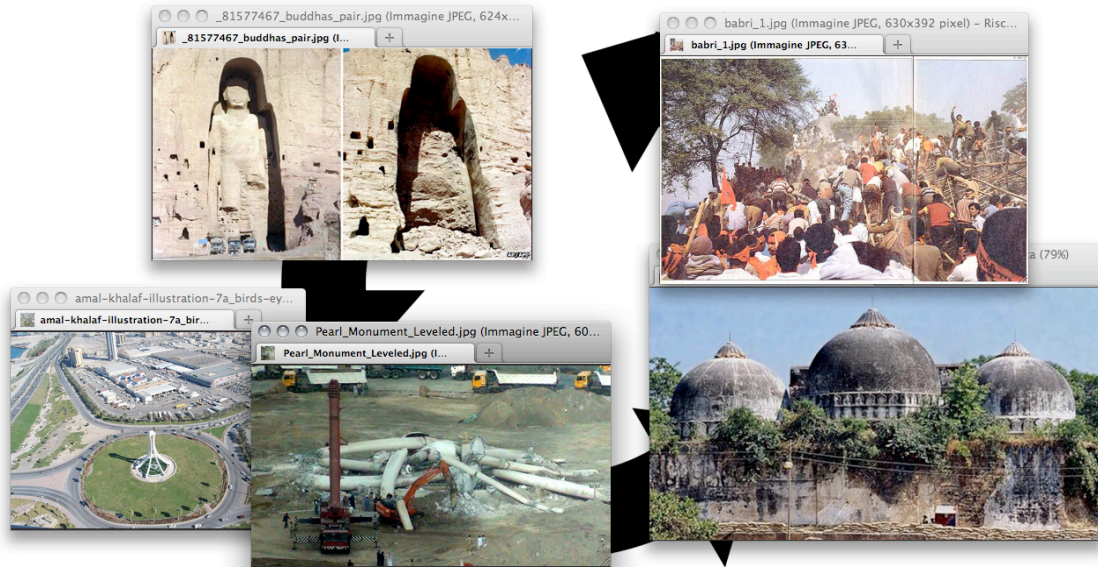


Figure 23 Screenshot configuration by the author: (top left) Bamiyan Buddhas of Afghanistan, before and after they were ordered destroyed in 2001 by Taliban commanders (source: BBC); (top right) the Babri Masjid, or Babri Mosque, of Ayodha in Northern India during its destruction by a violent Hindu rally in 1992 (source: deccanchronicle.com); (bottom right) Babri Masjid before its destruction (sources: soundvision.com); (bottom left) Bahrain’s Pearl Roundabout, before and after its destruction in 2011 (sources: Bahrain Observer and bahrainonline.org); (center, background) the standard icon for roundabouts (source: public domain). Image by the author.

In a brief essay titled “Other Monumental Lessons,” archeological theorist and Middle Eastern studies scholar Ian Straughn asserts that though Islamic visual cultures are generally presumed to follow “aniconic” and “iconoclastic” tendencies, there are valuable lessons to be found in “mov[ing] beyond discussions of iconoclasm” to consider, instead, the active cultivation of “physical disengagement with the material past.”¹ Straughn claims that “the potential” of focusing on this “disengagement” lies in “its ability to forge new lessons out of the complex interplay of remembrance and occlusion, presence and absence, action and avoidance.”² One of

¹ Ian Straughn, “Other Monumental Lessons,” in *Of Rocks and Water: Towards an Archaeology of Place*, ed. Ömür Harmanşah. Joukowsky Institute Publication 5 (Oxford, UK: Oxbow Books, 2014), 93.

² Straughn, “Other Monumental Lessons,” 93.

the key questions Straughn asks about this “interplay” is if “the work of the iconoclast” is, in fact, “necessarily the antithesis to” collective “memory-making abilities.”³

Straughn evokes Bahrain’s Pearl Monument as an example of “destructive acts” that are actually “far more effective in how they draw attention to the object whose absence is to be effective.”⁴ For Straughn, “if such monuments were not so worthy of remembrance, then they would not serve as useful [...] for the display of power by their destruction. Should we forget that they ever existed, it would hardly be worthwhile to have brought about their disappearance” (fig. 23).⁵ The Pearl Roundabout is a powerful object because the image of its destruction has its own value: it serves neither the Al Khalifa regime and the GCC, nor the opposition movement and its coalition groups. The Pearl Roundabout always seems to slip through easy alignment, somehow managing to negotiate its own critical distance from events. It is as if the formula of its particular configuration of shapes combined with its circular roundabout site, empowered the Pearl Roundabout monument in its self-determined autonomy, a momentum that always manage to reanimate the object with its literal objectivity—its status as an object rather than as a symbol. Whether in the design that rhythmically repeated as drivers drove around its six beams; in the spiraling dance of rotation it took in destruction; in the ghostly shapes of traces it left behind after demolished; or in the replications it generated from memory, the subject matter and content of symbolic ‘pearls,’ ‘sails’ and ‘GCC’ commemoration, are always merely a preface to the power of its material properties and the vital dimension of its kinesthetic affect.

To paraphrase, the main point of Straughn’s analysis is that for a “display of power”⁶ to use destruction effectively it must be aware of the nuances of destruction as a creative passion. To better understand Straughn’s argument, it is necessary to outline variations on this passion as it is currently understood in both contemporary scholarship and everyday usage. In the 21st

³ Ibid., 95.

⁴ Ibid.

⁵ Ibid.

⁶ Ibid.

century, destruction as a creative passion is understood through three formulas: creative destruction, destructive production and destructive plasticity. The first—“creative destruction”—is understood in both popular economics and academic political theory as “an innovational process”⁷ that “incessantly revolutionizes a structure from within, incessantly destroying the old one [and] incessantly creating a new one.”⁸ In this destruction and re-creation, the end result is that what is destroyed always remains within its counter-image. This counter-image then always repeats some critical aspect of the old image it replaces. “Destructive production,” as defined in recent art history, is the same process of metamorphosis through interchanging processes of demolition and reconstruction, only in destructive production the innovational process is not perpetual: there is a final outcome that is fixed and conserved.⁹ “Destructive plasticity” theorized in philosophy, is yet another formula for creative destruction through destructive production. In this case, however, there is neither a fixed final outcome nor an interminable cycle of resurrecting boom-and-bust. Instead, there is just an implosive explosion that completely annihilates the initial image or structure.¹⁰ Nothing *takes its place*, rather, creation *takes place* elsewhere. Destructive plasticity is the kind of creation that anarchist Mikhail Bakunin called the “unfathomable and

⁷ John E. Elliot, “Marx and Schumpeter on Capitalism’s Creative Destruction: A Comparative Restatement,” *The Quarterly Journal of Economics*, Vol.95, No.1 (August 1980): 47.

⁸ Joseph Schumpeter as quoted in Elliot, “Marx and Schumpeter on Capitalism’s Creative Destruction,” 47.

⁹ Horst Bredekamp, *La Fabbrica di San Pietro: il principio della distruzione produttiva*. Trans. Elena Broseghini (Torino: Einaudi, 2005), 164. The original German is Horst Bredekamp, *Sankt Peter in Rom und das Prinzip der produktiven Zerstörung*. (Berlin, Germany: Verlag Klaus Wagenbach, 2000). The title of the volume uses the term “productive destruction” (*produktiven Zerstörung*) to characterize the process of construction of Rome’s new Saint Peter’s (1450 – 1939). The conclusion of the essay associates “productive destruction” with the “creative destruction” of Joseph Alois Schumpeter: “In all of its aspects, the construction of the new Saint Peter’s evokes that concept of “creative destruction” in which the economist Joseph Alois Schumpeter recognized a specific artistic principle operating in all the creative contests of life, above all in the economy. The belief of Schumpeter—according to which the object of the historian like the object of he who acts does not fall within the “eternal dead calm” but in the “eternal storm of creative destruction”—finds its most persuasive confirmation in the history of St. Peter’s construction.” My translation.

¹⁰ Catherine Malabou, *Ontology of the Accident: An Essay on Destructive Plasticity*, trans. Carolyn P. T. Shread (Cambridge, UK: Polity, 2012) and Catherine Malabou, *The New Wounded: From Neurosis to Brain Damage*, trans. Steven Miller (New York, NY: Fordham University Press, 2012).

eternal source of life.”¹¹ Its “passion for destruction” is a true “creative passion”¹² not a will to entrepreneurial innovation or capitalist creative destruction. It is neither the establishment of a new niche from within, by way of infiltration and co-optation, nor is it an eternal afterlife of the undead in a structure incessantly destroyed to be incessantly re-created in its former image. Instead, it is a passion that is difficult to fathom precisely because it is a destruction that makes way for the creation of something that has never previously existed and that is not conceived as a substitute.

Straughn’s “other monumental lessons,” beyond iconoclasm, are based on a section from medieval Arab-Berber historiographer and urban sociologist Ibn-Khaldun’s masterwork *al-Muqaddimah (An Introduction to a Universal History, c. 1377)*. The selected section is an iteration on the theme of what, in contemporary discussions of Middle East policy, is referred to as the “Iranian-Saudi Rivalry.”¹³ It “reflects on the role of monuments as an important component of royal authority and the establishment of dynastic rule” in the Middle East and North Africa after the conquest of the Persian state by Arab forces.¹⁴ Straughn paraphrases Ibn-Khaldun’s account as follows:

the early ninth-century Abbasid Caliph Harun al-Rashid attempted to tear down the monumental reception hall of the Sasanian King (*iwan Kisra*). The caliph was himself a prodigious patron of large-scale building projects both within the capital, Baghdad, and elsewhere in the expanding Islamic Empire during a period often labeled as the golden age of early Islam [...]. [...] [T]he caliph sought the advice from a former official, now imprisoned, on whether his intention to destroy this particular structure was a worthwhile endeavor. This jailed courtier, a certain Yahya ibn Khalid [...] counseled that the caliph should refrain from this enterprise because such a monument demonstrated the glory of his ancestors who succeeded in its capture, thereby already appropriating the authority of the

¹¹ Mikhail Bakunin, “The Reaction in Germany: From the Notebooks of a Frenchman (October 1842, signed Jules Elysard)” in *Bakunin on Anarchy*, ed. and trans. Sam Dolgoff (New York, NY: A. A. Knopf, 1972) as transcribed for *marxists.org*. N.d. Accessed December 22, 2016. <https://www.marxists.org/reference/archive/bakunin/works/1842/reaction-germany.htm>

¹² Bakunin, “The Reaction in Germany: From the Notebooks of a Frenchman (October 1842, signed Jules Elysard),” op. cit.

¹³ Simon Mabon, “The Battle for Bahrain: Iranian-Saudi Rivalry.” *Middle East Policy*. 19.2 (Summer 2012): 84 – 97.

¹⁴ Straughn, “Other Monumental Lessons,” 94.

Sasanians who had built it in the first place. Not persuaded by the logic of this argument and mistrustful of its purveyor, [...] [the caliph] Harun al-Rashid, nevertheless, gave orders for the demolition to take place. Despite the many efforts of his engineers, their attempts at leveling the building failed. [...] The caliph returns to [the jailed courtier] Yahya hoping to salvage his disgrace and again seeks his advice about whether to persist in this affair. [The caliph] Al-Rashid is now told that he dare not quit lest he, the Commander [...], demonstrate that he was powerless to obliterate that which the non-Arabs had built. Large portions of this structure still stand [...].¹⁵

In Ibn-Khaldun's account, Straughn finds a case-study model for interaction between urban leaders and monumental objects. The ruler of a city attempts to remove a bad memory by destroying a monument. The destruction fails and the ruler is condemned to repeat the failed attempt at destruction in perpetuity lest he appear weak. According to Straughn, Ibn-Khaldun concluded from this narrative that "it is far easier and far less a demonstration of one's power and authority to destroy something than to have constructed it in the first place. Thus a monument that could have served as a marker for the strength of the Abbasid dynasty had now become a symbol of its weakness."¹⁶ Indeed, Ibn-Khaldun finds the episode "so illuminating for the workings of "royal authority"" that he also discusses it in a second section of the *al-Muqaddimah*.¹⁷ In this "second and longer iteration, [...] Ibn-Kaldun offers several other [similar] examples [...] to make clear this [example of the caliph Al-Rashid's failed demolition] was not a historical anomaly but rather a useful metric of dynastic power for the comparative historian."¹⁸

In the examples established for this "useful metric," Ibn Khaldun appears to focus his attention on the "failings of the ruler;" Straughn instead chooses to look closer at the advice that Ibn-Kaldun recounts the ruler always rejected—that is, the advice that, as Straughn interprets it, "to refrain, to stay one's hand, was the more powerful and authoritative act."¹⁹ For Straughn, the lesson that can be learned from Ibn-Khaldun's centuries-old urban history of "a hands-off

¹⁵ The structure still stands "at the site of Ctesiphon (medieval Taysafun, modern al-Mada'in)." Ibid.

¹⁶ Straughn, "Other Monumental Lessons," 94.

¹⁷ Ibid., 95.

¹⁸ Ibid.

¹⁹ Ibid.

engagement with the material past—one that neither re-replaces nor re-removes, but re-minds”—is not necessarily “to counter the destructive potential of iconoclastic ideologies.”²⁰ It is, instead, to recognize that “hands-off engagement”—engaging by disengaging—is evidence of a tradition to acknowledge the power of “material signs (*ayat*).” As Straughn explains, in Ibn-Khaldun’s parables of destruction “the advice [to the ruler] is to let the monument speak for itself within a particular discursive frame that has already become materially manifested around it.”²¹ From Ibn-Khaldun’s story, a third option is implied among the two options discussed: “hands-off engagement” either retains a monument and makes it serve a new master by renaming or rededicating it, or else it refrains altogether from the physical work of removing bad memory, neither replacing nor actively reminding, but just observing and, in response, building its own monuments. The third option, of course, is the ultimate hands-off approach of engaging through disengaging: a militant withdrawal from making monumental interventions in the built environment—a commitment to tactical plastic activism.

The Withdrawal of Tradition Past a Surpassing Disaster (Let the Monument Speak)

In his 2009 book, *The Withdrawal of Tradition Past a Surpassing Disaster*, Lebanese artist, writer and filmmaker Jalal Toufic, theorizes the notion of an “immaterial withdrawal” provoked by certain types of disasters he calls “surpassing” (fig. 24).²² As Toufic writes, “whether a disaster is a surpassing one [...] cannot be ascertained by the number of casualties, the intensity of psychic traumas and the extent of material damage, but by whether we encounter in

²⁰ Ibid.

²¹ Ibid., 96.

²² Jalal Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster* (Forthcoming Books, 2009). I received this edition from the author in 2009 in the context of the Fondazione Antonio Ratti’s residency program for emerging artists, the *Corso Superiore di Arti Visivi* (Advanced Course in Visual Arts). Another version was published by Redcat in Los Angeles and can be found under the title Walid Raad and Jalal Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster* (Los Angeles, CA: Redcat, 2009).

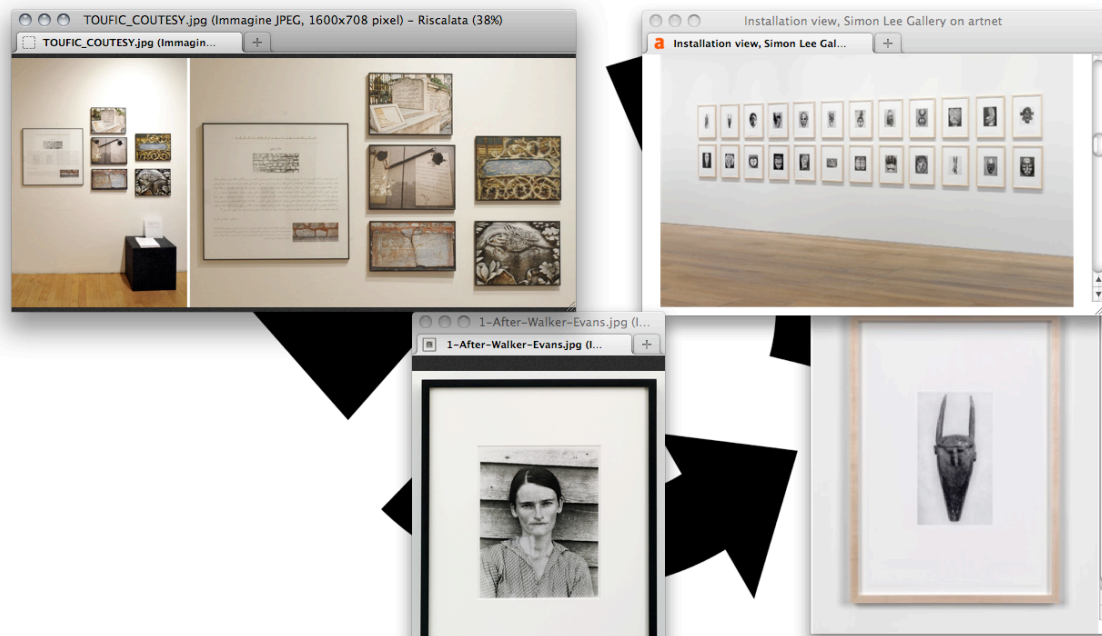


Figure 24 Screenshot configuration by the author: (counter-clockwise, left to right) (top left) Jalal Toufic with Selim Kuru as Ottomoan Translator, *How to Read an Image/Text Past a Surpassing Disaster?* photographs and text, 2010, inspired by Toufic's book *The Withdrawal of Tradition Past a Surpassing Disaster* (2009) (source: blinddatesproject.org; photo: Jalal Toufic); (bottom center) Sherrie Levine *Untitled (After Walker Evans 4)* gelatin silver print, 1981 (source: David Zwirner gallery, Walker Evans Archive and Metropolitan Museum of Art; photo: Sherrie Levine); (right, top and bottom) Sherrie Levine, *African Masks After Walker Evans: 1-24*, gelatin silver print, 2014 (source: artnet and Simon Lee gallery; photo: Sherrie Levine); (center, background) the standard icon for roundabouts (source: public domain).
Image by the author.

its aftermath symptoms of withdrawal of tradition.”²³ Among the examples of “symptoms of withdrawal of tradition” discussed by Toufic are a series of photographs by the American artist Sherrie Levine (b. 1947) (fig. 24). In these photographs, print reproductions of the photographs of 20th-century photographers Walker Evans, Edward Weston, Eliot Porter and others, are photographed by Levine.²⁴ For Toufic, the typical art historical association of Levine's gesture with “appropriation and the questioning of originality and authorship” is irrelevant: “one cannot appropriate if one is resurrecting,” he insists.²⁵ Instead, Toufic defines Levine's photographs of

²³ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 11.

²⁴ *Ibid.*, 27. Among the series Toufic references are Sherrie Levine's *untitled (After Walker Evans)*, 1981; *untitled (After Edward Weston)*, 1980; and *After Eliot Porter*, 1981.

²⁵ *Ibid.*

photographic reproductions as an attempt at “resurrection”: he sees her gesture as an attempt to “make available” something that was “withdrawn past a surpassing disaster.”²⁶ The question that remains is “what surpassing disaster(s) separate(s) Sherrie Levine from these works?” Toufic leaves the answer to his reader. Art historian Howard Singerman has similarly referred to Levine’s copies as “ghosts of ghosts,” as “copies [that] are not quite dead.”²⁷ As Singerman recounts,

what I had expected to see in Levine’s *Untitled (After Walker Evans 4)* was what I thought her title had promised: the photograph’s absence, its historical supersession or its critical irrelevance—the allegorical corpse. I had imagined, that is [...] that I would see a lack at the center of her work. But what Levine’s frames marked out, what they staged even as they canceled it, was not the absence of Walker Evans, but the presence of his image. The image was in excess, more than I expected and was too much to see. At the same time, it was too little, neither Levine’s image nor Evans’s; I could not see it properly or in full. Levine’s frame, and the story I could tell of her framing, became a substitute object, and my turn to it was an attempt to stop the oscillating doubleness of the image. [...] What I had seen was “neither nothing nor simply something,” but instead “a kind of negative perception” [...].²⁸

This sense of “negative perception” is shared by both Toufic and Singerman. However, while Singerman makes sense of this experience through psychoanalysis, quoting “how Samuel Weber rewrites Freud’s story of the male child’s “discovery of the absence of the maternal phallus,”²⁹ Toufic remains focused on the object itself. Whereas Singerman explores “perception,”³⁰ Toufic’s concern appears to be with the object’s own animating “potency,” what he refers to as “tradition.”³¹

As Toufic defines it, “tradition is not merely what materially and ostensibly survived “the test” of time” rather tradition is *made* by the surpassing disaster”³²: “tradition is what conjointly

²⁶ Ibid., 27.

²⁷ Howard Singerman, *Art History After Sherrie Levine*, (Berkeley, CA: University of California Press, 2012), 71.

²⁸ Singerman, *Art History After Sherrie Levine*, 71.

²⁹ Ibid, 73.

³⁰ Ibid.

³¹ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 28.

³² Ibid, 63.

materially survived the surpassing disaster, was immaterially withdrawn by it, and had the fortune of being resurrected by artists, writers and thinkers.”³³ In this scenario of material survival and immaterial withdrawal, “art acts like the mirror in vampire films: it reveals the withdrawal of what we think is still there.”³⁴ The ensuing feedback between revelation and resurrection is “a vicious circle: what has to be recorded has been withdrawn, so that, unless it is resurrected, it is going to be overlooked; but in order to accomplish that prerequisite work of resurrection to avert its overlooking, one has to initially have, however minimally, perceived it, that is, countered its withdrawal, that is, resurrected it.”³⁵ In order for the artist to resurrect the tradition, he or she must partake in the community of the surpassing disaster: in other words, the artist must be sensitive to the fact that the tradition has been withheld and is thus unavailable and distant, for it is only the unaffected that have “proximity” and an “ability to use.”³⁶ As Toufic explains: “that the resurrection takes time is in the case of humans partly because it requires arriving too late.”³⁷

The stories of *A Thousand and One Nights* (c. 700 – 1200),³⁸ the architectural ruins of the “ravaged Sarajevo,”³⁹ and a dance of the Kashaya Pomo people of Sonoma County in California⁴⁰ are among the other examples Toufic offers of immaterial withdrawal in material survival. Toufic writes of *A Thousand and One Nights* being unavailable to him (the son of an Iraqi father and Palestinian mother) because of the devastation of Lebanon, Iraq, Sudan and Arab Palestine.⁴¹ Similarly, those in Sarajevo (the capital city of Bosnia and Herzegovina) who, like Toufic, belonged to a community of surpassing disaster were “likely to treat [...] with obliviousness, [the potential in the fallen structures surrounding them], overlooking it.”

³³ Ibid, 64.

³⁴ Ibid, 57.

³⁵ Ibid, 58.

³⁶ Ibid, 13.

³⁷ Ibid, 89.

³⁸ Ibid, 13.

³⁹ Ibid, 61.

⁴⁰ Ibid, 70.

⁴¹ Ibid, 13.

Meanwhile, “not being part of the surpassing disaster [...], the American architect Lebbeus Woods [could] notice the ruins and recommend [...] their integration into the future reconstructed city.”⁴² Aside from this difference between the ability to “notice” and use a tradition, and the “obliviousness” of “overlooking” a tradition that can eventually lead to its resurrection, it is imperative that the artist also recognize when the resurrection of tradition is not possible or fails: the artist must respect the “obligation” to “suspend transmission, so as not to hand down counterfeit tradition.”⁴³ Toufic tells of “a Kashaya Pomo chief and scholar” who “expressly discontinued the transmission of a tribal dance,” and surmises: “something must have indicated to her that the discontinuation of the transmission of the dance would be less detrimental and problematic than its handing down.”⁴⁴ In this example, he distinguishes between “catastrophe” and “disaster,” asserting that “were it the case that their forebears had undergone only a vast catastrophe, the issue for the contemporary Native Americans would plainly be to do everything possible to transmit the traditional song and dances to their contemporary youths,” but because what was suffered was a “surpassing disaster,” the Pomo had to “be sensitive to the eventuality of withdrawal,” as well as to “the absence or failure of the resurrection of tradition.”⁴⁵

Is the practice of hands-off engagement beyond iconoclasm—of engaging with the built environment by disengaging (what in Toufic’s terms could be seen as a kind of resurrection of withdrawn tradition made materially present in a monument)—a tradition of its own that has been withdrawn? Is the lesson that Straughn is able to perceive in Ibn Khaldun’s *al-Muqaddimah*, imperceptible to those who are part of “a community [...] defined by its sensibility to the immaterial withdrawal”⁴⁶ of a tradition to “let the monument speak for itself”⁴⁷? If so, perhaps the “aniconic” and “iconoclastic” tendencies that Islamic visual cultures are generally presumed

⁴² Ibid, 61.

⁴³ Ibid, 70-71.

⁴⁴ Ibid.

⁴⁵ Ibid, 71.

⁴⁶ Ibid, 11.

⁴⁷ Straughn, “Other Monumental Lessons,” 96.

to follow⁴⁸ are examples of what Toufic calls “counterfeit tradition,” a tradition “characterized by reduction to the exoteric and lack of subtlety,” a “derisory” invocation of “tradition as the domain of the genuine,” a “return to tradition without noticing that it has been withdrawn.”⁴⁹

The resurrection of a withdrawn tradition of plastic activist commitment to engaging-by-disengaging (militant refusal to impact the built environment and surrounding ecology with monumental mega-projects) will be revisited in future sections about the work of the Gulf Labor Artist Coalition (2010 and ongoing).⁵⁰ In the meantime, it is necessary to reiterate that the so-called “other monumental lessons” explored in the previous section were not described with the intent of applying Ibn-Khaldun’s history to an assessment of the relative success or failure of the Al Khalifas’ decision to destroy the Pearl Roundabout. Instead, what these “lessons” provide is an opportunity to look more closely at the complexity of forces that animate the object of the Pearl Roundabout itself. What does it mean to, as Straughn writes, “let the monument speak for itself” within the “frame that has already become materially manifested around it”⁵¹? As art historian and classicist Jaś Elsner writes, “monuments have many kinds of memory”:

We normally understand memory as belonging to the realm of mentality – subject to the affect and nostalgia of patrons, spectators, and consumers, not to speak of artists and builders. Yet much anthropological work has served recently to undermine the overpositive distinction between the objective and the subjective in the relations of art and memory. [...] [I]s there memory [...] that inheres in the materiality of a monument?⁵²

⁴⁸ Ibid., 93.

⁴⁹ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 29

⁵⁰ “For five years [since 2010], the Gulf Labor Coalition, a cosmopolitan group of artists and writers, has been pressuring Saadiyat’s Western cultural brands to ensure worker protections. Gulf Labor has coordinated a boycott of the Guggenheim Abu Dhabi and pioneered other tactics (including direct action that involved several spectacular museum occupations). As part of a year-long initiative, an international array of artists, writers and activists submitted a work, a text, or an action on a weekly basis.” *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), back cover. The “Gulf Labor Coalition” is also known as the “Gulf Labor Artist Coalition.” See “Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?” *Gulf Labor*. N.d. Accessed December 20, 2016. <http://gulflabor.org/>

⁵¹ Straughn, “Other Monumental Lessons,” 96.

⁵² Jaś Elsner, “Iconoclasm and the Preservation of Memory,” *Monuments and Memory, Made and Unmade*, ed. Robert S. Nelson and Margaret Olin (Chicago: University of Chicago Press, 2003), 209.

According to Elsner, whereas “historians [tend to] emphasize social memory” and “anthropologists place memory in the making and uses of objects within given cultural systems, [...] neither give close attention to the *forms* of objects, which is the traditional domain of art history.”⁵³ Thus, in this series of passages, Elsner challenges the notion of “memory [...] belonging to the realm of mentality” and asks “is there [...] nothing specific” to the “formal nature” of “monuments” as “material objects” that “may allow [them] to function in a manner special to their material nature”?⁵⁴ There must be some way of exploring what it is specifically in the “material nature” of objects that makes them such efficient “spurs to memory in given cultural contexts.”⁵⁵

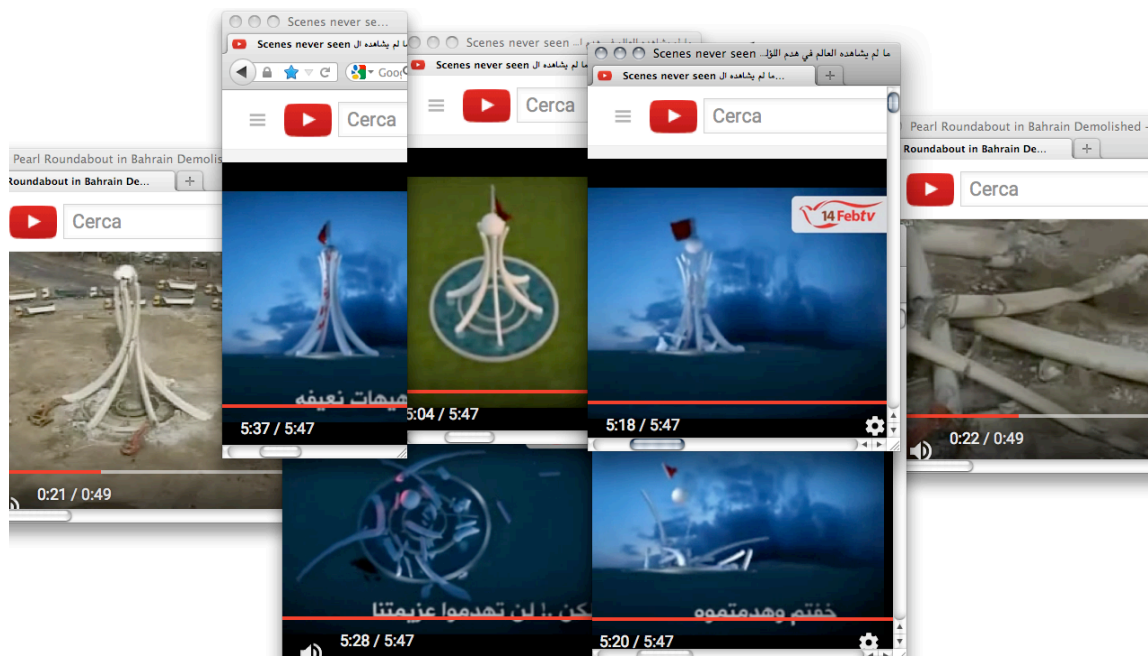


Figure 25 Screenshot configuration by the author: (far left and far right) stills from Bahrain News Agency footage of the Pearl Roundabout destruction (source: Bahrain News Agency; 24x7 News and Youtube.com); (center cluster, clockwise from top center to top left) ‘re-animating’ 3D-animation of the Pearl Roundabout created by operators of 14FebTV: (top center) 3D simulation of the Pearl Roundabout before its destruction; (top right and bottom right) moments during its collapse; (bottom left) the aftermath of its demolition; (top left) its bloodied, reanimated resurrection (source: 14FebTV and Youtube.com).
Image by the author.

⁵³ My emphasis. Elsner, “Iconoclasm and the Preservation of Memory,” 209.

⁵⁴ Ibid.

⁵⁵ Ibid., 210

If, as Elsner asserts, giving close attention to the “forms of objects” is the “traditional domain of art history,” art history’s own marginal but central figure, Aby Warburg (the theorist of pathos-formula) shows that giving close attention to formula in art history still occupies the border zones of the discipline’s “traditional domain.”⁵⁶ What is the difference between studying an object as a “material form” and studying it as a material ‘formula’? New Italian Aesthetics,⁵⁷ along with an important series of international exhibitions on animism,⁵⁸ and recent art histories regarding agency in the “image-act” (*BildAkt*),⁵⁹ animation in iconology,⁶⁰ and “animation of the inorganic,”⁶¹ are indications that a focus inspired by formula rather than form, concerns itself less with meaning than with affect – the capacity of the object to “act on” or “move.”⁶² In the specific case of the Pearl Roundabout destruction, the name that an opposition-sympathizer gave the international media to describe this capacity was “momentum.”⁶³

Elsner’s focus on the object as “material form” persists with identifying “the act of deformation and the presentation of deliberately altered works [...] [as] specifically *formal* gestures within a material semiotics”⁶⁴; however, this reference to semiotics—the study of signs, sign-making and sign-using behavior within communicative exchanges—still implies that the principle focus of such a study would be to understand objects through their interrelations with

⁵⁶ Ibid., 209.

⁵⁷ Pinotti, “Symbolic form and symbolic formula,” 119-135.

⁵⁸ *Animism*, ed. Anselm Franke. Published on the occasion of the exhibition *Animism* at Extra City - Kunsthal Antwerpen, Antwerp, Netherlands, January 22 to May 2, 2010 and Kunsthalle Bern, Bern, Switzerland, May 15 to July 18, 2010. (Berlin: Sternberg Press, 2010). The colophon of the publication indicates that a second volume of the publication would be released for subsequent exhibitions at the General Foundation, Vienna, September 16, 2011 to July 29, 2012 and the Haus der Kulturen der Welt, Berlin, March 16, 2012 to May 6, 2012, however, it does not appear that this volume was ever released.

⁵⁹ Horst Bredekamp, *Der Bildakt* (Berlin, Germany: Verlag Klaus Wagenbach, 2015).

⁶⁰ Hans Belting, “Image, Medium, Body: A New Approach to Iconology,” *Critical Inquiry* 31, no. 2 (2005): 302 – 319. See also Hans Belting, *An Anthropology of Images: Picture, Medium, Body*. (Princeton, NJ: Princeton University Press, 2011).

⁶¹ Spyros Papapetros, *On the Animation of the Inorganic: Art, Architecture, and the Extension of Life*. (Chicago, IL: University of Chicago Press, 2012).

⁶² “affect, v.2”. OED Online. Oxford University Press. December 2016. Accessed December 28, 2016. <http://www.oed.com/view/Entry/3324?rskey=WE0gRm&result=4&isAdvanced=false>

⁶³ Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

⁶⁴ My emphasis. Elsner, “Iconoclasm and the Preservation of Memory,” 210.

people. Nevertheless, Elsner admits that interrelation among objects themselves has been neglected in art history: “there has been lamentably little theoretical interest in how particular classes of objects – miniatures, for example, or models—function and create meaning by virtue of their specific material differences from and yet resemblances to other classes of objects (especially those they appear to replicate).”⁶⁵ It is in this neglected area that a focus on formula as the force of animation in form—or *anima*, “the animating principle in living *things*”⁶⁶— can give more dimension to object-oriented ontologies.

For example, an object-oriented inquiry focused on exchange among objects might inquire into the network of relations between material form, infrastructural site, demolition cranes, and gravitational force that expressed the Pearl Roundabout’s particular formula of collapse. In the Pearl Roundabout’s demolition, the rotational movement of collapse of the roundabout monument’s sphere and its supporting beams repeated the turning motion of the traffic roundabout around it. This potential for the redoubling of rotation between the sculpture and its roundabout was always vital to the power of the monument: the collapse of the Pearl Roundabout in its destruction made the formula even more evident. It was a direct result of the material form and design of the monument—a critical accident of its design.

The desire to see the image of collapse erased in official video of the Pearl Roundabout destruction was invested with an impetus that even motivated the creation of an animated sequence, included in the 14FebTV video “Scenes never Seen.”⁶⁷ At the end of its juxtaposition of footage from the press conference on the “removal of bad memory” with footage of the Pakistani migrant worker Riaz Ahmed’s crane crushed by a fallen fragment, the 14FebTV video concludes with an animated sequence that reconstructs the Pearl Roundabout in a 3D modelling

⁶⁵ Ibid.

⁶⁶ My emphasis, because in this context, “living thing” is being taken literally as an object that has a life and an afterlife. “anima, n.”. OED Online. Oxford University Press. December 2016. Accessed December 28, 2016. <http://www.oed.com/view/Entry/7734?redirectedFrom=anima>

⁶⁷ 14FebTV, “Scenes never seen .op. cit” ما لم يشاهده العالم في دم اللؤلؤة”

software and animates it to collapse and resurrect (fig. 25). Though the physics applied to the fall and re-ascension generate an explosive annihilation rather than a rotating collapse, the redoubling movement of the fall is repeated in the circular return of the monument to its standing position. When the monument's fragments recompose to reconstitute the sculpture, its white beams are splattered red. In the momentum of the collapse, the body of the monument and the human body become one.

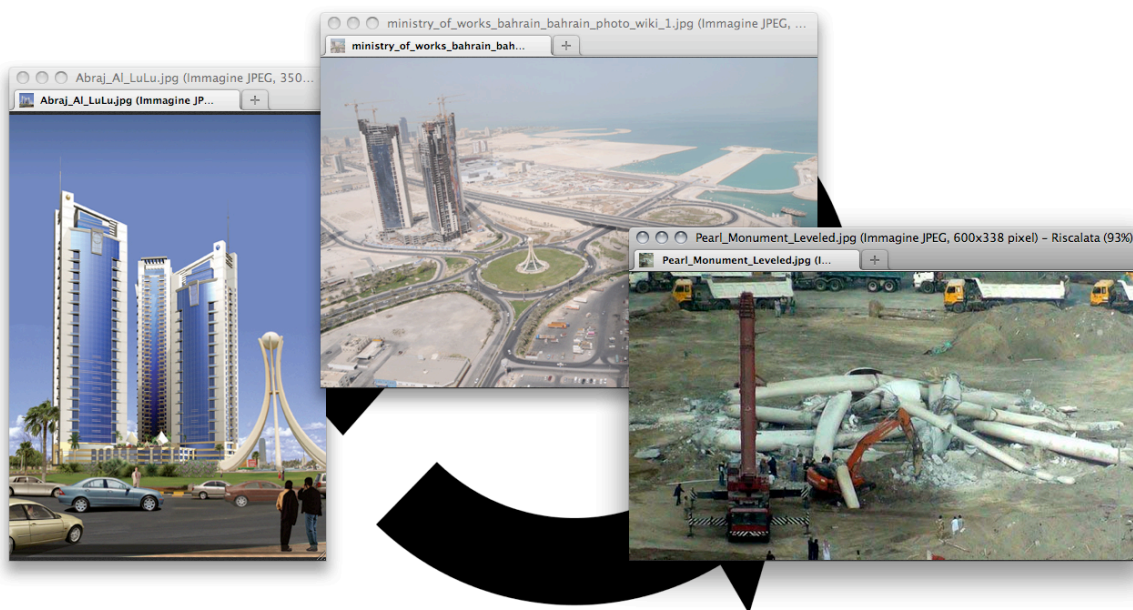


Figure 26 Screenshot configuration by the author: (left to right) simulation of Abraj al-Lulu (Pearl Towers) overlooking the iconic Pearl Roundabout (source: Ian Banham & Associates); the planned project under construction (source: Ministry of Works, Bahrain); the destroyed Pearl Roundabout in the shadow of the Pearl Towers (source: public domain). Image by the author.

In addition to supporting this important attention to momentum in kinesthetics between objects and bodies, a focus on formula also puts a related twist on art history's concerns about reception and viewership. Elsner insists that new inquiries in iconoclasm must be made into "how various viewers grasp" the "specific histories [...] effaced," and the particular "politics of

replacement” that take form in their space.⁶⁸ A focus on formula rather than form spins this question a turn further to consider how these same “viewers” – the principle agents in Elsner’s account – become vectors for inter-object exchange in gestures of effacement and replacement. For example, the principle way that ‘viewers’ were made to ‘grasp’ the ‘specific history’ of the ‘effaced’ Pearl Roundabout, and the ‘politics of replacement’ that transformed its space into Farooq Junction (in Arabic, a reference to the ruler who determines what is “right and wrong”),⁶⁹ was through another object: the Pearl Towers (*Abraj Al Lulu*) (fig. 26). The camera that recorded video documentation of the Pearl Roundabout demolition appears to have made its recording through the ‘eyes’ of an object-actor—the gleaming windows, of a new Pearl—the Pearl Towers. This new ‘Pearl’ of the Financial Harbor was a \$252 million complex of three high-rise towers built in 2009. The Pearl Development and Real Estate Company’s Pearl Towers were “expected to be Bahrain’s largest private-sector, freehold residential development,”⁷⁰ a symbol of “emerging Bahrain.”⁷¹ When the country of Bahrain re-branded itself in the early 2000s, it replaced its moniker “Pearl of the Gulf” with passport stamps that read “Business Friendly Bahrain.”⁷² Though there is no image in the stamp, Bahrain’s skyline is used in other contexts that evoke the “business friendly” mission.⁷³ Seen through the ‘eyes’ of the high rises, the roundabout destruction is no longer a failed act of official erasure intended for human communication, but a warning to new Pearl constructions that they are no more indestructible than their old counterparts. When the Pearl Roundabout fell, the Pearl Towers felt the impact. This pseudo-animist message of warning communicated among objects is intuited using the viewer-as-vector—it is only through television and internet dissemination of the camera’s mediation that the ‘gaze’ of the Pearl Towers and the demise of the Pearl Roundabout enter into direct interchange.

⁶⁸ Elsner, “Iconoclasm and the Preservation of Memory,” 210.

⁶⁹ Azmayesh, *New Researches on the Quran*, 271.

⁷⁰ *The Report: Emerging Bahrain, 2007*. (London, UK: Oxford Business Group, 2007), 190.

⁷¹ *Ibid.*

⁷² Khalaf, “The Many Afterlives of Lulu,” 275-278.

⁷³ *Ibid.*, 280.

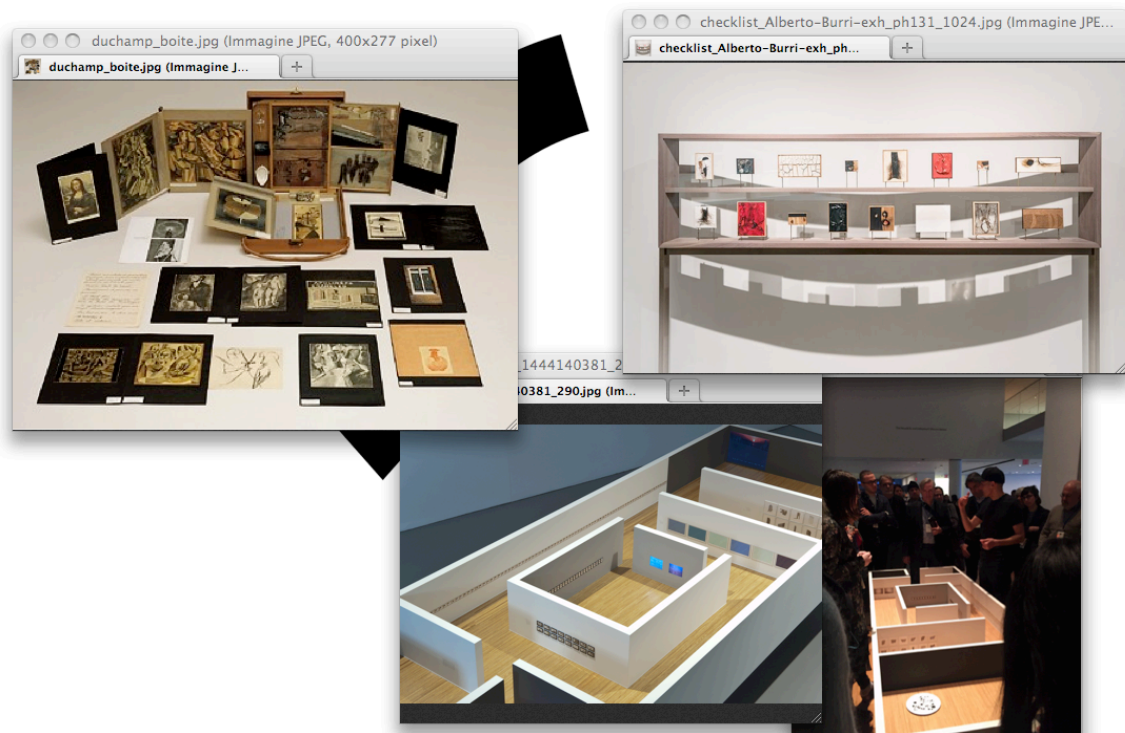


Figure 27 Screenshot configuration by the author: Marcel Duchamp, *Boîte-en-valise* (de ou par Marcel Duchamp ou *Rose Selavy*, 1935-1941, leather valise containing 69 items including miniature replicas, photographs and color reproductions of works by Duchamp and one “original” (the *Large Glass*, a collotype on celluloid), overall 16 x 15 x 4 in. (source: Museum of Modern Art, New York; Succession Marcel Duchamp ARS New York/ADAGP Paris; photo: John Wronn); Alberto Burri, *James Johnson Sweeney’s “Little Burri” Gallery*, c. 1953, plastics, combustion, oil paint, wood, and metal, overall dimensions vary (source: Guggenheim Museum, New York); Walid Raad, *Section 139: The Atlas Group*, 1989 – 2004, 2008, plexiglass, high-density foam, LCD panels, four iPads, pigmented inkjet prints, plastics, steel, MDF, electrical supply, audio, overall 12 ½ in x 9ft x 41in (source: Walid Raad and Paula Cooper Gallery; Photo: Rodney Todd-White and son/Anthony Reynolds Gallery); Raad’s *Section 139* in performance at MoMA (photo: Karen Fiedorek). Image by the author.

As previously mentioned, among Elsner’s informative insights about the study of iconoclasm is his lament that “there has been [...] little theoretical interest in how particular classes of objects – miniatures, for example, or models—function and create meaning by virtue of their specific material differences from and yet resemblances to other classes of objects (especially those they appear to replicate).”⁷⁴ The plastic scaling of art works in miniatures and models has often been a topic of interest for artists. The most famous example is Marcel Duchamp’s *Boîte-en-valise* (1935-1941), an entire portfolio of miniatures made from sixty-nine

⁷⁴ Elsner, “Iconoclasm and the Preservation of Memory,” 210.

of the artist's own works (fig. 27).⁷⁵ In the mid-1950s, Italian artist Alberto Burri made miniatures of various experiments with plastic painting (paintings many made by literally experimenting with burning plastics) to give as gifts (fig. 27).⁷⁶ The model *Section 139: The Atlas Group* (1989 – 2004) has been the centerpiece of several performances by Lebanese-American artist Walid Raad, who regularly collaborates with Jalal Toufic (fig. 27).⁷⁷ In his performances, Raad recounts a story about the effect of war trauma on objects: in a shipment between New York and Beirut that was prepared for his first retrospective in Lebanon, he tells the tale of how his works shrunk into miniatures.

Bahraini artist and curator Amal Khalaf has written about what she calls “Lulu-clones”—miniature models of the Pearl Roundabout—and their “afterlife” in “practice[s] of commemoration and reproduction.”⁷⁸ The “clones” emerged “at various events and happenings, from sit-ins [and] protests [to] even religious festivals.”⁷⁹ Khalaf recounts how “when a State of Emergency was declared in Bahrain and rallies and protests were banned, activists [left] a reproduction of the monument on a street” that “riot police” came around to “prod [...] gingerly”

⁷⁵ Marcel Duchamp, *Boîte-en-valise (de ou par Marcel Duchamp ou Rose Selavy)*, 1935 – 1941. Leather valise containing miniature replicas, photographs, and color reproductions of works by Duchamp, and one “original” (Large Glass, collotype on celluloid), (69 items) overall 16x15 x 4 inches. IX/XX from Deluxe Edition. The Museum of Modern Art, New York. James Thrall Soby Fund.

⁷⁶ Alberto Burri, *James Johnson Sweeney's “Little Burri” Gallery* (c. 1953), Solomon R. Guggenheim Museum, New York. Exhibited at *Alberto Burri: The Trauma of Painting*. Solomon R. Guggenheim Museum, New York. October 9, 2015 – January 6, 2016.

⁷⁷ The miniature model is Walid Raad's *Part I_Chapter 1_The Atlas Group (1989–2004)*, 2009. Gallery walls and understructure: acrylic sheet with latex paint; Floor: red oak veneer with polyurethane; Photos: resin, latex paint, polycarbonate and archival inkjet prints; Video installation: 4 lcd screens. 12 1/2 x 110 3/8 x 41 in. Paula Cooper Gallery. The miniature model was used in performances for both Walid Raad, “Walkthrough,” *Scratching on things I could disavow: A History of Art in the Arab World, Part I, Volume I, Chapter 1: Beirut*. Fondazione Antonio Ratti. July 3 – August 20, 2009 and Walid Raad, “Walkthrough,” *Scratching on things I could disavow*. Museum of Modern Art, New York. Donald B. and Catherine C. Marron Atrium. October 12, 2015 – January 31, 2016.

⁷⁸ Khalaf, “The Many Afterlives of Lulu,” 286-288.

⁷⁹ Ibid. See abo22yousif, “1/6 karzkan sabaah [Karzahan Morning],” Online video clip. *Youtube*, May 31, 2011. Accessed January 20, 2017. <https://www.youtube.com/watch?v=6YB17ps9J9g&list=PL-TOgz3bT-TwV7tg-KYDDJFYFR1DkDmler>



Figure 28 Screenshot configuration by the author: (left) video of security forces dismantling a large Pearl Roundabout replication left in a roundabout in Aali village near Manama (source: AaliNews and Youtube.com); (right) Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube) (source: abo22yousif and Youtube.com); (bottom) another video of a Pearl Roundabout replication left in a roundabout being dismantled by security forces (source: Aalinw and Youtube.com). Image by the author.

(fig. 28).⁸⁰ Meanwhile, “in another action in June 2011, several policemen re-enacted the demolition of the monument in an unwitting public performance at the A’ali village roundabout as they [tried] to remove it” (fig. 28).⁸¹ According to Khalaf, “aside from becoming [...] an act of defiance, these commemorations share a common function: they aim to reactivate something that

⁸⁰ Ibid., 287. AaliNews Bahrain, “The arrival of the mercenary regime: mercenaries remove pearl.” Online video clip, *Youtube*. November 21, 2011. Accessed January 20, 2017. <https://www.youtube.com/watch?v=FFdr04GD2BI>

⁸¹ Ibid. See Aalinw, “1-6-2011 qawat almaratazaqa taqawwa bitakseer madjsam dawaar allu’lu’a alec [Mercenary Forces Break Down the Recreated Pearl Roundabout],” Online video clip. *Youtube*. June 1, 2011. Accessed January 20, 2017. https://www.youtube.com/watch?v=Fjsf6HuH91Q&list=PLTOgz3bT-TwV7tg-KYDDJFYFR1DkDmier&index=45&feature=plpp_video

was once alive.”⁸² Khalaf’s “Lulu-clones”⁸³ are attempts at re-animation, what Toufic calls “resurrection.”⁸⁴ What they attempt to resurrect is not the “tradition” that was materially destroyed in 2011 with the destruction of the Pearl Roundabout, but something else, something that remained as a result of the destruction, and was instead the object of an immaterial withdrawal.

Khalaf writes about the Pearl Roundabout destruction as an example of what she calls the “splintered image.”⁸⁵ In her essay (an important piece of writing on the Pearl Roundabout’s destruction that has itself been reproduced a number of times in various online magazines and print publications), Khalaf, a self-described “half-Singaporean, half-Bahraini,”⁸⁶ raised in Manama and based in London, theorizes the “splintered image” through her own splintered subjectivity. Khalaf is an expatriate intellectual with childhood memories of the monument; in her essay, she combines these memories with insider insight into the activities of leftist opposition groups, including her own work as part of a collective of “Gulf Arab” artists irreverently named “GCC” to ironize on the Gulf Cooperation Council.⁸⁷

⁸² Ibid.

⁸³ Ibid.

⁸⁴ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 14, 17, 23, 27, 56 and 58.

⁸⁵ Khalaf, “The Many Afterlives of Lulu,” 285.

⁸⁶ Rahel Aima, “Amal Khalaf,” *Brownbook: An Urban Guide to the Middle East*. Issue 48. November/December 2014. <http://brownbook.tv/amal-khalaf/>

⁸⁷ Aima, “Amal Khalaf,” op. cit.



Figurr 29 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of the annual Ashura march in the village of Karzakan (source: abo22yousif and Youtube); Ashura marches are islamic religious processions that are often also occasions for political statements. For example, at a London Ashura remembrance in 2016, marchers carried placards protesting the Islamic State (ISIS) and fundamentalist terrorism.⁸⁸ At the Karzakan remembrance, marchers commemorated the destroyed Pearl Roundabout. Both Shia and Sunni Muslims celebrate Ashura: on Ashura, Shia commemorate the death of Husayn ibn Ali (the grandson of Muhammed) and the Battle of Karbala; Sunni commemorate the parting of the Red Sea by Moses and the saving of the Israelites.⁸⁹ Image by the author.

In her essay, Khalaf works with a reference to Michel Foucault’s “Nietzsche, Genealogy, History” (1971)⁹⁰ to theorize the “splintered image” as an exploding image of “counter-memory” activated in response to “*damnatio memoriae*, literally [the] ‘condemnation of memory.’”⁹¹ As Khalaf writes, when “the speechless [...] monument [of the Pearl Roundabout] which had [...] once symbolized state-sanctioned progress” became “an *enemy of the state*” its “punishment was erasure;” however, this erasure proved to produce none other than the splintering metamorphosis of the monument into “[...] an ‘undead’—an immortal activist, a martyr or an enemy of the state

⁸⁸ Chris York, “London Ashura Remembrance Sees Muslims Protest Against Terrorism and ISIS,” *Huffington Post*, October 12, 2016. Accessed January 20, 2017. http://www.huffingtonpost.co.uk/entry/london-ashura-islam_uk_57fe7ccce4b0e982146bbae9

⁸⁹ York, “London Ashura Remembrance Sees Muslims Protest Against Terrorism and ISIS,” op. cit.

⁹⁰ Michel Foucault, “Nietzsche, Genealogy, History (1971)” in *Language, Counter Memory, Practice: Selected Essays and Interviews*. (Ithaca, NY: Cornell University Press, 1977), 139 – 164.

⁹¹ Khalaf, “The Many Afterlives of Lulu,” 281-282.

[...] impossible to destroy.”⁹² Following Toufic’s definition of the “surpassing disaster,”⁹³ it might be said that Khalaf (as part of the community sensitive to the withdrawal of tradition) is affected by the impact of immaterial withdrawal: the unavailable tradition of “let[ting] the monument speak for itself.”⁹⁴ Like the caliph Harun al-Rashid who gave orders for demolition of the Sassanid monument, the Al-Khalifas who ordered the destruction of the Pearl Roundabout found themselves in conflict with a structure that refused to be leveled. With the power of the object unavailable to them (a withdrawn tradition to which they were sensitive, but whose logic they did not respect) they were compelled to persist in attempting to destroy the monument to deny their powerlessness before it. As Khalaf describes it, the “pearl-clones”⁹⁵ that were generated from the splintering counter-image of the Pearl Roundabout responded by “wreak[ing] social and political havoc [...] caught in a circuit of meaning exchanges” on the Internet and in the streets.⁹⁶

⁹² Ibid., 282.

⁹³ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 11.

⁹⁴ Straughn, “Other Monumental Lessons,” 96.

⁹⁵ Khalaf, “The Many Afterlives of Lulu,” 284.

⁹⁶ Straughn, “Other Monumental Lessons,” 284.



Figure 30 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.

Making powerful use of the pronoun “we,” Khalaf concludes her essay by including herself in the community of Manama’s disaster:

Lulu [took] on a mythical status [a]nd as *we* circle the roundabout like lost satellites, *we* bear witness to the multiple manifestations of this politically charged monument both as a physical, exploding object, and as an explosion of digital files. [...] Lulu has persisted in its presence as a symbol through the violence recalled in its image, from the martyrdom of protestors who died in the square and in the years that followed, to the violence upon the collective memories of Bahrain and the denials of its representation embedded in the roundabout’s image. In this, Bahrain has a new monument with which to view its past and present violence: a monument that reclaims space for multiple histories and narratives to come together, from a censored homogenous state narrative to a symbol for an active politicized and heterogeneous society. [...] it seems the roundabout – this digital monument—has become a vanishing point of reality. The image itself has become violent.⁹⁷

⁹⁷ My emphasis. Ibid., 289.

Another meaning of the “plastic” in English—as well as in French (*plastique*) and Italian (*plastico*)—is “explosive.”⁹⁸ What Khalaf calls the “Lulu-clones”⁹⁹ are the perfect objects of plastic activism—an explosion of digital files and physical reproductions of an exploding object¹⁰⁰—by way of which to explore this violence of images as it relates to both Toufic’s “surpassing disaster,”¹⁰¹ and to what Foucault calls the “petty malice” of the “vicissitudes of history [...], the details and accidents.”¹⁰² Though Khalaf does not expound extensively on her reference to Foucault, she makes it clear that his 1971 essay informs her thinking about violence and the image. The English translation of the “*l’analyse de la provenance*” (Nietzsche’s original German was *Herkunft*)¹⁰³ is the “analysis of descent”: Foucault used the phrase “analysis of descent” to contrast the objective of his “effective history” (his Nietzschean “genealogy”) with the “search for ‘origins’”¹⁰⁴ in traditional history. Punning on the English translation produces significant insights in the case of the Pearl Roundabout: the “analysis of descent” takes on a double meaning that Foucault’s writings indicate he would have appreciated.¹⁰⁵ Foucault’s *provenance* (in English, “provenance”) refers specifically to genealogical descent and “the fact of coming from some particular source.”¹⁰⁶ Though the term *provenance* cannot be used as a synonym for fall or collapse the way “descent” in English can, Foucault nonetheless often uses

⁹⁸ “plastic, n. and adj.” *OED Online*. Oxford University Press. December 2016. Accessed December 28, 2016. <http://www.oed.com/view/Entry/145291?rskey=9MoE5p&result=1&isAdvanced=false> “plastique,” *Larousse*. Éditions Larousse. op. cit.; “plastico,” *Garzanti*. De Agostini Scuola Spa. op. cit.

⁹⁹ Khalaf, “The Many Afterlives of Lulu,” 287.

¹⁰⁰ *Ibid.*

¹⁰¹ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 14, 17, 23, 27, 56 and 58.

¹⁰² Foucault, “Nietzsche, Genealogy, History (1971),” 144.

¹⁰³ Michel Foucault, «Nietzsche, la généalogie, l’histoire», *Hommage à Jean Hyppolite*. coll. Épiméthée (Paris, France: P.U.F., 1971), 145-172, as reprinted in *Dits Ecrits*, Vol. 2, Text no. 84, reprinted for *Nouveau millénaire, Défis libertaires*. Published 2001/2014. Accessed December 26, 2016. <http://libertaire.free.fr/MFoucault217.html>

¹⁰⁴ *Ibid.*, 140.

¹⁰⁵ Foucault was fond of the homonymic word play of artist Raymond Roussel. See Michel Foucault, *Death and the Labyrinth: The World of Raymond Roussel*, trans. Charles Ruas (London, UK: Continuum, 2004).

¹⁰⁶ “provenance, n.” *OED Online*. Oxford University Press, December 2016. 28 December 2016. <http://www.oed.com/view/Entry/153408?redirectedFrom=provenance#eid>

the term in relation to motion. For example, he describes the “analysis of descent” (in opposition to the quest for origins) as aiming to “maintain [...] dispersion” rather than resolve it:

we must dismiss those tendencies that encourage the consoling play of recognitions. Knowledge, even under the banner of history, does not depend on rediscovery [...]. History becomes “effective” to the degree that it introduces discontinuity into our very being—as it divides our emotions, dramatizes our instincts, multiplies our body and sets it against itself.¹⁰⁷

Khalaf acknowledges this collapse into division, dramatization, multiplication and opposition in “our very being,”¹⁰⁸ by ending her essay with the image of the destroyed Pearl Roundabout as a literal “vanishing point of reality.”¹⁰⁹ For Khalaf, this “vanishing point” exemplifies a particular violence that is the source of the image in the digital era. For Foucault, this “violence” is more general, fundamental to understanding an overall “rule of law” that informs “humanity.”¹¹⁰ From his understanding of the “descent” of “humanity” as distinct from the false construct of “origins,” Foucault writes, “humanity does not gradually progress from combat to combat until it arrives at universal reciprocity, where the rule of law finally replaces warfare; humanity installs each of its violences in a *system of rules* and thus proceeds from domination to domination.”¹¹¹ Because violence is installed in a “system of rules,” it is less a question of form than of formula. It is the “nature of these rules”—of these formulas—that, as Foucault writes:

allows violence to be inflicted on violence and the resurgence of new forces that are sufficiently strong to dominate those in power. Rules are empty in themselves, violent and unfinalized; they are impersonal and can be bent to any purpose. The successes of history belong to those who are capable of seizing these rules, to replace those who had used them, to disguise themselves so as to pervert them, invert their meaning, and redirect them against those who had initially imposed them; controlling this complex mechanism, they will make it function so as to overcome the rulers through their own rules.¹¹²

¹⁰⁷ Ibid., 153.

¹⁰⁸ Khalaf, “The Many Afterlives of Lulu,” 154.

¹⁰⁹ Ibid., 289.

¹¹⁰ Foucault, “Nietzsche, Genealogy, History (1971),” 162.

¹¹¹ Ibid., 151.

¹¹² Ibid.

Though indeed useful to thinking about the Bahrain uprising and the network of bad memories shared by both the opposition and the Al Khalifas, this perspective on violence from within the rule of law and the construct of humanity's provenance or descent, make the object recede from view. In the foreground is the activist, the ruler, the human agent, who manipulates formula, perverts it, inverts its meaning, and redirects it to control the "complex mechanism,"¹¹³ that is, what in other contexts Foucault called, "the art of government," or "governmentality."¹¹⁴ From this perspective, the "Pearl-clones"¹¹⁵ and "Lulu-clones" that commemorate and reproduce the Pearl Roundabout's destruction, are not examples of material form with a memory of their own—their own formula. They are just tools for human memory in the realm of mentality wherein there is no memory inhering in the materiality of a monument. It is here where play with the double meaning of the English "descent" in Foucault's translated text becomes particularly useful in thinking about the Pearl Roundabout.

In her essay, Khalaf makes it a point to liken the violence she identifies in the "potency" of the "image," to the 'fluidity' of objects: "[a]s with objects, the image can act and function in multiple ways that shift continually across time and space, fluidly negotiating ever-changing subjectivities and realities."¹¹⁶ Indeed, image circulation patterns on the internet show that this fluidity is complex: the image changes its constitution, from the steady liquidity of unceasing image-posts, to the sticky viscosity of viral images and internet image scandal—from the interminable flush of image-posts coming and going to the congealing blockages in those that refuse to go away. Objects call attention to these latter moments of fixity because they are the manifestation of a formula breaking the screen of the digital image to assume a physical,

¹¹³ Ibid.

¹¹⁴ Michel Foucault, *The Birth of Biopolitics: Lectures at the Collège de France, 1978-1979*, ed. Michel Senellart, trans. Graham Burchell (Basingstoke, England: Palgrave Macmillan, 2008), 63, 68, 296 and 313.

¹¹⁵ Khalaf, "The Many Afterlives of Lulu," 284.

¹¹⁶ Ibid., 287.

dimensional manifestation in time and space (fig. 31, left). Whereas there is liquidity in the image, the object is plastic. The object is in-between fixity, malleability and explosivity.

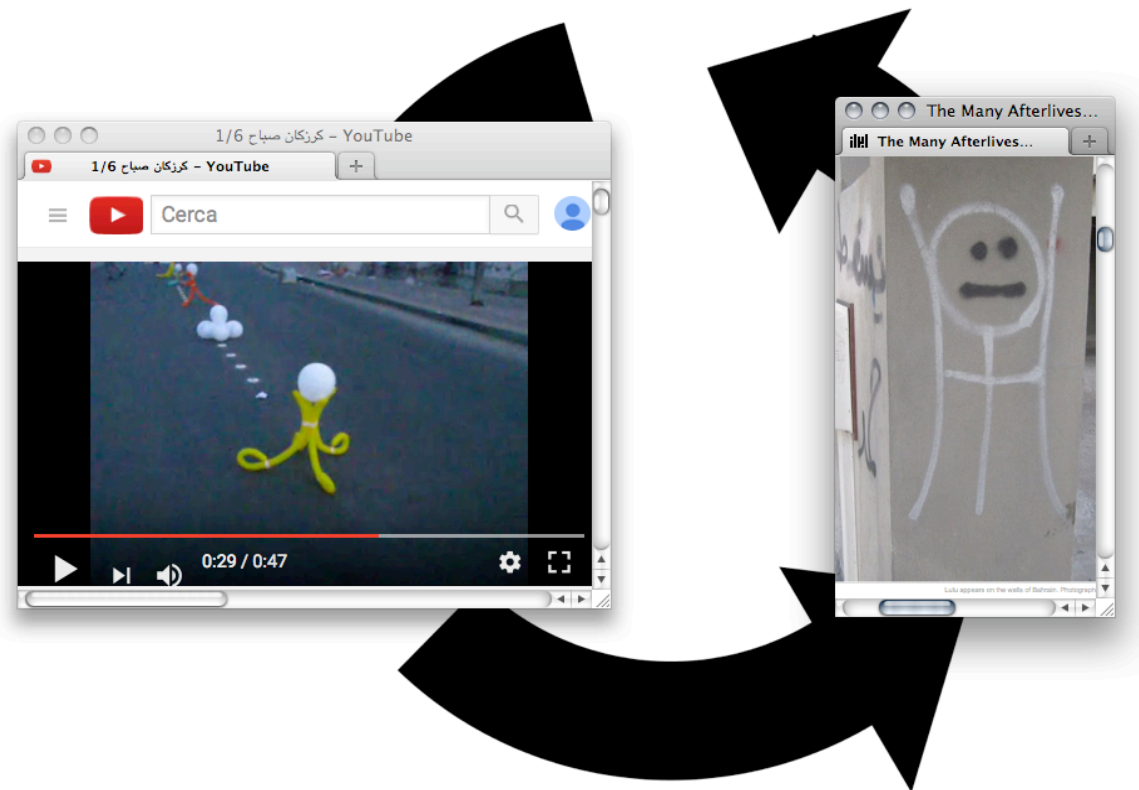


Figure 31 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.

As has already been noted, Foucault positions what he calls the “analysis of descent” at the center of his genealogical approach to history, against the traditional “search for ‘origins.’”¹¹⁷ If the “task” of the “analysis of descent,” as Foucault describes it—evoking the motion of collapse—is to “expose [...] the process of history’s destruction of the body,”¹¹⁸ then the literal ‘descent’ of the anthropomorphic Pearl Roundabout monument—the pearl, its “cracked skull,”¹¹⁹

¹¹⁷ Foucault, “Nietzsche, Genealogy, History (1971),” 140.

¹¹⁸ Ibid., 148.

¹¹⁹ Khalaf, “The Many Afterlives of Lulu,” 273.

the sails, its crushed ribs (even bloodied in the Feb14TV animation)—is the perfect body-double around which to stage such an analysis. Khalaf’s essay recognizes this and with its visual studies perspective, focuses on the power of the digital image in relation to violence to the body. A white-sprayed graffiti-ideograph of the Pearl monument portrays the “pearl” (its sphere) as a large over-sized head with black dots for eyes and a black dash for a perplexed mouth; the head sits atop the shoulders of the roundabout monument’s “sails” (the monument’s support beams), two of which extend over its head in rebellion (fig. 31, right).¹²⁰ The graffiti portrays the Pearl Roundabout monument as the body image of protest against a body politic that governs collective bodies in part by disciplining their corporeality through urban planning instruments like roundabouts. This Pearl Roundabout replication is an abstraction of, what Foucault calls, “the body [that] manifests the stigmata of past experience and also gives rise to desires, failings and errors.”¹²¹ Exemplary of the double meaning in the English “descent,” the monument’s fall is “situated within the articulation of the body and history.”¹²² It is a fall, a failing and a provenance for an alternative future of post-human bodies.

¹²⁰ Photographed by Amal Khalaf and reprinted in Amal Khalaf, “The Many Afterlives of Lulu: The Story of Bahrain’s Pearl Roundabout,” *op. cit.*

¹²¹ Foucault, “Nietzsche, Genealogy, History (1971),” 148.

¹²² *Ibid.*



Figure 32 Screenshot configuration by the author: Pearl Roundabout replications created from balloons for the occasion of an annual Ashura march in the village of Karzakan on the western coast of Bahrain (source: Khalaf, “The Afterlives of Lulu,” 286; abo22yousif and Youtube); Image by the author.

To build on Khalaf’s focus on the image and its liquidity, an “analysis of descent” in the Pearl Roundabout must shift to a focus on the object and its plastic formulas—its rounding-off and its momentum in collapse. The protest-sympathizer who brought the attention of journalists to the “momentum”¹²³ in roundabout revolutions, brought attention to something more specific about the destruction of the Pearl Roundabout monument than just its engendering the general power of protest. The example of the Pearl Roundabout is not only unique for the way it exposes a certain ‘special effect’ of violence in the digital image. The momentum in the Pearl Roundabout destruction is also a ‘special affect’: it is the monument’s special ability to physically manifest the movement of political and social momentum by way of a combination of features in its construction. These unintended features allowed the monument to affect—to ‘act on’ or ‘move’—the city of Manama, as if it had been designed for demolition, or built to fail and built to

¹²³ Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

fall. It was the ability of the so-called “GCC monument”¹²⁴ itself to be seized by this momentum—to be perverted by it by opposition groups and, in this perversion, have its original meaning inverted— that is at the core of its plastic activism. Through this plastic activism of momentum, the “rule”¹²⁵ of the monument, its formula, came under the control of the ‘ruled’ who followed its formula to produce new objects.

These new objects were not a means to an end, rather they were vectors through which to channel momentum. In this context, the word ‘activism’ in the phrase ‘plastic activism’ plays on reference to the mobilization of a political movement of people, in order to refer to a vigorous practice in objects: that of objects becoming animated bodies of silent action in which the power of presence brings about a seemingly mysterious alteration of force. Through plastic activism, human bodies became vectors for objects, configuring them and moving them from place to place: the presence of Pearl replications planted tactically around the city, in turn, replicated roundabout disorientation. It accomplished this in the real spaces of actual roundabouts as well as in street corners and back alleys, in the virtual spaces of video-sharing platforms that documented these real re-appearances (Fig. 32, left), and in other virtual spaces like video game action-dramas and video game city-builders, where replications appeared as surprise features or “assets” (fig. 32, right).¹²⁶

Seen from this object-oriented perspective, the deliberate erasure of the movement-of-momentum in documentation of the Pearl Roundabout monument’s destruction, is revealed as the most important accident in its iconoclastic demolition. Foucault writes that “effective history”

¹²⁴ teyeodg jytsneb, “WRAP Landmark demolished in Pearl Square FM news conference 2011 News.” op. cit. Khalaf, “The Many Afterlives of Lulu,” 281.

¹²⁵ Foucault, “Nietzsche, Genealogy, History (1971),” 151.

¹²⁶ Xaero, “Assets: The Pearl Roundabout,” *Simnation.tv*, curated by Jan Chrnich. N.d. Accessed October 5, 2016. <http://simnation.tv/citiesskylines/mods/assets/buildings/the-pearl-roundabout/>. “Assets” include textures and 3D models, sound effects and music, text, dialogue, anything that can be “plugged into” the game engine to “contribute to the visual appearance of the game.” “What are game assets,” *Conceptdevelopmentbendavis.blogspot.com*. February 8, 2009. Accessed December 5, 2016. <http://conceptdevelopmentbendavis.blogspot.com/2009/02/what-are-game-assets.html>

centered on the “analysis of descent” focuses on “errors, the false appraisals, and the faulty calculations that gave birth to the thing that continue[s] to exist and have value for us.”¹²⁷ Without the accidental “error” of the death of migrant worker Riaz Ahmed, it is possible that this powerful and violent, officially-imposed erasure of the process of the Pearl Roundabout monument’s collapse, would not have occurred. Unlike the intentional destruction of the monument—a deliberate manipulation of history described as the “removal of a bad memory”¹²⁸—the erasure of the collapse from collective memory is among the “jolts, [...] surprises, [...] unsteady victories and unpalatable defeats” that Foucault insists the effective historian of genealogy “must be able to recognize.”¹²⁹

The official “condemnation of memory”¹³⁰ that took place in the demolition of the Pearl Roundabout monument was clearly not an accident; it was a planned removal. In this planned destruction, the government of Bahrain intentionally condemned the monument referring to it as a “bad memory.”¹³¹ In its condemnation of the monument, it also made it a point to condemn the circling motion of its roundabout infrastructure: it claimed its destruction of the monument was motivated by urban planning and a part of “traffic realignment and redevelopment”¹³². The condemnation left in its wake the trace of the circle of the roundabout crossed with intersecting roads, a literal ‘x’ marks-the-spot that ironically renders ever-more present the absent Pearl

¹²⁷ Foucault, “Nietzsche, Genealogy, History (1971),” 146.

¹²⁸ 14FebTV, “Scenes never seen,” op. cit.; Bronner, “Bahrain Tears Down Pearl Monument,” op. cit.; Leigh, “How the Bahrain Regime Wants to Erase its Bad Memories,” op. cit.; Siegel, “In Bahrain, Iconic Pearl Monument Destroyed.”op. cit.; “Bahrain Tears Down Protest Symbol,” op. cit. ; Matthiesen, “Battling over the legacy of Bahrain’s Pearl Roundabout,” op. cit., “Bahrain Tears Down Protest Symbol,” op. cit.; “The Story of Bahrain’s Pearl Roundabout,” op. cit. Also cited in Khalaf, “The Many Afterlives of Lulu,” 282.

¹²⁹ Ibid., 144.

¹³⁰ Khalaf, “The Many Afterlives of Lulu,” 281-282.

¹³¹ 14FebTV, “Scenes never seen,” op. cit.; Bronner, “Bahrain Tears Down Pearl Monument,” op. cit.; Leigh, “How the Bahrain Regime Wants to Erase its Bad Memories,” op. cit.; Siegel, “In Bahrain, Iconic Pearl Monument Destroyed.”op. cit.; “Bahrain Tears Down Protest Symbol,” op. cit. ; Matthiesen, “Battling over the legacy of Bahrain’s Pearl Roundabout,” op. cit., “Bahrain Tears Down Protest Symbol,” op. cit.; “The Story of Bahrain’s Pearl Roundabout,” op. cit. Also cited in Khalaf, “The Many Afterlives of Lulu,” 282.

¹³² Kennicott, “Bahrain’s Pearl Statue is gone, but it remains an icon of democracy,” op. cit.

Roundabout—a new ‘plastic’ named Farooq Junction, a junction that monumentalizes “the one who distinguishes between right and wrong.”¹³³ Amidst all this planning and intentional destruction, however, the government made several errors. It accidentally killed a migrant worker and, incidentally, had to erase what, from its perspective, would have otherwise been a forceful reminder of conservative power against progressive rebellion: its willingness to destroy its own monument in order to mobilize against radical change—its ability to go to any measure to drive revolution into disillusion and self-defeat. These efforts ignorant of the monuments power to speak for itself, drove rebellions underground where they could act as spores for further traces of absent presence. Pearl Roundabout replications planted in open spaces persisted in transformations of urban space into public space.

¹³³ Azmayesh, *New Researches on the Quran*, 271.

Chapter Four / Clone or Replication? From Splintered Image to Plastic Activism

Building on Khalaf's work with the "splintered image" and the "fluidity" of images and objects,¹ the sections that follow will experiment with the plastic activism of momentum in the Pearl Roundabout's plastic ending. In keeping with what has been discussed thus far, it is not only the forms of objects that inspire the experiments that will follow. Of interest are not just the shapes taken by the numerous "Lulu-clones" that—as Khalaf writes—make "physical reappearances [...] in the streets of Bahrain,"² but the formulas, the "vital dimension" (*Lebewesen*)³ expressed in the way they are "perceived sensorially"⁴—the internal sense of movement in these "clones."⁵ This "vital dimension"⁶ is expressed through the specific materialities, mutations, and displacements taken by the "Lulu-clones"⁷ in relation to the original Pearl monument and its particular setting, the roundabout.

Rather than refer to the Pearl Roundabout miniatures as "clones" and "reproductions,"⁸ the reader will have noted that I prefer to use the term "replications." The term "replication" emphasizes the way plastic activism not only de-forms and re-forms the original form of the Pearl Roundabout monument, but also forces disorienting re-enactments of the Pearl Roundabout event (i.e., occupation, siege, demolition) by reorienting the space around its stagings. As the biological term for "a process by which genetic material or a living organism gives rise to a copy of itself,"⁹ the term 'replication' also helps to retain a focus on formula as "vital dimension."¹⁰

¹ Khalaf, "The Many Afterlives of Lulu," 287.

² Ibid.

³ Pinotti, "Symbolic form and symbolic formula," 119-135.

⁴ Ibid.

⁵ Khalaf, "The Many Afterlives of Lulu," 287.

⁶ Warburg in Pinotti, "Symbolic form and symbolic formula," 119-135.

⁷ Khalaf, "The Many Afterlives of Lulu," 287.

⁸ Ibid.

⁹ "replication, n." OED Online. December 2016. Oxford University Press. N.d. Accessed December 14, 2016. <http://www.oed.com/view/Entry/162883?redirectedFrom=replication>

¹⁰ Pinotti, "Symbolic form and symbolic formula," 119-135.

The ultimate aim here is to try to get at how the Pearl Roundabout became part of a chain of “replications,” what art historian Whitney Davis calls the “sequential production of similar material morphologies.”¹¹ Davis defines “culture” as “socially coordinated replicatory histories.”¹² Studying the Pearl Roundabout monument through these histories is thus one way of understanding Manamaism, the urban “culture”¹³ that, it might be said, has become representative of certain aspects of the Arab Spring and popular protest movements worldwide. If it is assumed, as Davis asserts, that no “human cognition or consciousness preexists and thus causally determines replication” then “to describe certain structures or dynamics in replication is, in itself to describe cognition and consciousness.”¹⁴ For this reason, rather than trying to determine what the Pearl Roundabout demolition was intended to mean or what it ended up signifying, the ultimate goal here is to focus on the momentum—the “vital dimension” of formula—that can be directly observed in its replications. The objective is to understand Manamaism as the cognition and consciousness of the city of Manama expressed through Pearl Roundabout construction, destruction and replication.

I refer to the present essay as “experiment[ing] with the plastic activism of momentum” because it not only features writing about Pearl Roundabout replications, but presents my own Pearl Roundabout replications, objects generated by a speculative design project that facilitated my writing of this chapter (fig. 33).¹⁵ Though the design of these replications preceded writing

¹¹ Whitney Davis, *Replications: Archaeology, Art History, Psychoanalysis*. University Park, PA: Pennsylvania State University Press, 1996. 1

¹² Davis, *Replications*, 4.

¹³ Ibid. As Davis writes: “It is not so much that the “cultural” context of replication does not exist; it does. But the past and ongoing history of replicatory practices occurs within a social network that is in itself partly coordinated in the very elaboration of replications. As that phrasing suggests, to invoke the “cultural” context of and for replication to *explain* a replicatory history is in teh strict terms I want to uphold, a tautology: “by “culture” we simply mean socially coordinated replicatory histories.”

¹⁴ Ibid.

¹⁵ Emily Verla Bovino, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory, or how to add a perp to the herp, the lerp to the berp already present in the library of things* (2014). Third Edition. (San Diego, CA: Mobile Irony Valve Press, 2016). For a print version of the chapbook, see the attached appendix. To access *PERP* online, visit: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>.

the present essay, I have decided to present them at the essay's end rather than at its beginning so as to foreground the object of the roundabout rather than my own practice. Though I will provide some background to PERP in the paragraphs to follow, I delay writing about it at any great length until the essay's conclusion. It is introduced here so that the reader can begin to better appreciate the practice-based research approach I have pursued in theorizing around roundabouts.

My Pearl Roundabout replication comprises a variety of objects, at the center of which is a PDF chapbook (Fig. 33, center).¹⁶ The chapbook features a timeline, a short story, and a tutorial in the open source 3D-animation software *Blender* (Fig. 33, left background). The tutorial can be used to print thermo-plastic three-dimensional objects (Fig. 33, left top and right top). The PDF chapbook is titled *The Pearl Interpolation (PERP) in a Monument to Bad Memory or how to add a perp to the herp, the lerp, and the berp already present in the library of things* (2014), and has gone through several editions (2015 and 2016) (Fig. 33, left and right bottom; circulation via the Gulf Labor Artist Coalition platform and the book, *The Gulf: High Culture/Hard Labor*, 2015, launched at the 56th Venice Biennale).

The term "interpolation" is commonly understood to refer to "the action of introducing or inserting among other things or between the members of any series."¹⁷ In temporal terms, it means an "interposition of time" or "interval."¹⁸ It is also used in describing "the action of refurbishing or polishing up."¹⁹ *PERP* is a replication process that inserts itself amidst the members of a series,

See also Emily Verla Bovino, "Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory." A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* May 18, 2014. Accessed May 18, 2014. <http://gulflabor.org/2014/week-33-mobile-irony-valve-on-the-pearl-interpolation-perp-in-a-monument-to-bad-memory/>; See also Emily Verla Bovino, "Week 33" in *52 Weeks* as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 292-293.

¹⁶ For a print version of the chapbook, see the attached appendix. Bovino, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory*, op. cit. Bovino, "Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory," op. cit.; Bovino, "Week 33," 292-293.

¹⁷ "interpolation, n." OED Online. December 2016. Accessed December 29, 2016. Oxford University Press. <http://www.oed.com/view/Entry/98178?redirectedFrom=interpolation>

¹⁸ "interpolation, n." op. cit.

¹⁹ Ibid.

the series of Bahraini replications of the Pearl Roundabout that proliferated after the Pearl Roundabout's destruction in 2011. The sections of the essay that follow will make more clear how *PERP* activated an "interval" or "interposition of time"²⁰ to "give a new look to" (i.e., "furbish")²¹ the collapse of the Pearl Roundabout, making the constituent instants of its collapse into an infinite possibility of shapes, an infinite potential for cooperative architectural design that plans a new International migrant worker cooperative to replace Manama's Financial Harbor.

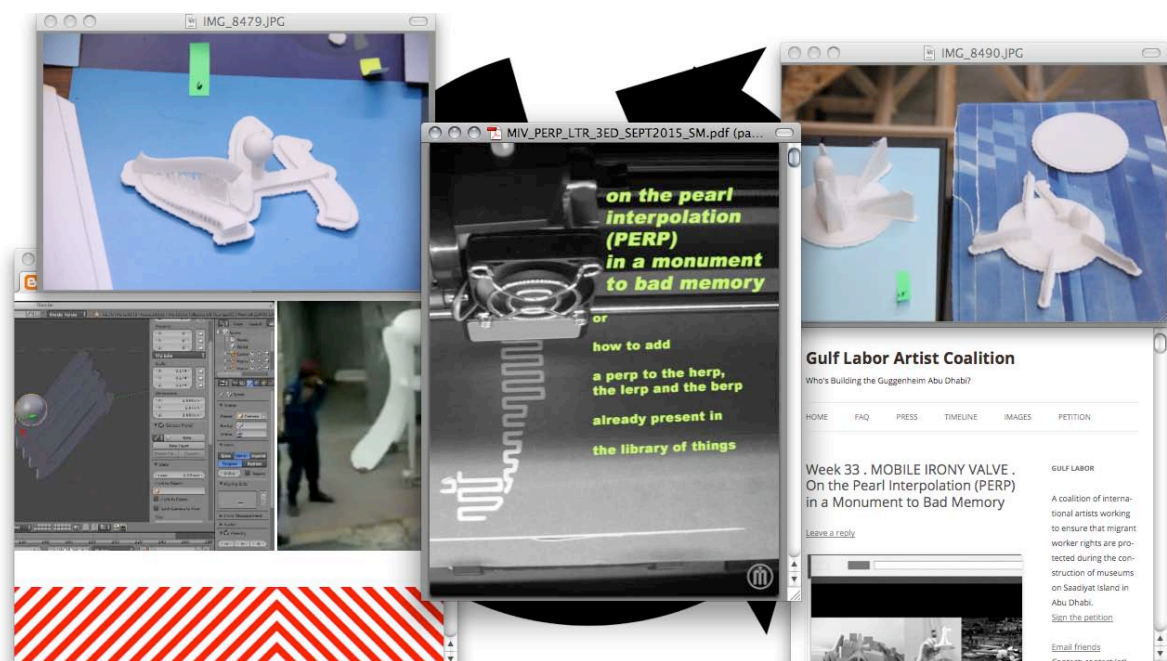


Figure 33 Screenshot configuration by the author: (top left and right) thermoplastic printed objects, approx. 8 inches in diameter (source: the author; photo: the author); (center) cover of the PDF chapbook *On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2016 edition) (source: the author); (bottom left and right) online platforms that circulated *PERP* through the Gulf Labor Artist Coalition initiative *52 Weeks* (source: Gulf Labor Artist Coalition) and the book, *The Gulf: High Culture/Hard Labor* (OR Books, 2015). Image by the author.

²⁰ Ibid.

²¹ "furbish, v.". OED Online. Oxford University Press. December 2016. Accessed December 29, 2016. <http://www.oed.com/view/Entry/75611?rkey=0XV1Vk&result=1&isAdvanced=false>

The title of the PDF chapbook announces that it will explain “how to add a perp to the herp, the lerp, and the berp already present in the library of things.”²² Lerps, berps and herps are three different kinds of interpolations by way of which curves can be created in digital animation software (fig. 34).²³ The term “interpolation” refers to “the algorithm [the software] uses to calculate the shape of the curve between keyed values.”²⁴ Lerp is the abbreviation for “linear interpolation;” berp is the abbreviation for “Bezier interpolation;” and, herp is the abbreviation for “Hermite interpolation.”²⁵

A linear interpolation (fig. 34, top left) automatically “creates a straight line between keyed values,”²⁶ (the values the user gives to the software). For animation, though “it can be useful for mechanical movements,” it is not considered to be “a convincing way to model organic movement.”²⁷ It is primarily thought “useful for animating processes other than movement,” processes “which might change in a linear fashion.”²⁸

²² Bovino, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory*, op. cit. Bovino, “Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” op. cit.; Bovino, “Week 33,” 292-293.

²³ WilliamAAdams, “OpenScad Surface Solids 1.1,” *Thingiverse*. June 17, 2011. Accessed September 2, 2011. <http://www.thingiverse.com/thing:9389>.

²⁴ Tony Mullen, *Introducing Character Animation with Blender* (Hoboken, NJ: John Wiley & Sons, 2011), 253.

²⁵ WilliamAAdams, “OpenScad Surface Solids 1.1,” op. cit.

²⁶ Mullen, *Introducing Character Animation with Blender*, 253.

²⁷ Ibid.

²⁸ Ibid.

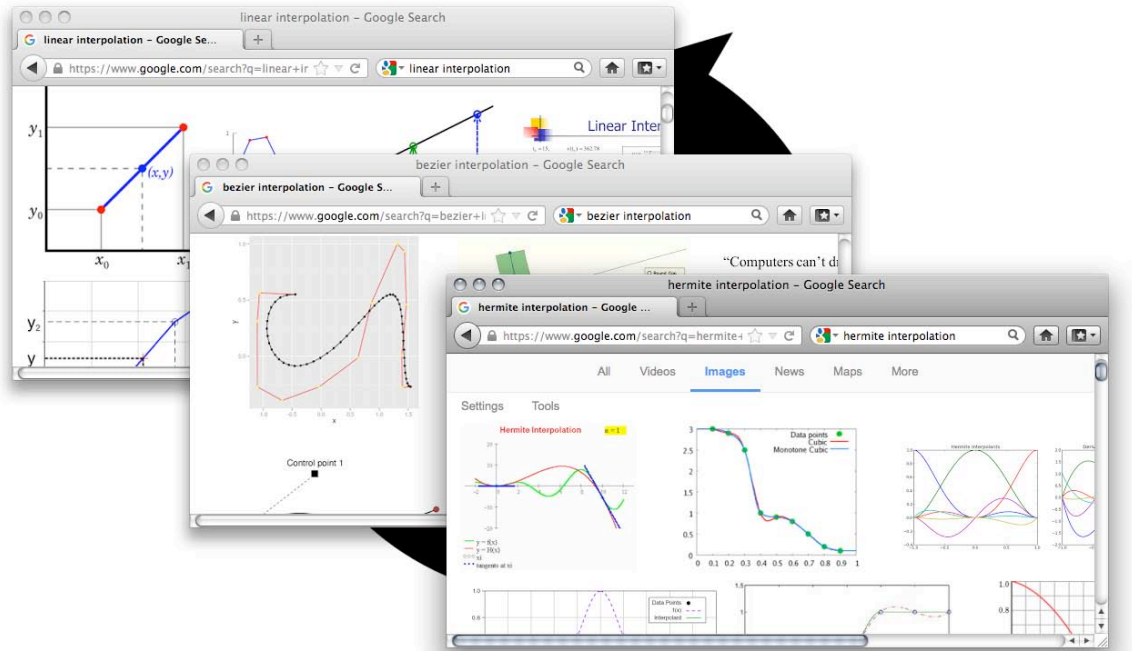


Figure 34 Screenshot configuration by the author: (staggered left to right) Google Images search figures of linear interpolations, bezier interpolations and hermite interpolations (source: Google Images). Image by the author.

A Bezier interpolation (fig. 34, center) (named after 20th-century engineer Pierre Étienne Bézier, who worked for the French automobile company, Renault)²⁹ “creates a smooth, rounded curve between the keyed values.” In *Blender*’s “edit mode,” the keyed points are “Bezier control points with two handles, and the curve’s shape can be edited manually”: “it is the only interpolation type that allows editing of the shape of the curve itself.”³⁰ In animation, it is said that the Bezier interpolation “creates the most naturalistic movement of any of the three types, although this does not mean that unadjusted Bezier curves will always produce convincing movement. It is important to consider the physical forces being applied to the object.”³¹

²⁹ David F. Rogers, *An Introduction to NURBS: with Historical Perspective* (San Francisco, CA: Morgan Kaufmann Publishers, 2001), 36.

³⁰ *Ibid.*

³¹ *Ibid.*

A Hermite interpolation (fig. 34, right bottom) is “a curve [...] defined by two endpoints and the tangent vectors to those points.”³² It is “somewhat related to a Bezier curve” in that it uses “the same [...] basis functions” to be expressed; however, the Hermite interpolation (named after mathematician 19th-century mathematician Charles Hermite), has an “osculating” or kissing property: by “matching a given curve and its derivative,” it “forces the interpolating curve to ‘kiss’ the given curve.”³³ The use of interpolations in animation software is highly subjective: for example, while some find it easier to work with Hermite interpolations, others find them harder to control than the Bezier variant.³⁴ All interpolations are “just [...] tool[s] in the box to help [users] create surfaces.”³⁵

PERP constitutes my own attempt to work with the Pearl Roundabout monument as an object of what – in Foucault’s words – can be called “unsteady victory and unpalatable defeat.”³⁶ As Khalaf asserted in her essay, by destroying the monument in attempting “removal of a bad memory,”³⁷ the government of Bahrain strengthened counter-memory. As has been previously explored, the demolition was, therefore, a kind of Foucauldian “unpalatable defeat” for the Al Khalifas. It is also true, however, that the destruction of the monument was a Foucauldian “unsteady victory”³⁸ for the Al Khalifas: by destroying a symbol of the GCC coalition, the Al Khalifas signaled the precarity of GCC allegiances, giving Bahrain’s royal family more leverage in its appeal for support from its neighboring allies. At the same time, the gesture of ‘desperate

³² WilliamAAdams, “OpenScad Surface Solids 1.1,” op. cit.

³³ Richard Burden and J. Faires, *Numerical Analysis*, 130.

³⁴ WilliamAAdams, “OpenScad Surface Solids 1.1,” op. cit.

³⁵ Ibid.

³⁶ Foucault, “Nietzsche, Genealogy, History (1971),” 144.

³⁷ 14FebTV, “Scenes never seen,” op. cit.; Bronner, “Bahrain Tears Down Pearl Monument,” op. cit.; Leigh, “How the Bahrain Regime Wants to Erase its Bad Memories,” op. cit.; Siegel, “In Bahrain, Iconic Pearl Monument Destroyed,” op. cit.; “Bahrain Tears Down Protest Symbol,” op. cit. ; Matthiesen, “Battling over the legacy of Bahrain’s Pearl Roundabout,” op. cit., “Bahrain Tears Down Protest Symbol,” op. cit.; “The Story of Bahrain’s Pearl Roundabout,” op. cit. Also cited in Khalaf, “The Many Afterlives of Lulu,” 282.

³⁸ Foucault, “Nietzsche, Genealogy, History (1971),” 144.

measure' also provided an excuse for the reversal of the few modest reforms towards constitutional monarchy that had been achieved.

Scholars and journalists have declared the destruction of the Pearl Roundabout a symbol of "failure" for opposition groups.³⁹ And yet, the Pearl Roundabout's destruction can also be seen as earning the opposition its own "unsteady victory."⁴⁰ While it may indeed be true that "the Bahrain uprising has so far failed to achieve any significant change,"⁴¹ the opposition has certainly succeeded in generating "replicatory histories."⁴² If "socially coordinated replicatory histories" are "culture,"⁴³ then the Bahrain uprising has perhaps produced the most impactful "significant change"⁴⁴ of any of the Arab Spring uprisings: a new culture. If it has indeed shifted consciousness through replicatory histories, its uprisings have the potential to be more consequential in the long term than any ouster of a royal family or President. The uprisings – their occupation of the Pearl Roundabout and the roundabout's subsequent demolition – were a critical part of the Arab Spring's "[...] Copernican revolution in the geopolitics of our imagination."⁴⁵ In this revolution, it has been said that

our world stopped being Eurocentric. The West was provincialized [...] just as the Copernican revolution provincialized the earth. Whatever the ongoing consequences still are, the Arab movements of 2011 in the Middle East and North Africa had a great deal to teach the Left in the Western World.⁴⁶

As a European-American with a U.S. passport, my own interest in the Pearl Roundabout destruction is a testament to this provincialization of the "West."⁴⁷ Like Khalaf, I also have a

³⁹ For example, in March 2012, *Washington Monthly* declared, "If any Arab revolt can be pronounced a failure thus far, this is it." War Studies scholar Eugenio Lilli writes that "the Bahraini uprising has so far failed to achieve any significant change." Lilli, "Foreign Actors," 164.

⁴⁰ Foucault, "Nietzsche, Genealogy, History (1971)," 144.

⁴¹ Lilli, "Foreign Actors," 164.

⁴² Davis, *Replications*, 4.

⁴³ *Ibid.*

⁴⁴ Lilli, "Foreign Actors," 164.

⁴⁵ Dabashi as quoted in Weizman, *The Roundabout Revolutions*, 10.

⁴⁶ *Ibid.*

⁴⁷ *Ibid.*

nomadic past between the domain of empire and a former colonial island. I was born to a working-class Italian-American family in New York and raised in British colonial Hong Kong. My family had the opportunity to move to Hong Kong in 1984 as a result of Nixonian normalization of U.S.-China relations and subsequent Regan-era financialization of global economies. My father was hired for a job by Citibank, a major U.S. financial institution that, during the 1980s, was looking for strategic ways to expand operations in the People's Republic of China (PRC) through Hong Kong.

A formative event in my early life was the 1989 Tiananmen Square massacre in Beijing. I was nine years old at the time and my mother, my brother and I were among the million Hong Kong residents who participated in demonstrations after the suppression of the student protests by the PRC government. When we later visited Beijing on a family trip, we saw the tank-tracks and blood-stains that remained around the plaza. Upon my return to the United States for junior high school, I discovered that the majority of my classmates had never heard of the Tiananmen Square massacre. Thinking it was my duty to inform them about the incident, I wrote school essays about attending the demonstrations and highlighted anecdotes I thought would excite my classmates. In one essay, I wrote about being invited by a protester to shout pro-democracy slogans in Cantonese through a megaphone. In another I recalled a photographer friend of my mother showing me images of Statue of Liberty replicas that had been left in public spaces by Chinese students.

After the 1997 transfer of sovereignty from the UK to the PRC, my perspective on the massacre began to change significantly. In high school, I read histories of American finance and British colonial Hong Kong that I could find on my parents bookshelves. As a freshman in college, I sought out writings by Chinese writers on the "handover" and through my readings, began to feel more ambivalently about my experiences as an American in Hong Kong. As a child, I had always felt uncomfortable about colonial privilege, and intuited it would be thought

impolite if I asked questions about it; however, it was only as a young adult that I began to break what East Asian Studies scholar and New York University professor Xudong Zhang wrote about at the time (2001) as the “unchallenged habit [...] to view everything in the PRC through the imagined totality of the government and its official policies and rhetoric[;] [...] to see anything extragovernment as instantaneously and naturally subversive, progressive and good.”⁴⁸

The post-handover end of my own Eurocentric Cold War view of China resounds with Dabashi’s definition of the post-Great Recession Arab Spring as the “Copernican Revolution in the geopolitics of our imagination” – “our world stopped being Eurocentric.”⁴⁹ In fact, while I followed news reports and social media on the occupations of the Pearl Roundabout in Bahrain, a recurring childhood dream I had in Hong Kong returned. The dream is an iteration of the famous “Tank Man” footage from Tiananmen Square: in this footage, a single protestor with only a shopping bag in hand, stands in front of a PRC tank that has rolled into the square (fig. 35). In my dream, I am the “Tank Man,” only in my childhood iteration of a parallel event, the tank never hesitates. It rolls forward and crushes my small body. Still dreaming, I wake up from the dream in a small cot. I look down and see my body is a heap of bones (fig. 35).

⁴⁸ Xudong Zhang, “Challenging the Eurocentric, Cold war View of China and the Making of a Post-iananment Intellectual Field.” *East Asia* (Spring – Summer 2001): 6.

⁴⁹ Dabashi as quoted in Weizman, *The Roundabout Revolutions*, 10.



Figure 35 Screenshot configuration by the author: (left) Google Images search for “tank man” image from Tiananmen Square massacre (1989) in Beijing (source: Google Images); (right) the demolished Pearl Roundabout in Manama, Bahrain (2011) (source: public domain); (center background) standard icon for roundabouts (source: Creative Commons). Image by the author.

On Production, Reproduction, and Replication in Plastic Scale

The PERP experiment with replication, which concludes this essay, inspired its writing. It was after working on the experiment that I began writing about the street sculpture replications of plastic activism that proliferated following the Pearl Roundabout’s destruction. In addition to art historian Whitney Davis’ use of the term “replication,”⁵⁰ another source for my use of the term was of equal importance, not for its actual application of the term, but for my own thinking about how the word “replication” would fit within its conceptual framework: in 1922, the Hungarian artist Laszlo Moholy-Nagy (fig. 36) wrote an essay titled “*Produktion-Reproduktion*”

⁵⁰ Davis, *Replications*, 4.

(“Production-Reproduction”) for the modernist magazine *De Stijl* (The Style).⁵¹ In the essay, Moholy-Nagy defines “production” or “productive creation” as “creative activities” that are “useful” to “man as construct” because they generate “new, so far unknown relations.”⁵² These “relations” were—in Moholy-Nagy’s words—“far-reaching new contacts between familiar and the as yet unknown optical, acoustical and other functional phenomena” that art “trained” human “functional apparatuses” (i.e., “cells as well as the most sophisticated organs”) to “receive.”⁵³ “Reproduction,” on the other hand, was the “reiteration of already existing relations.”⁵⁴ Therefore, “in specific regard to creation,” Moholy-Nagy characterized “reproduction” as “for the most part [...] mere virtuosity.”⁵⁵ The task he gave himself in his essay was to discuss how to experiment with “turn[ing] the apparatuses (instruments) used so far only for reproductive purposes into ones that can be used for productive purposes as well.”⁵⁶

The feminist philosopher Silvia Federici (fig. 36) began questioning the modernist position on “reproduction” in writings she began publishing in 1975.⁵⁷ The essays focused on what she considered an imperative: to “rethink the question of “reproduction.”⁵⁸ Federici defined “reproduction” as “the complex of activities and relations by which our life and labor are daily reconstituted.”⁵⁹ This broader definition of “reproduction” as “commoning practices” in “social reproduction” was based on Federici’s observations about the interconnection between the “devaluation of [...] activities catering to the reproduction of human life, and the ability to use the

⁵¹ Laszlo Moholy-Nagy, “*Produktion-Reproduktion.*” *De Stijl*, No. 7 (1922): 97 – 101 reprinted as Laszlo Moholy-Nagy, “Production-Reproduction (1922)” in Krisztina Passuth and Laszlo Moholy-Nagy, *Moholy-Nagy*, ed. Krisztina Passuth. (New York, NY: Thames and Hudson, 1985), 289 – 290.

⁵² Moholy-Nagy, “Production-Reproduction (1922),” 289.

⁵³ *Ibid.*

⁵⁴ *Ibid.*

⁵⁵ *Ibid.*

⁵⁶ *Ibid.*

⁵⁷ Silvia Federici, *Revolution at Point Zero: Housework, reproduction and Feminist Struggle.* (Oakland, CA: PM Press, 2012).

⁵⁸ Silvia Federici, “The Reproduction of Labor Power in the Global Economy and the Unfinished Feminist Revolution (2008)” in *Revolution at Point Zero: Housework, reproduction and Feminist Struggle* (Oakland, CA: PM Press, 2012), 93; “Preface (2012)” in *Revolution at Point Zero: Housework, reproduction and Feminist Struggle* (Oakland, CA: PM Press, 2012), 5.

⁵⁹ *Ibid.*, 5.

wage to extract work also from a large population of workers who appear to be outside the wage relation: slaves, colonial subjects, prisoners, housewives and students.”⁶⁰ Moholy-Nagy’s devaluation of “reproduction” as non-creative “reiteration” affirms the paradigm Federici critiques. The campaign *Wages for Housework* in which Federici took part, “recognized that capitalism requires unwaged reproductive labor in order to contain the cost of labor power.”⁶¹ Participants in the effort “believed that a successful campaign draining the source of this unpaid labor would break the process of capital accumulation.”⁶²

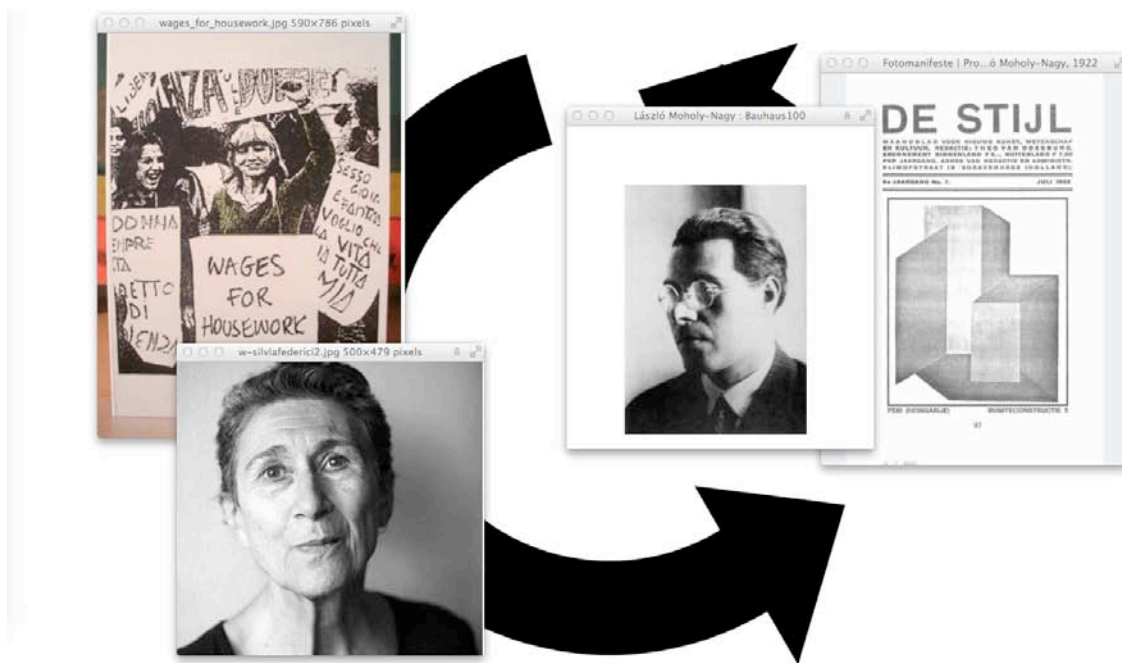


Figure 36 Screenshot configuration by the author: (left, top) Wages for Housework poster (source: Silvia Federici / Google Image search); (left, bottom) philosopher Silvia Federici (source: public domain). (right, middle) Laszlo Moholy-Nagy (source: Bauhaus100); (right) cover of issue of *De Stijl* that published Moholy-Nagy’s essay *Produktion-Reproduktion* (1922). (source: Fotomanifeste). Image by the author.

The Brooklyn-based start-up company, Makerbot, released its first pre-assembled rapid prototyping machine, the Replicator, in 2012, a year after it attracted venture capital investments

⁶⁰ Ibid., 8.

⁶¹ Silvia Federici, “The Reproduction of Labor Power in the Global Economy and the Unfinished Feminist Revolution (2008),” *Revolution at Point Zero*, 92.

⁶² Ibid., 9.

(fig. 37).⁶³ The Replicator was the first Makerbot machine released without a build-it-yourself kit version, and was the company's last open-source printer.⁶⁴ Media reports immediately associated the release with the “replicators” in the television and film series franchise *Star Trek* (fig. 37).⁶⁵ A “staple technology” in the *Star Trek* fantasy, the *Star Trek* replicators “can fabricate [...] food (and its receptacles) within a few moments of being verbally commanded to do so.”⁶⁶ The Makerbot Replicator reference to replication was ambiguous: it combined the optimism in “eventuation of the 3D printer”—“a particular virtuality [...] wherein the production of anything becomes feasible”—with the pessimism of “associations with science fiction [that] serve simply to underscore the fictional, even fantastical status of the prospective futures of this technology.”⁶⁷

⁶³ Peter Troxler, “Fabrication Laboratories (Fab Labs)” *The Decentralized and Networked Future of Value Creation: 3D Printing and its Implications for Society, Industry, and Sustainable Development*, ed. Jan-Peter Ferdinand, Ulrich Petschow and Sascha Dickel (Switzerland: Springer, 2016), 118.

⁶⁴ Ibid.

⁶⁵ Mike Michael, “Process and Plasticity: Printing, Prototyping and the Prospects of Plastic” in *Accumulation: The Material Politics of Plastic*, ed. Jennifer Gabrys, Gay Hawkins and Mike Michael (Abingdon, Oxon: Routledge, 2013), 38-39.

⁶⁶ Michael, “Process and Plasticity,” 38.

⁶⁷ Ibid.

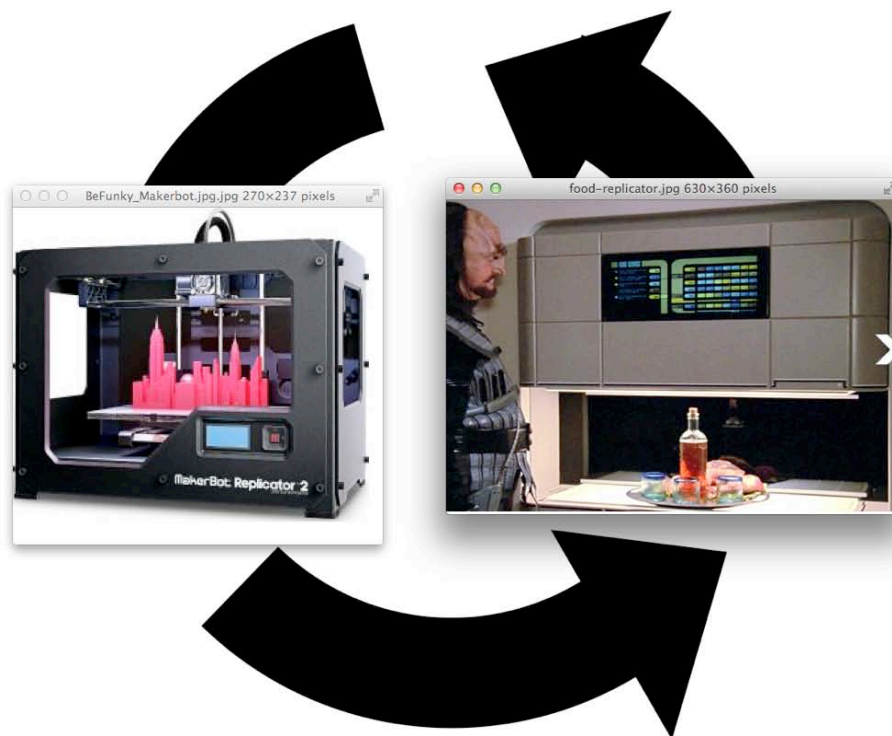


Figure 37 Screenshot configuration by the author: (left) Makerbot 3D printer, model Replicator 2 (source: Google Images); (right) Star Trek replicator (source: Google Images). Image by the author.

Makerbot Replicators are for the most part employed in the creation of the kinds of reproductions Moholy-Nagy described: most Replicator users make reiterations, printing either three-dimensional scans of objects in the machine's thermoplastic filament, or downloading pre-designed objects uploaded online by designers to the open-sharing platform *Thingiverse*.⁶⁸ There is nothing that makes the Replicator technology any less or any more of a reproductive apparatus than the technologies Moholy-Nagy lists in his 1922 essay, i.e., the phonograph, the photograph, and film. However, the fact that the 3D printer's process of reproduction can potentially substitute a three-dimensional object with another three-dimensional object of identical shape and

⁶⁸ *Thingiverse*. Makerbot Industries, LLC. Published 2016. Accessed December 4, 2016. <https://www.thingiverse.com/>

dimension, positions its products (its replications) in an indeterminate space between reproduction and replica. The only object that can be considered similar in photography, for example, would be a photograph of a photograph—something akin to (but not quite exactly the same as) Sherrie Levine’s previously mentioned series of photographs of print reproductions of famous modernist photographs.

In its association with the replica, Makerbot’s Replicator has reintroduced a problematic dualism that continues to haunt objects: a polarity of objecthood that, as art historian Christopher Wood writes, “defines” the “modern work of art [...] against the artifact embedded in a substitutional chain.”⁶⁹ Like the ready-made, the replication positions itself in the middle of this polarity. The Replicator also reintroduced the issue of distinction between production and reproduction. Moholy-Nagy does not make any direct mention of the reproduction of life in his essay. The maker-culture of sharing or “commoning” evident in platforms like Thingiverse connects the Replicator printer to Federici’s thinking about the “question of ‘reproduction.’”⁷⁰ In some ways, however, this connection is farcical, since, as a potential source of automation, the Replicator proposes a social universe in which all labor has been devalued. Nonetheless, replication also finds itself between the reproduction of life and production as the creation of new relations, between repetition and reiteration.

In the early 20th century, Moholy-Nagy used the polarity of production and reproduction to understand “productive creation;”⁷¹ in the early 21st century, “replication” seems the most appropriate term to use to think about destruction as a creative passion. It is in the latter paradigm that it is possible to find a reference to the reproduction of life. Among the afore-described three formulas of destruction as a creative passion – creative destruction, destructive production and destructive plasticity – only the last is associated with the “unfathomable and

⁶⁹ Christopher S. Wood, *Forgery, Replica, Fiction: Temporalities of German Renaissance Art* (Chicago, IL: University of Chicago Press, 2008), 36.

⁷⁰ Federici, *Revolution at Point Zero*, 5.

⁷¹ Moholy-Nagy, “Production-Reproduction,” 289.

eternal source of life.”⁷² The first—creative destruction—is essentially a process of eternal repetition.⁷³ The second—destructive production⁷⁴—is replacement by reiteration. Only the last—destructive plasticity⁷⁵—is conceived as a kind of non-substitutable substitution that explodes both repetition and reiteration by reinstantiating a formula—a “vital dimension”—rather than a form.

A stock photograph that circulated in 2012 captures the image of a Pearl Roundabout replication: a protestor appears to be preparing for tear gas, covering his nose and mouth with a cloth (fig. 38).⁷⁶ On his head, he steadies a readymade ‘Pearl’ assemblage—a white volleyball atop a seat-less four-legged wooden stool. In this readymade replication—possibly produced by picking up objects found on the street during a procession—two of the original monument’s six ‘sails’ have disappeared and (much like the previously described graffiti-ideograph in which the ‘pearl’ in the monument became the head of an anthropomorphic figure), the ‘pearl’ of the roundabout monument has swelled far out of proportion.⁷⁷ In another stock photograph circulating at the same time, the nature of replication is completely different (fig. 38)⁷⁸: the original ‘Pearl’ proportions have returned in a photograph of the prominent Bahraini human rights activist and opposition leader Nabeel Rajab speaking on his mobile phone with a large, exacting miniature of the Pearl Roundabout monument behind him.⁷⁹

⁷² Bakunin, “The Reaction in Germany: From the Notebooks of a Frenchman (October 1842, signed Jules Elysard),” op. cit.

⁷³ Schumpeter as quoted in Elliot, “Marx and Schumpeter on Capitalism’s Creative Destruction,” 47.

⁷⁴ Bredekamp, *La Fabbrica di San Pietro*, 164

⁷⁵ Malabou, *Ontology of the Accident*, op. cit. and Malabou, *The New Wounded*, op. cit.

⁷⁶ Reuters/Caren Firouz, “An anti-government protester holds a model of the monument of the former Pearl Roundabout during a demonstration in Manama February 3, 2012,” op. cit.

⁷⁷ Ibid.

⁷⁸ Reuters/Roger Bacon, “Bahrain human rights activist Nabeel Rajab talks on his mobile phone as a miniature Bahrain Pearl Square monument is seen behind him, upon arriving home in Budaiya, west of Manama, after being detained for over two weeks, May 28, 2012.” op. cit.

⁷⁹ Ibid.



Figure 38 Screenshot configuration by the author: (left) A 2012 stock photograph of a Pearl Roundabout replication held by a protestor who appears to be covering his nose and mouth with a cloth, preparing for tear gas (source: Reuters / Alamy); (right) a stock photograph of Bahraini human rights activist and opposition leader Nabeel Rajab speaking on his mobile phone with a large, exacting miniature of the Pearl Roundabout monument behind him (source: Reuters / Alamy). Image by the author.

Meanwhile, on video-sharing platforms, a Youtube user posts a video compilation titled “Bahrain Pearl is every where” (fig. 39).⁸⁰ On its title screen, white letters on a black background illuminate the phrase: “Our Pearl is Every Where.”⁸¹ Video clips are introduced with a series of still images of other roundabout replications on posters, in gold necklace pendants, and in sugar sculptures on birthday cakes. The sequence of video clips that follows begins with a shaky shot from a camera moving towards a miniature whose designer seems to have been more committed to a faithful rendition of the original than others. The video shows the replication planted in an alley back-street sided with wooden slates. The montage abruptly cuts to another replication of

⁸⁰ basboos1001, “Bahrain Pearl is every where,” op. cit.

⁸¹ Ibid.

significantly larger scale, a street corner replication that stands several feet taller than the white-helmeted and crimson-bereted officers that circle around it. The camera that documents the scene looks on from the slight elevation of a window or a balcony, one floor-up from the action. A white truck approaches. The officers remove a tiny red-and-white Bahraini flag perched atop the replication's disproportionately-scaled sphere. The 'pearl' in this replication is much larger in relation to its 'sails' than the ratio in the Pearl Roundabout original. The officers carry the replication away as another small white Bahraini flag on the other side of its 'pearl' waves irreverently. The sequence cuts to a night scene at an intersection among brightly lit storefronts. At first, the featured replication is difficult to see; however, as the camera adjusts to the light, its form becomes visible. It is noticeably larger, twice the height of the officers who surround it. In the blue light of a white police car, the officers topple the replication on its side. One of the officers picks up the 'pearl'—a white plastic ball—and bounces it on the ground, kicking it around the police car, while colleagues pick apart the remaining support 'sails.'

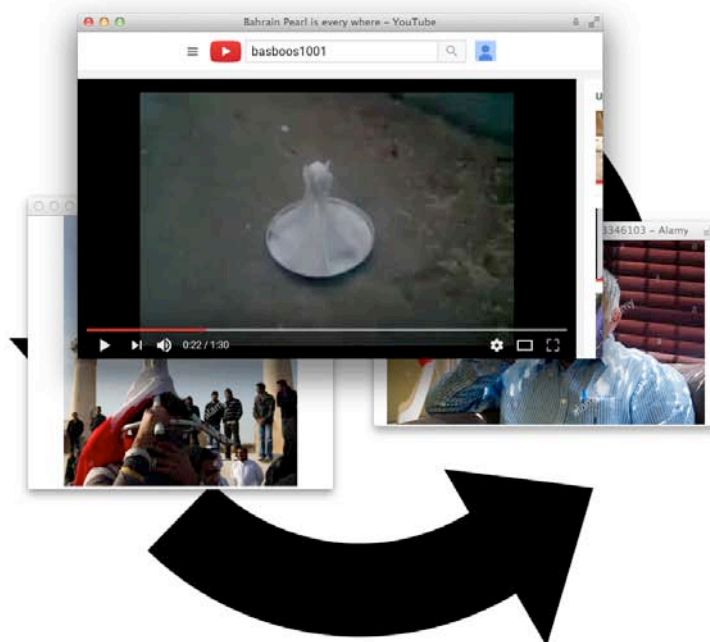


Figure 39 Screenshot configuration by the author: Youtube user basboos1001’s video post “Bahrain Pearl is every where” featuring footage of a Pearl Roundabout replication document sculptures left in streets and squares, as well as the mobilization of security forces ordered to dismantle and discard them (source: Youtube). Image by the author.

Videos of Pearl Roundabout replications document not only sculptures left in streets and squares, but also the mobilization of security forces ordered to dismantle and discard them. Another video-post mocks these dismantlings with the title, “Bahrain:regime mercenaries scared of mini-pearl monument in Iskan AAli 15-8-2011” (fig. 40).⁸² In this video, the roundabout replication is once again miniaturized to approximately knee-height; however, like the replication in the nighttime street scene from the previous video, its proportions are manipulated. The slender beams and perched sphere of the original monument have been inflated in the replication. The video introduces its replication with a daytime shot from a position that places the monument in the curve of a mini-roundabout in Iskan A’Ali, a suburb of Manama. The footage cuts to night. Under flashing white police lights, the silhouette of the miniature can still be discerned in the bottom of the screen; the camera, however, is no longer stable on a tripod or other support, but

⁸² “Bahrain:regime mercenaries scared of mini-pearl monument in Iskan AAli 15-8-2011,” op.cit.

shakes in-hand. Confused motorists approach the mini-roundabout with a reduction in speed that far exceeds what the traffic-easing junction would normally require. Two figures pace back and forth in front of the replication, but never approach it. The video ends with a jump-cut to two white-helmeted officers who, the montage suggests, are studying the replication from across the street. The video critique of dismantlings supports the anonymous protest-sympathizer who, in comments to the international media, insisted the “symbolism” of destruction “means nothing.” What matters is “momentum”⁸³—the momentum of plastic activism.



Figure 40 Screenshot configuration by the author: a Youtube user’s video-post mocks Pearl replication dismantlings by security forces with the title, “Bahrain:regime mercenaries scared of mini-pearl monument in Iskan AAli 15-8-2011” (source: Youtube). Image by the author.

While news reports and feature essays on the Pearl Roundabout’s 2011 destruction focused on the roundabout-as-form—a “statue” described as a “classic piece of meaningless, made-to-order modernism” that became the “unlikely symbol of a vigorous democratic

⁸³ Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

movement”⁸⁴—*The Guardian* report from the streets emphasized the meaninglessness of “symbolism” and the importance of the roundabout-as-“momentum.”⁸⁵ The online magazine article titled “Roundabouts and Revolutions” asserted that “one of the greatest hidden lessons of the new Arab revolts [...] isn’t political but architectural”: in the canonical Western history of late 19th-century urban planning, “[Baron Eugene Haussmann’s] breaking up the medieval [Parisian] tangle with wide, straight avenues intersecting at key nodes was supposed to prevent future revolutionaries from putting up their barricades and, eventually, their communes [...]”⁸⁶ With the Pearl Roundabout, however, “it turns out the central traffic circle, once barricaded, occupied and broadcasting live, may become a crucible where no Khedive or emperor or president is finally safe.”⁸⁷

In 2015, architectural historian and theorist Eyal Weizman appropriated this insight into “Roundabouts and Revolutions,” to situate the Pearl Roundabout occupation and destruction within a broader history of both roundabout revolutions and roundabouts in urban planning.⁸⁸ Weizman’s historical reassessment of the roundabout, adds to the definition of the roundabout as “architectural” with another categorization, that of the roundabout as “instrument”: Weizman describes the roundabout as both an “urban architectural setting” and a “utilitarian instrument of traffic management.”⁸⁹ The lesson offered in the present essay is yet another. The “lesson” of the Pearl Roundabout replications regards “momentum,” a creative passion for destruction beyond iconoclasm and vandalism, in-between destructive plasticity, destructive production and creative destruction. At the risk of sounding melodramatic, this lesson can only really be described as a struggle for life. Focusing on momentum emphasizes the roundabout’s in-betweenness as neither architecture nor infrastructure, but something else completely: a void that has become a key site

⁸⁴ Kennicott, “Bahrain’s Pearl Statue is gone, but it remains an icon of democracy,” op. cit

⁸⁵ Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

⁸⁶ Liu, “Roundabouts and Revolutions,” op. cit.

⁸⁷ Ibid.

⁸⁸ Weizman, *The Roundabout Revolutions*, 8 and 74.

⁸⁹ Ibid., 1 and 11.

of corporeal contestation, of a transition in urban planning practices from humanist design, to designs for the post-human body. This combination of the political and the corporeal, the symbolic and the kinesthetic expressed in the Pearl Roundabout occupations, destruction, and replications, positions the Pearl Roundabout between “setting”⁹⁰ and “instrument,”⁹¹ between sculpture-as-‘statue’ and sculpture-as-‘plastic,’ between body and city. It is the “monument speaking for itself”⁹² in its own language of momentum.

Porosity and Percolation: The Lesson of Plastic Scale in ‘Pearl’ Replications

Political scientist Eugenio Lilli has asserted that the ‘porosity’ of Bahrain – its condition of being “especially open [...] to foreign influence” – is what made the Bahraini uprising “fail [...] to achieve any significant change.”⁹³ What happens to the way “significant change”⁹⁴ is quantified when attention to the “porous” conditions effecting an uprising are complemented with attention to its plastic aspects? In the case of Bahrain seen from the perspective of plastic activism, “porous” Bahrain is no longer only a Bahrain open to foreign influence, but an opening of the foreign to influence by Bahrain. In other words, Bahrain’s permeability is indeed porous and pervious, but also percolating and seeping.

To see what constitutes “significant change”⁹⁵ in ‘percolating’ Bahrain, the Bahrain uprising has to be plotted in various malleable maps of plastic scale. The previous section’s account of Pearl Roundabout replications produced a plasticity of scale that brought together Manama city and its suburbs, like Iskan A’Ali. At the conclusion of this essay, my own

⁹⁰ Ibid., 1

⁹¹ Ibid., 11.

⁹² Straughn, “Other Monumental Lessons,” 96

⁹³ Lilli, “Foreign Actors,” 164. Lilli provides comment and analysis to international media outlets including *AL Jazeera International* and *The Telegraph*. His first book, *New Beginning in US-Muslim Relations: President Obama and the Arab Awakening*, was published in 2016. Eugenio Lilli, *New Beginning in US-Muslim Relations: President Obama and the Arab Awakening* (New York, NY: Palgrave Macmillan, 2016).

⁹⁴ Ibid.

⁹⁵ Lilli, “Foreign Actors,” 164.

replication, *PERP*, will extend this malleable map from a virtual-fictional Southern California iteration of a replication online, to its own physical-actual Southern California replication in the U.S., and a physical-actual anti-migrant Weimar context in East Germany (fig. 41).

What is plastic scale? New studies in geography have proposed the concept of the “plasticity of scale” to define “scale [a]s a tool to understand relationships, negotiations, and tensions between actors in space”: scale is “plastic” because “it is a network of dynamic relationships that expands and contracts through the interaction of objects and people.”⁹⁶ In these studies, “plasticity of scale” is contrasted with models of “scale as an ontological fact” and “scale as a methodological tool.”⁹⁷ In the first instance, scale is understood as “organiz[ing] matter in a Russian-doll structure from the infinitely small to the infinitely large.”⁹⁸ In the latter instance—that of “scale as a methodological tool”—scale “manages data within a defined spatial frame to access an extracted section of reality.”⁹⁹ The result of these two approaches is assessed as “either overwhelming and thus useless, or reductive therefore biased.”¹⁰⁰

⁹⁶ El Hadi Jazairy, “Toward a Plastic Conception of Scale,” *Scales of the Earth. New Geographies* 4 (Cambridge, MA: Harvard University, 2011). 1.

⁹⁷ Jazairy, “Toward a Plastic Conception of Scale,” 1.

⁹⁸ *Ibid.*

⁹⁹ *Ibid.*

¹⁰⁰ *Ibid.*

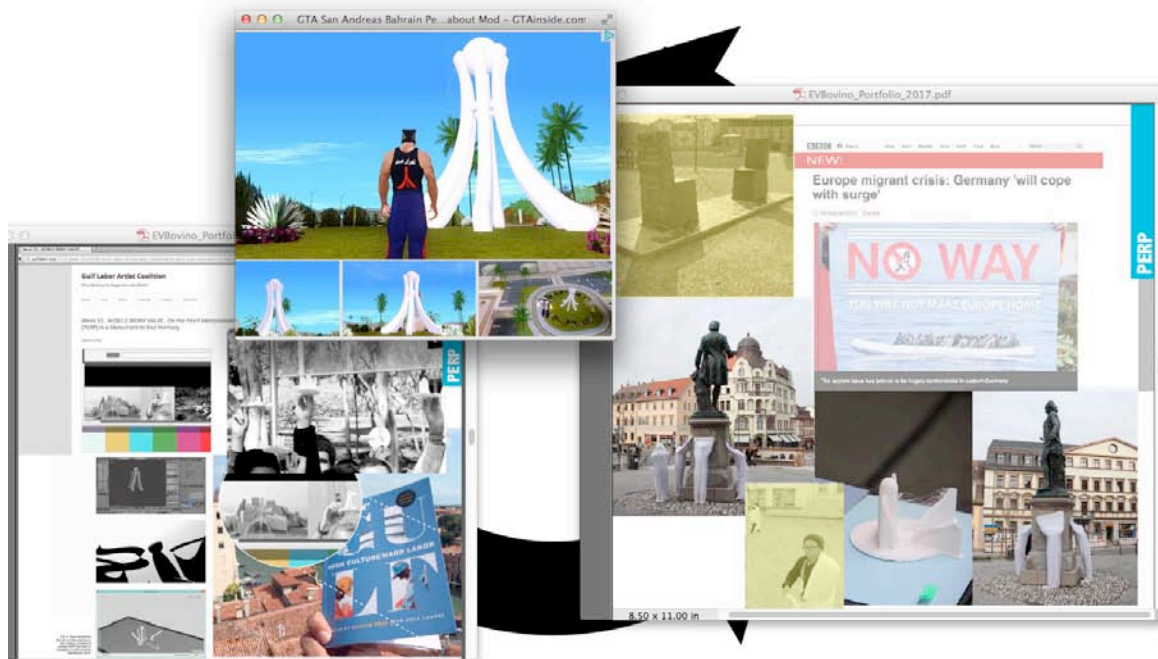


Figure 41 Screenshot configuration by the author: (left) images from my Pearl Roundabout replication project, *PERP*; (top middle) a virtual-fictional Southern California iteration of a Pearl Roundabout replication in the video game *Grand Theft Auto* (source: *Grand Theft Auto*); (right) my physical-actual iteration of the *PERP* project in anti-migrant East Germany (source: the author). Image by the author.

The satellite images of Google Earth as “representational tool” have encouraged an understanding of scale as “transparent” with “space [...] exist[ing] simultaneously across scales.”¹⁰¹ New geographies have responded by reasserting the importance of acknowledging, “things are not only related in a zoom-in, zoom-out manner.”¹⁰² The image presented to demonstrate the impact of seeing cities in a “plasticity of scale” is the “malleable map”: for example, a “malleable map of Europe that deforms geographical distances between [the Northern French city of] Lille and other European cities to reflect the impact of high-speed rail,” or a malleable map in which the city of Brussels, otherwise understood as having hollowed-out its center for suburban growth, is instead seen as a city of an imploded center that has actually made all of Brussels into a center, the center of a larger “complex” called “BAG” (Brussels, Antwerp,

¹⁰¹ Ibid.

¹⁰² Ibid.

Ghent), the “Flemish Diamond.”¹⁰³ In BAG, Brussels becomes part of a “network of megapolises” that can actually be seen as having become “denser and [having] attracted economic activities and population flows from the larger region of Northern Europe.”¹⁰⁴ The ultimate aim of plastic scale is to provide a non-homogenizing conceptual tool that “offer[s] unexplored opportunities to design the Earth through a careful mapping of the relationships (continuities and discontinuities) between people and objects.”¹⁰⁵ In order to avoid the “homogenizing assumptions about global space,” practice with plastic scale “seeks to focus on the material and spatial underpinnings of scale, whose implications are yet to be fully elaborated.”¹⁰⁶

¹⁰³ Ibid.

¹⁰⁴ Ibid.

¹⁰⁵ Ibid.

¹⁰⁶ Ibid.

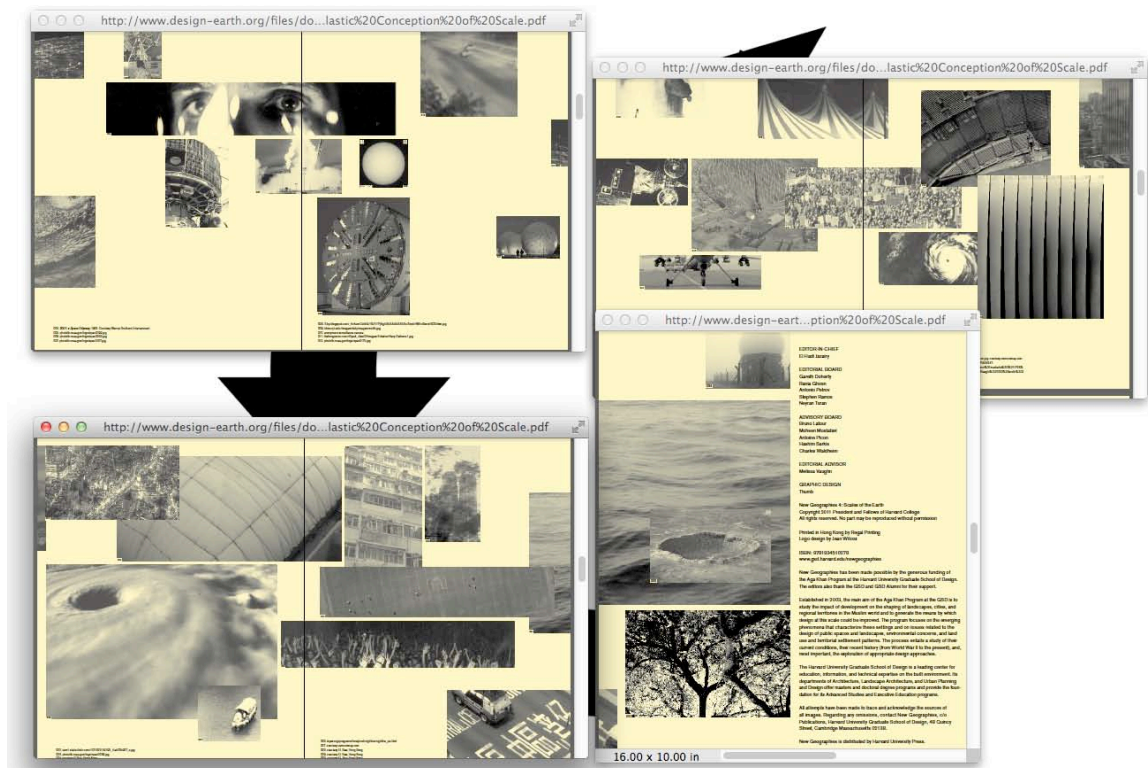


Figure 42 Screenshot configuration by the author: image folios from the essay “Towards a Plastic Conception of Scale” by architect El Hadi Jazairy (source: *New Geographies*, Harvard University Press). Image by the author.

The recent history of the Bahrain uprisings has been studied in similar malleable map configurations. For example, Bahrain’s openness to foreign interventions has been compared with that of other “porous” Arab Spring countries in the Middle East and North Africa (MENA), like Libya and Yemen.¹⁰⁷ Likewise, Eyal Weizman’s *The Roundabout Revolutions* has explored the Bahrain uprisings in a “plasticity of scale” that orients it within both the broader nineteenth century history of circular traffic junctions, from cosmopolitan Paris to provincial England, as well as within the more recent history of “roundabout revolutions” from Korea to Iran.¹⁰⁸ The following sections build further on these mappings with other as of yet “unexplored

¹⁰⁷ Lilli, “Foreign Actors.” 165.

¹⁰⁸ Weizman, *The Roundabout Revolutions*, 7-8.

opportunities.”¹⁰⁹ These “opportunities” are those that can be found in “mapping [...] the relationships (continuities and discontinuities)” not only “between people and objects,”¹¹⁰ but among objects themselves. The conclusion of the essay maps replications of the Pearl Roundabout monument from Manama and its suburbs, to Southern California and East Germany. In the meantime, the immediate section to follow, traces the replication of the roundabout in urban planning across Europe, the Middle East and North Africa, East Asia, and the United States.

The concepts of “plastic scale” and “plasticity of scale” outlined above were originally accompanied by a series of two-page folio-spreads of black-and-white photographs in various configurations (fig. 42).¹¹¹ These images are important to understanding the way plastic scale works. In the first of these configurations, the images respect their respective frames, getting close enough to one another to form distinct groups but never overlapping (fig. 42, top left). Instead of being identified by what they portray, the digital photographs in these folio-spreads are identified by source website: i.e., the footnote caption for an image of a space storm or black hole is not “space storm” or “black hole,” but the respective image’s domain address. In the second and third spreads, the nature of configurations changes: images overlap one another, crossing corners and edges (fig. 42, top right and bottom left). In the final spread—a half-page layout that shares its sheet with publication information—one small image is now entirely framed by a larger image underneath it: the smaller photograph of a crater is suspended over a larger photograph, the image of a calm ocean (fig. 42, bottom right). From the superimposition in plastic scale, the crater is transformed into the dip of the central trough in the middle of concentric rippling. The fixed depression of the crater becomes the liquid current in rippling: the long duration of geological time is condensed into an instant of momentary agitation, a plastic duration.

¹⁰⁹ Jazairy, “Toward a Plastic Conception of Scale,” 1.

¹¹⁰ Ibid.

¹¹¹ Ibid., 2-8.

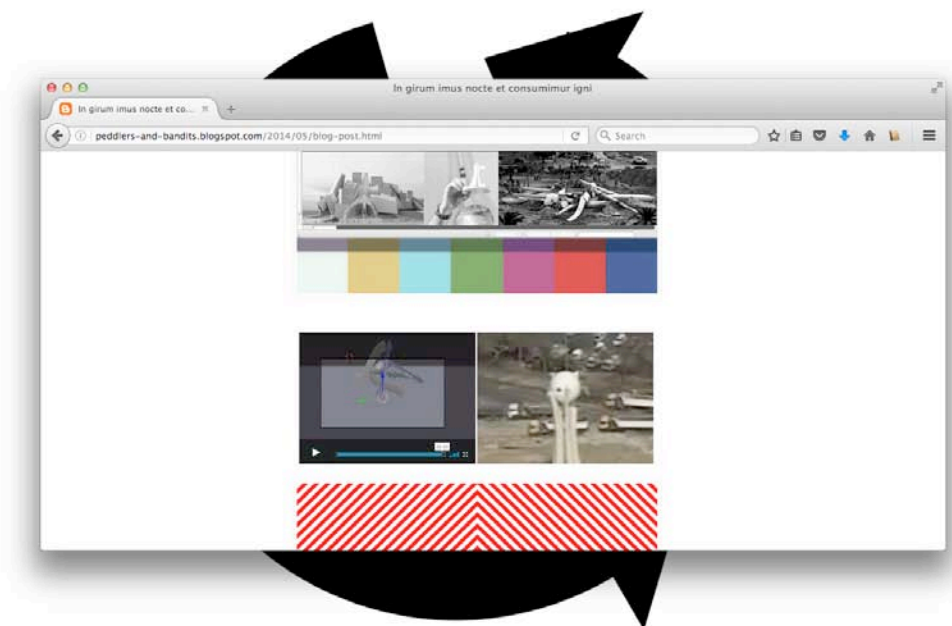


Fig. 43 Screenshot configuration by the author: screenshot of the blog peddlers-and-bandits where the PERP project is accessible online (source: the author). Image by the author.

In the previous sections of replication-ekphrasis (the rhetorical exercise of verbally describing replications), I experimented in similar fashion, only not using folio-spreads. My ekphrastic configurations combined actual captioned images with descriptions of images; it combined images created in the readers mind through descriptive writing, with incidents of the image-on-page and incidents of the image-online, as well as incidents of the still-image and the moving-image. At the conclusion of this section, I ask that the reader take a three-minute pause and visit the scroll-montage blog-post at the link provided (fig. 43). “Scroll montage”¹¹² is the

¹¹² "Scroll montage" is a form of multiple-screen montage developed specifically for the moving image in an internet browser. It plays with Italian theatre director Eugenio Barba's "space river" montage in which the spectators' attention is said to "[sail] on a tide of actions which their gaze [can never] fully encompass." (Eugenio Barba, *On Directing and Dramaturgy: Burning the House* (New York, NY: Routledge, 2009), 47). Scroll montage" is usually used in online audio-visual works in which sound and the moving image are separated and can exist autonomously: audio in these works is usually streamed on internet radio and video is posted on a separate site. (e.g. Mobile Irony Valve, "Logical Volume Identifier". *KCHUNG Radio*. May 25, 2014. For video: <http://www.mobile-irony-valve.net/index.php/lvi/lvi/>; For audio: <http://www.volume.la/broadcasts/volume-on-kchung-ii-week-2/>) I included this definition for “scroll montage” on the Wikipedia post for “montage” in 2014. “Montage (filmmaking), *Wikipedia*. Last Edited

name I have given to a form of internet image-viewing that uses the scroll capacity of web browsers to add another temporal dimension to more traditional moving-image montage effects. In scroll montage, the moving-image of uploaded digitized film or digital video is simultaneously an image-moving: the scroll allows the user to scroll up and down or left and right over moving-images and still-images, associating them and disconnecting them in isolation. It also allows users to separate the cinematic image from linked audio, granting the latter mobility and autonomy from the former. The user can listen to otherwise linked audio while contemplating images other than those the audio is used to accompany in post-production. The effect is similar to that of the ripple-crater in the folio-spreads described above; in this case, however, the reader remembering in-text images and ekphrastic descriptions, superimposes scrolling afterimages in mental-memory over the two-channel scroll montage on the luminous screen. The link provided for readers also includes a link to download a “PDF chapbook.” Readers are asked to delay downloading the chapbook until the conclusion of the essay.

Please visit: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

Chapter Five / Scrolling Back through the History of the Roundabout

In April 2011, Egyptian urban historian Nezar AlSayyad wrote an article for *The New York Times* titled “Cairo’s Roundabout Revolution.”¹ The title of the article challenged the tendency among journalists and scholars to overemphasize the role of social media in the city’s Tahrir Square uprising. It posited itself as a corrective to headlines that referred to the occupations as the “Facebook revolution.”² “Revolutions do not happen in cyberspace, even if they start there,” wrote Al Sayyad³: “what happened in Tahrir Square [...] show[s] that even in the 21st century, public space remains the most important arena for dissent and social change.”⁴

The small book, *The Roundabout Revolutions* (2015), by architect and visual culture theorist Eyal Weizman, was in part inspired by AlSayyad’s emphasis on the spatial configuration of the ‘circling square’ in the Tahrir Square uprisings.⁵ Weizman’s own roundabout narrative, however, begins not in North Africa, or even the Middle East, but in the Pacific, with a photograph of the May 1980 Gwangju uprising in South Korea (fig. 44).⁶

¹ Nezar AlSayyad. “Cairo’s Roundabout Revolution.” *The New York Times*. April 13, 2011. Accessed April 13, 2011. <http://www.nytimes.com/2011/04/14/opinion/14alsayyad.html>. Cited in Weizman, *The Roundabout Revolutions*, 7.

² Ibid.

³ Ibid.

⁴ Ibid.

⁵ Weizman, *The Roundabout Revolutions*, 7.

⁶ Weizman, *The Roundabout Revolutions*, title page photograph (not numbered), “Liberated Gwangju”: Protesters gather at the roundabout in front of Provincial Hall in Gwangju, May 26, 1980.



Figure 44 Screenshot configuration by the author: a photograph of the May 1980 Gwangju uprising in South Korea from Eyal Weizman's *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

As Weizman writes, the uprising in Gwangju – one of South Korea's most populous southern-most cities – is now “recognized [...] as the first step in the eventual overthrow of the [country's] military dictatorship.”⁷ It was the first turn in a revolution that took many subsequent turns to achieve its ultimate objective: the removal of a military dictatorship. The photograph (fig. 44) shows protestors occupying the circular road and central plateau of a plaza known as Provincial Square. In the center of the photograph – the middle of the square – protestors sit on the ledge around an inactive circular fountain, fallen into disuse. The fountain takes on the appearance of a roundtable with negotiators arranged around its circumference.

Weizman recounts that he first saw the photograph in a visit to Gwangju in 2012. As he remembers, it had “an uncanny resonance with events that had just unfolded”:

⁷ Ibid., 1.

in the previous year a series of popular uprisings spread through Tunisia, Egypt, Bahrain, Oman, Yemen, Libya and Syria. These events shared with Gwangju not only the historical circumstances—they too were popular protests against military dictatorships—but, remarkably, an urban-architectural setting: many of them similarly erupted on roundabouts in downtown areas.⁸

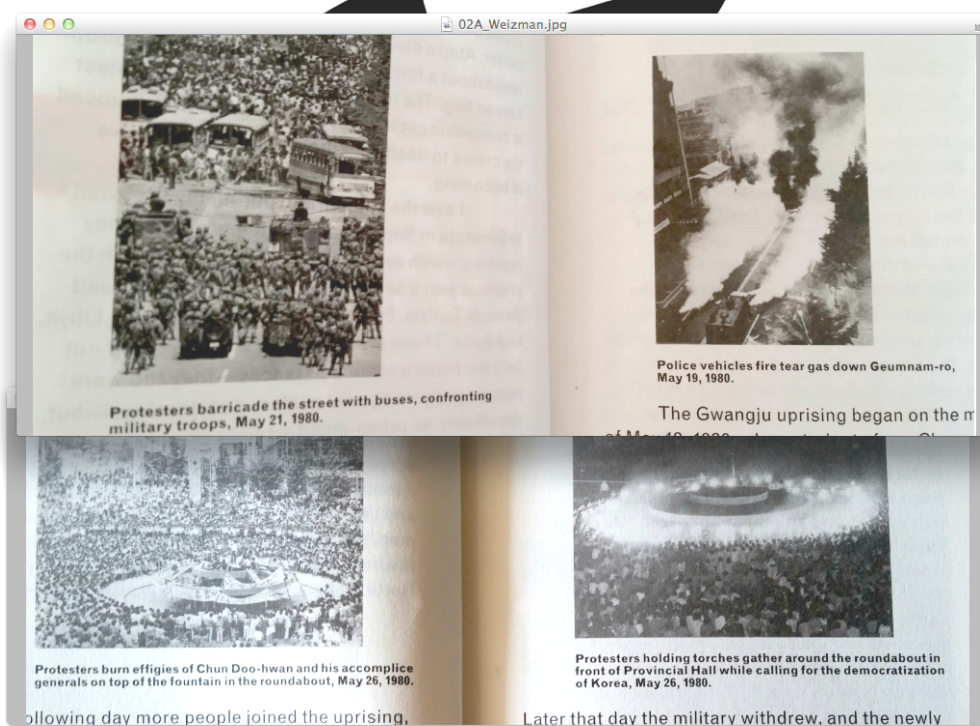


Figure 45 Screenshot configuration by the author: photograph of the May 1980 Gwangju uprising in South Korea from Eyal Weizman's *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

“The history of these roundabouts,” Weizman asserts, “is entangled with the revolutions that rose from them.”⁹ Thus, to begin his account of this history and its revolutions, Weizman eases into the story through several photographs of the Gwangju circle across various moments of the uprising from the riotous to the subdued (fig. 45). First, there are the effigy-burnings of military leader “Chun Doo-hwan and his accomplice generals.”¹⁰ The burnings were staged atop the

⁸ Ibid.

⁹ Ibid.

¹⁰ Ibid.

circular fountain in response to the declaration of martial law that, with the support of U.S. President Jimmy Carter, allowed Doo-hwan to crack down violently on protests (fig. 45). Then there is the peaceful circle of fire created by protesters who had gathered around the fountain with torches in vigil that called for “the democratization of Korea” (fig. 45).¹¹ Weizman tallies the deaths of Gwangju protestors at 191, with approximately a thousand wounded. “For the next seven years,” through the convolutions of roundabout politics, “the movement continued underground, inspiring a number of revolts in the Philippines, Taiwan and Burma.”¹² The momentum carried and “in 1987 a nationwide uprising finally forced the military regime out of South Korea.”¹³

Weizman’s malleable map of “roundabout revolutions” in momentum, is told through a roundabout topology that circles around Gwangju with intersecting roads to Tunis, Cairo, Ramallah, Damascus, Tehran, and Manama. By making Gwangju the central plateau in his roundabout narrative, Weizman’s aim is to draw attention to what philosopher Alberto Toscano calls the “infra-political level” of revolution: the “speculative horizon of the strategic *long durée* – the creation of political consciousness, awareness and orientation.”¹⁴ Weizman’s history situates this *long durée* (long duration) within the same spectrum of success and failure typically evoked by both academic and international media histories of the Arab Spring. By circling this spectrum around the example of Gwangju, however, Weizman counteracts the quest for immediate results, with attention to the cultural work of sustained duration that makes political and social change possible.

¹¹ Ibid., 4 – 5.

¹² Ibid., 6.

¹³ Ibid.

¹⁴ Ibid., 61.



Figure 46 Screenshot configuration by the author: a photograph of Tunis's Place 14 janvier 2011 (formerly Place du 7 Novembre 1987, Place Bourguiba, and Place d'Afrique), the principal site of Arab Spring protests in Tunisia, from Eyal Weizman's *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

In the spectrum of Arab Spring success and failure, Mediterranean Tunis is generally considered not only the site of “the first Arab Spring revolution,” but also “the only one thus far to have led to a better life for the country's citizens” (fig. 46).¹⁵ In the Mediterranean's eastern end, Cairo is in the middle of the Arab Spring spectrum (fig. 47). The Cairo uprisings facilitated the overthrow of President Hosni Mubarak and reverberated across the Middle East, inspiring the occupation of the Pearl Roundabout on the Persian Gulf coast, in Bahrain's capital, Manama (fig. 48). However, Manama's Pearl Roundabout revolution “became the site of [...] the first decisive

¹⁵ Ibid, 8.

act of military repression: [its] protests were violently broken up and the roundabout itself destroyed and replaced with a traffic intersection” (fig. 48).¹⁶ Following repression in Manama, momentum shifted and inspiration seemed to invert. Egypt’s authorities appeared to learn new strategies from Bahrain’s Al Khalifa rule. Egypt’s democratically elected president, Mohammed Morsi, was removed by the Egyptian military and replaced with General Abdel Fattah el-Sisi.¹⁷



Figure 47 Screenshot configuration by the author: photographs of Cairo’s Tahrir Square, the principle site of Arab Spring protests in Egypt, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

From within this spectrum of success and failure, Weizman profiles other solidarity protests from micro- to macro-scales, from the “small al-Manara Square” traffic circle in Ramallah, Palestine to the “immense Azadi Square” ellipse in Tehran, Iran (fig. 49).¹⁸ In both

¹⁶ Ibid.

¹⁷ Fawaz A. Gerges, “Contextualizing the Arab Spring Uprisings: Different Regimes, Different Revolutions, and Different Trajectories,” *Contentious Politics in the Middle East: Popular Resistance and Marginalized Activism beyond the Arab Uprising*, ed. Fawaz A. Gerges, (New York, NY: Palgrave Macmillan, 2015), 18.

¹⁸ Weizman, *The Roundabout Revolutions*, 8.

cases, Weizman notes that protests were “violently suppressed.”¹⁹ He also points out, however, that both locations had histories as sites of rebellion, preceding Cairo’s Tahrir uprising. The Azadi circle had been not only the “site for the main protests of [Iran’s] Green Movement contesting President Mahmoud Ahmadinejad’s reelection” in 2009, but a key site in events that built to the 1979 revolution.²⁰ From the 1980s on, the al-Manara Roundabout was “a frequent site of clashes” between Palestinian youth and the Israeli military, as well as, “increasingly, the Palestinian Authority.”²¹

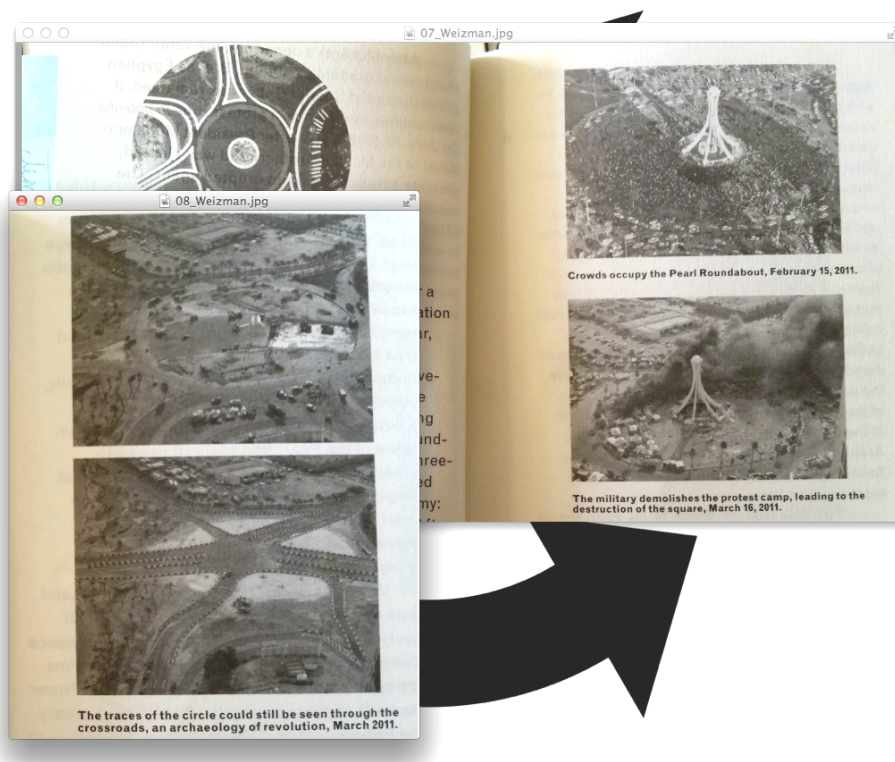


Figure 48 Screenshot configuration by the author: photographs of Manama’s Pearl Roundabout, the principle site of Arab Spring protests in Bahrain, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

¹⁹ Ibid.

²⁰ Ibid., 52 – 53.

²¹ Ibid., 55.

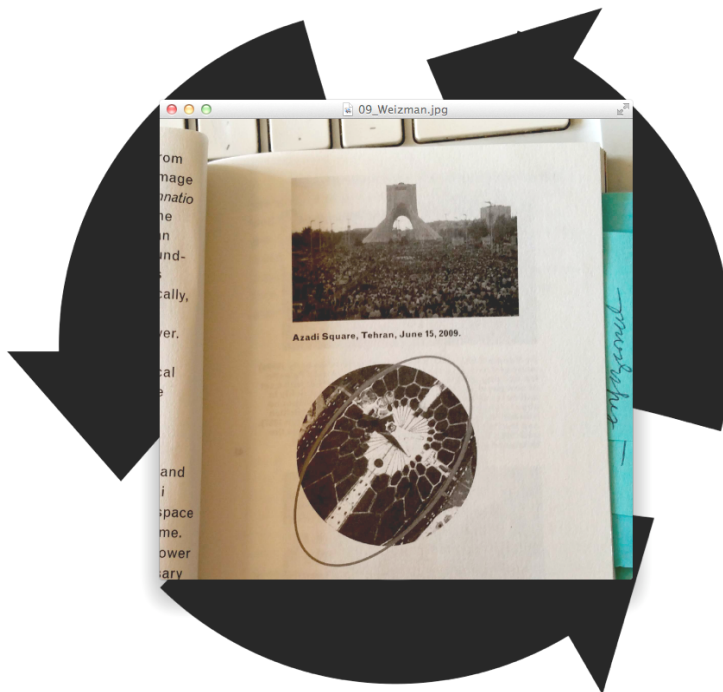


Figure 49 Screenshot configuration by the author: photographs of Tehran’s Azadi Square, the principal site for demonstrations in Iran’s capital, from Eyal Weizman’s *The Roundabout Revolutions* (2015) (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

Weizman writes that the “acts of imitation” that appeared to self-replicate across North Africa and the Middle East were critical to the uprisings being perceived as interlinked chains of rebellion, “each building on its predecessor, each helping propel the next.”²² Weizman not only recognizes the role of replications in revolution, but in addition to writing *The Roundabout Revolutions*, also carries the momentum of imitation forward by inserting his own replication into the chain (fig. 50).²³ Weizman’s replication is a design for the 2013 Gwangju Biennale (fig. 51). His Biennale design was created for a plaza in front of the Gwangju train station and was part of an exhibition titled “Gwangju Folly II.”²⁴ The theme of “folly” was presented to participants as an opportunity to explore the impermanent “architectural, artistic, or literary provocation” of “folly”

²² Ibid., 11.

²³ Ibid., 65-71. Weizman’s ‘replication’ is his Gwangju Biennial project, *The Roundabout Revolution Folly*, 2013.

²⁴ Ibid., 85.

that had been popular in capital cities of the Enlightenment West, particularly in eighteenth-century England and France.²⁵

As described by Weizman, follies often took the form of orientalist “Egyptian pyramids, ruins of abbeys, [...] Tatar tents” or “decorative Roman, Greek, or Chinese temples placed in the middle of an English garden or French landscape” (fig. 52).²⁶ They were “frivolous, luxurious, speculative, foolish or mad acts.”²⁷ Weizman quotes architectural theorist Anthony Vidler assaying the contradictory qualities of the folly: “the paradox of the folly is that it produced “a specter of emptiness and uselessness without which function itself was meaningless.”²⁸ In response, Weizman contends that “seen in our context, revolutions seem to have turned roundabouts into follies.”²⁹ In the Arab Spring’s occupations, structures like the roundabout, which had previously seemed to serve nothing but circulatory infrastructural function, or the ceremonial celebration of a reigning regime’s body politic, became sites for “interrupt[ing] and deactivat[ing] existing function”³⁰ – the functioning of an authoritarian status quo.

²⁵ Ibid., 17.

²⁶ Ibid.

²⁷ Ibid.

²⁸ Ibid., 18.

²⁹ Ibid.

³⁰ Ibid., 18-19.



Figure 50 Screenshot configuration by the author: Eyal Weizman's *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.



Figure 51 Screenshot configuration by the author: detail of Eyal Weizman's *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

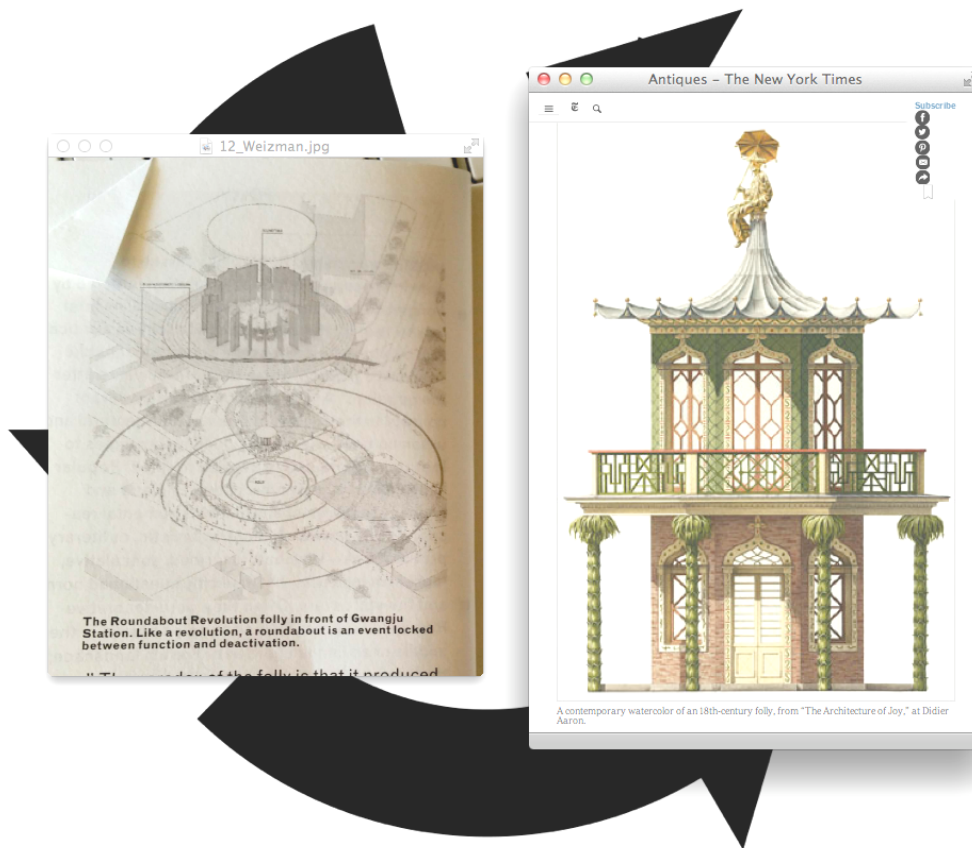


Figure 52 Screenshot configuration by the author: (left) plans for Eyal Weizman's *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015); (right) an 18th-century Chinoiserie Folly (source: The New York Times). Image by the author.

For the Gwangju project, Weizman, and collaborator Samaneh Moafi, designed a temporary steel-and-glass pavillion with a large roundtable on a temporary traffic island in front of the Gwangju train station (fig. 53).³¹ Concentric circles that later remained when the pavillion was dismantled, were marked on the asphalt like traffic lines around the pavillion (fig. 51). Each circle traces the real circumference of seven roundabouts profiled in Weizman's history of roundabout revolutions, from smallest on the inside, to largest on the outside. Meanwhile, the pavillion exterior was built to accommodate a series of its own rotations: its walls were comprised

³¹ Ibid., 65-71.

of a series of glass doors, each of which rotated to open and close on the central axes of the pavilion's structural columns (fig. 53). At the center of a large roundtable inside the pavilion were two digital video cameras attached to a rotating device (fig. 54). The video cameras were fixed on the device to be aimed in opposite directions. Their long handles allowed individuals who entered the pavilion to turn the cameras around the roundtable in a simultaneous "shot/reverse shot [in which] [...] each participant [was] both filming and being filmed."³²

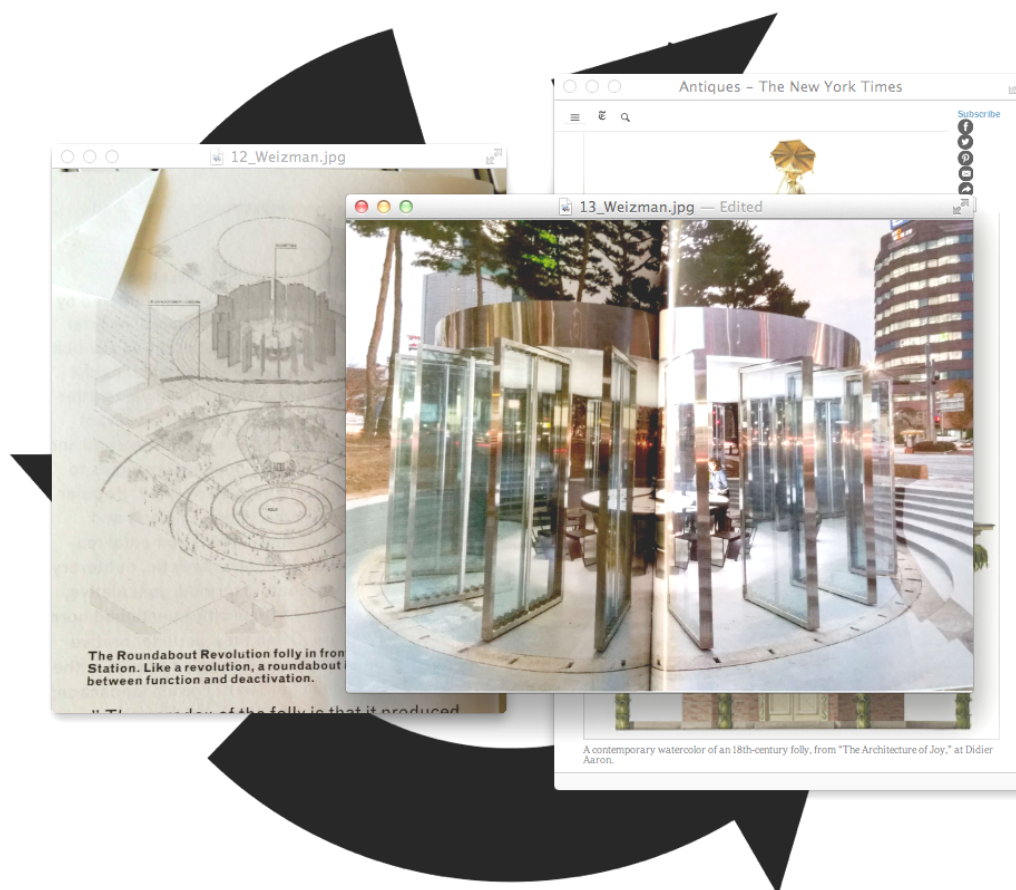


Figure 53 Screenshot configuration by the author: the steel-and-glass pavillion in Eyal Weizman's *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

³² Ibid., 68

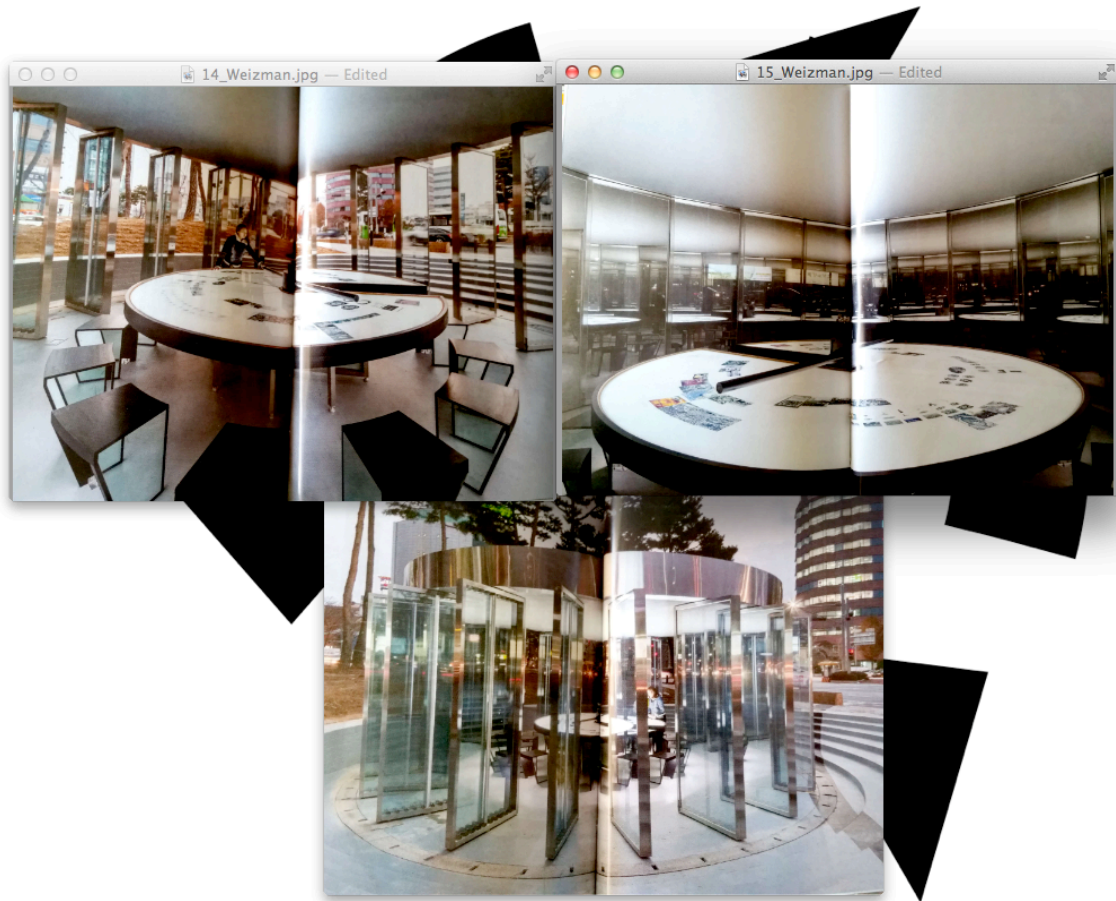


Figure 54 Screenshot configuration by the author: (top) the round-table with rotating camera inside of the pavillion (bottom) in Eyal Weizman's *Gwangju Folly* (2013), Gwangju, South Korea (source: Weizman, *The Roundabout Revolutions*, 2015). Image by the author.

The concentric circles were, for the most part, painted dark gray and disappear when rain-showers darkened the wet asphalt. When crossing the dirt and grass of traffic islands, the lines of the circles are painted white, while on the white concrete steps in front of the train station, the sections painted are almost black. The circles travel across various surfaces, from asphalt and dirt to cement, making the train station plaza a less static space. Amidst Weizman's dynamic roundabout orbits, the otherwise conventional modernist architecture of the train station appears on the edge of a suspended, whirling momentum, like a structure about to be sucked down into a black hole or tossed up into a spiraling tornado. The concentric circles of roundabout

circumferences combine one of Weizman's references, the Florentine Renaissance image of circles of hell, *The City of Dis, Circles 6 to 9 of Hell* from Dante's *The Divine Comedy* (c. 1320),³³ with what would be an immediate association for any international urbanist, from Italy to Japan³⁴: the concentric belts of British reformer Ebenezer Howard's late 19th century social utopian Garden City plan (fig. 55).³⁵

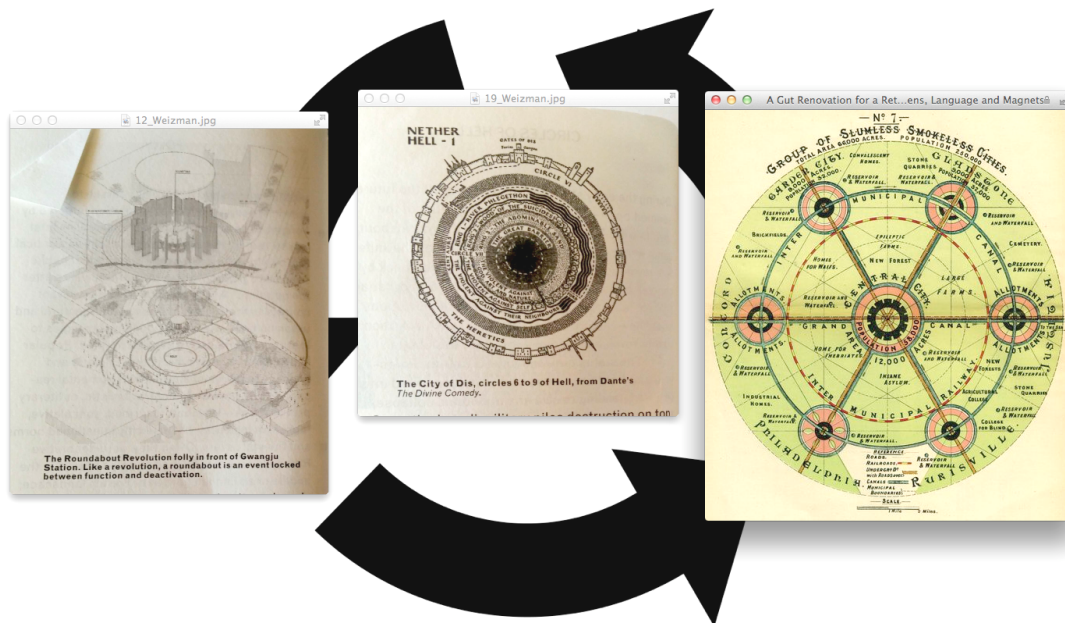


Figure 55 Screenshot configuration by the author: Weizman associates (left) the concentric circles of roundabout circumferences in his *Gwangju Folly* (2013) with (middle) the Florentine Renaissance image of *The City of Dis, Circles 6 to 9 of Hell* from Dante's *The Divine Comedy* (c. 1320) (source: Weizman, *The Roundabout Revolutions*, 2013). The rings recall the concentric belts of British reformer Ebenezer Howard's late 19th century social utopian *Garden Cities* plan (source: Garden Cities Institute). Image by the author.

³³ Ibid., 58.

³⁴ Howard's *Garden Cities of To-morrow* (1898) inspired planning around the world from Milan, Italy to Den-em-Chofu, Japan. These two cities represent the two poles in international influence of Howard's Garden City, from the actual Garden City plan to an iterative Garden Suburb design. Milanino is a suburb of Milan and was founded in 1907 naming Letchworth Garden City and Hampstead Garden Suburb as its influences. It was designed for the middle class with what appears to have been at least the partial intention of following both Howard's co-operative ownership model (it was founded by a founder and president of the Cooperative Union) and his transportation-centered, industrial-core design. Den-em-Chofu in Southern Tokyo was Japan's first Garden Suburb, inspired by Howard's designs, but intended as an exclusive rail commuter neighborhood that did away with the industrial core in Howard's Garden City. For more further examples, see the International Garden Cities Institute, "Global Garden Cities," *Garden Cities Institute*. N.d. Accessed October 26, 2016. <http://www.gardencitiesinstitute.com/resources/garden-cities>

³⁵ Weizman, *The Roundabout Revolutions*. 58

Weizman's concentric circles inscribe the outlines of seven circular plazas from the cities of Ramallah, Gwangju, Cairo, Manama, Tunis, Damascus and Tehran. Between Tunis and Tehran, the insertion of Damascus is perhaps slightly more controversial than the others. Originally engineered in 1925 by French authorities as part of a design to make Damascus a "European city center,"³⁶ the Damascus Roundabout – now called al-Sabaa Bahrat Square (Square of the Seven Fountains) – was the site of pro-Ba'athist rallies in support of Syria's socialist government in 2011. Since then, however – as Weizman recounts – it has also been the site of some of the first "violent confrontations with [the Ba'athist Bassar al-]Assad's regime."³⁷ Whereas the other roundabout sites of protest are more easily aligned with Weizman's progressive agenda, he takes a risk with Damascus. Anti-imperialist progressives have had a difficult time sorting out where to be aligned on the Syrian crisis since the country has increasingly become more central in proxy struggles between the United States and Russia, between the GCC and Iran.³⁸

³⁶ Ibid, 59. The quoted information is in the image caption.

³⁷ Ibid.

³⁸ Eric Draitser, "Syria and the Left: Time to Break the Silence." *Counterpunch*. October 20, 2016. Accessed November 3, 2016. <http://www.counterpunch.org/2016/10/20/syria-and-the-left-time-to-break-the-silence/>. Nada Matta in conversation with Gilbert Achcar, "Five Years after the Arab Spring." *Socialist Worker*. January 7, 2016. Accessed January 11, 2016. <https://socialistworker.org/2016/01/07/five-years-after-the-arab-spring>



Figure 56 Screenshot configuration by the author: a photograph of a miniature roundabout in a Jewish settlement in Jerusalem, from Eyal Weizman's *The Roundabout Revolutions*, 2013 (image: Weizman, *The Roundabout Revolutions*, 2013). Image by the author.

Weizman, who is Israeli, persists in pressing points of ideological discomfort when he includes an image of a miniature roundabout from a Jewish settlement in Jerusalem among his photographs of revolutionary roundabouts (fig. 56).³⁹ A perfectly manicured suburban mini-roundabout with a proportionately miniature tree at its center, stands in the open foreground of a photograph Weizman reprints towards the conclusion of his essay. The contrasting background in the photograph makes its foreground scene appear shrunken: the background is filled with tall high rise buildings that seem to lean towards the roundabout while being held back, contained by a concrete wall along the horizon. Weizman attributes the photograph to architectural historian

³⁹ Photograph by Roemer van Toorn, 2013, as published in Weizman, *The Roundabout Revolutions*, 56.

Roemer van Toorn who, he writes, sent it to him with a note asking “would there be enough political will to fill this roundabout to bring down this wall?”⁴⁰ Van Toorn’s question about political will is essentially a question about momentum. Could enough momentum be generated from the political will of a few, to bring down a wall that both Israeli and international majorities support?

Weizman’s *The Roundabout Revolutions* uses the term roundabout in a way that emphasizes momentum.⁴¹ His narrative uses the term to define both a specific technology of traffic engineering and the roundabout revolutionary flow of moving bodies whose uprisings follow alinear trajectories through setbacks and progress. Weizman’s “roundabout revolutions” is the equivalent of AlSayyad’s challenge of “Facebook Revolution” characterizations of the Tahrir Square Arab Spring occupations.⁴² Whereas AlSayyad emphasized the importance of public space over cyberspace, Weizman’s use of the term “roundabout” emphasizes the ‘formula’—the vital dimension—of rotating momentum in the roundabout-as-spatial-configuration, over ‘form’ in the roundabout as “urban-architectural setting”⁴³ and “utilitarian instrument”⁴⁴ moving bodies through cities.

Weizman does not parse whether circular junctions from Cairo to Jerusalem would technically be considered roundabouts, gyratory systems (*carrefour à giratoire*), traffic circles

⁴⁰ Weizman, *The Roundabout Revolutions*, 56.

⁴¹ Weizman writes about momentum in both positive and negative ways: During the early stages of the Arab revolt the future seemed open—the reach and momentum of the revolts were breathtaking. But after the roundabouts came terror. [...] The term “roundabout revolutions” would now capture the rotation of power: revolution, counterrevolutions, counter-counterrevolutions.” Weizman, *The Roundabout Revolutions*, 57. “Revolutions are messy, bloody, unpredictable, and chaotic; they sometimes derail and cannot be harnessed again. It takes a concentrated period of struggle and sacrifice to break away from historical momenta, and a long time to rebuild.” Ibid, 59.

⁴² Nezar AlSayyad. “Cairo’s Roundabout Revolution,” op. cit. Cited in Weizman, *The Roundabout Revolutions*, 7.

⁴³ Weizman, *The Roundabout Revolutions*, 1.

⁴⁴ Ibid., 11.

(and rotaries), or circular cross-roads (*rond-points*).⁴⁵ Indeed, the majority of the spaces Weizman brings together under the umbrella term “roundabout” are not technically roundabouts, but city and town squares that over time were gradually transformed into traffic circles, then regulated with roundabout navigational rules. According to histories of roundabouts told from an engineering perspective, the square-cum-traffic-circle was originally “intended only for pedestrians and horse-drawn vehicles.”⁴⁶ It only included cyclists and motor vehicles much later as these forms of transportation were invented and disseminated across the population. Unlike roundabouts, “an elevated platform, as a rule, did not exist on squares and there was not a circular island.”⁴⁷

As a 1980s outgrowth of a system of actual technical roundabouts adopted by Manama in the 1960s, Bahrain’s Pearl Roundabout was designed with an elevated platform;⁴⁸ the circular fountain at the center of the “Provincial Hall *square*”⁴⁹ in front of Gwangju’s Jeollanamdo Provincial Office makes the South Korean space a roundabout hybrid of the square and the traffic circle (fig. 57). Because of its circular fountain, the square appears to have an elevated central platform—one of the characteristics of the traffic circle; however, this central circle is not a platform proper, but the basin of a fountain. The metamorphosis of a square into a square-cum-traffic circle usually also involves further circling of the square, or rounding-off from the outer edges (fig. 57). The curved elevated platform on the outer edges is used to “separate pedestrians

⁴⁵ The various categories of circular junction are from Tomaz Tollazzi, *Alternative Types of Roundabouts: An Informational Guide*. Springer Tracts on Transportation and Traffic, Vol. 6, ed. Roger P. Roess (Cham, Switzerland: Springer, 2014), 1-10.

⁴⁶ Tollazzi, *Alternative Types of Roundabouts*, 1.

⁴⁷ Ibid.

⁴⁸ A. Pratelli and H.M.N. Al-Madani, “Testing for a large roundabouts capacity model: experimental comparisons between Italy and Bahrain.” *WIT Transactions on The Built Environment*, Vol. 116 (2011) in *Urban Transport XVII: Urban Transport and the Environment in the 21st Century*. ed. Antonio Pratelli and C.A. Brebbia. Southampton, UK: WIT Press, 2011, 4.

⁴⁹ My emphasis. The plaza in front of Provincial Hall is typically referred to as a “square” not a roundabout. See Chōng-un Ch’oe, *The Gwangju Uprising: The Pivotal Democratic Movement that Changed the History of Modern Korea* (Paramus, NJ: Homa & Sekey Books, 2006), 15, 66, 117 and 169 and Georgy Katsiaficas, “Remembering the Gwangju Uprising,” *South Korean Democracy: Legacy of the Gwangju Uprising*, ed. Georgy Katsiaficas and Na Kahn-chaе (New York, NY: Routledge, 2006), 14.

from motorized traffic.”⁵⁰ Provincial Square in Gwang-ju does not appear to have this elevation on its outer edges, however, it does have painted sections that simulate the elevated platform by indicating no-access areas for traffic (fig. 57).

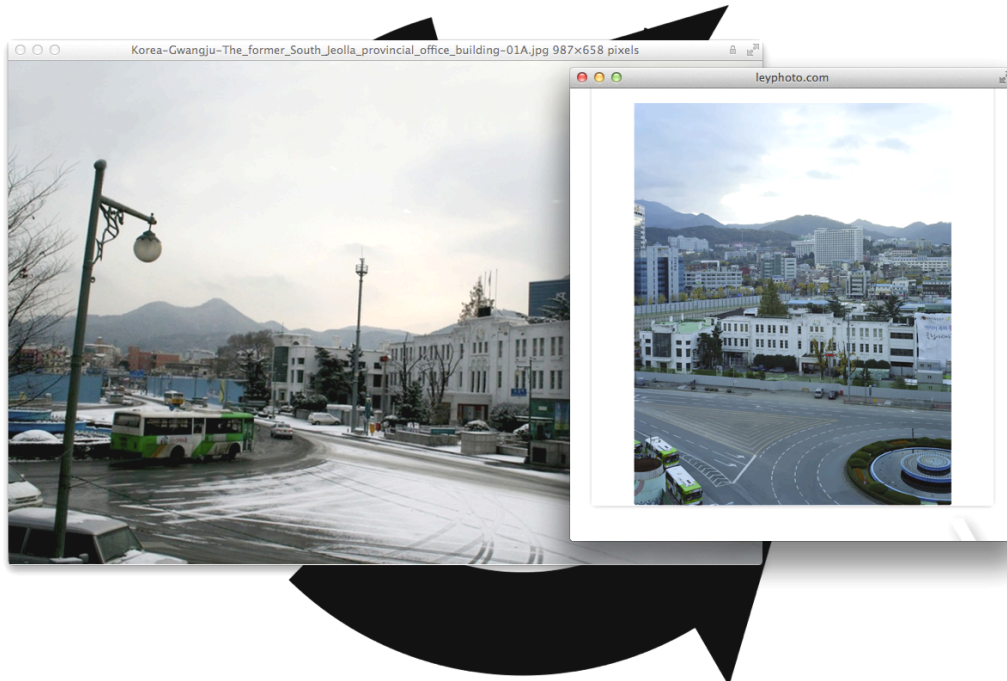


Figure 57 Screenshot configuration by the author: photographs of Gwangju’s Jeollanamdo Provincial Office (Gwangju Provincial Square) (source: Google Images) Image by the author.

Due to relatively “low traffic volume and low speeds,” traffic rules were initially not considered necessary in traffic circles.⁵¹ Official histories thus typically associate the first use of the term “roundabout” with new mid-20th century systems of traffic rules and right-of-way implemented in traffic circles.⁵² The “modern roundabout” was an instrument of traffic engineering developed by the United Kingdom’s Transport Research Laboratory in response to problems with older “traffic circles” and “rotaries.”⁵³ Whereas the latter “gave priority to

⁵⁰ Tollazzi, *Alternative Types of Roundabouts*, 1.

⁵¹ Ibid.

⁵² Ibid., 1-2.

⁵³ Ibid.

entering traffic,” “the main characteristic of a ‘modern roundabout’ is the deflection on entry”: “priority is given to the circulating flow, and the central island provides a visual barrier across the intersection to the drivers entering it.”⁵⁴ In addition, speed around the central island in a “modern roundabout” is reduced relative to other roads.⁵⁵ This reduced speed is tracked internationally at an average of 25 to 40 km/h (approximately 16 to 25 mph).⁵⁶

Though Gwangju Provincial Square now appears to be engineered with the traffic lanes, the priority controls and the outer edges necessary to make it a true “modern roundabout,” this design seems to have been accretive, and may even have been part of the transformation the square has undergone since becoming a monument of South Korean democratization. The fact that “circling the square”⁵⁷—the rounding-off of a square into an actual roundabout—may have become a part of the process of monumentalizing a space considered central to democratization, is an indication of the new aesthetic momentum of the roundabout formula. Rather than erecting a monument, governments eager to present themselves as new democracies are rounding-off their rotary squares to create ceremonial spaces.

Weizman appears to have intuited this momentum in the rounding-off formula, early on in the late 1990s. His 1997-1998 graduation project for the Architectural Association School of

⁵⁴ Ibid.

⁵⁵ Ibid., 2.

⁵⁶ Ibid.

⁵⁷ Architect and historian Nasser Rabbat used the phrase “circling the square” in writing about architecture and revolution in Cairo for the international art magazine, *Artforum*. Nasser Rabbat, “Circling the Square: Architecture and Revolution in Cairo,” *Artforum* 49 (April 2011): 182-191. The article is cited in Jillian Schwedler and Ryan King, “Political Geography,” *The Arab Uprisings Explained: New Contentious Politics in the Middle East*, ed. Marc Lynch (West Sussex, England: Columbia University Press, 2014), 178. Schwedler and King quote Rabbat’s article describing Tahrir square as an “urban planning failure of sorts” that “grew out of the accumulation of leftover spaces that coalesced over time.” Rabbat, “Circling the Square,” 184. *The New Yorker* reporter Wendell Steavenson’s *Circling the Square: Stories from the Egyptian Revolution* (2015), uses this phrase as a metaphor for the Tahrir uprisings. See Wendell Steavenson, *Circling the Square: Stories from the Egyptian Revolution*. (Harper Collins Publishers, 2015). Amal Khalaf uses the phrase “squaring the circle” to describe Manama’s Pearl Roundabout (*Dowar al Lulu*) joining the Arab Spring “squares” (*Midan*) in 2011. Her “squaring the circle” inverts the circling-square formula of Arab Spring squares with a reference to the eponymous problem in Ancient Greek geometry: “squaring the circle is a problem handed down from the Ancient Greeks. It involves taking the curved line of a circle and drawing a perfect square from it; a task that has come to signify an attempt at the impossible.” Khalaf, “The Many Afterlives of Lulu,” 273.

Architecture was a book titled *Yellow Rhythms: A Roundabout for London* (fig. 58).⁵⁸ The book included a proposal for a “giant roundabout at Vauxhall Cross over the [river] Thames.”⁵⁹ In this design, the central island in the roundabout covers an area of land and water considered “an extraterritorial space”: sections of the Thames riverbanks and its thick strip of dividing river water.⁶⁰ Weizman explains, “understanding the existing crossing—the largest traffic-signal intersection in London—to stand for a political system of regulation and control, I proposed the roundabout to replace it with a system of flows.”⁶¹ In Weizman’s design, a tactical urbanism of rounding-off design fostered the vital dimension of momentum over a regime of stop-and-go.

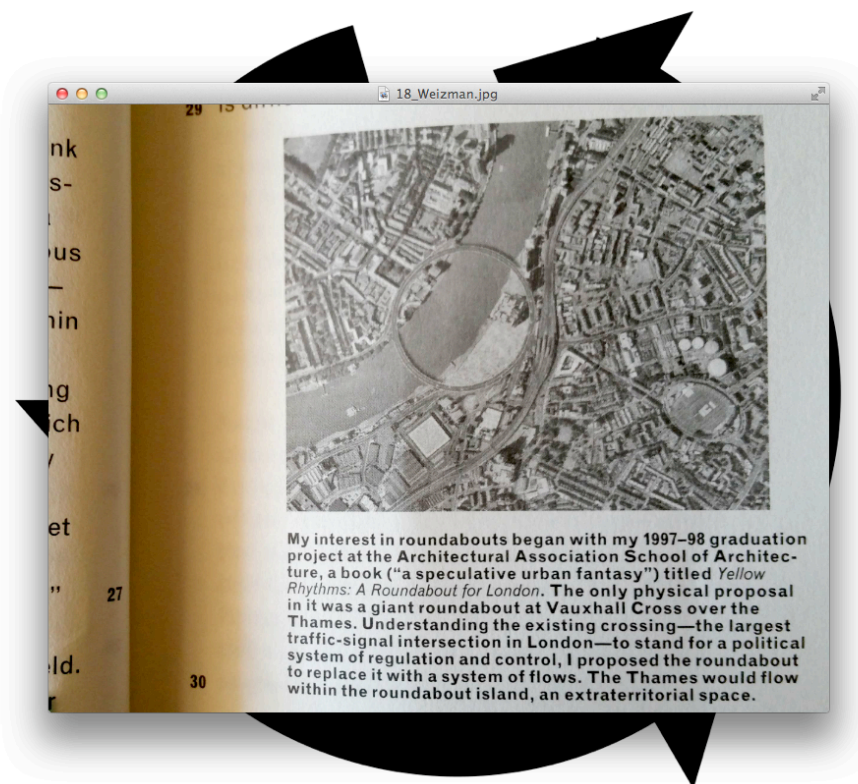


Figure 58 Screenshot configuration by the author: an image from Eyal Weizman’s “speculative urban fantasy,” *Yellow Rhythms: A Roundabout for London*, his 1997–1998 graduation project at the Architectural Association School of Architecture (source: Weizman, *The Roundabout Revolutions*, 2013). Image by the author.

⁵⁸ Weizman, *The Roundabout Revolutions*, 33.

⁵⁹ Ibid.

⁶⁰ Ibid.

⁶¹ Ibid.

Infra-Political Momentum: The Extra-territorial Roundabout

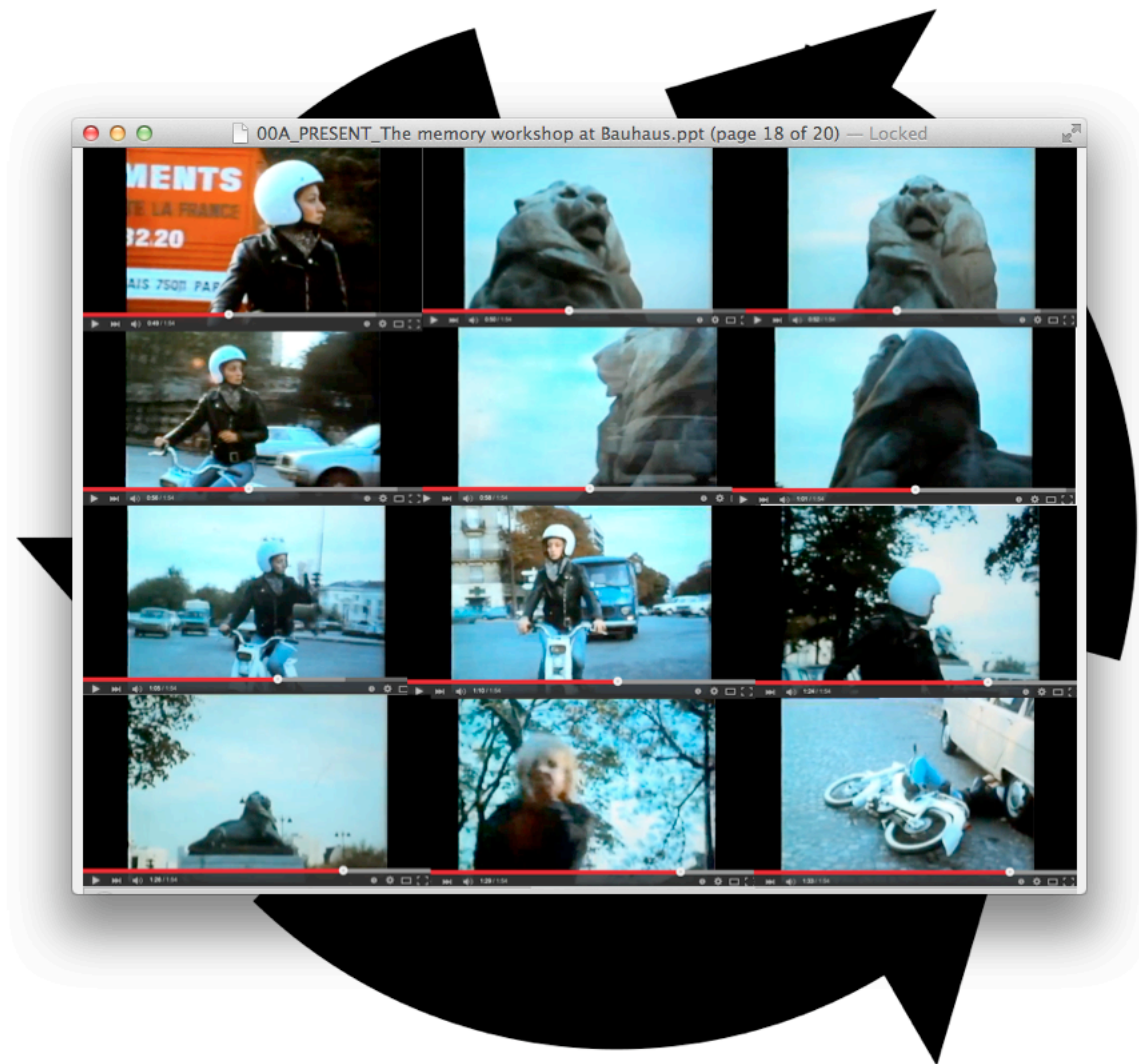


Figure 59 Screenshot configuration by the author: stills from the ‘roundabout’ scene in Place Denfert-Rochereau, Paris, in the film *Pont du Nord* (1981) by Jacques Rivette (source: Kino Lober) Image by the author.

In-between the Gwangju uprising in South Korea (1980) and the construction of the Pearl Roundabout monument in Bahrain (1982), French director Jacques Rivette released his film *Le Pont du Nord* (1981).⁶² *Le Pont du Nord* is the final film of a Parisian trilogy that includes *Paris*

⁶²*Le Pont du Nord*, directed by Jacques Rivette (1982; New York, NY: Kino Lober, 2015), Video Bluray.

nous appartient (1961) and *Noli Me Tangere* (1971).⁶³ In film history, it is said that this trilogy “takes the pulse of [Paris]” in the thirty years spanning 1960 to 1980.⁶⁴ As the next section of the present essay will show, these three decades also coincide with a critical thirty-year span in the history of Manama’s Pearl Roundabout.

In what now appears to have been a prescient vision, a key theme in Rivette’s film is the roundabout momentum of rounding-off in the vertiginous traffic flows circling Parisian *rond-points* (circular points) (fig. 59). The same sense of “extraterritorial space” Weizman emphasized in his design of “a roundabout for London”⁶⁵ emerges in Rivette’s film. Whereas in Weizman’s “Roundabout for London,” this extraterritorial space is the constant flow of water that perpetually changes the constitution of the river, in Rivette’s film, it is the layered history of urban space. In this layering, ghosts occupy space with their absent presence, enfolding the sense of the extraterritorial into an affect of the extraterrestrial. The *rond-points* in *Le Pont du Nord* (1971) are access points – *ponts* or bridges – where the sense of a city and its inhabitants being haunted by a superimposed parallel universe, becomes more acute. This occurs not only for the viewer, but also for the actors and their characters. In *Le Pont du Nord*, the *rond-point* is both a protagonist of the film, as well as an instrument for generating circling camera-motion. Spiraling movement (fig. 59), spiral maps (fig. 60, right), and spiral narratives characterize the film’s paranoid cinematography, its cryptic script, and its plot centered on conspiracy theory.

Of the three films in Rivette’s Parisian trilogy, *Le Pont du Nord* is considered “the most pessimistic,” but also the most “graphically orchestrated representation of political conspiracy.”⁶⁶ Though the film was released after the 1981 elections in France when Francois Mitterand and the Socialist Party ascended to power, it was produced while the country was still under the Fifth Republic administration of President Valery Giscard d’Estaing. Though Rivette had not been

⁶³ Mary M. Wiles, *Jacques Rivette* (Urbana, IL: University of Illinois Press, 2012), 74.

⁶⁴ Wiles, *Jacques Rivette*, 74.

⁶⁵ Weizman, *The Roundabout Revolutions*, 33.

⁶⁶ *Ibid.*

politically active in the French political left since the 1960s and 1970s, film historians and filmmakers think about his films as addressing a politics of aesthetics in the kinds of formal issues that dedicated European Marxists and communists were passionate about.⁶⁷ Jean Genet's "Dying Under Giscard d'Estaing"—written in 1974 for the French Communist Party (PCF) daily, *L'Humanité*—serves well as a reflection of leftist anxieties over the re-election of the centrist Giscard d'Estaing:

Communists.

"Seven Communists in the cabinet, that frightens me," said Giscard d'Estaing. I can understand why. It wouldn't even take that many in power to expose *all* the evidence, visible or still hidden, for everything that has been set up to exploit the workers.

This is the one and only moment during the debate when Giscard d'Estaing said something he understood: Communists in the cabinet...and suddenly a light cuts through his fog.

Future.

"I am a man of the future, you are a man of the past," said Giscard d'Estaing to [Francois] Mitterand [the Socialist Party candidate]. Either the word "future," as Giscard uses it, is hollow, or else he is only speaking of his own future and that of his caste. [...] Giscard d'Estaing is striking a pose. He knows that he belongs to a desiccated past, the past of the exhausted bourgeoisie. He also knows that Mitterand represents the future in the very sense he himself intends, and that Mitterand is acting in the name of a leftist coalition that is in the process of deciding its own future.

"You speak only of the past." Giscard was lying again, for he had to lie quickly and badly, so obvious was it that he himself is the past personified, whereas Mitterand is the future, that of the disenfranchised and the young.⁶⁸

Le Pont du Nord is said to reflect the last months of Giscardianism,⁶⁹ a period of six years in which a large portion of the population lived these anxieties about Giscard's "coalition of 'bourgeois parties'"⁷⁰ as reality. With the re-election of Giscard d'Estaing, the "hollow" futures Genet sensed in Giscard's words during the 1974 presidential debates, converged with the

⁶⁷ For this history, see Jonathan Rosenbaum's essay on filmmaker Harun Farocki, "The Road Not Taken: Films by Harun Farocki." *Harun Farocki: Working on the Sightlines*, ed. Thomas Elsaesser (Amsterdam: Amsterdam University Press, 2004), 158.

⁶⁸ Jean Genet, "Dying under Giscard d'Estaing" in *The Declared Enemy: Texts and Interviews* (Stanford, CA: Stanford University Press, 2004), 107-111.

⁶⁹ Wiles, *Jacques Rivette*, 74.

⁷⁰ Maxwell Adereth, *The French Communist Party: A Critical History (1920-1984)* (Manchester: Manchester University Press, 1984), 257

“desiccated past” the President represented⁷¹: the result was a ‘present’ that, for many anti-Giscardians like Genet (at least 50% of the population)⁷² was experienced as “dark and dominated by political scandals.”⁷³ Among these “scandals” were reports that Giscard d’Estaing and his appointed Prime Minister, Jacques Chirac, could not get along; documented unemployment numbers that rose steadily from 950,000 in 1976 to 1.5 million in 1981; and, the price of oil continuing to rise despite French attempts to negotiate with the Gulf States.⁷⁴

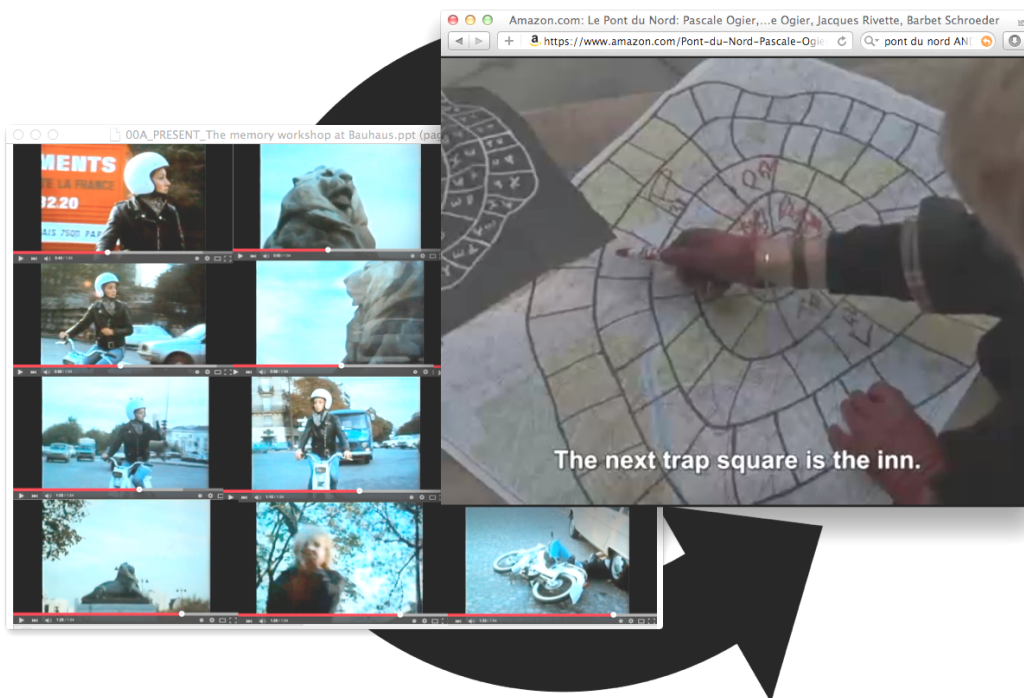


Figure 60 Screenshot configuration by the author: (left) stills from the ‘roundabout’ scene in Place Denfert-Rochereau, Paris, in the film *Pont du Nord* (1981) by Jacques Rivette (source: Kino Lober); (right) still of the spiral map superimposed on Paris’s rings of arrondissements (source: Kino Lober). Image by the author.

⁷¹ Genet, “Dying under Giscard d’Estaing,” 109.

⁷² In 1981, Giscard d’Estaing received 28.31% of the votes cast in the first ballots. Since approximately 20% of the country either abstained or submitted “spoilt ballot papers,” at least 50% voted for candidates other than Giscard d’Estaing. See Adereth, *The French Communist Party*, 256.

⁷³ Marco Grosoli, “Le Pont du Nord (1981)” in *World Film Locations: Paris*. Ed. Marceline Block and Adrienne Angelo (Bristol, UK: Intellect Books, 2011), 60.

⁷⁴ Adereth, *The French Communist Party*, 247 – 279.

In Rivette's film, Marie (Bulle Ogier) is a former radical who has just reached the end of a prison sentence for terrorism charges that are never fully explained in the film. Marie's sequences are infused with carceral anxiety, a sense of exaggerated "claustrofobic" panic wrought by everyday interiors evoking the memory of incarceration.⁷⁵ The character Baptiste (Bulle Ogier's daughter, Pascale) is in some ways Marie's contra-persona, and in others, just a future replication. She rides her scooter through the city, chasing "menacing armies of "Max," [her name for] mysterious enemies who can appear at will in the forms of lions in the streets,"⁷⁶ public squares, or the center of *rond-points*. As Baptiste explains, "Max are everywhere. They watch everything that moves."⁷⁷ When confronted with the omniscient gaze of this "conspiratorial force," Baptiste either attempts to physically tear it out – as in when she "violently rips the eyes out of billboard models appearing in a replicated series" – or to imitate it with her own replication.⁷⁸ The latter response is exemplified in a scene shot around the Lion de Belfort (Belfort Lion) in the Place Denfer-Rochereau, one of the city's characteristic *rond-points* (fig. 60, left).

In the scene shot in the Place Denfert-Rochereau, the camera spins around the copper sculpture at the center of the plaza, splicing spiraling shots with inter-cut views of Baptiste circling the square on her scooter, her gaze fixed on the lion's eyes (fig. 59). This encounter with the "Max" in the Denfer-Rochereau square leads to a crash encounter between Marie and Baptiste. Finally restored to the open city after her imprisonment, Marie gets off a truck only to find herself knocked to the ground by Baptiste. The exchange of gazes with the "Max" draws Baptiste into her collision with Marie and initiates their game. As cultural critic Gary Indiana has aptly described it, the two characters are brought together "in the occult way Rivette characters often encounter each other—like people drawn together in deciphering a partially ruined map,

⁷⁵ Mary M. Wiles, *Jacques Rivette*, 74

⁷⁶ *Ibid.*, 118 – 119.

⁷⁷ *Ibid.*, 74.

⁷⁸ Mary M. Wiles, *Jacques Rivette*, 118 – 119.

often a literal one.”⁷⁹ Due to Marie’s fear of interiors, the pair live almost entirely outdoors, and when Marie suspects her former boyfriend and partner in political action is “entangled in a mysterious international plot,” Baptiste tries to help her get to the bottom of the intrigue.⁸⁰ They steal his briefcase, finding a collection of newspaper clippings and a map of Paris. The map is:

overlaid with a spiral that has been cut up into segments – a labyrinth that suggests but doesn’t correspond to the spiral of the arrondissements. It is, in fact. [...] an ancient game controlled by dice, the object of which is to move from the periphery to the center while avoiding the traps set along the way.⁸¹

Marie and Baptiste “play the city following the indications on the map,” however, in what reads like a political allegory of French communist politics, all they do is encounter traps, never getting “beyond the periphery.”⁸² As Indiana describes it, “the film remains impenetrable until the end”⁸³: the “Quixotic” Baptiste will not concede there is no one left to rescue, while Marie and her lover “have outlived their illusions” of political revolution.⁸⁴ The film is a “maze” in which disenchantment with Paris is “involuntary reenchantment” with the city.⁸⁵

In a disenchanted reenchanting, the circling scooter rider, Baptiste (fig. 60, left), who later in the film follows a spiraling map in pursuit of mysterious enemies (fig. 60, right), attempts to find her way from the Paris periphery to the city center (fig. 61). The force of traffic flow around the *rond-point* in a city square conspires with the gaze of its bronze lion to hypnotize her, capturing her in distraction only to spit her back into the city’s margins. What image would be better suited to introduce what—for the present study of momentum—is the most important

⁷⁹ Gary Indiana, “Bulle Ogier, Phenomenon without a Pause,” *Utopia’s Debris: Selected Essays* (New York, NY: Basic Books, 2008), 118.

⁸⁰ Marco Grosoli, “Le Pont du Nord (1981),” 60.

⁸¹ Luc Sante, *The Other Paris* (New York, NY: Farrar, Straus and Giroux, 2015) 270.

⁸² Sante, *The Other Paris*, 270.

⁸³ Marco Grosoli, “Le Pont du Nord (1981),” 60.

⁸⁴ Indiana, “Bulle Ogier, Phenomenon without a Pause,” 118.

⁸⁵ *Ibid.*, 118 – 119.

question in Weizman's *The Roundabout Revolutions*: how is it that “an urban apparatus” like the roundabout “put in the service of authoritarian power became the locus of its undoing”?⁸⁶

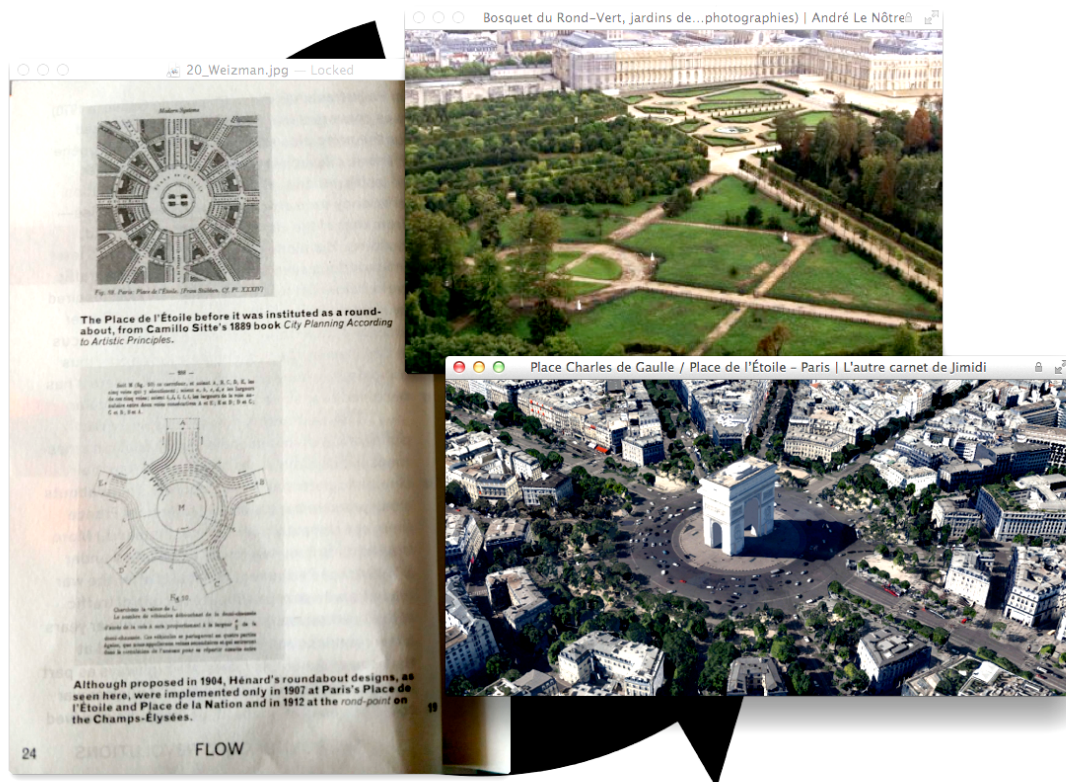


Figure 61 Screenshot configuration by the author: (left, top) a drawing of the Place d'Étoile before it was instituted as an officially 'gyratory crossroad'; (left, bottom) Eugène Hénard's plans to make the Place d'Étoile into a *carrefour à gyrations* ('gyratory crossroad'). (source: Weizman, *The Roundabout Revolutions*, 2013). (right, top) An aerial view of the Palace of Versailles that shows an example of Baroque circular clearings that influenced the development of urban *round-ports* (source: andrelenotre.com); (right, bottom) a contemporary aerial photograph of the Place d'Étoile with the Arc de Triomphe at its center (source: autrecarnetdeJimidi.wordpress.com). Image by the author.

In Weizman's history of the roundabout in *The Roundabout Revolutions*, the city of Paris as capital of baroque urbanism and French imperialist city planning, features prominently.⁸⁷ Though it does not figure in Weizman's history, the example of Place Denfert-Rochereau could

⁸⁶ Blurb for Eyal Weizman, *The Roundabout Revolutions*, Critical Spatial Practice 6, ed. Nikolaus Hirsch and Markus Miessen, with Blake Fisher and Samaneh Moafi. July 2015. Accessed December 3, 2016. <http://www.sternberg-press.com/?pageId=1604>

⁸⁷ Weizman, *The Roundabout Revolutions*, 21-24, 35.

have been included as a peripheral complement to the central Place d'Étoile (now Place Charles-de-Gaulle) which Weizman offers as an example of Paris's role in the development of circular junctions (fig. 61).⁸⁸ Weizman describes the Place d'Étoile as an example of a square (*place*) being “converted into a *carrefour à girations* [gyratory crossroad].”⁸⁹ And, in fact, in Baron Eugene Haussmann's monumental redesign of the city under Napoleon III, the square whose Arc de Triomphe (built in 1836) had been originally conceived under Napoleon I as a city gate, became a central crossroads (*carrefour à girations*). However, before becoming a square for the Arc de Triomphe, the *place* (square) had been a *rond-point* (circular point). Originally “in the rural outskirts of Paris,” this *rond-point*—like the baroque exemplars found at the gardens of Versailles—was a star-shaped circular clearing with radiating avenues (fig. 61, right, top).⁹⁰ By the 18th century, it had become “part of a royal garden” and was used in royal hunts as a gathering point.⁹¹ From the circular clearing, participants observed attendants who “drove game from the wooded areas into and across the broad avenues.”⁹² Before the 1789 revolution, the *rond-point* that would become the Place d'Étoile “effectively marked [the city's] limits.”⁹³ It could therefore be said that the origins of the roundabout are in the circular clearings of royal gardens, where expeditions hunted down game like regime security forces hunt down revolutionaries.

⁸⁸ Ibid., 23-24.

⁸⁹ Ibid., 23.

⁹⁰ Eric J. Jenkins, “Paris: Place Charles-de-Gaulle/Place de l'Étoile,” *To Scale: One Hundred Urban Plans* (Abingdon, Oxon: Routledge, 2008), 132.

⁹¹ Jenkins, 132.

⁹² Ibid.

⁹³ Ibid.

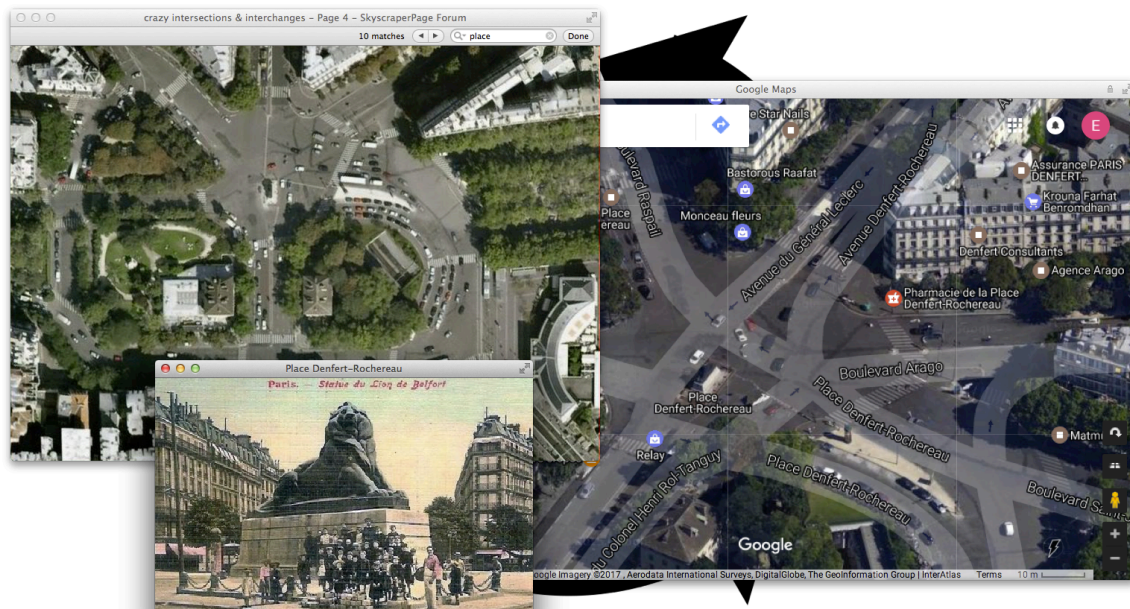


Figure 62 Screenshot configuration by the author: (left, top) a satellite view of the Place Denfert-Rochereau, Paris (source: Google Maps); (left, bottom) the sculpture at the center of the Place Denfert-Rochereau, Frédéric-Auguste Bartholdi's copper replica of his famous colossal limestone sculpture, the *Lion de Belfort* (source: Google Images); (right) a zoom-in Google satellite view of the Place Denfert-Rochereau (source: Google Maps). Image by the author.

Place Denfert-Rochereau is another square-cum-traffic-circle at the location of what was originally a limit of the city (fig. 62). In this case, however, it was not a site of royal recreation, but one of a series of tollhouse checkpoints in the notorious *Fermiers généraux* (farmers general) wall built in the 18th century.⁹⁴ While the Place d'Étoile was serving royal hunts as an orientation point, the *Barriere d'Enfer* (Hell Frontier) pavilion (at what would eventually come to be known as the Place Denfert-Rochereau)⁹⁵ was an entry and exit point regulated not for defense purposes, but for taxation. In Haussmann's redesign, the wall and its customs pavilions were dismantled and the *Barriere d'Enfer* became the *Place d'Enfer* (Hell Square). In later years, between Haussmann's alienation from municipal politics and the reengineering of the Place d'Étoile as a *carrefour à girations*, the Place Denfert-Rochereau was redesigned around a central sculpture.

⁹⁴ Stephane Kirkland, *Paris Reborn: Napoléon III, Baron Haussmann, and the Quest to Build a Modern* (New York, NY: St. Martin's Press, 2013), 126.

⁹⁵ *Ibid.*, 126.

The redesign was a response to recent events in the city, including its seige by the Prussians (1870) and its occupation by the revolutionary Paris Commune (1871). The Municipal Council of Paris commissioned sculptor Frédéric-Auguste Bartholdi (the designer of New York's *Liberty Enlightening the World* (1870), better known as the Statue of Liberty)⁹⁶ to create a copper replica of his massive sandstone monument memorializing the defense of France at the Alsatian Belfort during the Prussian War (fig. 62, left, bottom)⁹⁷ Aside from commissioning the new monument, the redesign also included the renaming of the Place d'Enfer as Place Denfert-Rochereau. Pierre Denfert-Rochereau was a French commander who had been involved in the defense of Belfort.⁹⁸ Ironically, the new name, Denfert-Rochereau, still contains within it a reference to the old site, since "d'Enfer" and "Denfert" are homonyms.

The Place Denfert-Rochereau "adjoins the [neighborhood of] Butte aux Cailles," a stronghold of the Paris Commune.⁹⁹ From Butte aux Cailles, coalitions of communists, anarchists and working-class communards repeatedly fought back against royalist Versaillais before being massacred.¹⁰⁰ As a result of this history, Bartholdi's Denfert-Rochereau monument was ambiguous. Inscribed "A La Défense Nationale: 1870-71" (to the national defense: 1870-71), Paris' Belfort Lion seems to join "the Prussian siege [of 1870] to the secessionist Commune [of 1871] as dual threats to the nation" (fig. 62, left, bottom).¹⁰¹ It is also, however, an "implicit reminder of the violence that the government carried out against Parisians" and could therefore be

⁹⁶ "Auguste Bartholdi," *Statue of Liberty. National Monument, New York. National Park Service*. N.d. Accessed December 6, 2016. <https://www.nps.gov/stli/learn/historyculture/auguste-bartholdi.htm>

⁹⁷ Andrew Eschelbacher, "Environment of Memory: Paris and Post-Commune Angst." *Nineteenth Century Art Worldwide: A Journal of Nineteenth-Century Visual Culture*. Vol. 8, Iss. 2 (Autumn 2009), 7. Also available online at *Nineteenth Century Art Worldwide: A Journal of Nineteenth-Century Visual Culture*. Autumn 2009. Accessed September 10, 2016. <http://www.19thc-artworldwide.org/autumn09/environment-of-memory>

⁹⁸ *International Encyclopedia of Military History*, ed. James C. Bradford (New York, NY: Routledge, 2006), 385.

⁹⁹ Eschelbacher, "Environment of Memory: Paris and Post-Commune Angst," 7.

¹⁰⁰ *Ibid*, 7. See also, Robert Tombs, *The Paris Commune 1871* (Abingdon, Oxon: Routledge, 1999), 168.

¹⁰¹ Eschelbacher, "Environment of Memory: Paris and Post-Commune Angst," 7-8.

seen as a warning against the “nation’s recent fratricide”¹⁰² prevailing once again over the proclaimed values of the 1789 revolution—liberty, equality and fraternity (*liberté, égalité, fraternité*). It is as if, in the *Pont du Nord* scene, what has captivated Baptiste is an invisible extraterrestrial struggle among ghosts over territory. Caught in the middle of the battle, she circles Bartholdi’s copper sculpture in an attempt to determine in which direction its lion is oriented: is the lion protecting the revolutionary communard barricades of the Butte aux Cailles or shielding the royalist onslaught of the Versaillais? Baptiste’s circling is not built into the square itself: unlike the Place d’Étoile, the Place Denfert-Rochereau is not immediately identifiable as a circular junction in aerial view (fig. 62). The pedestal of the Belfort Lion is rectangular; it is the circular momentum of pedestrians and traffic, circling across and around its seven intersecting roads, that generates its rounding-off.

This hidden history of Place Denfert-Rochereau in *Le Pont du Nord* encourages a rephrasing of Weizman’s question. Rather than ask how an “urban apparatus” like the roundabout “put in the service of authoritarian power became the locus of its undoing,”¹⁰³ Baptiste’s circles around Paris’ former Hell Square (Place d’Enfer) ask how revolutionary fervor builds momentum in replication, while avoiding the stereotypical endgame of delusion and disillusion. The Place Denfert-Rochereau offers a key. Haussmann’s dismantling of the Barrière d’Enfer tax wall allowed for the new arrondissement structure (or neighborhood districting) that, in *Le Pont du Nord*, is the basis of the spiral gameboard that Baptiste and Marie use in their Situationist-inspired *detournement* of the city (fig. 63). Their map is an absurdist version of the Haussmann-era redistricting that reoriented the 19th century arrondissement formula from “twelve oddly shaped arrondissements,” to the arrangement still known today: “twenty compact arrondissements fanning out clockwise from the center – the perfect structure for a rationally

¹⁰² Eschelbacher, 7.

¹⁰³ Blurb for Eyal Weizman, *The Roundabout Revolutions*, op. cit

administered city.”¹⁰⁴ In their spiralling whirl around the city, Marie and Baptiste inscribe a new arrondissement configuration into the image of the city, the perfect formula for the creative passion of revolutionary destruction. Baptiste – the eternal radical – is more engaged in playing with invisible thresholds on the margins, than she is committed to any real pursuit of a ‘center.’ In this spatial allegory, it could be said that Baptiste is the ultimate artist-activist who engages politically by being militantly disengaged, thus always evading disenchantment in a perpetual cycle of reenchantment. There is no real ultimate goal for Baptiste; instead, her objective is simply to be caught in the momentum of the *rond-point*’s vital dimension.

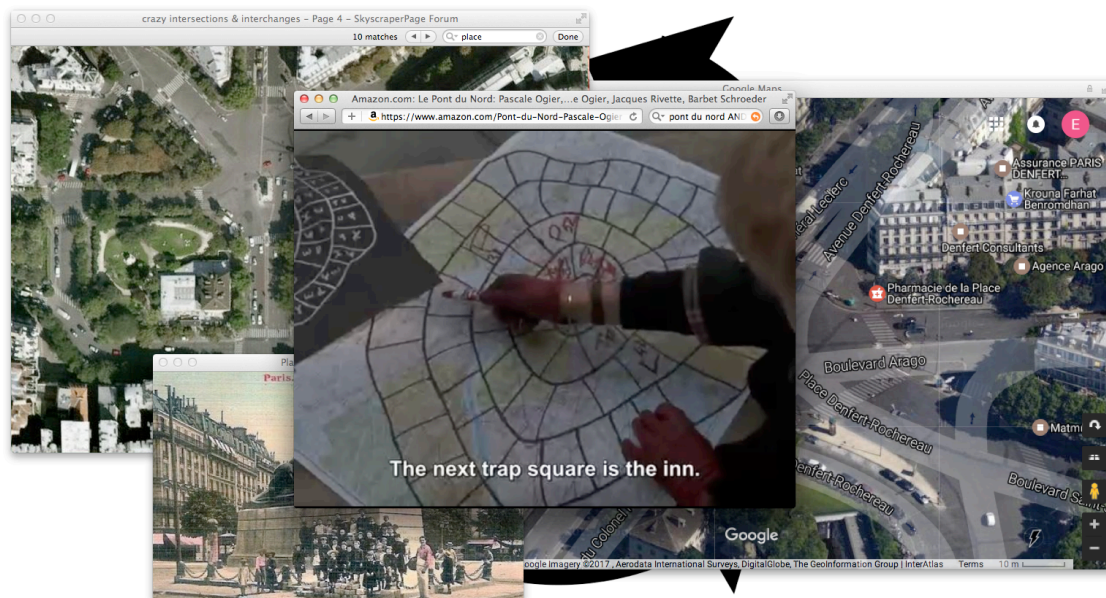


Figure 63 Screenshot configuration by the author: (center) the spiral map/gameboard used by the characters to navigate the outskirts of the city of Paris in Jacques Rivette’s film *Pont du Nord* (1981) (source: Kino Lober); (left, top) a satellite view of the Place Denfert-Rochereau, Paris (source: Google Maps); (left, bottom) the sculpture at the center of the Place Denfert-Rochereau, Frédéric-Auguste Bartholdi’s copper replica of his famous colossal limestone sculpture, the Lion de Belfort (source: Google Images); (right) a zoom-in satellite view of the Place Denfert-Rochereau (source: Google Maps). Image by the author.

¹⁰⁴ Kirkland, *Paris Reborn*, 182.

Looking West: Rounding-Off Traffic Systems from Paris to Indianapolis

Weizman begins his history of roundabouts between Paris and New York—between Eugène Hénard (Paris, 1849 – 1923) and Willam Phelps Eno (New York, 1858 – 1945) both of whom attempted to solve late 19th century problems of traffic congestion with modern engineering solutions.¹⁰⁵ The previous section briefly introduced both the figure of Hénard and his predecessor in Parisian planning, Baron Eugene Haussmann; in doing so, it added the history of the *rond-point* to Weizman’s story of roundabout beginnings, originating in Hénard’s *carrefour à gyrations*.¹⁰⁶ The previous section also served to preface the more indepth history of circular traffic systems that will follow, by reminding readers that not all circular junctions can be identified in maps or aerial photographs. Some are not inscribed in form at all, but only exist as extra-territorial formula: they are only visible in the patterns of movement among people, vehicles, and—in the case of Rivette’s *Le Pont du Nord*—ghosts, through a city.

In Weizman’s history of roundabout origins, there are three key figures. Along with Paris’ Hénard—the pioneer of *carrefour à gyrations*—there is also New York’s William Phillips Eno, “a maverick amateur of private means who dedicated his life to the problems of congestion”¹⁰⁷— as well as London’s Frank Blackmore—the British engineer behind the priority-rules that define the “modern roundabout.”¹⁰⁸ Engineering histories of roundabouts, however, also add London’s Holroyd Smith to this canon.¹⁰⁹ In 1897, before Hénard’s designs and Eno’s advocacy, Smith had proposed a plan to regulate traffic patterns in busy traffic junctions by controlling gyratory traffic flow with a circle.¹¹⁰ He proposed the idea to the London City Council and suggested it be implemented at the Ludgate Circus intersection where the junction was large

¹⁰⁵ Weizman, *The Roundabout Revolutions*, 22-23.

¹⁰⁶ Weizman, *The Roundabout Revolutions*, 22-23.

¹⁰⁷ *Ibid.*, 22 and 29.

¹⁰⁸ *Ibid.*, 32.

¹⁰⁹ M.G. Lay, *Ways of the World: A History of the World’s Roads and of the Vehicles that Used Them* (New Brunswick, NJ: Rutgers University Press, 1992), 187.

¹¹⁰ Lay, *Ways of the World*, 187.

enough to accommodate a circular center island (fig 64).¹¹¹ It appears the basic idea was that intersections should be made into circular junctions that resembled circular wide streets.

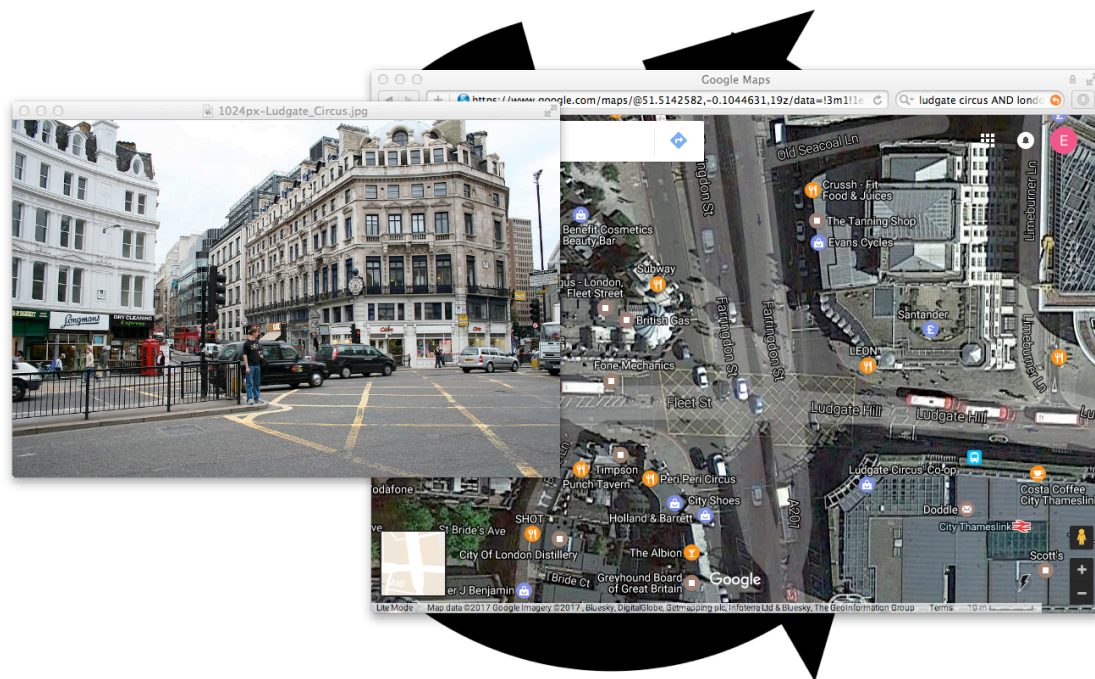


Figure 64 Screenshot configuration by the author: (left) contemporary photograph of Ludgate Circus, London (source: Google Images); (right) satellite image of Ludgate Circus, London where Holroyd Smith proposed the first priority rules that define the “modern roundabout” (source: Google Maps). Image by the author.

¹¹¹ W.N. Twelvetrees, “London Street Traffic Regulation (Address to the Civil and Mechanical Engineers Society, by the President, Mr. W. N. Twelvetrees); October 3, 1907,” *The Builder* (October 12, 1907), 382.

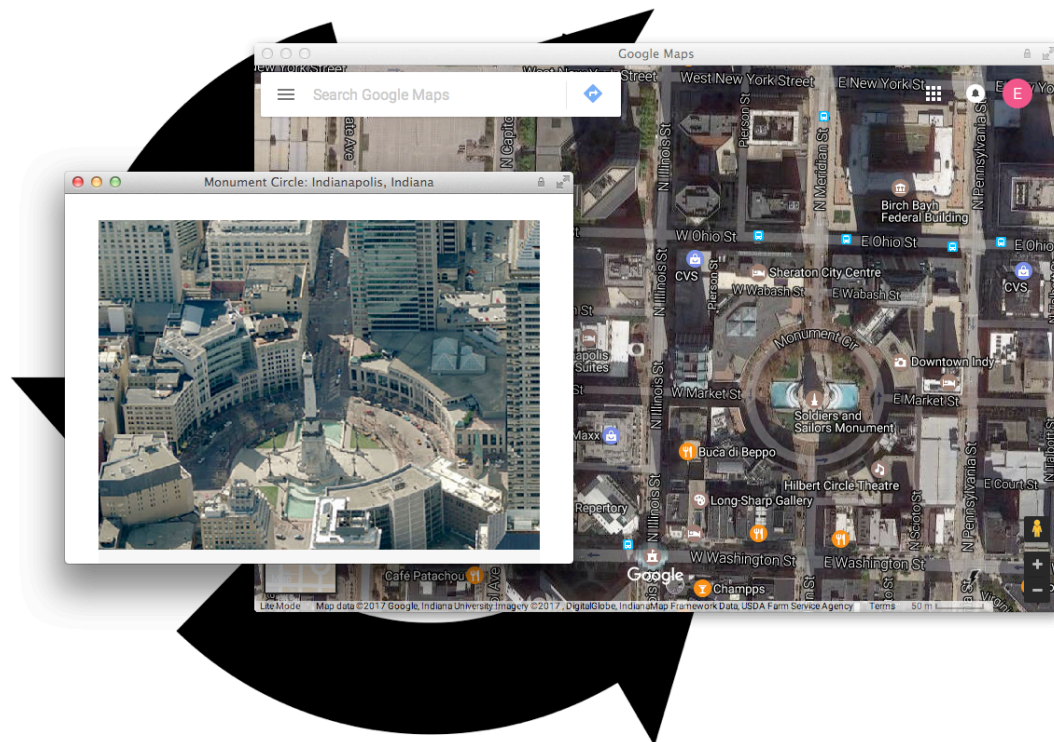


Figure 65 Screenshot configuration by the author: (left) a contemporary aerial photograph of Indianapolis' Monument Circle (source: Google Images); (right) satellite image of the site (source: Google Maps). Image by the author.

Circular wide streets entered the history of planning long before the iconic sites that are usually cited as the earliest traffic circles. Indianapolis' Monument Circle, for example, was built in 1821, and yet, is rarely mentioned in histories of roundabouts (fig. 65).¹¹² Like traffic circles, circular wide streets could serve as a circular junction joining radial avenues; unlike traffic circles, however, they that did not generate varied traffic patterns. In circular wide streets, traffic was constrained in a circle of limited lanes by curbs that delineated the road. As was the case with traffic circles, rotaries, *rond-points*, and *carrefour à gyrations*, circular wides streets also tended to originate around civic spaces or civic monuments. Likewise, they can be connected to the French baroque planning tradition. For example, Indianapolis' Monument Circle was platted by

¹¹² Lay, *Ways of the World*, 187.

Scottish engineer, Alexander Ralston who allegedly “served as [French engineer] Pierre Charles L’Enfant’s personal assistant during the planning of Washington D.C.”¹¹³ Ralston is said to have developed his plans for the new capitol city of Indiana by adapting L’Enfant’s Baroque-inspired plan for Washington D.C.: he “plann[ed] Indianapolis as a city block [...] with a circle at its center, from which four diagonal roads extended radially outward.”¹¹⁴ Conceived as Governor’s Circle, the circle was to be the site of the state governor’s official residence.



Figure 66 Screenshot configuration by the author: (left) contemporary photograph of Columbus Circle in New York where, in 1905, William Phillips Eno advocated for use of what he called a “rotary” system (source: Google Images); (right) contemporary aerial photograph of Monument Circle in Indianapolis (source: Google Images). Image by the author.

To better appreciate the overlooked role of circular wide streets in the broader history of roundabouts, it is helpful to compare two U.S. circles: Indianapolis’ Monument Circle and New

¹¹³ Nathaniel Elmer, “Alexander Ralston and the Plan for Indianapolis.” *Moment of Indiana History. Indiana Public Media*. Indiana Public Broadcasting Stations (IPBS). January 4, 2010. Accessed September 6, 2015. <http://indianapublicmedia.org/momentofindianahistory/alexander-ralston-plan-indianapolis/>

¹¹⁴ Elmer, “Alexander Ralston and the Plan for Indianapolis,” op. cit.

York's Columbus Circle (fig. 66). New York's Columbus Circle is usually said to be the earliest traffic circle in the United States. Unlike Monument Circle, Columbus Circle was not platted as a circle and originally had no circular plaza or surrounding circular curbs. Columbus Circle is really a plaza or square that came to be called a traffic circle for the gyratory system it adopted when traffic volumes increased. The first component of Columbus Circle was, in fact, its monument, a marble statue of Genoese navigator Christopher Columbus.¹¹⁵ The marble statue is elevated atop a granite rostral column intersected with model bronze miniatures of the ships in Columbus' fleet. The sculpture was erected in 1892 and then encircled by a trolley car network.¹¹⁶ In 1905, it was adapted for the implementation of a gyratory system called the "rotary."¹¹⁷ In the 1920s, after "a spurt" in increased implementation of similar rotaries, it became one of the sites that "subsequently gave roundabouts a bad name."¹¹⁸ In 1925 it was invoked as an example of bad traffic planning when "an English committee determined that "the Circular System of Control, as adopted in New York, [is] not suitable for this country."¹¹⁹

¹¹⁵ The 70ft (21m) tall column with the statue of Christopher Columbus by Gaetano Russo was unveiled in 1892. Brian Edward Hack, "sculpture, public." *The Encyclopedia of New York State*, ed. Peter R. Eisenstadt and Laura-Eve Moss (Syracuse, NY: Syracuse University Press, 2005), 1384; Weizman, *The Roundabout Revolutions*, 25; Tollazzi, *Alternative Types of Roundabouts*, 6.

¹¹⁶ Hack, "sculpture, public," 1384. Mention of the trolley cars in Columbus Circle appears in "Planning to Make Streets Safe," *The Automobile Journal* (February 10, 1915), 41.

¹¹⁷ "Planning to Make the Streets Safe," op. cit. Lay, *Ways of the World*, 187.

¹¹⁸ Lay, *Ways of the World*, 187.

¹¹⁹ Ibid.

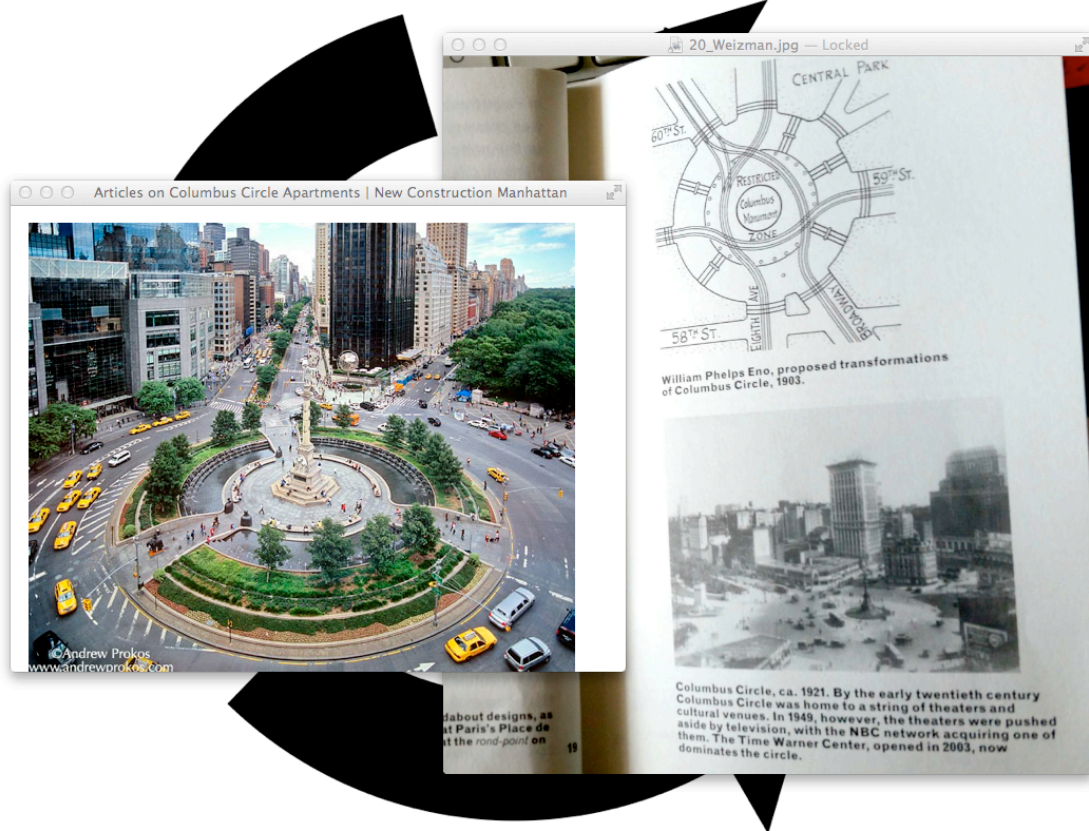


Figure 67 Screenshot configuration by the author: (left) contemporary photograph of Columbus Circle in New York where, in 1905, William Phillips Eno advocated for his “rotary” system to ease traffic congestion, also known as the “traffic whirl” (source: Google Images); (right) early 20th-century plans and photographs of Columbus Circle from Eyal Weizman’s *The Roundabout Revolutions*, 2013 (Source: Weizman, *The Roundabout Revolutions*, 2013). Image by the author.

In 1925, this “circular system of control” was not yet a “roundabout” system: it would take another fifty years before the priority-rules of the “modern roundabout” now commonly associated with the term “roundabout” would be developed.¹²⁰ Thus, in 1925, circular traffic systems were generally of four types, all of which developed more or less simultaneously. First, there were the crossroad junctions where increased traffic volume had led to congestion: British planner Holroyd Smith proposed rounding-off these junctions with internal circles that would

¹²⁰ Ibid.

shape “gyratory traffic flow.” (fig. 64)¹²¹ Second, there were the rotary systems implemented within variously shaped plazas where traffic patterns had previously ranged from random to chaotic. These plazas, like Place Denfert-Rouchereau, already had central monuments that could be used to encourage gyratory movement (fig. 62). In 1905, William Phillip Eno “lobbied for and implemented the world’s first official one-way “rotary system” – which he also referred to as the “traffic whirl” – at Columbus Circle¹²² (fig. 67).

Third, there were the *rond-points* or circular points like the Place d’Étoile in Paris where a pre-existent circular clearing was further emphasized by *carrefour à gyrations* engineering. The *carrefour à gyrations* was published by Hénard in his *Etudes sur les Transformations de Paris* (1904)¹²³ and then implemented for the first time in 1907 when it was used to modify the Place de l’Étoile (since 1970, Place Charles-de-Gaulle) (fig. 61). The project was considered a major undertaking in traffic planning, of particular note because it signaled a new era of French planning after the fall of Napoleon III and the alienation of Haussmann, the famed French planner.¹²⁴

Lastly, there were the circular roads like Monument Circle in Indianapolis, which were designed as circles proper, and that, as a result, naturally curbed traffic movement (fig. 65). As time went on, squares circled into rotaries, and *rond-points* that had been rounded into *carrefour à gyrations* became former-open spaces increasingly constrained, increasingly more like circular roads, with momentum curbed by restrictive engineering formulas for rounding-off.

In 1909, Hénard’s famous designs for the *carrefour à gyrations* are said to have inspired town planners Raymond Unwin and Richard Parker in their plans for Sollershott Circus in the English town of Letchworth (fig. 68).¹²⁵ Letchworth is known as “the first English garden city,”

¹²¹ Ibid.

¹²² Weizman, *The Roundabout Revolutions*, 22.

¹²³ Lay, *Ways of the World*, 187.

¹²⁴ Tollazzi, *Alternative Types of Roundabouts*, 8.

¹²⁵ Weizman, *The Roundabout Revolutions*, 23.

the first city plan that came close to realizing visionary British reformer Ebenezer Howard's social utopian Garden City plan.¹²⁶ Originally engineered as a six-arm crossroads, the Sollershott intersection in Letchworth was redesigned by Parker and Irwin as Sollershot Circus. Interestingly, when the Pearl Roundabout's re-forming destruction of redesign into Farooq Junction is juxtaposed with the Parker and Unwin redesign of the Sollershott intersection into Sollershot Circus, the teleology of roundabout history is inverted. Since Letchworth boasts the "UK's first roundabout,"¹²⁷ canonical histories of roundabouts usually emphasize the event of Parker and Unwin transforming the Letchworth intersection into a circular system; in urban histories of recent political revolutions, the Pearl Roundabout destruction—an image of a roundabout transformed into a crossroad junction—has become a central image of counter-reforming crackdown.

The town of Letchworth is renowned for being the only plan that seriously engaged with Ebenezer Howard's *Garden Cities of Tomorrow* (1898) design for a network of cooperatively owned interlinked cities that followed an integrated town-country-industry model (fig. 68).¹²⁸ Howard's land use plans for *Garden Cities* organized space in concentric belts with a central industrial park at the center, houses and gardens in the middle, and outer zones of agricultural land with brick fields, cow pastures, forests, a farm for epileptics, convalescent homes, an asylum for the blind and death, childrens cottage homes, new forests and artesian wells.¹²⁹ A circular traffic junction is at the center of the plan and accommodates traffic from six incoming roads that

¹²⁶ Ibid. See also "When was the traffic roundabout invented, and by whom?" In *Notes & Queries in The Guardian*. N.d. Accessed October 21, 2015. URL: <https://www.theguardian.com/notesandqueries/query/0,5753,-1860,00.html>

¹²⁷ "UK's First Roundabout," *Letchworth Garden City: The World's First Garden City*. N.d. Accessed September 3, 2015. http://www.letchworthgc.com/first_garden_city/uks_first_roundabout

¹²⁸ Ebenezer Howard, *To-morrow: a peaceful path to real reform (1898)*, op. cit.; Ebenezer Howard, *Garden Cities of Tomorrow (being the second edition of "To-morrow: a peaceful path to real reform,"* op. cit.; Peter Hall and Colin Ward, *Sociable Cities: The Legacy of Ebenezer Howard*. (West Sussex, England: J. Wiley, 1998).

¹²⁹ Howard, *To-morrow: a peaceful path to real reform (1898)*, op. cit.; Howard, *Garden Cities of Tomorrow*, op. cit.; Hall and Ward, *Sociable Cities*, op. cit.

broaden into boulevards when they pass the circle railway that divides agricultural land from land use assigned to houses and gardens (fig. 68).

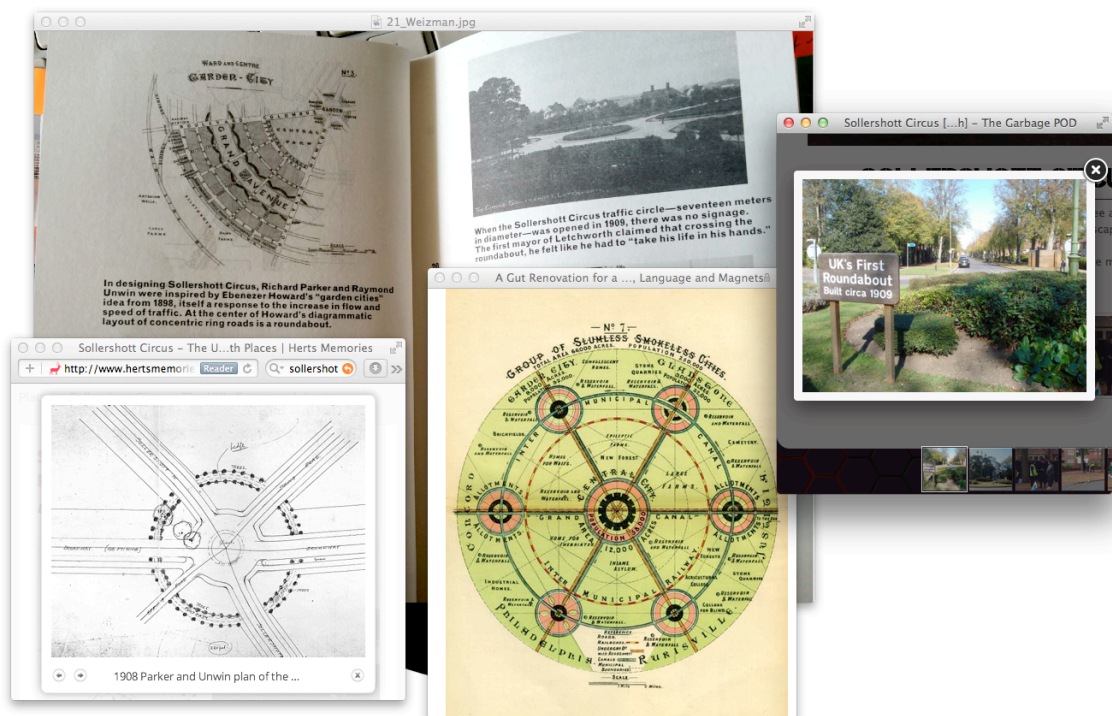


Figure 68 Screenshot configuration by the author: (top) early twentieth-century plans and photographs for Sollershot Circus in Letchworth (source: Weizman, *The Roundabout Revolutions*, 2013); (bottom left) early twentieth-century plan for Sollershot Circus by Raymond Unwin and Richard Parker (source: Google Images); (bottom middle) Ebenezer Howard's *Garden Cities* plan (1898) (source: Garden Cities Institute); (right) contemporary photograph of Sollershot Circus publicized as the “UK’s First Roundabout, built circa 1909) (source: Google Images); Image by the author.

Weizman’s history of the roundabout cites Sollershot Circus as the traffic circle that brought “the roundabout to suburbia, where it has remained ever since as a functional vernacular.”¹³⁰ However, the garden city and the garden suburb are always differentiated in histories of urban planning: at the core of Howard’s plan was the industrial park, which in the garden suburb is noticeably absent (fig. 68).¹³¹ Whereas garden cities monumentalized work and

¹³⁰ Weizman, *The Roundabout Revolutions*, 23.

¹³¹ Stanley Buder, *Visionaries and Planners: The Garden City Movement and Modern Community* (Oxford, UK: Oxford University Press, 1990), 103

industry, garden suburbs like the Illinois town of Riverside (nine miles from the city of Chicago) were designed as celebrations of the ‘yeoman,’ the commuter who sought to withdraw from the site of work, the dynamic city, for the illusion of countryside idyll.¹³² Garden suburbs were rail suburbs for a home-owning middle class that commuter-champion Frederic Law Olmstead called “the vanguard of our civilization: [...] our stronghold against agrarian and nihilistic tendencies.”¹³³ Curvilinear streets were intended to contrast with Chicago’s grid-iron regularity in order to differentiate leisure rhythms from work rhythms. Roads were not just curved, but were the direct result of subdivisions following the contours of the land’s topography.

A key difference between the metropolitan history of the traffic circle and its suburban iteration are the pedestrian “subways” that Hénard advised be provided in his *carrefour a gyration* designs.¹³⁴ Suburban traffic circles are typically small and, even in Letchworth, their voids were always principally conceived for landscaping, never for pedestrian traffic. Unwin, who participated in the Letchworth project, was aware of this: his *Town Planning in Practice* (1909) reprints Hénard’s *carrefour a gyration* plans (dated 1906) from his *Etudes* to show the circular junction “with horse-drawn vehicles circulating around a ‘plateau central,’” while “in accompanying text, [Hénard] is quoted as suggesting that ‘subways should be provided for all the footpaths leading to a space in the centre where the passengeres could sort themselves and depart along the subway to whichever streets they wished to reach.’”¹³⁵ Whereas there is no evidence of suburban traffic circles being designed with pedestrians imagined at their center, Hénard’s urban design proposed the central void as a public space accessible to pedestrians from the very beginning.¹³⁶

¹³² John William Reps, *The Making of Urban America: A History of City Planning in the United States* (Princeton, NJ: Princeton University Press, 1965), 348.

¹³³ Olmstead signed a number of his writings with the pseudonym, “Yeoman.” Elizabeth Stevenson, *Park Maker: A Life of Frederick Law Olmstead* (New Brunswick, NJ: Transaction Publishers, 2000), 116.

¹³⁴ Hénard as quoted in “When was the traffic roundabout invented, and by whom?” op. cit.

¹³⁵ Ibid.

¹³⁶ Ibid.

This use of the traffic circle as a public space can also be seen in the life history of Scottish architect Alexander Ralston's circular platting of Indianapolis's Monument Circle (fig. 65). Initially conceived as Governor's Circle—a circle that was to be the site for a public building—the Indianapolis circle served the city as a gathering place and a market for a number of years before an official governor's residence was built on it.¹³⁷ The residence was never actually used as any governor's living space, however it served public functions until 1857 when it was torn down for disrepair.¹³⁸ The void left behind became a popular meeting place and rallying point once more during wartime.¹³⁹ In 1867, the circle was appropriated by the city to become Circle Park and a monument to the Indianapolis' civil-war era governor was constructed.¹⁴⁰ In 1889, this monument was torn down and replaced with *The Soldiers' and Sailors' Monument*, which continues to stand today.¹⁴¹ Indianapolis' monument circle had always accommodated pedestrian traffic, whether as a vacant plot for market places and public gatherings, a city park, or the site of a planned public building.

Circular traffic junctions have been a source of anxiety for their navigators since their inception: according to Weizman, in 1909, the first mayor of Letchworth claimed that when he crossed the circular junction “he felt like he had to “take his life in his hands.””¹⁴² Another example that Weizman provides quotes British statesman Winston Churchill. In 1924 “[Columbus Circle's advocate] Eno was able to convince the Scotland Yard to turn London's Piccadilly Circus into a [rotary] for one hour only—between 10:30 and 11:30 p.m. when the West End's theaters emptied. The arrangement was made permanent [in 1926], making it one of the

¹³⁷ Eric Jenkins, “Indianapolis: Monument Circle,” *To Scale: One Hundred Urban Plans* (Abingdon, Oxon: Routledge, 2008), 76

¹³⁸ Ernestine Bradford Rose, *The Circle: The Center of Indianapolis* (Indianapolis, IN: Crippin Printing), 9-10.

¹³⁹ Rose, *The Circle*, 11.

¹⁴⁰ *Ibid.*, 11-12 and 50.

¹⁴¹ James Philip Fadely, “The Veteran and the Memorial: George J. Gangsdale and the Soldiers and Sailors Monument”. *Traces of Indiana and Midwestern History*. Indiana Historical Society. Vol. 18, no.1, (Winter 2006): 33.

¹⁴² Weizman, *The Roundabout Revolutions*, 27.

first inner-city [rotaries].”¹⁴³ That year, “when stopped by the police for driving the wrong way,” Churchill reportedly expressed his poor opinion of the transformation “in strong language.”¹⁴⁴

In recent promotional material for Torus Roundabouts – a software that generates roundabout geometry for traffic engineers – the San Diego-based software developer Accretive Group announced that, “[i]n Southern California, Roundabouts are the Designer’s Choice” (fig. 69).¹⁴⁵ And in fact, it is rather ironic that during the build up to the Arab Spring “roundabout revolutions”¹⁴⁶ in which the destruction of Manama’s Pearl Roundabout became a central image, all across Southern California’s San Diego County—from Oceanside in the North to Imperial Beach in the South—roundabouts did indeed seem to proliferate as the “choice”¹⁴⁷ of urban designers and urban planners. Local newspapers in Del Mar, Imperial Beach, Encinitas, La Mesa, Clairemont, Oceanside and La Jolla reported on ambivalent resident responses to roundabouts (fig. 91).¹⁴⁸ In 2010, the *La Jolla Light* reported, “Roundabout reasoning revisited”: the article surveyed responses to a network of five roundabouts that had been planned for a broad

¹⁴³ Ibid., 27.

¹⁴⁴ Ibid.

¹⁴⁵ “In Southern California, Roundabouts Are the Designers Choice,” *Design with Confidence*, July 18, 2013. Accessed August 10, 2015, <http://designwithconfidence.transoftsolutions.com/ahead-of-the-curve/2013/07/in-southern-california-roundabouts-are-the-designers-choice.html>

¹⁴⁶ Weizman, *The Roundabout Revolutions*, 11.

¹⁴⁷ “In Southern California, Roundabouts Are the Designers Choice,” op. cit.

¹⁴⁸ Kristina Houck, “Del Mar roundabout on way, but not all residents happy about it,” *Del Mar Times*. October 30, 2014. Accessed July 20, 2015. <http://www.delmartimes.net/news/local-news/del-mar/sddmt-del-mar-roundabout-unhappy-residents-2014oct30-story.html>; Marty Graham, “No round and round on I.B. roundabout test,” *San Diego Reader*. March 27, 2015, <http://www.sandiegoreader.com/news/2015/mar/27/stringers-no-round-and-round-ib-roundabout-test/#>; Ken Harrison, “Encinitas: Roundabout Capital of California,” *San Diego Reader*. May 10, 2014. Accessed July 20, 2015. <http://www.sandiegoreader.com/news/2014/may/10/stringers-encinitas-roundabout-capital-california/>; Karen Pearlman, “La Mesa roundabouts are out,” *The San Diego Union Tribune*. April 22, 2015. Accessed July 20, 2015. <http://www.sandiegouniontribune.com/sdut-la-mesa-roundabouts-out-2015apr22-story.html>; Chris O’Connell, “Roundabouts Proposed for Moraga Ave.,” *The Clairemont Times*, July 15, 2015. Accessed July 20, 2015. <http://clairemonttimes.com/2015/07/15/roundabouts-proposed-for-moraga-ave/>; Ken Harrison, “Oceanside’s Unusual Side,” *San Diego Reader*. August 24, 2014. Accessed July 20, 2015. <http://www.sandiegoreader.com/news/2014/aug/24/stringers-oceansides-unusual-side/>; Dave Schwab, “Roundabout Reasoning Revisited,” *La Jolla Light*. October 6, 2010. Accessed July 20, 2015. <http://www.lajollalight.com/sdljl-roundabout-reasoning-revisited-2010oct06-story.html>

thoroughfare in an area of San Diego's La Jolla called Bird Rock (fig. 69).¹⁴⁹ The project had taken four years to realize: it had been approved in 2003, construction had begun in 2004, and work on the final fifth roundabout was completed in 2007.¹⁵⁰ Positive responses to the roundabout by the community's advisory group on land-use reported that the roundabouts "created a sense of place in the merchant district," making Bird Rock a "more pleasant commercial district" where people enjoyed walking.¹⁵¹ Residents also noted that the roundabouts made it easier to make left turns onto the boulevard from side streets and increased safety by providing more designated crosswalks to pedestrians.¹⁵²

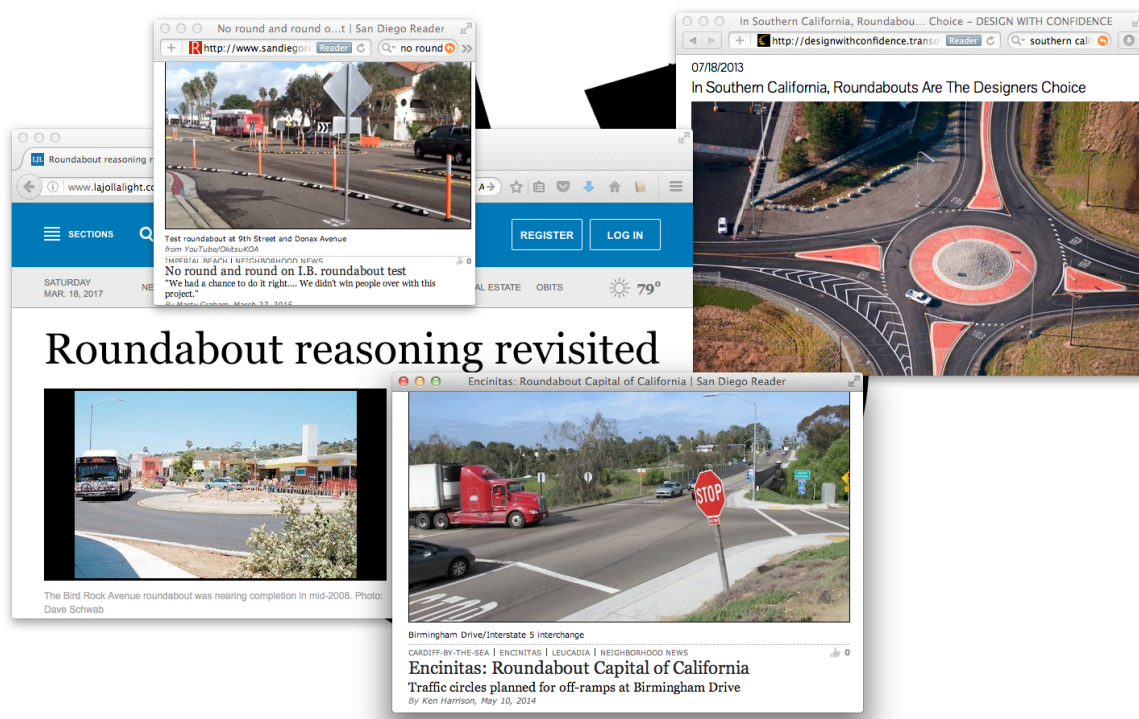


Figure 69 Screenshot configuration by the author: newspaper articles (top and bottom) and promotional material (right) about roundabouts in Southern California (sources: La Jolla Light; San Diego Reader; and Torus Roundabouts). Image by the author.

¹⁴⁹Schwab, "Roundabout Reasoning Revisited," *La Jolla Light*. op. cit.

¹⁵⁰ Ibid.

¹⁵¹ Ibid.

¹⁵² Ibid.

Other responses reported in the article were negative: there were problems with landscaping, lost parking spaces, and uncertainty regarding which vehicles had right-of-way.¹⁵³ The most negative responses attributed an increase in traffic collisions to the roundabouts, even going so far as to claim that the roundabouts were responsible for an accident in which a driver who failed to navigate the roundabout had killed three teenagers.¹⁵⁴ The article concluded that more public education on ‘rounding the roundabout’ was necessary and four rules for roundabout navigation were outlined for the benefit of the *La Jolla Light* reader: vehicles slow down on the approach to a roundabout; drivers yield first to other motorists inside the roundabout, and to pedestrians in the crosswalk; motorists should look left and wait for a gap in traffic before entering the roundabout; and lastly, drivers should never stop inside the roundabout, but should always keep right and signal before exiting.¹⁵⁵ Studies had shown that because roundabouts reduced points of conflict between pedestrians and motorists, roundabouts were safer than the junctions they replaced: there were 40% fewer vehicle collisions, 80% fewer injuries, 90% fewer serious injuries and fatalities.¹⁵⁶ Though La Jolla Bird Rock roundabouts seemed to be following this general trend, negative perspectives on their impact persisted.

¹⁵³ Ibid.

¹⁵⁴ Ibid.

¹⁵⁵ Ibid.

¹⁵⁶ Ibid.



Figure 70 Screenshot configuration by the author: the site of a rounding-off into a pseudo-roundabout around Wielandplatz in Weimar, East Germany (source: author's photographs). Image by the author.

Meanwhile, across the Atlantic, in Germany, city officials in the East German city of Weimar were redesigning one of the small city's central plazas, Wielandplatz (Wieland Plaza) (fig. 70).¹⁵⁷ Once again, the roundabout emerged in Wielandplatz redesigns: the plans lowered the level of the surrounding roads to emphasize the roundabout qualities of the small plaza fostered

¹⁵⁷ "Redesign 'Wielandplatz' in Weimar," *Dane: Landscape Planning, Open Space Planning and Historic Garden Design*. Published 2014. Accessed October 3, 2015. http://www.dane-la.de/project-list/details/redesign-wielandplatz-in-weimar/no_cache.html?L=1

by its location as a corner of a triangular city block that meets the corners of four other urban islands.¹⁵⁸ Curved benches designed for the site ‘circled’ the Wielandplatz ‘square’ in front of a busy intersection regulated with traffic lights. Traffic that converged at the intersection from around the five city blocks that included Wielandplatz’s triangle, gave the open space of Wielandplatz the feel of a void at the center of a roundabout. Named for poet and philosopher Christoph Martin Wieland (1733-1833), Wielandplatz can be considered a metonym for Weimar urban planning as a whole: it celebrates an ideal period in East German history favored for historic preservation across the city.¹⁵⁹ The other side of the general acceptance that this historical period is ideal for preservation, is the consensus that German Democratic Republic (GDR) Soviet-era architecture (1949 – 1990) is ideal for destruction.¹⁶⁰

The ideal period for preservation in the 18th century not only precedes the two World Wars that decimated Germany (1914 – 1942), but is also before German Unification (1871), when the aim was to consolidate the distinct identities of disparate Germanic regions with “national cult site[s].”¹⁶¹ The poet Wieland’s *History of Agathon* (1766 – 1767) is historicized in German literature as the first *Bildungsroman*—the first novel of psychological development—and Wieland scholars write about it as tracing the poet’s process of finding a balance between sensualism and rationalism.¹⁶² This balance between sensualism and rationalism was, in fact, an overall project of the century of the Enlightenment, and led to the cultures of statesmanship that promoted the geo-politics of the nation-state, ultimately culminating in Germany’s unification. It

¹⁵⁸ Ibid.

¹⁵⁹ “Wielanddenkmal am Wielandplatz,” *Ausflugsziele Weimar: Urlaub in der Goethe und Schiller Stadt*. August 1, 2012. Accessed October 3, 2015. <https://ausflugsziele-weimar.de/wielanddenkmal-am-wielandplatz/>

¹⁶⁰ Susanne Jaeger, “Interrupted Histories: Collective Memory and Architectural Heritage in Germany 1933-1945-1989.” *Heritage, Ideology and Identity in Central and Eastern Europe: Contested Pasts, Contested Presents*, ed. Matthew Rampley (Woodbridge, UK: The Boydell Press, 2012), 79-80.

¹⁶¹ Jaeger, “Interrupted Histories,” 79.

¹⁶² Manfred Engel, “Variants of the Romantic “Bildungsroman” (with a short note on the “artist novel”),” *Romantic Prose Fiction*, ed. Gerald Gillespie, Manfred Engel and Bernard Dieterle (Amsterdam, Netherlands: John Benjamins Publishing Company, 2008), 268.

also produced cultures of urban planning that promoted “planning according to artistic principles”¹⁶³ and encouraged thinking about the city as an organism.¹⁶⁴

While in Southern California, students of the University of California, San Diego in La Jolla complained about the failure of the university’s new bicycle plan—in particular, the impracticality of sudden tight curves in miniature roundabouts difficult to navigate on a bicycle—in Weimar, the success of the Wielandplatz roundabout-like redesign was also a contentious issue (fig. 71). Weimar officials had planned the redesign of the plaza to encourage city residents to use Wielandplatz more. After the redesign, youth in the city had done just that; in particular, international students from the Bauhaus Universität-Weimar (Bauhaus University in Weimar) had claimed the space for social gatherings and parties.¹⁶⁵ Wielandplatz was particularly convenient for these events due to its location across the street from a 24-hour mini-supermarket chain.¹⁶⁶ Wealthy residents of the center of Weimar filed noise complaints and the city responded, attempting to reassert control over Wielandplatz by a variety of means.¹⁶⁷ City officials reminded residents of quiet-hours rules and other late-night restrictions on the use of public space.¹⁶⁸ At the same time, construction ensued on a project to lower all of the cobblestone roads surrounding the plaza in order to elevate the level of Wielandplatz and its monumental bronze figure of the 18th century poet and philosopher, Wieland. The conclusion of this project and its reassertion of control over the space by the city, coincided with the migrant crisis reports, in particular, with

¹⁶³ Camillo Sitte, *City Planning According to Artistic Principles* (1889), trans. G.R. and C.C. Collins. Columbia University Studies in Art History and Archaeology, no. 2 (New York, NY: Random House, 1965).

¹⁶⁴ “Lecture 4: The City as Organism” in the Massachusetts Institute of Technology open course, *Theory of City Form*. Julian Beinart, “Lecture 4: The City as Organism,” op. cit.

¹⁶⁵ Sabine Brandt, “Täglich Party: Weimar will für Ruhe sorgen am Wielandplatz,” *Thüringische Landeszeitung*. July 2, 2015. Accessed October 5, 2015. <http://www.tlz.de/web/zgt/politik/detail/-/specific/Taeglich-Party-Weimar-will-fuer-Ruhe-sorgen-am-Wielandplatz-1096156013>. Bauhaus Universität-Weimar students. Conversation with Emily Verla Bovino. Weimar, Germany. October 2015.

¹⁶⁶ Brandt, “Täglich Party: Weimar will für Ruhe sorgen am Wielandplatz,” op. cit. Bauhaus Universität-Weimar students. Conversation with Emily Verla Bovino. Weimar, Germany. October 2015.

¹⁶⁷ Ibid. Bauhaus Universität-Weimar students. Conversation with Emily Verla Bovino. Weimar, Germany. October 2015.

¹⁶⁸ Ibid.

conservative Eastern German controversy over centrist Chancellor Angela Merkel’s commitment to asylum for Syrian refugees.¹⁶⁹ Media reports on anti-migrant protests circulated images of East German protestors holding posters emblazoned with the English expression “No Way” sub-headlined, “You will not make Europe Home” (fig. 71).¹⁷⁰ Notably, though the protests were identified with the Syrian asylum issue, the placards racialized the migrant crisis with images of black bodies on a large inflatable raft in the Mediterranean.¹⁷¹

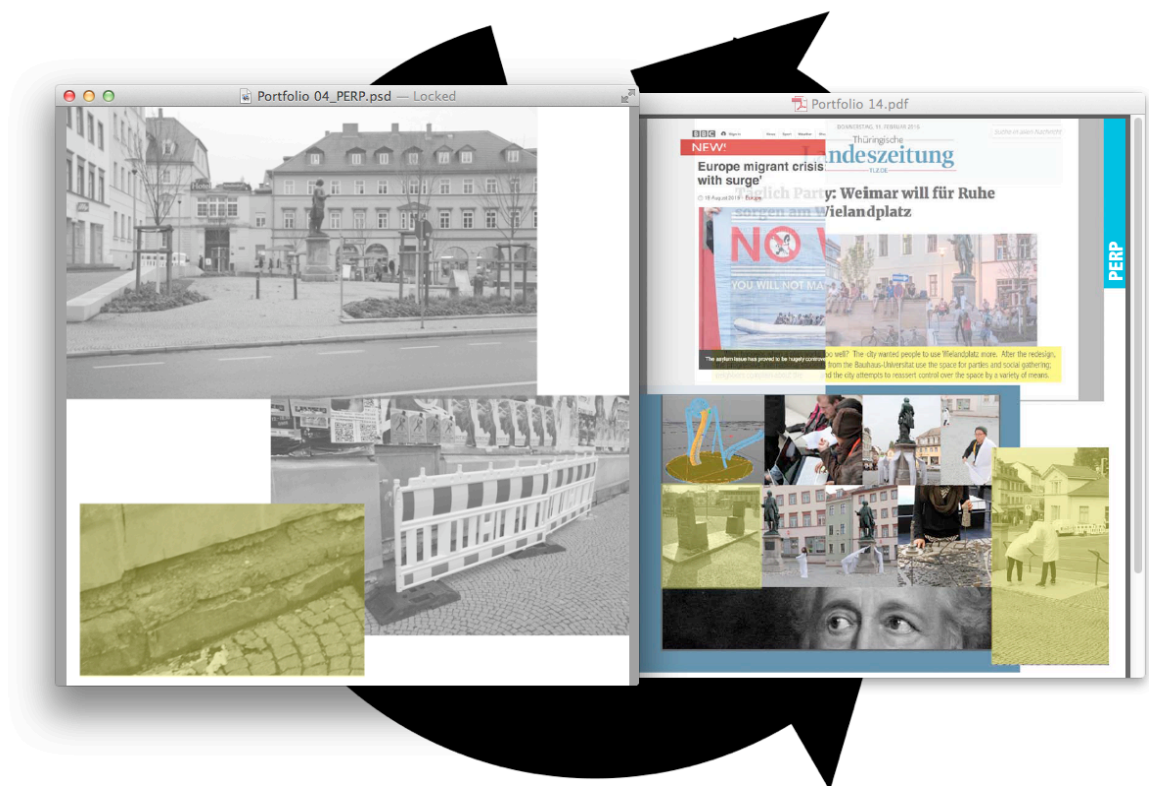


Figure 71 Screenshot configuration by the author: (left) replanning of Wielandplatz in Weimar; (right top) international reports about anti-migrant protests in East Germany and local reports about reactions to increased use of the Wielandplatz site by international student; (right bottom) documentation of the the author’s *PERP* project in Weimar (source: author’s photographs). Image by the author.

¹⁶⁹ Tony Paterson, “Neo-Nazis lay siege to asylum-seekers hostel in Freital as race hate rears its ugly head once again in east Germany,” *Independent*, July 12, 2015. Accessed June 10, 2015. <http://www.independent.co.uk/news/world/europe/neo-nazis-lay-siege-to-asylum-seekers-hostel-in-freital-as-race-hate-rears-its-ugly-head-once-again-10383943.html>

¹⁷⁰ “Europe migrant crisis: Germany ‘will cope with surge.’” *BBC News*. August 19, 2015. Accessed August 20, 2015. <http://www.bbc.com/news/world-europe-33992563>

¹⁷¹ “Europe migrant crisis: Germany ‘will cope with surge,” op. cit.

A Magic Roundabout: The ‘Pearl’ at the Core of Roundabout Revolutions

Shifting the center of the narrative about roundabout revolutions from Gwangju to the Pearl Roundabout slightly shifts Weizman’s narrative to center on a different priority. It emphasizes rounding-off, and the yield and swerve in roundabout flows, to center focus on questions of formula, momentum and plastic activism. The following section reorders Weizman’s roundabout of revolutions into a compound roundabout of uprisings and rebellions. It makes a malleable map using Southwest England’s engineering feat, the “magic roundabout” (the Swindon roundabout), as its topological analogy (fig. 72). In the magic roundabout that follows, five roundabouts from the Arab Spring form an external ring of roundabouts around a central sixth hub: Manama’s Pearl Roundabout.



Figure 72 Screenshot configuration by the author: a contemporary aerial photograph of Swindon’s Magic Roundabout (source: Google Images). Image by the author.

The first circular junction at the entrance to the outer ring of this magic roundabout topology is Tunis' Place 14 janvier 2011 (January 14 2011 Square) (fig. 73). Though “neoliberal policies [of privatization, deregulation and market fundamentalism] affected all states in the Arab World,” scholarship identifies Tunisia as holding “a special place in the hearts of those advocating for economic reform.”¹⁷² Tunisia was celebrated by the president of the World Bank as “the “best student [...] in the region” when it came to economic restructuring,” despite the fact that “application of neoliberal policies exacerbated the divide between rich and poor.”¹⁷³ The occupation of Place 14 janvier 2011—a critical site in Tunisia’s history of state-building—is, in fact, recounted by many as a revolt against neoliberalism in North Africa, against the corruption of a long-entrenched autocracy that neoliberal policies supported, and the security apparatus that it adopted to further monitor and repress the population.¹⁷⁴



Figure 73 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon’s Magic Roundabout (source: Google Images); (right) Tunis’ Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d’Afrique) (source: Panoramio). Image by the author.

¹⁷² James Gelvin, *The Arab Uprisings: What Everyone Needs to Know* (Oxford: Oxford University Press, 2015), 40.

¹⁷³ Gelvin, *The Arab Uprisings*, 40.

¹⁷⁴ *Ibid.*

At the intersection of Tunis's two main roads – Rue Mohammed V and Avenue Habib Bourguiba – the Place 14 janvier 2011 was renamed for “the date on which [Tunisian] President Zine el-Abidine Ben Ali was forced to flee the country” to Saudi Arabia.¹⁷⁵ Before its most recent renaming, the plaza had been through a series of other rebrandings, each made with the rise of a new government. As Place 7 Novembre 1987 (November 7 1987 Square), it had been restyled and denominated to commemorate the date when President Zine el-Abidine Ben Ali took power from President Habib Bourguiba.¹⁷⁶ Under Bourguiba, the square had been designated Place Bourguiba (Bourguiba Square) to memorialize “the father of modern Tunisia”: the first president of the post-colonial state after Tunisia achieved independence from France in 1956.¹⁷⁷

In 1885, however, this ‘square’ of many names had been constructed as a French monument to Africa called *Place d’Afrique* (Africa Square). It was a *rond-point* or *point circulaire* (circular point)¹⁷⁸ for orientation among diagonal roads¹⁷⁹ and a central part of the Baroque-style French plan for a “*ville nouvelle* (new European city)” designed to “[take] the place of the [city’s older Arab city center, the] madinah”¹⁸⁰ Under the establishment of the French protectorate in 1881, the idea was to create a new center for city life in an area of the city that stretched along the marina.¹⁸¹ From its beginnings in the administration of protectorate planning, French urbanism in Tunisia would eventually produce a monumental formal document, Tunis’

¹⁷⁵ Weizman, *The Roundabout Revolutions*, 41-42.

¹⁷⁶ Derek Hopwood, *Habib Bourguiba of Tunisia: The Tragedy of Longevity* (New York, NY: St. Martin’s Press, 1992), 144.

¹⁷⁷ Hopwood, *Habib Bourguiba of Tunisia*, 145.

¹⁷⁸ Tollazzi, *Alternative Types of Roundabouts*, 3.

¹⁷⁹ Weizman, *The Roundabout Revolutions*, 40. See also Chiara Sebastiani, *Una città, una Rivoluzione: Tunisi e la riconquista dello spazio pubblico* (Cosenza: Pellegrini Editore, 2014).

¹⁸⁰ Dennis Hardy, “The Spring of Hope, the Winter of Despair: An unfinished narrative of Mediterranean cities.” *Planning Perspectives*. Vol. 27, no. 3 (January 7, 2012), 429.

¹⁸¹ Kenneth Brown, “Tunis,” *Cities of the Middle East and North Africa: A Historical Encyclopedia*. Ed. Michael Dumper, Bruce E. Stanley (Santa Barbara, CA: ABC-CLIO, 2007), 369-373.

“earliest documented master plan” known as “the Municipal Plan of 1920” authored by architect Victor Valensi.¹⁸²

It is no accident that Place 14 Janvier 2011 extends to the medina by way of a wide central road called Avenue de France (Avenue of France): in fact, the city’s main street, Avenue Habib Bourguiba, still markets itself as “the Champs-Élysée of Tunisia.”¹⁸³ The late 19th-century administration of the French protectorate had walled in the medina with a ring road that extended eastward into a grid of “grand avenues,” boulevards spoken of as “an early expression of French modernity.”¹⁸⁴ These avenues divided Tunis into two cities, with the colonial city stretching “between the outer limits of the medina and the inner shores of the lagoon.”¹⁸⁵ The “narrow outlet” of the lagoon was “sealed off” from the Mediterranean to create the Lake of Tunis¹⁸⁶ which offered a scenic view to new suburban neighborhoods that “housed most of the Europeans” in the city.¹⁸⁷ As a *rond-point*, the marina-side Place d’Afrique was designed to be a radiating vista point, conceived first as an orienting landmark and resting place, and only later as a circulatory ‘valve’ or functional instrument of traffic decongestion. It was only in the late 1980s, under the presidency of Ben Ali, that the square gradually took on the character of the traffic circle designed to regulate traffic flows: the space glorified Ben Ali’s rule with a large postmodern clocktower built in the form of an imperial obelisque that “not only did not invite people to linger, meet each other, socialize, debate [as the *rond-point* was designed to do] but actively discouraged them from doing so.”¹⁸⁸ In a state where it is generally said that “traffic

¹⁸² Ambe J. Njoh, *French Urbanism in Foreign Lands* (Cham, Switzerland: Springer, 2015), 148.

¹⁸³ Cathy Packe, “Tunis: This Spirited City has a Spring in its Step.” *The Independent*. April 7, 2012. Accessed September 10, 2015. <http://www.independent.co.uk/travel/africa/tunis-this-spirited-city-has-a-spring-in-its-step-7626692.html>

¹⁸⁴ Hardy, “The Spring of Hope, the Winter of Despair,” 429.

¹⁸⁵ *Ibid.*

¹⁸⁶ *Ibid.*

¹⁸⁷ *Ibid.*

¹⁸⁸ Sebastiani, *Una Città, Una Rivoluzione*. op. cit.

rules and signals are often ignored,”¹⁸⁹ it is hard to believe that the priority-rule of roundabouts is respected and enforced in the square. What the head of the Tunisian Road Safety Association has called “road terrorism” has even circulated in some international media as a consequence of the revolution: “Tunisia’s new government has made tackling corruption a priority [...] but in central Tunis, a policeman said he and his colleagues found it difficult to bring “increasingly unruly” drivers to order.”¹⁹⁰



Figure 74 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon’s Magic Roundabout (source: Google Images); (right, top) Tunis’ Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d’Afrique) (source: Panoramio); (right, bottom) a contemporary photograph of traffic around Cairo’s Tahrir Square (source: Google Images). Image by the author.

The second ‘mini-roundabout’ in our magic roundabout topology is Tahrir Square in the Egyptian city of Cairo (fig. 74). Like Tunisia, Egypt was an early focal point of advocates for

¹⁸⁹ United States Embassy of Tunisia Consular District. United States Department of State. “Travel & Transportation,” *General Guidance for American Citizens living in Tunisia*. N.d. Accessed October 24, 2016. <https://travel.state.gov/content/passports/en/country/tunisia.html> See also Adam Le Nevez, “Driving in Tunis: Or How I Stopped Worrying and Learned to Love the GP9.” *TunisiaLive*. February 12, 2012.

¹⁹⁰ “‘The Accident Rate is Simply Terrifying’: Tunisia sees deadly spikes on roads.” *The National*. September 1, 2016. Accessed October 5, 2016. <http://www.thenational.ae/world/middle-east/the-accident-rate-is-simply-terrifying-tunisia-sees-deadly-spike-on-roads>

neoliberal reform; in fact, Egypt is considered to be “the site of the first test of neoliberalism in the region.”¹⁹¹ Like the uprisings in Tunis, the uprisings in Egypt’s capital, Cairo, are said to have been able to sustain momentum because they “linked demands for political rights with economic justice and thus linked [students, a demographic of relatively privileged] youths and labor activists in common cause.”¹⁹² Cairo’s Tahrir (Liberation) Square (*Midan Tahrir*) – originally named Ismaili Square (*Midan al-Ismailiya*) – was also the center of a French redesign planned for the city in the late 19th century. As the story goes, however, this redesign was not brought by colonial administrators but by Khedive Ismail Pasha, who ruled Egypt before the country’s occupation by the British (1882).¹⁹³ The Khedive—for whom the square took its name—attended the Paris Universal Exposition in 1867 “where he befriended Georges Haussmann.”¹⁹⁴ Upon his return to Cairo, he

moved quickly to bring about [the city’s] modernization to coincide with the opening of the Suez Canal. Like Haussmann’s plans for Paris that included boulevards through the existing urban fabric and new boulevards outside the city’s center, designer Ali Mubarak proposed an extensive urbanism program that would extend Cairo and revitalize its center.¹⁹⁵

A new “European district” was designed to “stimulate real estate and economic development”¹⁹⁶ in an extension of the old city of Cairo that pushed its limits westward to the edge of the Nile. Like Haussmann’s “radiating and penetrating” *rond-points*¹⁹⁷ (the most representative example being the circle around the Arc de Triomphe known as the Place de l’Étoile, now the Place

¹⁹¹ Gelvin, *The Arab Uprisings*, 42.

¹⁹² *Ibid.*, 50.

¹⁹³ Eric Jenkins, “Midan al-Tahrir.” *To Scale: One Hundred Urban Plans* (Abingdon, Oxon: Routledge, 2008), 44.

¹⁹⁴ Jenkins, “Midan al-Tahrir,” 44.

¹⁹⁵ *Ibid.*

¹⁹⁶ *Ibid.*

¹⁹⁷ Micheline Nilsen, *Railways and the Western European Capitals: Studies of Implantation in London, Paris, Berlin and Brussels* (New York, NY: Palgrave Macmillan, 2008), 105. Aside from the impressive Place d’Étoile, the city of Paris’ many examples of *rond-points* of varied scale include include the semi-circular Place du Trocadéro and the more modest Place Victor Hugo.

Charles de Gaulle), Ismaili square was initially part of royal gardens.¹⁹⁸ When Ismail Pasha built his palace, part of his urbanization plan included “carv[ing] out Midan al-Ismailiya [now Midan al-Tahrir]” from the gardens that remained.¹⁹⁹ The square became an orienting landmark among intersecting boulevards, and was only later transformed into a gyratory system for regulating traffic flows, eventually evolving into a roundabout proper with a circular elevated platform.²⁰⁰ The square took the name Tahrir, or “Liberation,” after Egypt’s anti-imperialist July 23rd Revolution established the Egyptian republic in the 1950s (fig. 74).²⁰¹ It is not clear exactly when the elevated circular platform was constructed at the center of the square, however, was built to accommodate a celebratory statue after the declaration of the republic, still remained without its monument. A “circular pedestrian bridge” ran a ring around the circular square to elevate pedestrians above intense traffic flows. The pedestal and the walkway were removed by 1986 in order to accommodate an underground Metro station.

Like the *rond-point* “squares” in the Arab cities of Tunis and Cairo, the Persian capital Tehran’s elliptical Azadi (Liberty) Square (*Meydān e Āzādi*) was renamed as a result of political shifts in Iran (fig. 97).²⁰² Azadi Square is the third mini-roundabout in our compound magic roundabout of roundabout uprisings and rebellions. Before the Iranian Revolution, Shahyad (King Memorial) Square (*Meydān e Šahyād*) was the central meeting site of the protests that would eventually lead to the plaza’s reaming. A massive arch originally called the Shahyad Tower, was built in 1971 for the center of the plaza’s fifty thousand square meter circle. Built in “commemorat[ion of] the 2,500th anniversary of the Persian Empire,” the monument at the center of the plaza’s ellipse twists the neo-classical design of Paris’ famous Place d’Étoile triumphal

¹⁹⁸ Lesley Kitchen Lababidi, *Cairo’s Street Stories: Exploring the City’s Statues, Squares, Bridges, Gardens and Sidewalk Cafés* (New York, NY: American University in Cairo Press, 2008).

¹⁹⁹ Labaidi, *Cairo’s Street Stories*, op. cit.

²⁰⁰ Ibid.

²⁰¹ Jenkins, “Midan al-Tahrir,” 44.

²⁰² Weizman, *The Roundabout Revolutions*, 52-53.

arch into a dynamic arch that appears to stretch and bend, expand and contract (fig. 96).²⁰³ The ovoid site of Azadi Square figures somewhere between the strategic colonization of space by the French in Tunis, and the tactical spatialization of colonial aesthetics in Cairo. Azadi Square figures in scholarship as a representative example an “uncolonized,” but elite-led “self-colonized (amidst historical European colonial threat)” urbanism.²⁰⁴

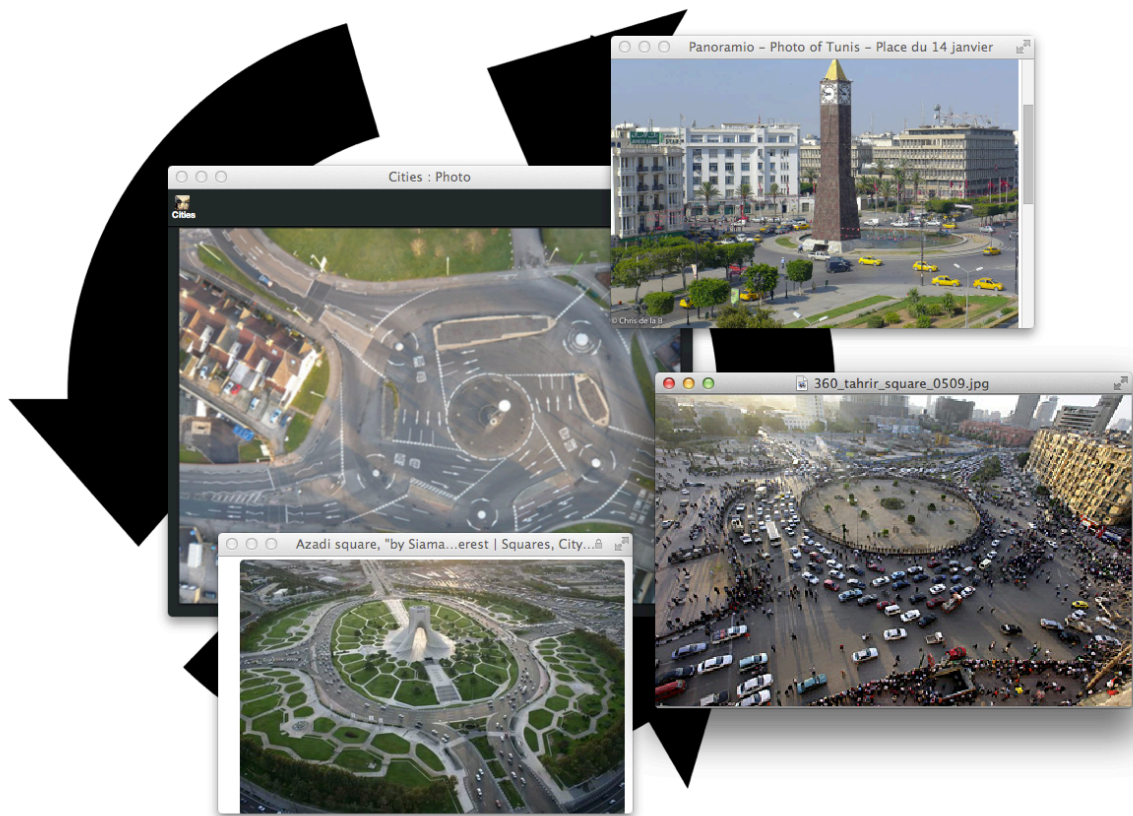


Figure 75 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); (right, bottom) a contemporary photograph of traffic around Cairo's Tahrir Square (source: Google Images); (bottom) Tehran's Azadi Square (source: Google Images). Image by the author.

²⁰³ Weizman, *The Roundabout Revolutions*, 52.

²⁰⁴ Sidh Sintusingha and Morteza Mirgholami, “Parallel Modernization and Self-Colonization: Urban Evolution and Practices in Bangkok and Tehran.” *Cities*. Vol. 30 (2013). 123.

Scholars define “self-colonization” as a process by way of which “negotiations with [...] colonial powers led to local elite[s] [...] selectively appropriat[ing] European modernization.”²⁰⁵ The ultimate aim in “self-colonization” was to “prevent outright political rule by Europeans.”²⁰⁶ Like the *rond-point* at Tahrir Square in Cairo, the elliptical traffic circle in Azadi Square shows the circular cross-roads was among the “forms and images” that the “tactic” called self-colonization used to “re-fashion” cities “in the European mould, so as to be perceived as ‘civilized’ in the eyes of colonial powers.”²⁰⁷ Unlike Tahrir Square which only gradually evolved to include a central elevated circular platform, in Azadi Square, the elevated elliptical platform was planned to design the space as a traffic circle in the strictest technical terms.

Unlike the other circular plazas occupied as sites of protest in the Arab Spring roundabout revolutions, the sprawling Azadi ellipse appears to have been intended for managed and controlled occupations by pedestrians. It is segmented into landscaped polygons in a web-like design that weaves pavement passages through sections of grass under its massive imposing tower (fig. 74). In 2009 after the election of President Mahmoud Ahmadinejad, the Green Movement occupied the space to demand the election be annulled; in 2011, after Tahrir Square protests, Iranian activists took the ellipse once again. In both cases, the government successfully suppressed protests.²⁰⁸

This paradox of Azadi square is referenced in Hamid Dabashi’s *Corpus Anarchicum: Political Protest, Suicidal Violence and the Making of the Posthuman Body* (2012).²⁰⁹ Dabashi argues that with the “self-explosive body of the suicide bomber, who eradicates the site of political violence by a violence equal in its intensity,” “the posthuman body [of the new millenium] has self-exploded in the face of the illegitimate state by denying it its first and final

²⁰⁵ Sintusingha and Mirgholami, “Parallel Modernization and Self-Colonization,” 123-135.

²⁰⁶ Ibid.

²⁰⁷ Ibid.

²⁰⁸ Weizman, *The Roundabout Revolutions*, 53.

²⁰⁹ Hamid Dabashi, *Corpus Anarchicum: Political Protest, Suicidal Violence and the Making of the Posthuman Body* (New York, NY: Palgrave Macmillan, 2012), 10.

site of repression.”²¹⁰ With this it has “liberated the sign of the body from the legislated semantics of its incarceration in the politically tyrannical and constitutionally illegitimate state.”²¹¹ Within this narrative of liberation by self-explosion, the Azadi Tower is discussed as a “resurrectionary monument,” a monument in which “the sign of the square defeats the signifier of its name [as public plaza]”: “the Islamic Revolution toppled the monarchy but was already too imperialized in its Persian imagination to notice the paradox of Shahyad Square and thought by renaming it Azadi (Freedom) Square, it could Islamize it. It did not.”²¹² In artist Jalal Toufic’s conceptual framework of “withdrawal of tradition after the surpassing disaster,” this would be considered a failed resurrection, or rather an attempt at resurrection that did not recognize it was “hand[ing] down counterfeit tradition.”²¹³ Dabashi, on the other hand, distinguishes between “islamic” and “imperial” monuments: whereas an “Islamic” monument is “a visual reminder of the Presence of the Absent (God),” the “imperial” monument serves the inverse purpose, reminding of “the Absence of the Present (the monarch).”²¹⁴ According to Dabashi, Azadi Square is “resurrectionary” because it resurrects imperial power in a new form, rather than implementing a revolutionary turn.²¹⁵ Interestingly, aside from defining resurrection in somewhat different terms, Toufic’s theory of the role of the artist in resurrecting withdrawn tradition would seem to position the artist inbetween these two approaches to the monument—between the absence of the present and the presence of the absent, between what Dabashi calls the “imperial” and the “islamic.”²¹⁶

²¹⁰ Dabashi, *Corpus Anarchicum*, 10.

²¹¹ *Ibid.*, 10.

²¹² *Ibid.*, 219.

²¹³ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 70-71.

²¹⁴ Dabashi, *Corpus Anarchicum*, 219.

²¹⁵ *Ibid.*

²¹⁶ *Ibid.*



Figure 76 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); (right, bottom) a contemporary photograph of traffic around Cairo's Tahrir Square (source: Google Images); (bottom) Tehran's Azadi Square (source: Google Images); (left, bottom) Al Manara Square in Ramallah, Palestine (source: Google Images). Image by the author.

Between the late-19th century *rond-pont* vistas of colonized Tunis and Cairo, and the megalithic elliptical imperial site of late-20th century “uncolonized” Tehran, there is Al-Manara Square in Ramallah (fig. 76). Al-Manara Square is the fourth ‘mini-roundabout’ in our magic roundabout topology. Tunisia and Cairo are both majority Sunni Muslim countries with populations that are considered “relatively homogeneous” in comparison with Syria and Bahrain.²¹⁷ Both Ramallah and Cairo have Christian populations. In fact, Ramallah was predominantly Christian until 1948 when the Christian population began to decline significantly

²¹⁷ Gelvin, *The Arab Uprisings*, 40.

with the first of the Arab-Israeli wars (1948-1949).²¹⁸ Much has been made of the fact that the population demographics in Tunisia and Cairo made it more difficult for activists and rulers to garner support through sectarian loyalties during the Arab Spring uprisings.²¹⁹ In Ramallah, sectarian religious and political divisions among Muslims are visible in struggles over leadership of the Palestinian Authority, with fundamentalist followers of Sunni Islam clashing with moderates and other religious minorities over the leadership of Hamas.²²⁰

The construction of Ramallah's Al-Manara square under British occupation during the 1936-1939 Palestinian uprisings, was motivated by strategic function for military maneuvers: "together with a set of new paved roads, [the circle] allowed vehicles to move quickly in and out of al-Muqata'a, the military and prison compound about eight hundred meters away" (fig. 76).²²¹ Since it was created before the new British priority-rules of 1956 gave rise to mid-century "roundabouts,"²²² the Al-Manara square was undoubtedly initially designed as a traffic circle or rotary. It was created at a historical moment when the implementation of traffic circles had increased in popularity as instruments for the regulation and management of traffic flows. This increased popularity of traffic circles was due to automotive congestion increasingly wrought upon unprepared cities as a result of the industrial mass production of the automobile. Under the subsequent rule of Jordan, Israel and the Palestine Liberation Organization, "the roads connecting to the old city center thickened into commercial arteries," and "since the beginning of the first intifada in 1987 [...] has been the site of many confrontations with [both] the Israeli occupation forces [...] [and] the Palestinian Authority."²²³ In 2011, when the Tahrir Square occupation was

²¹⁸ "Ramallah." *Encyclopedia Britannica. Encyclopedia Britannica Online*. Encyclopedia Britannica, Inc., 2016. Accessed October 24, 2016. URL: <https://www.britannica.com/place/Ramallah>

²¹⁹ Gelvin, *The Arab Uprisings*, 40.

²²⁰ Jean-François Legrain, "The Shiite Peril in Palestine: Between Phobias and Propaganda," *The Dynamics of Sunni-Shia Relationships: Doctrine, Transnationalism, Intellectuals and the Media* (London, UK: Hurst & Company, 2013), 46.

²²¹ Weizman, *The Roundabout Revolutions*, 54.

²²² *Ibid*, 32.

²²³ *Ibid*, 55.

in its initial stages, the al-Manara circle staged demonstrations and tent-cities in solidarity with the Cairo actions: the “protest tents were [...] dismantled by the Palestinian Authority.”²²⁴ During the Second Intifada, it is also alleged that al-Manara circle gained notoriety as a site for executions and hangings.²²⁵ Subjects targeted were “persons [...] suspected of collaborating with the Israeli authorities” and some of the incidents were actually attributed to the “al-Aqsa brigades, the armed faction of the [Palestinian National Liberation Movement].”²²⁶ In 2002, reports circulated that “a man accused of collaboration was executed, hanged by his feet, and thus put on display at al-Manara Square;” in 2003, “a young man was [allegedly] shot dead in the presence of many eyewitnesses.”²²⁷

Before circling into the fifth mini-roundabout to exit our magic roundabout, we encounter the larger central roundabout that orients the navigation of our narrative: the Pearl Roundabout in Manama, Bahrain (fig. 77). Manama’s Pearl Roundabout is the only site in Weizman’s “roundabout revolutions” whose name, *Dowar al Lulu* (Pearl Circle), actually refers to its circular shape rather than to its function as an open plaza or “square” (*Midan* in Arabic; *Miydan* in Persian). The word “dowar” (*douar/duar*) is among the Arabic contributions to the English language that have been recorded in historical dictionaries; it is documented as having been absorbed by the English language in 1829, first, as a specific term for “an encampment of Arab tents encircling an open space”—a commons “for cattle” and other domesticated animals—then, more generally, as any “Arab village of huts.”²²⁸ From this orientalist philological perspective, the occupation of the Pearl Roundabout—officially known as the *Dowar Majlis Al Ta’awon* (GCC Roundabout)—could be seen as a direct invocation of the *dowar*: a combination of the

²²⁴ Ibid, 56.

²²⁵ Gabriele Rosenthal, “The Social Construction of Individual and Collective Memory.” *Theorizing Social Memories: Concepts and Contexts* (Abingdon, Oxon: Routledge, 2016), 49.

²²⁶ Rosenthal, “The Social Construction of Individual and Collective Memory,” 49.

²²⁷ Ibid.

²²⁸ Garland Hampton Cannon and Alan S. Kaye, *The Arabic Contributions to the English Language: An Historical Dictionary* (Wiesbaden: Harrassowitz Verlag, 1994), 184.

roundabout of British imperial and GCC alliance planning, with the image of circular communitarian encampments also called *dowar*.



Figure 77 Screenshot configuration by the author: (middle, background, not visible) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); (right, bottom) a contemporary photograph of traffic around Cairo's Tahrir Square (source: Google Images); (bottom) Tehran's Azadi Square (source: Google Images); (left, bottom) Al Manara Square in Ramallah, Palestine (source: Google Images); (center of image) the Pearl Roundabout in Manama, Bahrain (source: Google Images). Image by the author.

This image of a village of tents at the center of a roundabout presents a stark contrast with the spectacular optics of Persian Gulf mega-projects. In 2011 satellite images, Bahrain's own recently developed mega-project, Lulu Island, stands between the Pearl Roundabout's circular island of tent-city encampments built by anti-government protesters, and Abu Dhabi's spectacular tourism-cultural complex, Saadiyat Island. In such an image, Bahrain figures as a

“‘dormant’ state”²²⁹ whose capital, Manama, is split between conflicting desires. On one hand, there is the desire to be seen as an “emerging city,” a rising “world city” “free from historical ‘burdens.’”²³⁰ Manama attempts to project an image like that of Abu Dhabi: a city playing with “forms of colonization,”²³¹ in the case of Abu Dhabi, a city with British, French and American museum-franchises, university campus-planning, and international ‘starchitecture.’ On the other hand, there is the desire to hold onto “historical ‘burdens’”²³² and revisit the potential of alternative urbanisms. This will of opposition groups to struggle beyond the regime’s model of the city as a mere machine for capital accumulation—beyond the market prestige of becoming an “emerging city”—was the force whose momentum eventually compelled the Pearl Roundabout into its plastic ending.

According to traffic engineers, in the 1960s, “all the traffic circles in Bahrain were converted into modern roundabouts adopting the priority-to-the-circle rule.”²³³ The new system of roundabouts was adopted to “ensure smooth traffic flow and avoid hotspots at intersections.”²³⁴ The first roundabouts were installed in front of the British Agency and the Ministry of Health, both icons of the bureaucratic system that gradually replaced Manama’s autonomous urbanism “with the increasing involvement of the British Imperial administration in the internal affairs of the city.”²³⁵ Bahrain-based urbanist Mustapha Ben Hamouche defines “autonomous urbanism” as “urbanism in which the city was the outcome of natural and man-made factors,” whereas in

²²⁹ Yasser Elsheshtawy, “The Great Divide: Struggling and Emerging Cities in the Arab World,” *The Evolving Arab City: Tradition, Modernity and Urban Development* (New York, NY: Routledge, 2008), 37.

²³⁰ Elsheshtawy, “The Great Divide,” 37.

²³¹ *Ibid.*

²³² *Ibid.*

²³³ Pratelli and Al-Madani, “Testing for a large roundabouts capacity model: experimental comparisons between Italy and Bahrain,” 4.

²³⁴ Ben Hamouche, “Manama,” 337-338.

²³⁵ *Ibid.*, 192.

“bureaucratic urbanism,” it is “the state, through political, administrative and financial power” that becomes “the major actor in the city.”²³⁶

Under autonomous urbanism, the city of Manama grew “by accretion” and, like its *dowar*, took “the shape of a rough oval.”²³⁷ This morphology – determined by “the gradual development of the irrigation system, land subdivision for agriculture and the tenancy system”²³⁸ is still present today and can be seen repeated in the ovoid ring roads built to accommodate expansion every ten to twenty years, beginning in the 1930s.²³⁹ Manama was not originally Bahrain’s capital city, but rather a “subordinate settlement” initially part of “an efficient defensive system controlling marine commercial trade” in the gulf and funnelling merchants through the Bahrain bay.²⁴⁰ Agriculture (in particular, date farming), pearl fishing and ship-building were the city’s principal industries.²⁴¹ The “tunnel-like streets” provided shade and were “oriented north-south” to “remove the smells of dried fish in the bazaar”—the overall layout of streets was generally designed to take advantage of the “north-westerly wind of the region” to reduce heat and humidity.²⁴² The majority of Manama residents lived in “huts [...] whose walls were of woven palm fronds” (*barasti*).²⁴³ These sustainable constructions provided “good interior cross ventilation” and reused material by-products of the date crops.²⁴⁴ In fact, up until the mid 20th-century Manama was still “surrounded by a ring of these dwellings”—a *dowar* proper—however, frequent fires and changing living standards gradually replaced the huts with stone structures previously reserved for the wealthy merchants and members of ruling families.²⁴⁵

²³⁶ Ibid., 184.

²³⁷ Ibid., 321-322

²³⁸ Ibid., 322.

²³⁹ Ibid.

²⁴⁰ Ibid., 321.

²⁴¹ Ibid., 321 – 323.

²⁴² Ibid., 324.

²⁴³ Ibid., 325.

²⁴⁴ Ibid.

²⁴⁵ Ibid., 324.

A general “freedom to build” shaped the architecture and planning of each neighborhood, and disputes among neighbors were usually solved in public gathering places where other community members participated in finding resolutions.²⁴⁶ Various ethnicities co-existed among the Shia and Sunni who made up the largest religious groups in Bahrain, but who also lived alongside religious minorities including “Christians, Indians of various sects and Jews.”²⁴⁷ Among the Shia, were the *Baharna*, “the local people speaking Arabic,” and Shia Persians, while the Sunni included Arab Bedouins who “arrived with the ruling family in the eighteenth century” and Arab speaking Persians who still strongly identified as Persian.²⁴⁸

The discovery of oil in Bahrain was “a turning point in the intensity of bureaucracy” across the archipelago, but particularly in Manama, which had become the country’s mercantile center.²⁴⁹ In 1937, oil went from representing 30% of the government income in Bahrain, to 65%.²⁵⁰ Though the Protectorate Treaty had been established in 1892, the British had previously been little concerned with local affairs, however, with ever increasing appreciation for the strategic location of Bahrain and its important resources, the British bureaucracies that had been in the process of developing were not only reenforced but amplified.²⁵¹ With the increase in financial resources, oil brought the collapse of the agricultural, fishing and ship-building industries that had previously been the source of the country’s economy. This collapse also brought an end to “the autonomous system, mainly based on Islamic law, community structure and freedom of action of the individual” that had in their own way, regulated these industries.²⁵² For example, private arbitration was for the most part replaced by complex procedures of legal action in the

²⁴⁶ Ibid., 328.

²⁴⁷ Ibid.

²⁴⁸ Ibid, 327 – 328.

²⁴⁹ Ibid., 330.

²⁵⁰ Ibid.

²⁵¹ Ibid., 329-344.

²⁵² Ibid., 330.

court system.²⁵³ “Freedom of action of the individual,”²⁵⁴ in particular, “freedom-to-build”²⁵⁵ was constrained through permits, construction inspection and building standards like setbacks and required road widths. The British became the ultimate “master arbiter”²⁵⁶ over matters of dispute about political representation in the new council established to govern the municipalities; procedures of land tenure verification and registration produced more than twelve thousand title deeds in the twenty years between 1926 and 1946, and in the process, dispossessed people of land inherited that was not adequately documented according to the new rules.²⁵⁷ All “unclaimed land” passed into government ownership, and *Ihiya* – “the right of individuals in Islam to develop unowned land” – was “implicitly abolished.”²⁵⁸ Aerial photographs and surveys mapping territory were amassed in official archives “show[ing] the increasing concern of the authorities for the control of land and hence, the territory and the society.”²⁵⁹

²⁵³ Ibid., 330.

²⁵⁴ Ibid., 330-331.

²⁵⁵ Ibid., 328-329.

²⁵⁶ Ibid., 331.

²⁵⁷ Ibid., 332-333.

²⁵⁸ Ibid., 332.

²⁵⁹ Ibid.

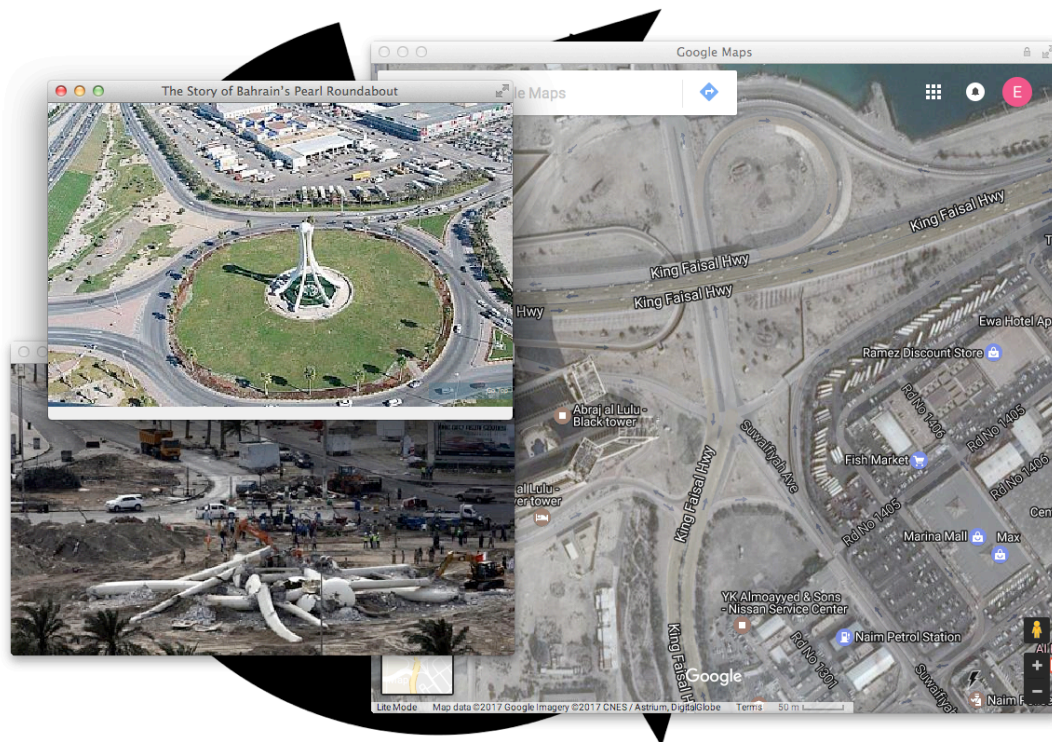


Figure 78 Screenshot configuration by the author: (top, left) the Pearl Roundabout before it was destroyed in 2011; (bottom, left) the Pearl Roundabout during its demolition in 2011; current satellite image of the former Pearl Roundabout site, now Farooq Junction (source: Google Maps). Image by the author.

As products of Bahrain's British-style bureaucratic urbanism, the series of roundabouts implemented in the 1960s were among the "administrative structures and regulations [...] inherited from the colonial authorities [that] continued to play their role in shaping and guiding [...] urban development."²⁶⁰ The Pearl Roundabout was a circular crossroads in a road system that in one decade established forty such junctions country-wide.²⁶¹ Increased incidence of roundabouts in the 1970s, when Bahrain gained its independence from the British, also coincided with Bahrain beginning another new transition from the oil economy to post-oil financialization.²⁶² In this transformation, Manama was to become the country's leading center of

²⁶⁰ Ibid., 345.

²⁶¹ Ibid.

²⁶² Ibid., 345-346.

“market orientalism,” a combination of tourism and finance.²⁶³ The road networks built to accommodate the new infrastructure of hotels and banks generated strange landscapes of “mixed scenes [...]: along the new highway, the driver passes empty plots, dying palm groves, few remaining historic buildings, and modern glazed towers, with views of the sea never far away.”²⁶⁴ Now, with a turn towards Pearl Island and a ride down King Faisal Highway, it is not a presence but an absence that the driver notes: the absent presence of Manama’s destroyed Pearl, the Pearl Roundabout.

To accommodate increasing traffic volume, Manama’s roundabouts were “developed along the edge of [its] peninsula, parallel to the three coastlines,”²⁶⁵ along Al Fatih Highway to the east, Sheikh Isa Bin Salman Highway to the south and the Pearl Roundabout’s own King Faisal Highway to the north. The Pearl Roundabout is a junction in a larger ring road that connects King Faisal Highway to Salmaniya Avenue and Palace Avenue (fig. 78).²⁶⁶ As such, it connects various historical moments of growth away from the original “oval form”²⁶⁷ of autonomous urbanism: first, the expansion northward, past the Government Avenue of the 1920s,²⁶⁸ into a new coastal edge road in the 1930s,²⁶⁹ second, the extension eastward of the 1950s, from Isa-al-Kabir Avenue to Palace Avenue.²⁷⁰ These ring roads of the city inscribe two important moments in bureaucratic urbanism. First, the 1930s rise of British bureaucratic governance and the decline of the pearling industry that gave the Pearl Roundabout its name.

²⁶³ Smith, *Market Orientalism*, 235 – 238 and 165-168.

²⁶⁴ Ben Hamouche, “Manama,” 345-346.

²⁶⁵ Ibid.

²⁶⁶ “Farooq Junction,” at 500 meter scale. *Google Maps*. Accessed December 16, 2016. <https://www.google.com/maps/place/Farooq+Junction,+King+Faisal+Hwy,+Manama,+Bahrain/@26.2267664,50.5814157,15z/data=!4m2!3m1!1s0x3e49a587607ea437:0xb0f543106602c79c>

²⁶⁷ Ibid., 336.

²⁶⁸ Ibid.

²⁶⁹ Ibid.

²⁷⁰ Ibid.

Second, the end of British hegemony and the negotiations of independence, beginning in 1951 with the self-determination of Oman, and ending with Bahrain, Qatar and the UAE in 1971.²⁷¹ The independence of the Gulf states, oil's "centrality to the world economy"²⁷² and the related "new generation of [Bahraini] banks"²⁷³ would eventually lead to the establishment of the Gulf Cooperation Council (GCC). In the Pearl Roundabout, these historical processes culminate with the image of Bahrain as the GCC "locus of regional banking."²⁷⁴ With the depletion of oil in Bahrain and the Israeli invasion of Lebanon, the 1982 dedication of the Pearl Roundabout monument marked the strategic move of the region's banking away from Beirut to Manama's off-shore system.²⁷⁵ The destruction of the Pearl Roundabout is Manama's ironic contribution to the mega-project trend—a mega-project for "removal of a bad memory"²⁷⁶—and signals the city's transition into global urbanism. In global urbanism, "rising multi-national and financial organizations become the major urban player in the city."²⁷⁷ Thus, while across the Gulf, Abu Dhabi began laying the groundwork for its new mega-project constructions, including surveying the future site of its Frank Gehry-designed Guggenheim Museum, Manama uprisings led to the destruction of the city's monumental Pearl Roundabout, its landmark of bureaucratic urbanism and colonial inheritance (fig. 79). As destruction that constructed a powerful memory, it could be argued that no other project in the Gulf has impacted the geopolitics of international imagination to the same degree. The "²⁷⁸dormant' state"²⁷⁹ Bahrain 'awoke' in the image of a circle occupied

²⁷¹ Ibid., 344-345.

²⁷² Hanieh, *Capitalism and Class in the Gulf Arab States*, 56

²⁷³ Ibid., 344-345.

²⁷⁴ Hanieh, *Capitalism and Class in the Gulf Arab States*, 158.

²⁷⁵ Ibid.

²⁷⁶ 14FebTV, "Scenes never seen," op. cit.; Bronner, "Bahrain Tears Down Pearl Monument," op. cit.; Leigh, "How the Bahrain Regime Wants to Erase its Bad Memories," op. cit.; Siegel, "In Bahrain, Iconic Pearl Monument Destroyed," op. cit.; "Bahrain Tears Down Protest Symbol," op. cit.; Matthiesen, "Battling over the legacy of Bahrain's Pearl Roundabout," op. cit., "Bahrain Tears Down Protest Symbol," op. cit.; "The Story of Bahrain's Pearl Roundabout," op. cit.

²⁷⁷ Ibid., 319.

²⁷⁸ Khalaf, "The Many Afterlives of Lulu," 273.

²⁷⁹ Elsheshtawy, "The Great Divide," 37.

by a circle, of *dowar* occupied by *dowar*. This was not just the ‘squaring’ (*Midan*) of the ‘circle’ (*Dowar*), or rather the transformation of traffic circle voids into active public spaces, typical of Arab Spring roundabout revolutions, but also the circling of the circle, or rather the occupation of the roundabout (*dowar*) of “bureaucratic urbanism”²⁸⁰ with the village (*dowar*) of “autonomous urbanism.”²⁸¹



Figure 79 Screenshot configuration by the author: (left, top and bottom) while in Bahrain, Manama’s monumental Pearl Roundabout, its landmark of bureaucratic urbanism and colonial inheritance, was being destroyed by the ruling regime in response to Arab Spring protests, the city of Abu Dhabi across the gulf in the United Arab Emirates was laying the groundwork for its new mega-project construction, a Frank Gehry-designed Guggenheim franchise (source: Google Images). Image by the author.

²⁸⁰ Ben Hamouche, “Manama,” 319-320.

²⁸¹ Ibid.

Thus, while across the Gulf, Abu Dhabi began laying the groundwork for its new mega-project constructions, including surveying the future site of its Frank Gehry-designed Guggenheim Museum, Manama uprisings led to the destruction of the city's monumental Pearl Roundabout, its landmark of bureaucratic urbanism and colonial inheritance

In everyday life, the Pearl Roundabout was experienced by motorists as a critical connecting point between Manama Center and Manama suburbs, between what tour guides call the “vestige of Old Bahrain”²⁸² in the city's Central Market, and its aspiring millennial mega-projects Lulu Island (renamed Reef Island) and Lulu Towers. The Pearl Roundabout occupations superimposed the past and the future in a monument to “bad memory”²⁸³ that sent images of broken bodies and razed roundabouts exploding across international information networks. The British who brought rotaries and roundabout planning to Bahrain, had placed Bahrain under an “advisory political system which was then extended to other Gulf countries”: in this system, Bahrain had been a testing ground for “compromise between full domination, which ensures Imperial interests, and indirect control which masks the presence of the colonial power.”²⁸⁴ To break this compromise that had been established in the structures and rhythms of the city under bureaucratic planning, autonomous urbanism had to reemerge. What site is more perfect for the reemergence of Manama's autonomy than the roundabout, a site that “coincides with early 20th century faith in deregulation and self-regulation”²⁸⁵ As Weizman explains:

the roundabout took the police out of road intersections[:] it was up to the drivers themselves rather than the traffic officers (or the traffic light) to manage their

²⁸² “Manama Central Market,” *Lonely Planet Oman, UAE & Arabian Peninsula*. N.d. Accessed December 16, 2016. <https://www.lonelyplanet.com/bahrain/manama/attractions/manama-central-market/a/point-sig/1528316/361010>

²⁸³ 14FebTV, “Scenes never seen,” op. cit.; Bronner, “Bahrain Tears Down Pearl Monument,” op. cit.; Leigh, “How the Bahrain Regime Wants to Erase its Bad Memories,” op. cit.; Siegel, “In Bahrain, Iconic Pearl Monument Destroyed.”op. cit.; “Bahrain Tears Down Protest Symbol,” op. cit. ; Matthiesen, “Battling over the legacy of Bahrain's Pearl Roundabout,” op. cit., “Bahrain Tears Down Protest Symbol,” op. cit.; “The Story of Bahrain's Pearl Roundabout,” op. cit.

²⁸⁴ Ben Hamouche, “Manama,” 330.

²⁸⁵ Weizman, *The Roundabout Revolutions*, 29.

own movements. [...] The success or failure of the roundabout depended on the capacity of a people for self-regulating and [...] [it was believed] the roundabout might eventually help support a tendency for interdependencies and cooperation.²⁸⁶

The Pearl Roundabout was a synecdoche of the “advisory political system”²⁸⁷ the British established and passed on to GCC alliance rule. Its own compromise between full domination and indirect control—between a precisely engineered circle with legislated navigational rules, and the apparent absence of traffic signaling and policing—simultaneously masks the presence of colonial power in a post-colonial state, while opening this power to a free-flowing momentum of notoriously disobedient drivers. In *The Roundabout Revolutions*, Weizman explains:

Self-regulation, as Michel Foucault taught in his work on governmentality, is not only about the free interaction of agents, it is also about the creation of a frame within which such interaction can take place. The roundabout could thus be seen as a literal (and somewhat comical) diagram of this principle: it is an apparatus that combined a set of elements including the urban form of the street circle, traffic regulation, and the production of a modern subject (the driver) who can self-regulate. The roundabout’s unfulfilled promise, however, like that of deregulated capitalism, was to optimize flow with minimum top-down intervention. Just like the “self regulated” market, it has not only come into crisis, it has become the mode by which crisis took shape.²⁸⁸

The Pearl Roundabout became the site of a “self-explosive body”: a space that, through accretion—through the autonomous rhythms and layerings of the city—endowed the monument with a momentum capable of “eradicat[ing] the site of political violence by a violence equal in its intensity.”²⁸⁹ As an object produced in the image of the body politic, the destroyed Pearl Roundabout is “the posthuman body [that] has self-exploded in the face of the illegitimate state by denying it its first and final site of repression.”²⁹⁰ In the case of the Pearl Roundabout, the first “site of repression” was British rule, which the roundabout recalled through its association with colonial planning; the final “site of repression” is financialization, the neoliberal regime that the

²⁸⁶ Ibid.

²⁸⁷ Ben Hamouche, “Manama,” 330.

²⁸⁸ Weizman, *The Roundabout Revolutions*, 30.

²⁸⁹ Dabashi, *Corpus Anarchicum*, 10.

²⁹⁰ Ibid.

Pearl Roundabout monument was built to inaugurate in 1982. As a co-optation of the government's own "first and final site of repression,"²⁹¹ the occupation of the Pearl Roundabout as a monument of opposition set the scene for destruction-as-creation. Using Dabashi's words, it could be said that the suicidal monument "liberated the sign of the body from the legislated semantics of its incarceration in the politically tyrannical and constitutionally illegitimate state."²⁹² With this liberation by self-explosion, the demolished Pearl Roundabout—now Farooq Junction—becomes a permanent visual reminder of the presence of the absent, the momentum of autonomous Manama in the aspiring world city. In its destruction, the Pearl Roundabout opened a new horizon over the gulf: the north-westerly winds in Manama mix the market's smell of dried fish with the dust of bad memory south east towards Abu Dhabi (fig. 79).

To exit this magic-roundabout topology of roundabouts and revolutions, the final turn in the topology is through a fifth 'mini-roundabout.' The fifth mini-roundabout is neither a roundabout nor a city-square-cum-traffic-circle, but an island: Saadiyat Island in Abu Dhabi (fig. 80). Saadiyat Island is a "natural land mass, located 1,640 offshore"²⁹³ and plays an important part in *Plan Abu Dhabi 2030*, the strategic plan that the city of Abu Dhabi outlined for itself in 2007.²⁹⁴ The strategic plan is centered on combining the promotion of both "autochthonous and franchised heritage," or rather heritage that is "formed or originating in the place where it is found" (i.e., Abu Dhabi) and heritage that is distributed through a "legal relationship between [...] franchiser [...] and the franchisee [...] to develop [a] heritage industry"²⁹⁵ (i.e., a "universal"²⁹⁶ heritage proposed by a foreign cultural institution like the American Guggenheim

²⁹¹ Ibid.

²⁹² Ibid.

²⁹³ Alan G. Brake, "Abu Dhabi announces its own Gehry-designed Guggenheim." *Architectural Record* 194, Issue 10. (October 2006): 17.

²⁹⁴ Sarina Wakefield, "Heritage Cosmopolitanism and Identity in Abu Dhabi" in *Cultural Heritage in the Arabian Peninsula: Debates, Discourses and Practices*, ed. Karen Exell and Trinidad Rico (Farnham, UK: Ashgate, 2014), 100

²⁹⁵ Wakefield, "Heritage Cosmopolitanism and Identity in Abu Dhabi," 99.

²⁹⁶ Karen Exell, *Modernity and the Museum in the Arabian Peninsula* (London, UK: Routledge, 2016), 94.

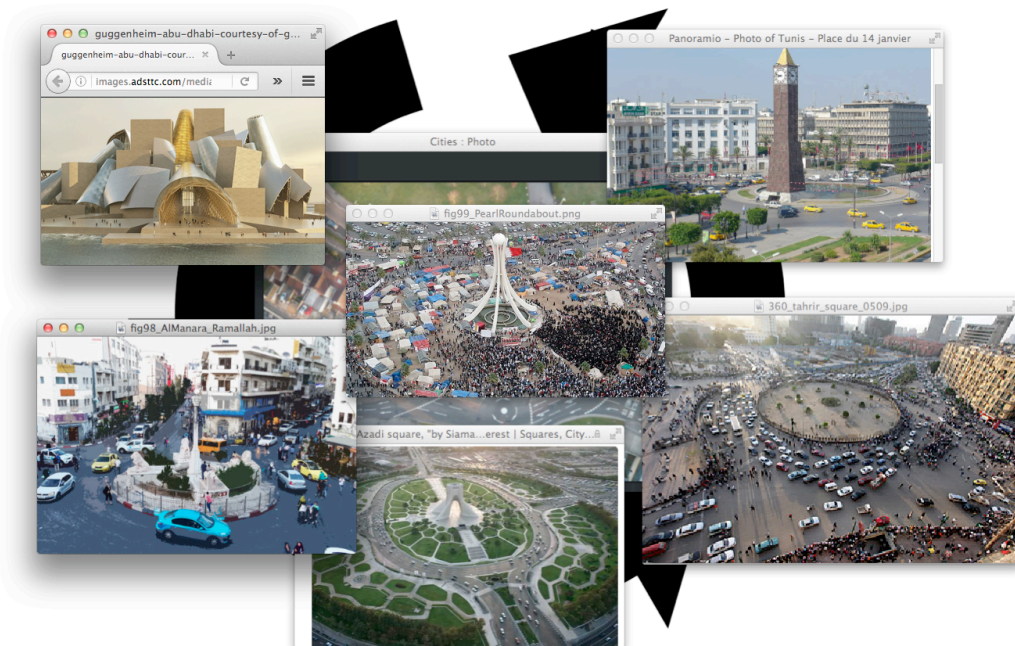


Figure 80 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); (right, bottom) a contemporary photograph of traffic around Cairo's Tahrir Square (source: Google Images); (bottom) Tehran's Azadi Square (source: Google Images); (left, bottom) Al Manara Square in Ramallah, Palestine (source: Google Images); (center of image) the Pearl Roundabout in Manama, Bahrain (source: Google Images); (left, top) Abu Dhabi's Frank Gehry-designed mega-project, a franchise installment of the Guggenheim Museum (source: Google Images). Image by the author.

Museum). Abu Dhabi came to an official agreement with the Guggenheim Foundation in 2006²⁹⁷ when it announced that a Guggenheim Museum branch would be part of the Saadiyat "cultural district."²⁹⁸ The cultural district was designed to include the French Louvre Abu Dhabi (2016), the American Guggenheim Abu Dhabi (2017), the British Zayed National Museum (2016), the Marine Museum and the Performing Arts Center (neither of which have projected completion dates). According to Frank Gehry, the architect of the Guggenheim Museum branch, "local

²⁹⁷ Stephanie Cash, "Abu Dhabi & Guggenheim Agreement," *Art in America* (January 1, 2008): 33.

²⁹⁸ Karen Exell, "Introduction: (De)constructing Arabian heritage debates" in *Cultural Heritage in the Arabian Peninsula: Debates, Discourses and Practices*, ed. Karen Exell and Trinidad Rico (Farnham, UK: Ashgate, 2014), 2.

leaders in Abu Dhabi” expressed that “what they want from the architecture, by [all the architects involved] is a “string of pearls” stretching to the water” of the Gulf.²⁹⁹

The term “remodernism”³⁰⁰ has been used to describe the “aesthetic of globalization [...] manifest in the spectacle architecture”³⁰¹ associated with Frank Gehry’s designs for the Guggenheim Abu Dhabi. “Remodernism” is defined as “a cleaving of new art to old modernist impulses.”³⁰² It is not surprising, therefore, that the Guggenheim Abu Dhabi has been critiqued for modernist trappings like imperialism and top-down administration: it has been called the latest intervention of “a global brand driven by capitalism rather than civic duty or local engagement”³⁰³ and “a representation of an [...] ideology associated with American imperialism and notions of universal culture.”³⁰⁴ Meanwhile others have insisted on emphasizing “the agency of the ruling families in selecting such brands”³⁰⁵ to help guide Abu Dhabi’s vision of cultural and urban development.

²⁹⁹ Frank Gehry, “My Abu Dhabi Adventure,” Art & Design Blog. *The Guardian*. March 5, 2007. <https://www.theguardian.com/artanddesign/artblog/2007/mar/05/myabudhabiadventure> (Accessed June 28, 2014).

³⁰⁰ Terry Smith, *What is Contemporary Art?* (Chicago: University of Chicago Press, 2009) 5-8, as referenced in Exell, *Modernity and the Museum in the Arabian Peninsula*, 83-84.

³⁰¹ Ibid.

³⁰² Ibid, 84.

³⁰³ Christina F. Kreps, *Liberating Culture: Cross-Cultural Perspectives on Museums, Curation, and Heritage Preservation* (London, UK: Routledge, 2003), 5, as referenced in Exell, *Modernity and the Museum in the Arabian Peninsula*, 9.

³⁰⁴ Saloni Mathur “Museums and Globalization,” *Anthropological Quarterly* 78, no. 3 (2005): 702 – 703; Yasser Elsheshtawy, “Cities of Sand and Fog: Abu Dhabi’s Global Ambitions,” in *The Evolving Arab City: Tradition, Modernity and Urban Development*, ed. Yasser Elsheshtawy (New York, NY: Routledge, 2008), 293 as referenced in Exell, *Modernity and the Museum in the Arabian Peninsula*, 9.

³⁰⁵ Exell, *Modernity and the Museum in the Arabian Peninsula*, 9.



Figure 81 Screenshot configuration by the author: (left) Abu Dhabi's Frank Gehry-designed mega-project, a franchise installment of the Guggenheim Museum (source: Google Images); (right) the Pearl Roundabout in Manama, Bahrain during Arab Spring protests (top) and after demolition (bottom). (source: Google Images); Image by the author.

The New York Times describes Gehry's design for the Guggenheim Abu Dhabi as "a graceful tumble of giant plaster building blocks and transparent blue cones" (fig. 81).³⁰⁶ Others are less positive about the design, but still describe it in terms of collapse. After seeing Gehry's model for the Guggenheim on display at the Emirates Palace, one Detroit city planner who wrote an account of his experience working on Abu Dhabi's Urban Planning Council described the

³⁰⁶ Carol Vogel, "A New Art Capital, Finding its Own Voice," *The New York Times*. December 4, 2014. Accessed September 10, 2014. <https://www.nytimes.com/2014/12/07/arts/design/inside-frank-gehrys-guggenheim-abu-dhabi.html>.

museum (said to be between “nine”³⁰⁷ and “twelve times”³⁰⁸ the size of its Manhattan counterpart) as “a confused geometric jumble that looks like a child’s discarded tinker toys.”³⁰⁹ The New York-based arts magazine *Modern Painters* concurs, describing it as “an iteration of Gehry’s architectural program,” the “sculpturalism” of “his usual twisting titanium sheets, piled one atop another in a mass of undulating curves and jagged angles, [...] a futuristic monumentality [...] become programmatic with repetition.”³¹⁰ The same article also draws attention to the franchise-character of the design itself, noting that it is “merely the latest major museum construction project to bring Western architecture to distant locales.”³¹¹ It adds to this, ironizing on the claim that the Abu Dhabi “filial” of the Guggenheim is hardly “site-specific,” with tongue-in-cheek association of Gehry’s description of his ideal client—“a benevolent dictator—who has taste”—with his assertion that the design “pays homage to traditional Islamic architecture.”³¹²

After circling through our magic roundabout topology of roundabout revolutions, these descriptions of Gehry’s Guggenheim provoke a double take: there is undeniably a certain resemblance between Gehry’s “bricoleur” approach to deconstructivism,³¹³ as it is expressed in his Abu Dhabi Guggenheim, and the Pearl Roundabout’s plastic ending, the deformed form the roundabout and its monument took after its Al-Khalifa razing (fig. 81, right). Previous Gehry works have been described as “playful articulation[s] [...] that reinterpret the theme of dance (i.e. the so-called “Fred and Ginger” Office Building in Prague [1995]) and Gehry himself has expressed an interest in using the encounter between architecture and the street to “animate” his

³⁰⁷ Dempsey, *Castles in the Sand*, 99.

³⁰⁸ Vogel, “A New Art Capital, Finding its Own Voice,” op.cit.

³⁰⁹ Dempsey, *Castles in the Sand*, 99.

³¹⁰ Anna Kats, “Museum Design Now: The Possibilities of Contemporary Architecture: Frank Gehry, Renzo Piano, and Moshe Safdie.” *Modern Painters* (November 2013): 75.

³¹¹ Kats, “Museum Design Now,” 75.

³¹² *Ibid.*, 75-76.

³¹³ Elie G. Haddad, “Deconstruction: The Project of Radical Self-Criticism,” *A Critical History of Architecture: 1960 – 2010*, ed. Elie G. Haddad and David Rifkind. (Surrey, UK: Ashgate, 2014), 83.

“sculptural form[s].”³¹⁴ It is, of course, highly unlikely that Gehry’s design was at all influenced by the media frenzy over the destruction of the Pearl Roundabout across the Gulf in Bahrain. According to Gehry’s own account, his designs were submitted by early 2007, four years before the Pearl Roundabout’s demolition: a post to *The Guardian*’s Art and Design blog in March 2007 records Gehry announcing that his firm had “done the designs” and was “waiting for the final go ahead.”³¹⁵ In the same blog post, however, Gehry’s casual description of his designs evoke the *dowar*, that emblematic term of autochthonous heritage used in English to describe a tradition in Arab architecture, specifically the “encampment of Arab tents encircling an open space”³¹⁶: “Abu Dhabi’s going to be...a take on a traditional, spread out, organic Arab village or town. Not literally, but it’ll have the equivalent of streets and alleys, souk-like spaces and plazas, some shaded and others covered. It’ll be the biggest Guggenheim yet....”³¹⁷ The accidental resemblance between this interpretation of the *dowar*-as-encampment and the Arab Spring’s fallen *dowar*—the *dowar*-as-roundabout circle, or *Dowar al Lulu* (Pearl Roundabout)—prompts a return to Toufic’s theorization of the surpassing disaster. Gehry’s seeming anticipatory “proximity to” and “ability to use”³¹⁸ the formula of momentum from the fall of the Pearl Roundabout is uncanny. The Abu Dhabi Guggenheim’s unconscious monumentalization of Pearl Roundabout replications that proliferated in and around Manama after the Pearl Roundabout’s destruction ironically engenders the “monument speaking for itself” (fig 81).³¹⁹

³¹⁴ Haddad, “Deconstruction,” 85.

³¹⁵ Frank Gehry, “My Abu Dhabi Adventure,” op.cit.

³¹⁶ Gehry, “My Abu Dhabi Adventure,” op.cit. See also Cannon and Kaye, *The Arabic Contributions to the English Language*, 184.

³¹⁷ Gehry, “My Abu Dhabi Adventure,” op.cit.

³¹⁸ Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*, 13.

³¹⁹ Straughn, “Other Monumental Lessons,” 96.

Chapter Six / To Yield: Withdrawing and Producing (The Spiral and the Labyrinth)

To understand the various layers of movement that make up the formula of momentum in the Pearl Roundabout, imagine the perspective of an occupier who enters a roundabout's open circle. The pedestrian who occupies the circle at the center of a busy traffic roundabout stands in a void amidst a swirling vortex. From this position in the middle of the junction, the pedestrian at the axis line of vehicular circling, will eventually notice the first rule of roundabout navigation. The diligent motorist who enters the ring of traffic respects the imperative to yield. To yield is to give way. When a vehicle approaches traffic around a roundabout, the rules of the road require it give way to the flow of other body-machine hybrids, other vehicles with their respective motorists. Giving way allows the driver-in-vehicle to time its insertion into tight waves of congested traffic.

To yield is a verb of “middle voice”: the subject of the verb ‘to yield’ performs an action that it receives upon itself.¹ In the context of yielding, giving way or holding back, the subject of the verb ‘to yield’ is holding itself for itself. In literary studies, the motion of yielding has thus been invoked as the quintessential example of “middle voice.”² “The middle voice—holding for oneself—and the act of holding still or keeping some prior activity in check,” are correlated. “Being as having,” which is the general condition that defines the verb in middle voice, “[...] may correlate with a holding oneself in check, a self-restraint put on another [...] movement or process. From this we can begin to develop a [...] way of thinking that leads through having to hold back to the yield.”³

¹ Paul North, *The Yield: Kafka's Atheological Reformation* (Stanford: Stanford University Press, 2015), 36.

² North, *The Yield*, 36,

³ Ibid.

Philosophical inquiry interested in “echontology”—“a way of thinking that leads through having to hold back to the yield,”⁴ has defined the role of art within this ontology in two ways. There is art that is a “function” of the “yield,” and then there are so-called “images of art.”⁵ Art that is a function of the yield, and images of art, are contrasted. While “images of art are what give us a sense of [the] future [...]” – a sense of something that will be given if it is held on for – “[t]he yield, in contrast, is the gesture by which belonging is both created and ultimately abandoned[,]”⁶ the gesture that gives by giving way.

The 20th century has been called “the century that trusted in the future,”⁷ a “century [...] pervaded by a religious faith in the future.”⁸ In 1909, Italian poet Filippo Tommaso Marinetti published his *Futurist Manifesto* in the Parisian newspaper *Le Figaro*, declaring:

a racing automobile with its bonnet adorned with great tubes like serpents with explosive breath...a roaring motor car which seems to run on machine-gun fire, is more beautiful than the Victory of Samothrace. [...] We want to sing the man at the wheel, the ideal axis of which crosses the earth, itself hurled along its orbit.⁹

Across the Atlantic, while Marinetti disseminated his manifesto, Henry Ford was still producing automobiles by stationary assembly; four years later, however, with the method of the moving assembly line installed in his Detroit Highland Park plant, the rate of Ford’s factory production increased by 94% allowing for significant reduction in automobile prices, and increases in wages

⁴ Ibid. See also Gabriel de Tarde, *Monadology and Sociology*, ed. and trans. Theo Lorenc (Melbourne, Australia: re.press, 2012), 72.

⁵ North, *The Yield*, 29.

⁶ Ibid.

⁷ Franco “Bifo” Berardi, *After the Future*, ed. Gary Genosko and Nicholas Thoburn (Oakland, CA: AK Press, 2011), 17.

⁸ Berardi, *After the Future*, 25.

⁹ Filippo Tommaso Marinetti, *Manifesto of Futurism* (February 20, 1909) as quoted in Berardi, *After the Future*, 20.

that empowered workers as consumers.¹⁰ Futurism and Fordism “inaugurated the century that trusted in the future.”¹¹

While the early 20th century “exalted the machine as an external object, visible in the city landscape,”¹² the 21st century “post-future”¹³ is, instead, a “biosocial age” in which the machine is no longer an “external enhancer” but “an internalized process of [...] cognitive automatisms.”¹⁴ With this internalization of the machine, the promise of the future that was “overturned by the crisis of a financial system [...] founded on the futurization of the economy, debt and economic promise,”¹⁵ is in collapse – a “collapse of the future [...] rooted in the acceleration of psychic and cognitive rhythm.”¹⁶

The post-future is the aftermath of the 20th century’s “machine of speed accomplish[ing] the colonization of global space [...], the colonization of the domain of time, of the mind and [of] perception so that the future collapsed.”¹⁷ Thus, in contrast to Futurism and Fordism’s belief in the future of the automobile and automation, it is appropriate that the post-future’s collapse of the future exhorts the figure of the traffic-easing roundabout: it does not “sing the man at the wheel”¹⁸ hurled along the earth’s orbit, but rather sings the “driver” who has “learn[ed] to love the [traffic-easing] roundabout” over “binary, on-off traffic control.”¹⁹ Roundabouts not only slow speeds, forcing a vehicle to give way to time; they also “require drivers [...] make their own decisions

¹⁰ John M. Murrin, Paul E. Johnson, James M. McPherson, Gary Gerstle, Emily S. Rosenberg and Norman L. Rosenberg, *Liberty, Equality, Power: A History of the American People. Volume II. Since 1863* (Belmont, CA: Thomson Wadsworth Publishing, 2008), 511.

¹¹ Berardi, *After the Future*, 20-21

¹² *Ibid.*, 23.

¹³ *Ibid.*, 165.

¹⁴ *Ibid.*, 23.

¹⁵ *Ibid.*, 164.

¹⁶ *Ibid.*, 23.

¹⁷ *Ibid.*

¹⁸ Marinetti, *Manifesto of Futurism*, op. cit. as quoted in Berardi, *After the Future*, 20.

¹⁹ Vanderbilt, “Don’t Be So Square,” op. cit.

and assess others' actions [...]” rather than mechanizing response in stimulus-reaction logic through signaling.²⁰

In the post-future's “collapse of the future,”²¹ it has been said that,

Humanism, Enlightenment, Socialism, the cultural regulators of modern democracy, have been swept away by [...] cultural deregulation [in which] [...] [p]rivatization of every living space and activity, competition and economic brutality in the social sphere, have deeply affected the self perception of the social body [...].²²

“Social civilization” is declared “over.”²³ It is said that the “[...] precarization of labor and the media dictatorship have destroyed the cultural antibodies that, in the past, made resistance possible.”²⁴ In response, cultural producers propose the twin options of militant retreat and non-confrontational withdrawal as the only possible actions. The question “[w]hy resist, why persist in seeking autonomy from power?”²⁵ no longer entreats interlocutors, rather it is rhetorical and, as such, performatively advocates for resignation.

In the era of belief in the future, “the development of the roundabout [had] coincide[d] with an early twentieth-century faith in deregulation and self-regulation whose principles had become prominent through political and economic theories of liberalism.”²⁶ For example, “the roundabout took the police out of road intersections. It was up to the drivers themselves rather than the traffic officers (or the traffic light) to manage their own movements.”²⁷ The roundabout depended not only on the capacity of people for self-regulating, but was also designed with the understanding that its navigational rules would “help support a tendency for interdependencies and cooperation.”²⁸ However, as Weizman explains in *The Roundabout Revolutions*, the history

²⁰ Ibid.

²¹ Berardi, *After the Future*, 23.

²² Ibid., 159.

²³ Ibid., 158.

²⁴ Ibid.

²⁵ Ibid., 162.

²⁶ Weizman, *The Roundabout Revolutions*, 29.

²⁷ Ibid.

²⁸ Ibid.

of governmentality by self-regulation shows that the governed become the police of themselves not just through a permitted “free interaction of agents” but through the “creation of a frame within which such interaction can take place.”²⁹ The figure of the roundabout is therefore proposed by Weizman as “a literal (and somewhat comical) diagram of this principle: [...] an apparatus that combine[s] a set of elements including the urban form of the street circle, traffic regulation, and the production of a modern subject (the driver) who can self-regulate.”³⁰ In this scenario, the “unfulfilled promise” of the roundabout is said to be like that of “deregulated capitalism.”³¹ The aim of its design was to “optimize flow with [perceived] minimum top-down intervention,”³² through a rotation of control and abandonment, or regulation, deregulation and re-regulation.

What is commonly recognized as distinguishing the so-called “modern roundabout”³³ from the traffic circle is the regulation of who yields. In the traffic circles and gyratory systems of the early 20th-century, the vehicles operating in the circle had yielded to entering traffic. In the roundabout “priority rule” proposed by the British Transport and Road Research Laboratory in 1956, it was instead the entering traffic that was required to yield.³⁴ Traffic circles had been built on belief in the future, on giving precedence to future members of the circle. Roundabouts expected the entering drivers give way, that they find a way to create their own space in an already-existent flow by abandoning themselves to it.

Traffic engineers can thus be seen as both strategic operators complicit in the governmentality of deregulated capitalism, and as tacticians, devising schemes to help hold out against deregulated capitalism in defense of “interdependencies and cooperation.”³⁵ To lead

²⁹ Ibid., 30.

³⁰ Ibid.

³¹ Ibid.

³² Ibid.

³³ Vanderbilt, “Don’t Be So Square,” op. cit. and Tollazzi, *Alternative Types of Roundabouts*, 1.

³⁴ Weizman, *The Roundabout Revolutions*, 32-33.

³⁵ Ibid., 29.

through holding back to the yield, traffic engineers quietly generated roundabout designs and navigational rules that, with hindsight, appear intended to act directly on bodies in the attempt to forcefully, but inconspicuously, incorporate a sense of social civilization into them. Appropriately, the battleground for this resistance is gradually easing away from the global cosmopolis, and seeping into the sub- and exurban margins to the villages of the periphery.

Among the first of these peripheral sites was Southwestern England's borough of Thamesdown (present-day Swindon) where, in 1972, plans for the so-called "magic roundabout" were implemented (fig. 82).³⁶ Designed by Frank Blackmore, the same engineer who developed the change in priority rules that brought the "modern roundabout" into existence in 1956, the magic roundabout came to be known as one of the "scariest junctions in the United Kingdom."³⁷ In the Swindon roundabout, the compound roundabout carries motorists through traffic flows like flocking birds: five mini-roundabouts carry traffic clockwise in miniature rotations around the roundabout's outer circle while a larger central roundabout moves traffic counterclockwise around its single inner circle. Thus, in the midst of the cosmopolitan financialization of global economies and deregulation of labor markets, traffic engineers in provincial England proposed a new spiraling labyrinth that took the synchronization of bodies beyond the linear logic of the assembly line through roundabout revolutions. This new post-future corporeal synchronization was designed to work on bodies while they were engaged in an activity that made them less aware of being bodies, i.e., it acted not on bodies actively at work, nor on bodies actively at leisure, but on commuting bodies: bodies in-between, bodies in a delay, bodies actively engaged in the passive locomotor activity of transitioning – of driving *to* someplace or *from* someplace. If the early 20th century is said to have begun the process of the "internalization of speed" towards

³⁶ "Britain's Scariest Roads Revealed," *BBC News*. November 27, 2009. Accessed September 10, 2014. http://news.bbc.co.uk/2/hi/uk_news/scotland/glasgow_and_west/8382506.stm

³⁷ "Britain's Scariest Roads Revealed," *op. cit.*

the “collapse of the future,”³⁸ the “magic roundabout” is evidence of late 20th century response to this collapse and its regime of self-regulation, with attempts to internalize social civilization on the wane through changes in the imperative to yield.



Figure 82 Screenshot configuration by the author: (middle) a contemporary aerial photograph of Swindon’s Magic Roundabout, designed by Frank Blackmore, the same engineer who came up with the priority rules that define the “modern roundabout.” (source: Google Images).

It has been suggested that in the post-future – “in the empty space that comes after the future of modernity”³⁹ – when exuberance over the promise of the future has not only dissipated, but the very idea of the future has collapsed, the only option is to act “as if.”⁴⁰ The problem is that though present “knowledge and understanding” from this post-future position of pessimism,

³⁸ Berardi, *After the Future*, 23.

³⁹ *Ibid.*, 163.

⁴⁰ *Ibid.*

cannot foresee “how any development of the social catastrophe could cultivate social well-being,” it is, in fact, “the catastrophe (in the etymology of *kata* and *strophein*) [that] is exactly the point where a new landscape is [...] revealed.”⁴¹ Are roundabouts called “circles of death”⁴²—likened to the “circles of hell,”⁴³ and named among the “scariest junctions”⁴⁴ in road infrastructure—because a “new landscape”⁴⁵ is felt to be emerging from within them? In a collective imagination incapable of seeing alternatives to devastation, the affect of the future is not hope but anxiety.⁴⁶ Acting “as if”⁴⁷ there could be hope from within this collective anxiety, allows for a “self-consciousness of the general intellect” within the limits of the accepted knowledge that resistance is futile.⁴⁸

The yield is central to “as if” thinking: “yielding denotes both giving up or giving in and giving something away or going away.”⁴⁹ According to this definition of the “gesture” of yielding, to yield is not simply withdrawal; it is “the pull between withdrawing and producing.”⁵⁰ In other words it is “yielding a yield—[...] [y]ield gives by giving up. It also gives itself up. That is, abandons all claims to self-possession.”⁵¹ It gives itself up, however, while

preserv[ing] the consciousness and sensibility of social solidarity, of human empathy of gratuitous activity – of freedom, equality, and fraternity. Just in case, right? Just because we don’t know what is going to happen next, in the empty space that comes after the future of modernity.⁵²

⁴¹ Ibid., 161.

⁴² Peter Stern, “Encinitas should stop building roundabouts,” *San Diego Union-Tribune*. October 9, 2007. Accessed November 3, 2014. <http://www.sandiegouniontribune.com/sdut-encinitas-should-stop-building-roundabouts-2007oct09-story,amp.html>

⁴³ Weizman, *The Roundabout Revolutions*, 58.

⁴⁴ “Britain’s Scariest Roads Revealed,” op. cit.

⁴⁵ Weizman, *The Roundabout Revolutions*, 58.

⁴⁶ Ibid., 59.

⁴⁷ Ibid., 163.

⁴⁸ Ibid., 163.

⁴⁹ North, *The Yield*, 29.

⁵⁰ Ibid.

⁵¹ Ibid., 29.

⁵² Berardi, *After the Future*, 163.

In the roundabout imperative to yield, the incoming vehicle gives itself up to the flow of social solidarity, to the rhythms of social civilization. Meanwhile, the pedestrian who dares to dart through the interstices between vehicles, trusts the will of motorists to resist automation and break the roundabout's rhythms, allowing the roundabout's waves of traffic to be crossed so its empty center can be occupied.

Thus, in “thinking that leads through having to hold back to the yield,⁵³ art that is a function of the yield is “[a]rt [that] improvises ever-new modes of abandonment.”⁵⁴ In these modes of abandonment, “[...] thoughts are a blur [...]” and a “blur [...] as we know, is not a form,”⁵⁵ so when the topic of discussion is art-as-a-function-of-yield, it is not form that should be the center of discourse, but formula. And, in fact, the roundabout is a formula, not a form. The roundabout is described as an “urban-architectural setting,”⁵⁶ because it is neither architectural form, infrastructural form, nor a pure form of open space like a park or a yard; it is a frame, a setting, a “spatial formula,” a figuration of space that frames movements, or what contemporary dance theory has coined “topos formula.”⁵⁷ As dance historian Gabriele Brandstetter writes,

The term *topos formula* is [...] derived from [art historian Aby] Warburg's concept of the pathos formula, the latter defined as a pictorial pattern of symbolically shaped expressions of movement, which can practically be retrieved as formulas from the inventory of cultural memory and transformed. The term *topos formula* can be applied similarly: as a compound of topos and formula, whereby topos [...] describes the space, the site of [...] movement in the literal sense of the word, and on the other hand, the places – “common places” [...] – as formulas that inventory perception, much as does the use of topoi in classical rhetoric. [...] Topos formulas condense and transform symbolic patterns of perceiving “socially identifiable empirical and theoretical knowledge” [...] into figurative spatial shapes. Space and the relationships between the kinetic parameters defining it are the subject and the medium of the topos formula; the concept of topos formula thus refers to formative figurations, formulas of spatial

⁵³ North, *The Yield*, 36.

⁵⁴ *Ibid.*, 241.

⁵⁵ *Ibid.*

⁵⁶ Weizman, *The Roundabout Revolutions*, 1.

⁵⁷ Gabriele Brandstetter, *Poetics of Dance: Body, Image, and Space in the Historical Avant-Gardes*, trans. Elena Polzer with Mark Franco (Oxford: Oxford University Press, 2015), 17.

relationships in typical configurations of depicting a subject and its surrounding space.⁵⁸

The relationship of corporeal movement to space inscribed in the roundabout is a combination of two formulas of spatial relationships that have been identified as “fundamental pivotal patterns of movement and figurations in space” in the early 20th century: the spiral and the labyrinth. Movement around the roundabout can curve through a part of the roundabout circle, it can turn through complete rotation, it can lose itself in circling around the whole circle to return to where it began, and it can even circle on itself continuously, racing ‘donuts’ to spiral.

In circling to spiral, the roundabout topos-formula shares characteristics with “the movement patterns of furling and unfurling” found in the “pattern of paths [like] [...] the circle and chain dances associated with dance reform and rhythmic gymnastics,” and in the “spatial pattern[s] in various avant-garde dance and scenographic experiments [at the turn of the 20th century], such as Loie Fuller’s spiral dances and the Futurists’ *aerodanza* scenarios.”⁵⁹ Like the movements in Fuller’s “endless metamorphoses”⁶⁰ between projected light, flowing silk robes and liquid gesture, in the “blur” of the not-form topos-formula generated by art-as-a-function-of-the-yield, “[...] thoughts cannot be taken individually and the whole does not cohere into anything like a justification for the imperfection of the parts.”⁶¹ In other words, those who turn to art-as-a-function-of-yield in search of forms and answers, find only “blur” – the “[...] tentative, experimenting [...] world whose jumble of principles [art] represent[s].”⁶² The “blur” is what is experienced in the topos-formula of the spiral both within the movement and outside of it: like the spiral that generates it, the blur is “a dissimulation of the corporeal in movement itself, [...] a

⁵⁸ Brandstetter, *Poetics of Dance*, 17.

⁵⁹ *Ibid.*, 265.

⁶⁰ North, *The Yield*, 241.

⁶¹ *Ibid.*

⁶² *Ibid.*

dissolution of the body in the spiral movement, [...] the disappearance of the subject in the lineaments of figurations of space.”⁶³

However, the imperative to yield before entering a roundabout—the change in priority rules that defines the roundabout—introduces the potential for a broken, segmented flow of movement that induces differentiation or interruption of movement. With this potential for fragmentation, roundabout movement is similar to dance through a labyrinth: “while the lineaments of the spiral mirror a virtually endless, constantly flowing progression of movements, the movement pattern reflected in the figuration of the labyrinth forces the dancer to pause, to reorient [...] when changing direction.”⁶⁴ In its imperative to yield, and in its circling trajectory with multiple entry-points and exit-points, the roundabout is labyrinth-like:

the flow of movement is interrupted by a moment of reflection, which takes place *in* the movement. A moment of self-reflection is thus integrated in the interaction of orientation and disorientation in space. The topos formula of the labyrinth consequently appears as a figuration of self-reflection [...]. In the *interruption*, in the exploration of possibilities of structuring, dissolving, and restructuring movement patterns, the [...] choreography of the labyrinth permits both meandering paths and figurations of order.⁶⁵

⁶³ Brandstetter, *Poetics of Dance*, 267.

⁶⁴ *Ibid.*, 263.

⁶⁵ *Ibid.*, 264.

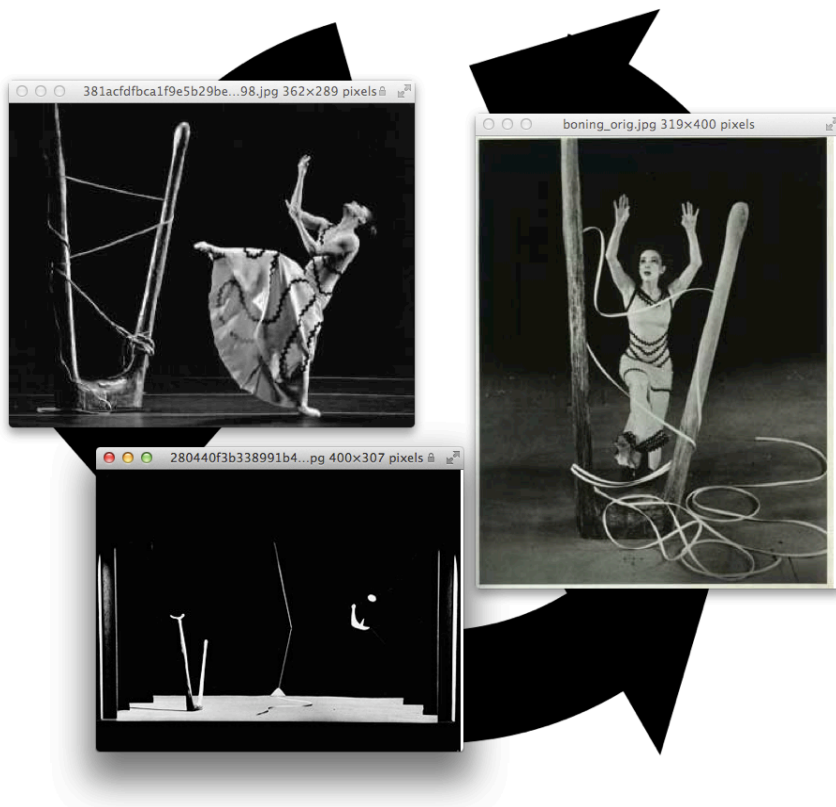


Figure 83 Screenshot configuration by the author: mid-20th century photographs of Martha Graham's *Errand into the Maze* with sculptures and set design by Isamu Noguchi (source: Google Images).

The change of priority rules that transformed the traffic circle into the modern roundabout in 1956,⁶⁶ resulted in a relationship of corporeal movement to space that, like dance in the same period, is “built on these two topos formulas of labyrinth and spiral as the basic patterns of movement.”⁶⁷ Nine years earlier, in 1947, Martha Graham's choreography *Errand into the Maze* performed the same combination in “dance drama” (fig. 83).⁶⁸ In a long robe ornamented with its own zig-zagging spiral, *Errand's* Ariadne moves across the floor through a configuration of objects that includes the Minotaur's body, a rope, and a large wooden sculpture by Isamu Noguchi (fig. 83).⁶⁹ Ariadne moves through “moments of orientation and disorientation,”⁷⁰ at

⁶⁶ Weizman, *The Roundabout Revolutions*, 32.

⁶⁷ Brandstetter, *Poetics of Dance*, 265.

⁶⁸ Ibid.

⁶⁹ Ibid., 265-266.

times following the path of a rope on the floor, and at other moments, taking control of the rope, wrapping it around the two wooden prongs of Noguchi's sculpture, at once a forked tongue, a tree in the forest, and an entryway to a mysterious passage (fig. 83).⁷¹ The dance combines the "ambivalence of control and surrender, [...] orientation and confusion [...] in the oscillation between [...] labyrinthine movement of interruption and spiral movements of flowing rotation" (fig. 83).⁷² The roundabout is a similar space of control and surrender, orientation and confusion: it oscillates between labyrinthine movements of interruption in its imperative to yield, and spiraling movements of flowing rotation rounding the circle.

Engaging by Disengaging: Art-as-a-Function-of-Yield

In October 2013, I began receiving e-mails from the *52 Weeks* campaign, launched by the arts movement, Gulf Labor, and its eponymous artist coalition, the Gulf Labor Artist Coalition (also known as the Gulf Labor Coalition [GLC]). I responded to the invitation to contribute to the campaign after seeing *Week 2* by artist Thomas Hirschhorn (fig. 84). Each week for a year between 2013 and 2014, Gulf Labor's *52 Weeks* online platform published

one or more artist's projects calling attention to some aspect of workers' conditions on [Abu Dhabi's] Saadiyat Island, the political context of [the workers'] plight and the problematic compact between the Western cultural institutions [involved in the project for the cultural district, in particular New York University, the British Museum, the Louvre and the Guggenheim] and their Abu Dhabi partners.⁷³

Hirschhorn's contribution focused on the Gehry's Guggenheim filial in Abu Dhabi with a project he had created for its Manhattan counterpart. As I experienced it through the mailing list of GLC member, artist Walid Raad, Hirschhorn's *Week 2* was introduced by an e-mailed digital scan of his

⁷⁰ Ibid.

⁷¹ See the Martha Graham Dance Company performance of Martha Graham's *Errand into the Maze* performed with a restored set and costumes at "Martha Graham's 'Errand' Returns, Restored." *Wall Street Journal*. February 10 2015. Accessed on October 11, 2016. URL <https://www.youtube.com/watch?v=xNUyQEFFkYA>

⁷² Brandstetter, *Poetics of Dance*, 266.

⁷³ Ibid.

work, *Banners*, 2009, a collage made with tape and color-photocopies of the New York-based Guggenheim Museum's interior architecture (fig. 85). The e-mail reminded readers that the image was only "one element" of *Week 2* and provided a link (www.gulflabor.org) to the Gulf Labor website for Hirschhorn's "full contribution."⁷⁴ In the collage, what looked to be six irregular blank pieces of paper (two highlighted yellow) were cut to conform to curves in the Guggenheim's central interior space. They were then taped to the six respective photocopied photographs as plans for banners filled with slogans in red and black marker. The 'banners' engage each other with the same tension that is implied in the title given to the contribution: "My Guggenheim Dilemma."⁷⁵ For example, the banner in the upper left corner of the collage reads:

ART – BECAUSE ITS ART –
IS RESISTANCE. ART
RESISTS FACTS. ART
RESISTS POLITICAL,
AESTHETICAL AND CULTURAL
HABITS. ART IN ITS RESISTANCE
IS MOVEMENT, POSITIVENESS,
INTENSITY, BELIEF.⁷⁶

The collaged banner curves down with the top-down perspective of a museum visitor overlooking the rotunda from an upper floor (fig. 85). The interior of the museum in the photocopied photograph is luminous, and the bottom half of the image is slightly overexposed from bright light shining down from the museum's ceiling windows. The banner taped to the image immediately below is highlighted yellow and unfurls over a photograph of the same interior from

⁷⁴ Thomas Hirschhorn, "52 Weeks_Gulf Labor_WEEK 2: Thomas Hirschhorn." E-mail sent by Walid Raad to a mailing-list of recipients, October 25, 2013.

⁷⁵ Thomas Hirschhorn, "Week 2. Thomas Hirschhorn. My Guggenheim Dilemma." A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* October 25, 2013. Accessed October 25, 2013. <http://gulflabor.org/2013/week-2-thomas-hirschhorn-my-guggenheim-dilemma/>; See also Thomas Hirschhorn, "Week Two" in *52 Weeks* as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 93-94.

⁷⁶ Thomas Hirschhorn, *Banners*, 2009. Photocopies and tape, 66.7 x 53.7 cm. Made at the occasion of the exhibition: *Contemplating the Void: Interventions in the Guggenheim Museum Rotunda*, Guggenheim Museum New York, 2010 (courtesy: the artist); also included as part of Hirschhorn, "Week 2. Thomas Hirschhorn. My Guggenheim Dilemma," op. cit.; Hirschhorn, "Week Two," 93-96.

a different perspective (fig. 85). Here the banner reads from a position that is elevated to an even higher floor, overlooking a more irregular section of the interior that not only curves, but also protrudes. It announces:

ART – BECAUSE IT’S
 ART – CAN CREATE
 THE CONDITIONS OF
 IMPLICATION – BEYOND
 EVERYTHING ELSE⁷⁷

A series of questions emerge from the juxtaposition. How can art be “resistance” if it is also “implication”?⁷⁸ How can art “implicate” if it “resists the political”?⁷⁹ How can art “create the conditions” for anything if it is “beyond everything else”?⁸⁰ Since the storyboard of sequenced images follows a movement pattern of rotation through the Guggenheim’s interior space, all of the slogans in the banners play off of each other in a similar way. The movement pattern circles around the rotunda from upper to lower floors: it takes perspectives that look down, that look up, and that are on-level straight across; meanwhile, the slogans shift through dissonance and resonance, at times echoing one another, at times contradicting one another.

⁷⁷ Hirschhorn, *Banners*, 2009, op. cit.; also included as part of Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 93-94.

⁷⁸ Hirschhorn, *Banners*, 2009, op. cit.; also included as part of Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 93-94.

⁷⁹ Hirschhorn, *Banners*, 2009, op. cit.; also included as part of Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 93-94.

⁸⁰ Hirschhorn, *Banners*, 2009, op. cit.; also included as part of Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 93-94.

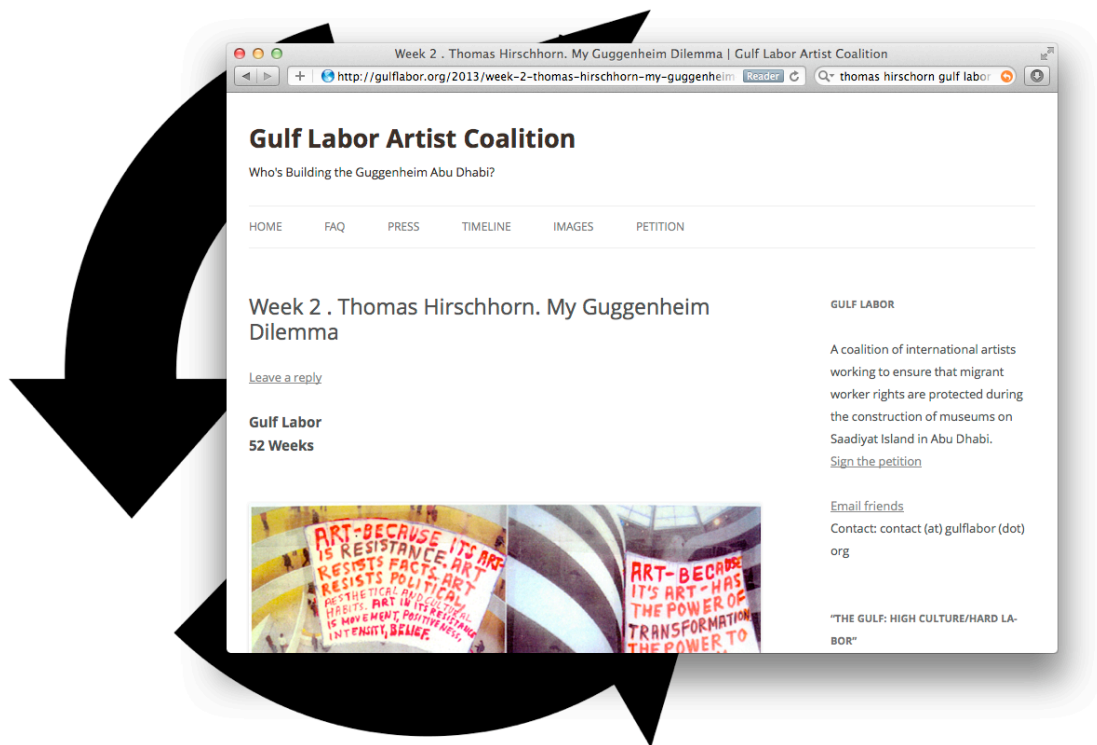


Figure 84 Screenshot configuration by the author: images of the Gulf Labor Artist Coalition platform *52 Weeks* (2013-2014) with artist Thomas Hirschhorn's contribution, *Week 2. My Guggenheim Dilemma* (2013) (source. gulflabor.org). Image by the author.

Hirschhorn produced the original collage for the occasion of an official Guggenheim exhibition, *Contemplating the Void: Interventions in the Guggenheim Museum Rotunda* (2010) where it was also shown.⁸¹ In Hirschhorn's *Week 2* for *52 Weeks* (2013) the digitized version of the collage was also accompanied by an open letter.⁸² The letter, addressed to Guggenheim deputy director and chief curator, Nancy Spector, and the museum's director, Richard Armstrong, reflects on a state of "dilemma" that Hirschhorn differentiates from "contradiction."⁸³ "The dilemma—my

⁸¹ Hirschhorn, *Banners*, 2009, op. cit.; also included as part of Hirschhorn, "Week 2. Thomas Hirschhorn. My Guggenheim Dilemma," op. cit.; Hirschhorn, "Week Two," 93-94.

⁸² Hirschhorn, "Week 2. Thomas Hirschhorn. My Guggenheim Dilemma" op. cit.; Hirschhorn, "Week Two," 95-96.

⁸³ Hirschhorn, "Week 2. Thomas Hirschhorn. My Guggenheim Dilemma" op. cit.; Hirschhorn, "Week Two," 95-96.

dilemma—,” Hirschhorn writes, “is not about exhibiting [...] in the Guggenheim Bilbao, while at the same time boycotting the Guggenheim in Abu Dhabi”:

the real dilemma, is the contradiction between the politics of “good intentions,” “the good conscience,” “the engagement of the artist” – that I should in fact call “pseudo-politics” or “making politics” [...] and my belief and conviction that Art, as Art, has to keep completely out of any daily political cause in order to maintain its power, its artistic power, its real political power.⁸⁴

It was interest in this ‘roundabout’ dilemma—and the ‘roundabout’ approach taken to both disseminating it and broaching it—that inspired my own contribution to *52 Weeks* thirty-one weeks later. My *Week 33* contribution, titled, *The Pearl Interpolation (PERP) in a Monument to Bad Memory*, is a configuration of various elements designed to be experienced in different moments by the Internet user.⁸⁵ It comprises an e-mail announcement, a blog post, a downloadable PDF-chapbook, a two-channel video uploaded through the platform VIMEO and embedded in an online scroll-collage, and an instruction manual for designing and printing a thermo-plastic three-dimensional object. The contribution was submitted under the pseudonym Mobile Irony Valve, an anagram of my name.

⁸⁴ Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma” op. cit.; Hirschhorn, “Week Two,” 95-96.

⁸⁵ Though the full citation was provided earlier, it is repeated here for convenience to facilitate the reader’s access to the cited websites. Emily Verla Bovino, “Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory.” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?* May 18, 2014. Accessed May 18, 2014. <http://gulflabor.org/2014/week-33-mobile-irony-valve-on-the-pearl-interpolation-perp-in-a-monument-to-bad-memory/>; See also Emily Verla Bovino, “Week 33” in *52 Weeks* as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 292-293.

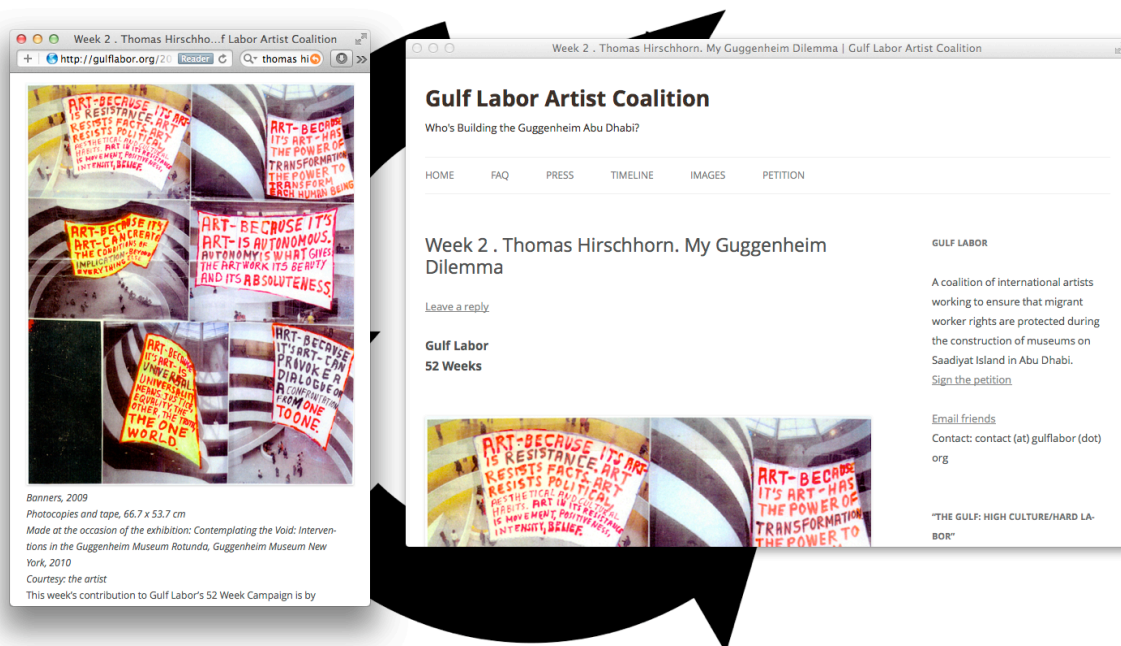


Figure 85 Screenshot configuration by the author: images of the Gulf Labor Artist Coalition platform *52 Weeks* (2013-2014) with artist Thomas Hirschhorn's contribution, *Week 2. My Guggenheim Dilemma* (2013) (source. gulflabor.org). Image by the author.

In an essay on *52 Weeks* written for the publication *The Gulf: High Culture/Hard Labor* (2015),⁸⁶ two contributors described the campaign in the same terms as what the present essay has called the “blur,” and “art-as-a-function-of-yield”⁸⁷: *52 Weeks* is said to have “attempted a strategy [...] we might call *engaging by disengaging*.”⁸⁸ As in the case of Hirschhorn introducing his 2013 open letter with a digitized version of his 2009 collage, *Banners*, the GLC initiative *52 Weeks* may have initially “[...] appear[ed] from the outside to be a straightforward staging of refusal,”⁸⁹ i.e., in Hirschhorn’s case, a straightforward plan for protest banners declaring the “autonomy” of art.⁹⁰ In reality, however, “[...] the overall campaign [...] unfolded as *a series of*

⁸⁶ Mariam Ghani with Haig Aivazian, “*52 Weeks*, and Engaging by Disengaging” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 178.

⁸⁷ North, *The Yield*, 241.

⁸⁸ Ghani with Aivazian, “*52 Weeks*, and Engaging by Disengaging,” 178.

⁸⁹ Ibid.

⁹⁰ Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 95-96.

engagements, disengagements and reengagements.”⁹¹ Hirschhorn’s dilemma is a synecdoche for the entire campaign; at the same time, it also enacts a *mise-en-abîme*, an introspective critique of the campaign, embedded within it.

Hirschhorn’s *Week 2* contribution combined the topos-formulas of the labyrinth and the spiral in a roundabout-like pattern. Circling around the rotunda in self-reflection, his collage’s sequence of photocopied-photographs-with-banners never finds its way out of circling to definitively occupy the void of the rotunda, nor does it narcissistically abandon itself to vertigo, seeking release from its maze of dilemma. Instead, it contemplates the void at the center of Frank Lloyd Wright’s conical design, in rotation between a series of bold key terms that a black oblong in the lower left corner of the collage suggests be read counter-clockwise from bottom left to middle right: “UNIVERSAL [...] THE ONE WORLD,” “CONFRONTATION [...] ONE TO ONE,” “AUTONOMY,” “TRANSFORMATION,” “RESISTANCE,” and “IMPLICATION.”⁹² Hirschhorn’s open letter does the same, circling on itself, to conclude in the void of a “dead end”:

Art – because it’s art – resists a simplified idealism and a simplified realism, because it refuses aesthetic and political idealism and aesthetic and political realism. And Art -because it’s Art -is never neutral, but Art cannot be neutralized by doing politics. I want to admit that this is the “dead-end” I am in. I have to face it. I have to confront this dilemma and furthermore – as an artist – I even have to assert it as my dilemma.⁹³

Between the liberation of “transformation” and the responsibility of “implication,” between the universality of “one world” and the conflict in “one to one,” between the sovereignty of “autonomy” and militant reaction in “resistance,”⁹⁴ *52 Weeks*, like its synecdoche Hirschhorn’s

⁹¹ My emphasis. Ghani with Aivazian, “*52 Weeks*, and Engaging by Disengaging,” 178.

⁹² Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 95-96.

⁹³ Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 95-96.

⁹⁴ Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 95-96.

Week 2, is an initiative that attempted to express “the pull between withdrawing and producing.”⁹⁵ It was not only “engaging by disengaging,”⁹⁶ but it was also disengaging by engaging: it was “yielding a yield” that “gives by giving up,” that “also gives itself up” and “abandons all claims to self-possession,” only to repossess itself by laying a claim to self-abandonment.⁹⁷ As *52 Weeks* contributors Marian Ghani and Haig Aivazian write:

the group [GLC] [...] used refusal strategically, in order to open negotiations that previously seemed impossible, to change the tenor of those negotiations when they began to seem untenable or insincere, and to try to negotiate real changes and concessions [...]: that is, to use the cultural boycott to open a *parallel space* for a different kind of engagement of ideas and issues behind and around the boycott itself.⁹⁸

In this “parallel space,” the GLC was no longer just an artists coalition whose primary solidarity activities comprised boycotts, sales freezes, field visits, field reports, talks and negotiations. The broader Gulf Labor campaign became a movement of momentum around a junction of intersecting axes that included Gulf workers and their own labor stoppages, the direct action occupations of the collective Global Ultra Luxury Faction (G.U.L.F. which considers itself a “spinoff” of GLC), and the 52 contributions of statements, performances, initiatives, images, image-texts, texts, and objects circulated through e-mail and social media via the online platform, *52 Weeks*.

To build on the assessment that Gulf Labor “used refusal strategically,”⁹⁹ it may be more precise to state that the group used the strategy of refusal tactically. Philosopher Michel de Certeau distinguished between tactics and strategies in his seminal work *The Practice of Everyday Life (L'invention du quotidien. Vol. 1, Arts de faire, 1980)*. The distinction has since

⁹⁵ North, *The Yield*, 29.

⁹⁶ My emphasis. Ghani with Aivazian, “*52 Weeks*, and Engaging by Disengaging,” 178.

⁹⁷ Ibid.

⁹⁸ My emphasis. Ibid.

⁹⁹ Ibid.

become central to self-critical practices of so-called “tactical urbanism.”¹⁰⁰ These practices propose “speculative interventions [...] and [...] emergent urban design experiments [...] as [...] means to promote ‘social justice in the conception and appropriation of urban space.’”¹⁰¹ They also recognize, however that their own interventions can also serve urban hegemony: thus, “as the search for new approaches to organizing our collective planetary urban future becomes increasingly urgent, [...] broadly affirmative discourses around tactical urbanism demand [...] scrutiny.”¹⁰² Despite the centrality of the distinction between tactics and strategies to practices that cautiously use the moniker “tactical urbanism” with deliberate intent, the distinction is often only vaguely defined. For example, in an essay on the Museum of Modern Art’s exhibition *Uneven Growth: Tactical Urbanisms*, “big, ambitious proposals” are contrasted with “mere ‘tactics’” as though tactics are always necessarily of “modest scale”: in reality, the scale of tactics is always changing depending on what a situation demands.¹⁰³ It seems worthwhile, therefore, to take the present occasion to redefine the distinction and explain how it relates to an earlier introduced concept, plastic scale, as well as to the theory of plastic activism proposed here.

Through reading de Certeau, tactics can be defined by three characteristics. First, the tactic is “an art of the weak,” a calculated action that operates in the space of the Other.¹⁰⁴ As such, a tactic must play on (and with) terrains imposed upon it and organized by the law of a power foreign to it.¹⁰⁵ Second, being that the tactic is “an art of the weak,” it does not have the

¹⁰⁰ Pedro Gadanho, “Mirroring Uneven Growth: A Speculation on Tomorrow’s Cities Today,” *Uneven Growth: Tactical Urbanisms for Expanding Megacities*, ed. Pedro Gadanho (New York, NY: The Museum of Modern Art, New York, 2014), 18-20

¹⁰¹ Neil Brenner, “Is ‘Tactical Urbanism’ an Alternative to Neoliberal Urbanism.” In the series “Uneven Growth: Reflections on a Curatorial Process.” *Post: Notes on Modern & Contemporary Art Around the Globe. Museum of Modern Art (MoMA)*. New York: MoMA, 2015. March 24, 2015. Accessed April 5, 2015. http://post.at.moma.org/content_items/587-is-tactical-urbanism-an-alternative-to-neoliberal-urbanism

¹⁰² Brenner, “Is ‘Tactical Urbanism’ an Alternative to Neoliberal Urbanism,” op.cit.

¹⁰³ Ibid.

¹⁰⁴ Michel de Certeau, *The Practice of Everyday Life*, Vol. 1 (Berkeley, CA: University of California Press, 1984), 37.

¹⁰⁵ De Certeau, *The Practice of Everyday Life*, Vol. 1, 37.

means to keep itself at a distance, in a position of withdrawal, foresight, and self-collection.¹⁰⁶ It is a maneuver within a contested territory and, as a result, does not have the same kind of privilege to plan as is engaged by strategy.¹⁰⁷ It also does not have the privilege to view the adversary as a whole within a distinct, visible and objectifiable space.¹⁰⁸ As a result, being that the tactic is maneuvered from a position without any base, “it takes advantage of ‘opportunities,’ and depends on them.”¹⁰⁹ The third aspect of the tactic is that this being-without-a-base means “what it wins it cannot keep;” however, at the same time, it is what gives the tactic its power of “mobility.”¹¹⁰ With this power of mobility comes the fact that the practice of tactics must accept chance offerings of the moment. It must “make use of the cracks that [...] open under the surveillance of proprietary powers”: it must act as “a guileful ruse.”¹¹¹

Like the tactic, the strategy can also be defined through three primary characteristics. First, the strategy is an art of the powerful.¹¹² As such, it is a manipulation of power relationships orchestrated from a position of will. This position of will has the means to postulate a place as its own, and has the means to use this place as the base from which to design its relations with the targets or threats that it manages.¹¹³ Second, strategies are measures that allow their powerful and willful subjects to capitalize on acquired advantages and to prepare future expansions, granting independence with respect to the variability of surrounding circumstances.¹¹⁴ Third, strategies usually involve a mastery of places through sight, in particular through surveillance and mapping.¹¹⁵ This division of space enacted through strategy establishes a place from which the

¹⁰⁶ Ibid.

¹⁰⁷ Ibid.

¹⁰⁸ Ibid.

¹⁰⁹ Ibid.

¹¹⁰ Ibid.

¹¹¹ Ibid.

¹¹² Ibid., 38.

¹¹³ Ibid.

¹¹⁴ Ibid.

¹¹⁵ Ibid.

eye can transform foreign unknown forces into objects that can be observed, measured, and thus controlled by its scope of vision.¹¹⁶

The contributions to *52 Weeks* show how Gulf Labor movement participants worked between strategies and tactics: while some projects contributed to *52 Weeks* “[...] created space for direct action, others took more laconic, analytical or abstracted approaches to highlighting the ironies and contradictions of the grand project of Saadiyat Island.”¹¹⁷ Not only, however, are some projects identifiable as tactics, and others as strategies; it is also true that positions of power are constantly shifting, and therefore, as the dynamics of hegemony make clear, most individuals are constantly negotiating between both privilege and disadvantage. For example, as artists of renown who have shown work in major international art exhibitions like the Venice Biennale and Documenta (and whose production is highly-valued in the art market, as indicated in market representation by leading contemporary art galleries like Gladstone and Paula Cooper) GLC artists Hirschhorn and Raad used their high-profile status (fig. 86) to make strategic positions available to more tactical operators. Meanwhile, the anonymous members of G.U.L.F., who also self-identify as part of the Occupy movement,¹¹⁸ may at first glance appear to have chosen to operate almost exclusively within the realm of tactics (fig. 87); however, they always define themselves in relation to the core members of GLC – whether as a “spinoff” of GLC¹¹⁹ or as

¹¹⁶ Ibid.

¹¹⁷ Ghani with Aivazian, “*52 Weeks*, and Engaging by Disengaging,” 178.

¹¹⁸ Members of the Occupy movement define it as “part of a global movement that [...] reached nearly every continent” in 2011. In their narrative, the movement began in North Africa and the Middle East, then arrived in the “first wave of popular unrest in the U.S.” in the cities of Madison, Milwaukee, Greenbay and Columbus, spreading through Sub-Saharan Africa, Latin America, Asia and Europe, eventually reaching the mediatic flashpoint, Occupy Wall Street in New York. Writers for the 99%, *Occupying Wall Street: The Inside Story of an Action that Changed America* (New York, NY: OR Books), 5-8.

¹¹⁹ Global Ultra Luxury Faction – G.U.L.F., “On Direct Action: An Address to Cultural Workers” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 133-136; Global Ultra Luxury Faction – G.U.L.F., “Six Occupations of a Museum (and an Alternative Plan)” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 138-153. The moniker is also cited in We Make Money Not Art, “Book Review: The Gulf. High Culture/Hard Labor,” *Computational Thinking: Programming for Artists. Rampages.us*. August 10, 2015. Accessed December 27, 2016. <https://rampages.us/comphink/category/architecture/page/2/>

“affiliated with” GLC¹²⁰ – thus, acknowledging that their actions have been facilitated by the strategic position held by high-profile members (“we work—often precariously—as both exploiters and exploited, but we do not cynically resign ourselves to this morbid *status quo*”).¹²¹ The exchange also goes both ways: by opening strategic positions to tactical operators, privileged strategists gain tactical mobility.

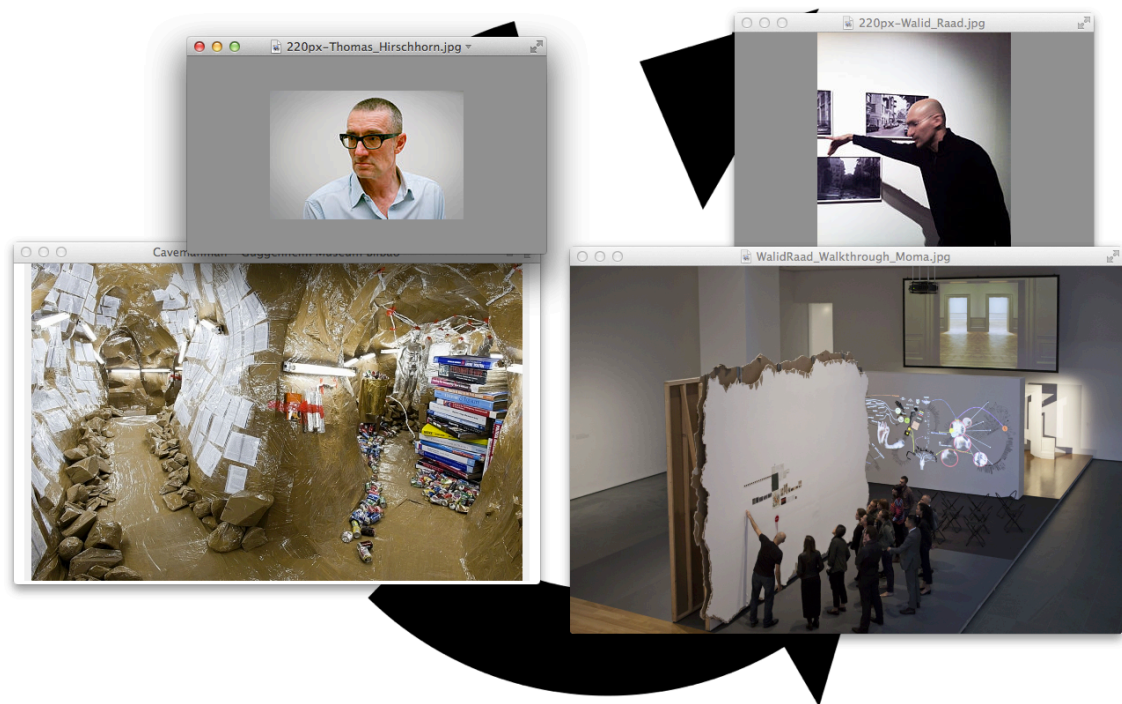


Figure 86 Screenshot configuration by the author: artist Thomas Hirschhorn and his installation *Cavemanman* (2002), a part of the collection of the Guggenheim Museum Bilbao (source: Guggenheim Museum, Bilbao); Walid Raad and his installation *Scratching on Things I Could Disavow* during a performance of *Walkthrough* (2015-2016) (source: Museum of Modern Art, New York). Image by the author.

¹²⁰ “The Global Ultra Luxury Faction (G.U.L.F.)” in “Contributors” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 349.

¹²¹ Global Ultra Luxury Faction – G.U.L.F., “On Direct Action: An Address to Cultural Workers,” 133.

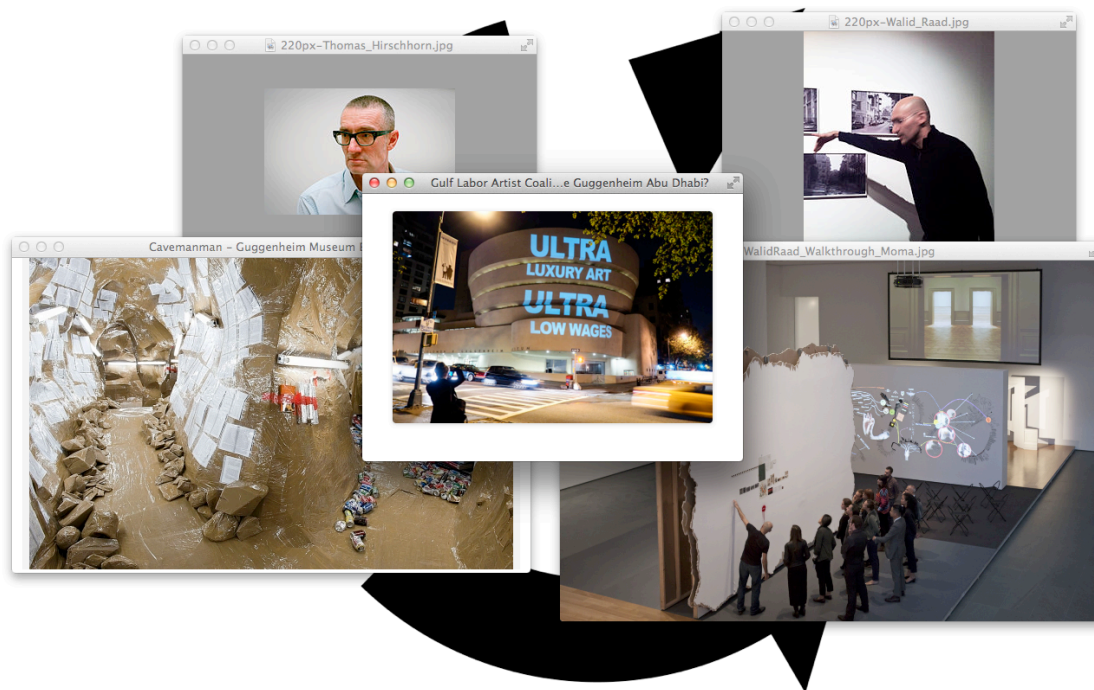


Figure 87 Screenshot configuration by the author: (foreground) a Gulf Ultra Luxury Faction (G.U.L.F) action at Frank Lloyd Wright’s Guggenheim Museum in New York; (background) artist Thomas Hirschhorn and his installation *Cavemanman* (2002), a part of the collection of the Guggenheim Museum Bilbao (source: Guggenheim Museum, Bilbao); Walid Raad and his installation *Scratching on Things I Could Disavow* during a performance of *Walkthrough* (2015-2016) (source: Museum of Modern Art, New York). Image by the author.

In Hirschhorn’s collage, I immediately noticed its emphasis of the roundabout-like movement of pedestrians that the inverted cone of Wright’s design for Guggenheim-New York inscribes around the museum’s central rotunda.¹²² It reminded me of the “giant exterior cones” planned for Gehry’s Abu Dhabi branch: his “system of cones,” which descriptions of the project explain were designed to vent hot air and for “curators [...] to commission site-specific works.”¹²³ When Gehry’s model for the Abu Dhabi design is juxtaposed with an image of Manama’s demolished Pearl Roundabout, these cones appear like abstracted iterations of the beams, or sails (*dhow*), that supported the Manama monument’s sphere, its pearl (*lulu*) (fig. 88). Gehry had been

¹²² Hirschhorn, “Week 2. Thomas Hirschhorn. My Guggenheim Dilemma,” op. cit.; Hirschhorn, “Week Two,” 95-96.

¹²³ Vogel, “A New Art Capital, Finding its Own Voice,” op.cit.

asked to conceive of his design as being part of a “string of pearls”¹²⁴: in his model, it is as if the plastic ending of the Pearl Roundabout emerges to speak for itself. In my *Week 52* contribution, I planned to work with both this accident of resemblance and the same movement of roundabout revolution found in Hirschorn’s collage, only through an object-oriented approach—an approach that would literally push contemplation into action by facilitating the production of physical Pearl Roundabout replications by Internet users.¹²⁵



Figure 88 Screenshot configuration by the author: (left) Frank Gehry’s design for the Guggenheim Museum in Abu Dhabi (UAE) (source: Google Images); Manama’s Pearl Roundabout (Bahrain) during Arab Spring protests (2011) and after demolition (2011) (source: Google Images). Image by the author.

¹²⁴ Gehry, “My Abu Dhabi Adventure,” op. cit.

¹²⁵ Bovino, “Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” op. cit.; See also Bovino, “Week 33,” 292-293.

In *Week 33* (fig. 89), I worked within the threshold between tactics and strategies, acknowledging that in certain situations, I could operate from a position of strategic privilege—I could engage in militant withdrawal, capitalize on advantages, or expand on territory for future preparations; in other situations, my maneuvers had to “make use of cracks,”¹²⁶ had to accept chance offerings, and had to take action without foresight. As a project of the anagram Mobile Irony Valve, *Week 33* openly declared it was inserting itself among “projects [that] range[d] from playful to elegiac, from meditative to sardonic”¹²⁷ with the aim of circling through all of these moods by giving way to them with a sense of irreverence and pessimism: in moments, the *Week 33* contribution is a cipher that abandons any distinct sense of “self-collection,”¹²⁸ while at others it asserts will and power to manipulate relationships and manage them from a distance. At times it seems the project of a committed revolutionary, at others the plan of an eternal cynic. In doing so, it emphasizes a sense of dilemma while also engaging in the act of imitation that characterized the plastic activism of the Pearl Roundabout replications that inspired it.

¹²⁶ De Certeau, *The Practice of Everyday Life*, Vol. 1, 37.

¹²⁷ Ghani with Aivazian, “52 Weeks, and Engaging by Disengaging,” 178.

¹²⁸ De Certeau, *The Practice of Everyday Life*, Vol. 1, 37.



Figure 89 Screenshot configuration by the author: the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.

In *52 Weeks*, my *Week 33* contribution *On the Pearl Interpolation (PERP) in a Monument to Bad Memory*, abbreviated *PERP*, positions itself in the middle of the campaign.¹²⁹ After observing the various approaches to “engaging by disengaging”¹³⁰ contributed by various participants, *Week 33* made the figure of the roundabout not only its content, but also its formula. It led the campaign's thirty-third week by holding back to the yield: its aim was to take the position of facilitating the emergence of an object from the campaign itself, rather than

¹²⁹ Bovino, “Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” op. cit.; Bovino, “Week 33,” 292-293.

¹³⁰ Ghani with Aivazian, “*52 Weeks*, and Engaging by Disengaging,” 178.

contributing an object to the campaign. And, in fact, its Pearl Roundabout replication is the object it made emerge. *Week 33* was intended less as my contribution to *52 Weeks* per se than as a vector of the momentum in *52 Weeks*. Rather than a self-possessed ‘driver’ to whom others yielded entry into rotation, *Week 33* was a vector among others, yielding to a revolutionary wave that had pulled me into its currents. In this scenario, the task of what Weizman calls “tactical acupuncture”¹³¹ in *The Roundabout Revolutions* is not “blocking all entry and exit”¹³² as the epigram to the present essay asserts; rather, tactical acupuncture is insertion into the flow between entry and exit—it is the vehicle that gives way to the spiraling wave of traffic congestion; the pedestrian that times and trusts its motoring interlocutors to skip through their maze of interstices and occupy the void amid their circling. The replication-process that *Week 33* circulated is a by-product of the act of giving way to a movement’s flow.

Amidst the fifty-two contributions in *52 Weeks*, my own *Week 33* is an art of the yield that can be seen as inserting itself in the following round of vectors (fig. 89). At the beginning of *52 Weeks*, the *Week 17* poster by Charles Gaines and Ashley Hunt titled *Cultural (En)richment* rewrites Gertrude Stein’s famous “a rose is a rose is a rose” as “[...] a slave wage is a wage slave, is a slave is a slave by whatever name you call it, a person reduced to the enrichment of another” (fig. 90).¹³³ A collage beneath the poem uses bodies from the iconic 18th century cutaway chart of the Brooks slave ship to create texture in Frank Gehry’s design for the Abu Dhabi Guggenheim. It transforms the tightly packed diagram of individuals cramped in a slave ship into a difficult-to-discern ornament. Towards the end of *52 Weeks*, the slave theme returns, this time in a work that

¹³¹ Weizman, *The Roundabout Revolutions*, 12.

¹³² Ibid. See epigram of the present essay.

¹³³ Charles Gaines and Ashley Hunt, “Week 17. Charles Gaines and Ashley Hunt. Cultural (En)richment,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?* February 6, 2014. Accessed February 7, 2014. <http://gulflabor.org/2014/week-17-charles-gaines-and-ashley-hunt-cultural-enrichment/>; Charles Gaines and Ashley Hunt, “Week 17” as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 104-105.130-131

is subtractive rather than additive like the Gaines and Hunt collage.¹³⁴ In *Week 51* by Suha Traboulsi (fig. 91), a cut-out from the June 6, 2014 “Inside Art” section of the *New York Times* absents text and image from the newspaper to leave three irregular polygonal voids interspersed around an evocative remainder: the juxtaposition of three article headlines that read “Guggenheim Abu Dhabi Will Serve an Appetizer,” “Odyssey of a Slave Portrait,” and “A Gallery’s Western Outpost” (fig. 91).¹³⁵

Week 11 by Lynn Love and Ann Sappenfield (fig. 92) is the page layout of an entry on “50 degrees Celsius,” a proposed 2010 supplement for a *New Emirati Britannica*: the fictional encyclopedia entry outlines the hazards of outdoor work at the temperature 50°C (122°F), while ironizing on scientific studies of “thermal stress” and their assessment tool, the “Thermal Work Limit (TWL).”¹³⁶ With similar ironic zeal, *Week 7* by Matt Greco and Greg Sholette (fig. 93) documents “unlimited edition” plastic miniatures of Saadiyat Island Workers Quarters architecture that the artists planted – or “shop-dropped” – at the Guggenheim Museum store in New York.¹³⁷ Sam Durant’s *Week 4* (fig. 94) proposes an Emory Douglas-like political poster (i.e., a poster like Douglas’s *Whatever is good for the oppressor has got to be bad for us*, 1968) *Guggenheim Abu Dhabi Labor Camp for Guest Workers* (2013), a collage that makes the same

¹³⁴ Suha Traboulsi, “Week 51. Suha Traboulsi. Guggenheim Appetizer.” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?* October 3, 2014. Accessed October 3, 2014. <http://gulflabor.org/2014/week-51-suha-traboulsi-guggenheim-appetizer/>; Suha Traboulsi, “Week 51” as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 198-199.

¹³⁵ Traboulsi, “Week 51. Suha Traboulsi. Guggenheim Appetizer,” op.cit.; Traboulsi, “Week 51,” 198-199.

¹³⁶ Lynn Love and Ann Sappenfield, “Week 11. Lynn Love and Ann Sappenfield. 50° Celsius,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?* December 26, 2013. Accessed December 27, 2013. <http://gulflabor.org/2013/week-11-lynn-love-and-ann-sappenfield-50-celsius/>; Lynn Love and Ann Sappenfield, “Week 11” as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 114-115.

¹³⁷ Matt Greco and Greg Sholette, “Week 7. Matt Greco & Greg Sholette. Saadiyat Island Workers Quarters Collectable, 2013,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?* November 28, 2013. Accessed November 30, 2013. <http://gulflabor.org/2013/week-7-matt-greco-greg-sholette-saadiyat-island-workers-quarters-collectable-2013/>; Matt Greco and Greg Sholette, “Week 7” as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 104-10A5.

Saadiyat Island labor camp units the foundation for Gehry's Abu Dhabi Guggenheim design.¹³⁸ In its 21st-century minimalist approach to the protest poster, the contribution *Week 42* (fig. 95) is a QR code to a new website, gulflaborwest.org which “draw[s] a direct line from the Arabian/Persian Gulf to the Gulf of Mexico—two pools of migrant laborers whose rights, safety and dignity we seek.”¹³⁹ *Week 34* is another mobilizing tactic (fig. 96), a “downloadable organizing tool kit complete with posters, postcards and suggestions for solidarity actions [...]” including a “twitterbot campaign [...] to alert high profile tweeters across the globe about [...] disregard for human rights” in the Persian Gulf.¹⁴⁰

¹³⁸ Sam Durant, “Week 4. Sam Durant. Guggenheim Abu Dhabi Labor Camp for Guest Workers,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* November 7, 2013. Accessed November 12, 2013. <http://gulflabor.org/2013/week-4-sam-durant-guggenheim-abu-dhabi-labor-camp-for-guest-workers/>

¹³⁹ Doris Bittar, “Week 42. Gulf Labor West,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi.* July 29, 2014. Accessed August 2, 2014. <http://gulflabor.org/2014/week-42-gulf-labor-west/>; Doris Bittar, “Week 42” as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 180-181.

¹⁴⁰ Sarah Farahat and Aaron Hughes, “Week 34. Labor of Art/Art of Labor: Organizing Tool Kit in Solidarity with Gulf Laborers,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi.* June 5, 2014. Accessed June 5, 2014. <http://gulflabor.org/2014/week-34-labor-of-artart-of-labor-organizing-tool-kit-in-solidarity-with-gulf-laborers/>; Sarah Farahat and Aaron Hughes, “Week 34” as republished in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 164-165.



Figure 90 Screenshot configuration by the author: *Week 17. Cultural [En]richment* (2014) by artists Charles Gaines and Ashley Hunt for the Gulf Labor Artist Coalition's *52 Weeks* (2013-2014) (source: gulflabor.org). Image by the author.



Figure 91 Screenshot configuration by the author: *Week 51. Guggenheim Appetizer* (2014) by artist Suha Traboulsi for the Gulf Labor Artist Coalition's *52 Weeks* (2013-2014) (source: gulflabor.org). Image by the author.

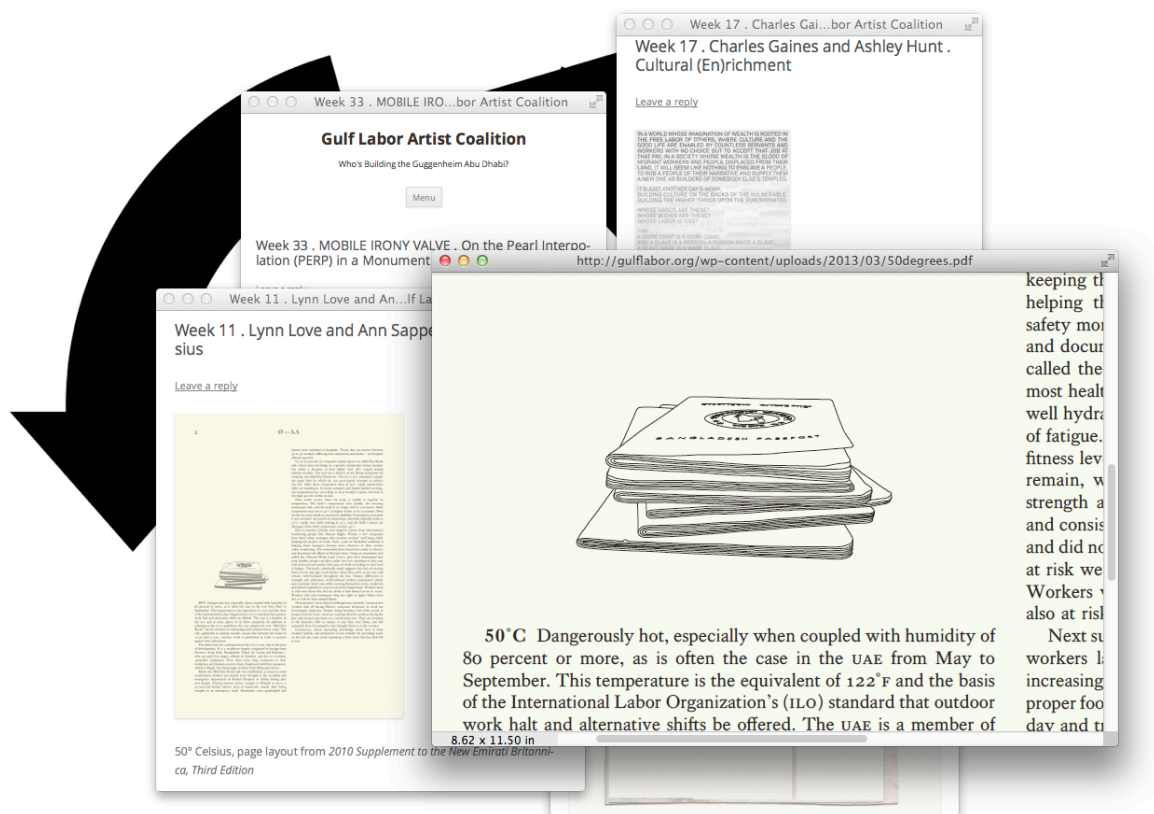


Figure 92 Screenshot configuration by the author: *Week 11. 50° Celsius* (2013) by Lynn Love and Ann Sappenfield for the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2013-2014). (source: gulflabor.org). Image by the author.

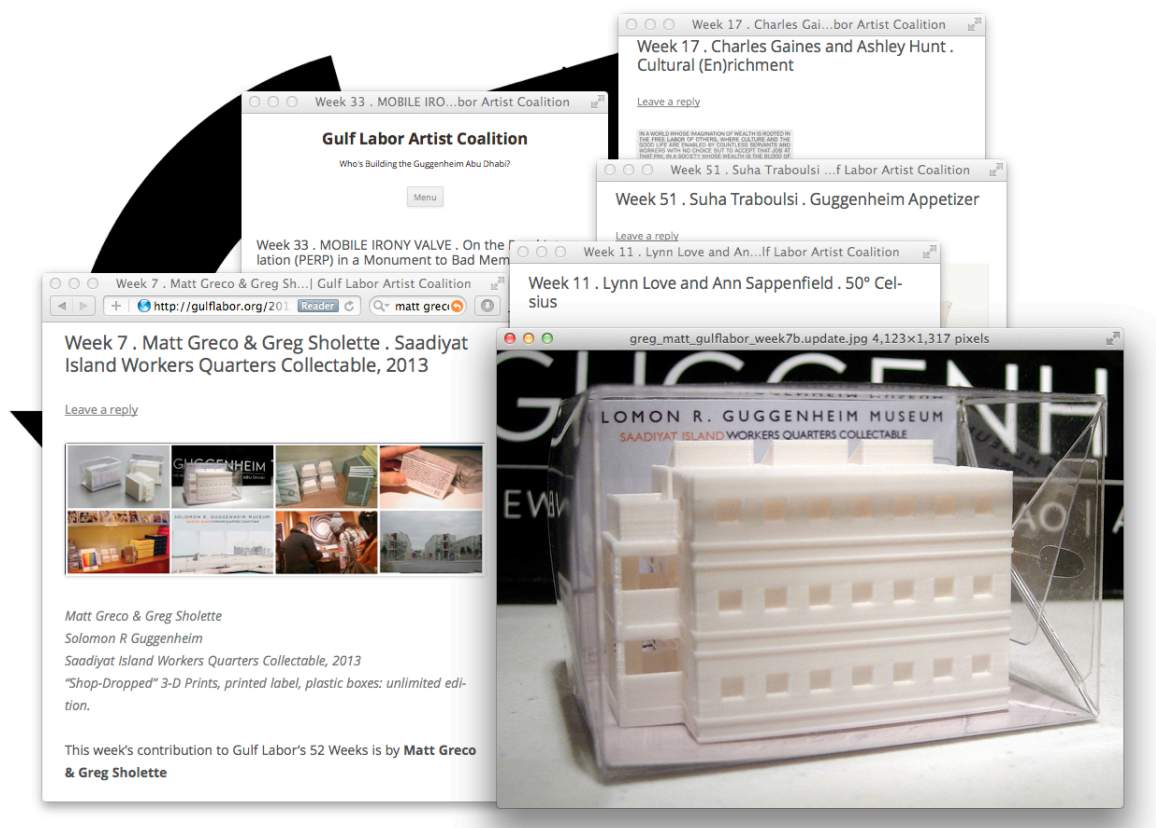


Figure 93 Screenshot configuration by the author: *Saadiyat Island Workers Quarters Collectable* (2013) by Matt Greco and Greg Sholette for the Gulf Labor Artist Coalition's initiative *52 Weeks* (2013-2014) (source: gulflabor.org). Image by the author.



Figure 94 Screenshot configuration by the author: (left) *Guggenheim Abu Dhabi Labor Camp for Guest Workers* (2013) by artist Sam Durant for the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org); (right) Emory Douglas' poster *Whatever is Good for the Oppressor has got to be Bad for Us* (1968) (source: Google Images). Image by the author.



Figure 95 Screenshot configuration by the author: *Week 42. Gulf Labor West* (2014) by the artist movement Gulf Labor West for the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.

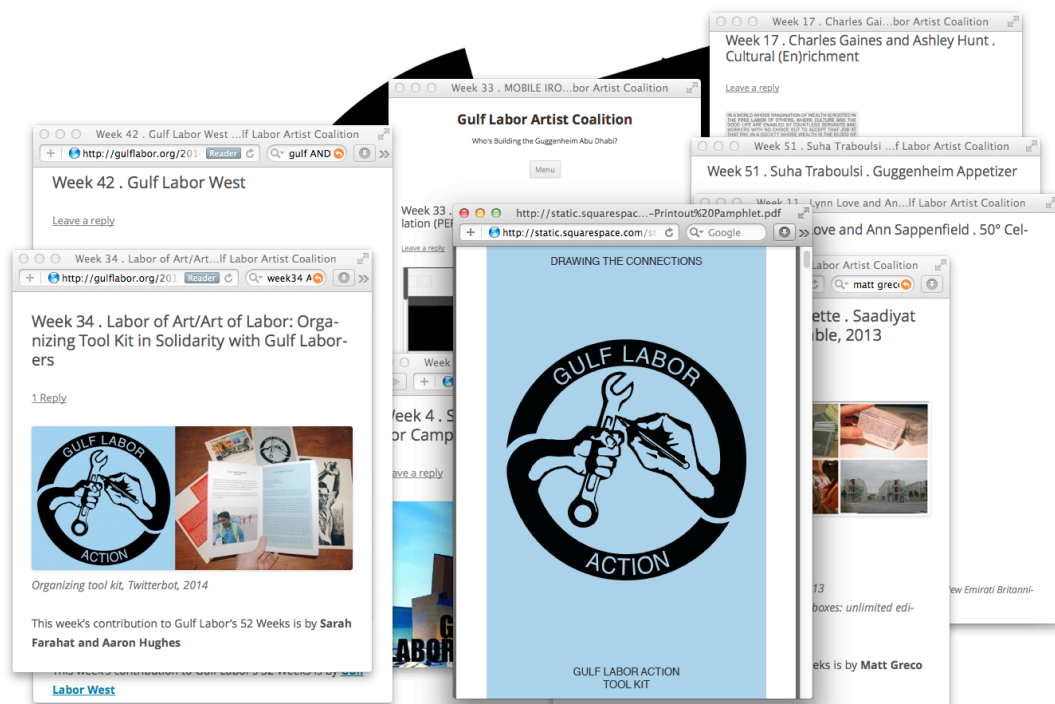


Figure 96 Screenshot configuration by the author: *Organizing Tool Kit in Solidarity with Gulf Laborers* (2014) by *Labor of Art/Art of Labor* for the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.

The Gulf Labor campaign began to take form at a conference in Beirut organized by the Lebanese Association for Plastic Arts (Ashkal Alwan).¹⁴¹ Though the association's mission statement does not explicitly define "plastic arts," it infers that it understands "plastic arts" to comprise "[...] artistic practices across a range of disciplines and media, such as installation, video art, film, photography, performance and written works, [...] contemporary intellectual and creative endeavors [like conferences] [...], curated projects [...], literary and artistic book and publications, [...] and artist in residency programs."¹⁴² My *Week 33* contribution to *52 Weeks* added activism to the "contemporary intellectual and creative endeavors" listed in the Ashkal Alwan statement. "Plastic activism" is a particular kind of relationship between art and activism, between political voice and political image, between gesture and object, between engaging and disengaging. Plastic activism is art for the city generated by the urbanistic doctrine called Manamaism. It produces objects in a blur, the created and ultimately abandoned not-form of formula. It is between art-as-a-function-of-yield, of giving way, of resignation, and "images of art" that "give us a sense of [the] future."¹⁴³ Gulf Labor's dematerializing rematerializing of the art object in *52 Weeks* was the perfect platform for plastic activism in my 2014 intervention, *Week 33*.

¹⁴¹ Andrew Ross, "Leveraging the Brand" in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 13-14.

¹⁴² "Missions and Objectives. Ashkal Alwan – The Lebanese Association for Plastic Arts." *Anna Lindh Foundation*. Accessed October 10, 2016. URL: <http://www.annalindhfoundation.org/members/ashkal-alwan-lebanese-association-plastic-arts>

¹⁴³ North, *The Yield*, 29.



Figure 97 Screenshot configuration by the author: fabricated screenshot from *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), an image introducing the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). Image by the author.

The e-mail announcement for *Week 33* introduces *On the Pearl Interpolation (PERP) in a Monument to Bad Memory* with a fabricated screenshot, digitally painted and collaged (fig. 97).¹⁴⁴ Within the frame of a digitally painted browser window, three black-and-white images are

¹⁴⁴ For the reader who wants to visit the website, the full citation is repeated here for the sake of convenience, though it has already been cited a number of times: Emily Verla Bovino, "Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory." A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim*

juxtaposed: on the left is an image of Gehry's Guggenheim Abu Dhabi model and on the right is an image of Manama's demolished Pearl Roundabout. In the middle of the two images is a third image, a hand holding a miniature model of the Pearl Roundabout.



Figure 98 Screenshot configuration by the author: (bottom) 3D printed objects created using the tutorial circulated through *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org); (top, left) the virtual model for the Abu Dhabi Guggenheim (source: Google Images); (top, right) the Pearl Roundabout in Manama during Arab Spring protests (source: Google Images). Image by the author.

The model is one of the monument's first replications and was circulated at the Pearl opposition encampments before the roundabout's destruction.¹⁴⁵ The e-mail announcement provides a link to the Gulf Labor website that hosts *Week 33*, and informs readers that "to see

Abu Dhabi? May 18, 2014. Accessed May 18, 2014. <http://gulflabor.org/2014/week-33-mobile-irony-valve-on-the-pearl-interpolation-perp-in-a-monument-to-bad-memory/>

¹⁴⁵ Photographed by Ahlam Oun and reprinted in Khalaf, "The Many Afterlives of Lulu," 283.

how to add a *perp* to the *herp* to the *lerp* and the *berp* already present in the library of things,” they can “download the chapbook and watch scroll montage here.”¹⁴⁶ The phrase “add a perp to the herp to the lerp and berp” plays with the sound and appearance of the poetry of the absurd, but it is actually very technically precise. It invites users to learn how to add a Pearl interpolation of momentum—a replication of the Pearl Roundabout inserted into the temporal interval between Gehry’s ‘pearl’ (the Guggenheim Abu Dhabi) and Manama’s destruction of the Pearl Roundabout (fig. 98)—into a series of interpolations fundamental to creating curves and animated movement in 3-D animation software (i.e., the Hermite interpolation, the linear interpolation and the Bezier interpolation). The word “here” in the phrase is highlighted and hyperlinked to a blog post.¹⁴⁷

At the blog post, the same fabricated screenshot found on the Gulf Labor website and the *52 Weeks* e-mail announcement, reappears (fig. 99).¹⁴⁸ Above the image is a link for the downloadable chapbook; below the image is a two-channel video embedded into the post through the platform VIMEO. The videos play automatically. A male voice with a mid-western American accent urges the viewer on: “okay, so we’re going to begin with a blank canvas here. Artistic. Cubism. Filters. Edge detect. Edge. Threshold.”¹⁴⁹ The instructions are read over a video frame on the right (a browser window onto a dense cloud of pink, blue and green digital-paint splotching) and another on the left (a screen video of a user operating the open source animation software Blender) (fig. 100).

¹⁴⁶ Bovino, “Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” op. cit.; Bovino, “Week 33,” 292-293.

¹⁴⁷ Emily Verla Bovino, “On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” N.d. Accessed December 27, 2016. <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

¹⁴⁸ Bovino, “On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” op. cit.

¹⁴⁹ Ibid.

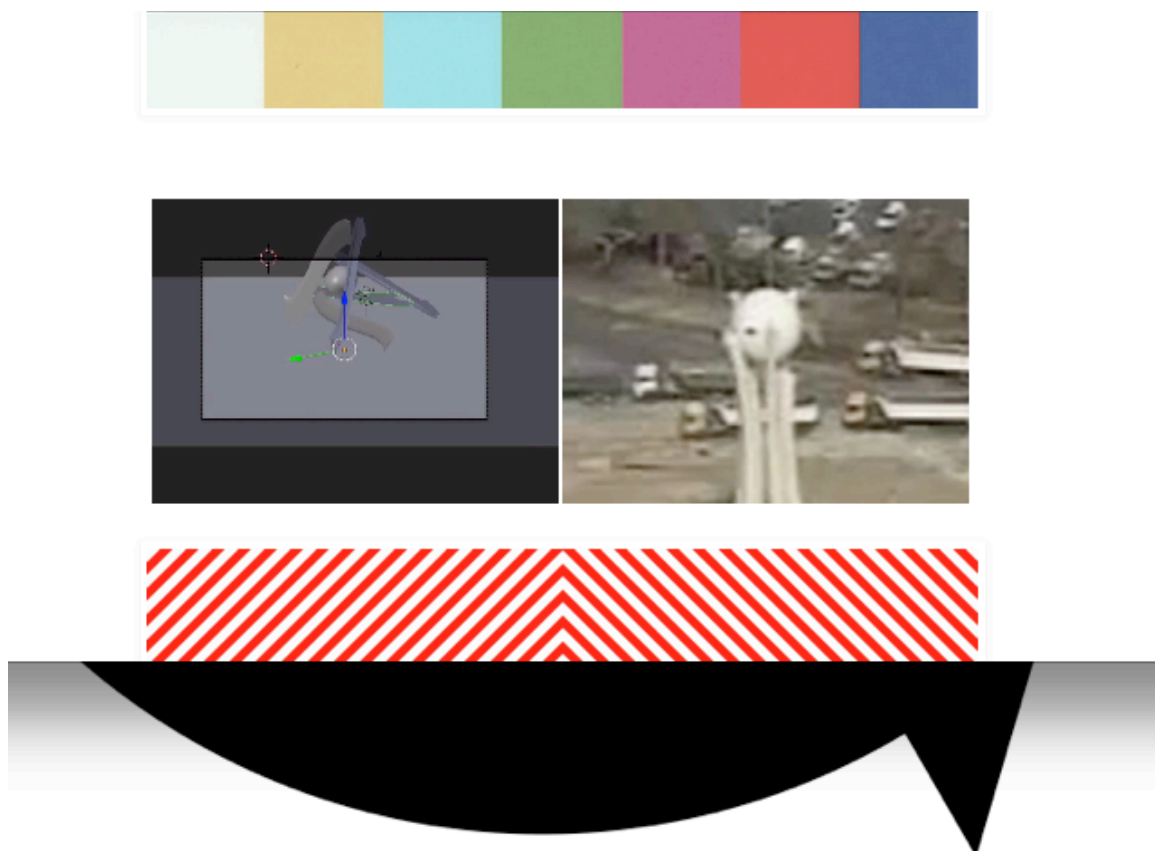


Figure 99 Screenshot of the blog post that was part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. The left channel of the video documents a user going through the tutorial in 3D animation and 3D printing that is included as part of the PDF chapbook. The right channel is an edited montage of various Youtube videos of the Pearl Roundabout demolition and subsequent Pearl Roundabout replications (source: the author's blog peddlers-and-bandits). Image by the author.

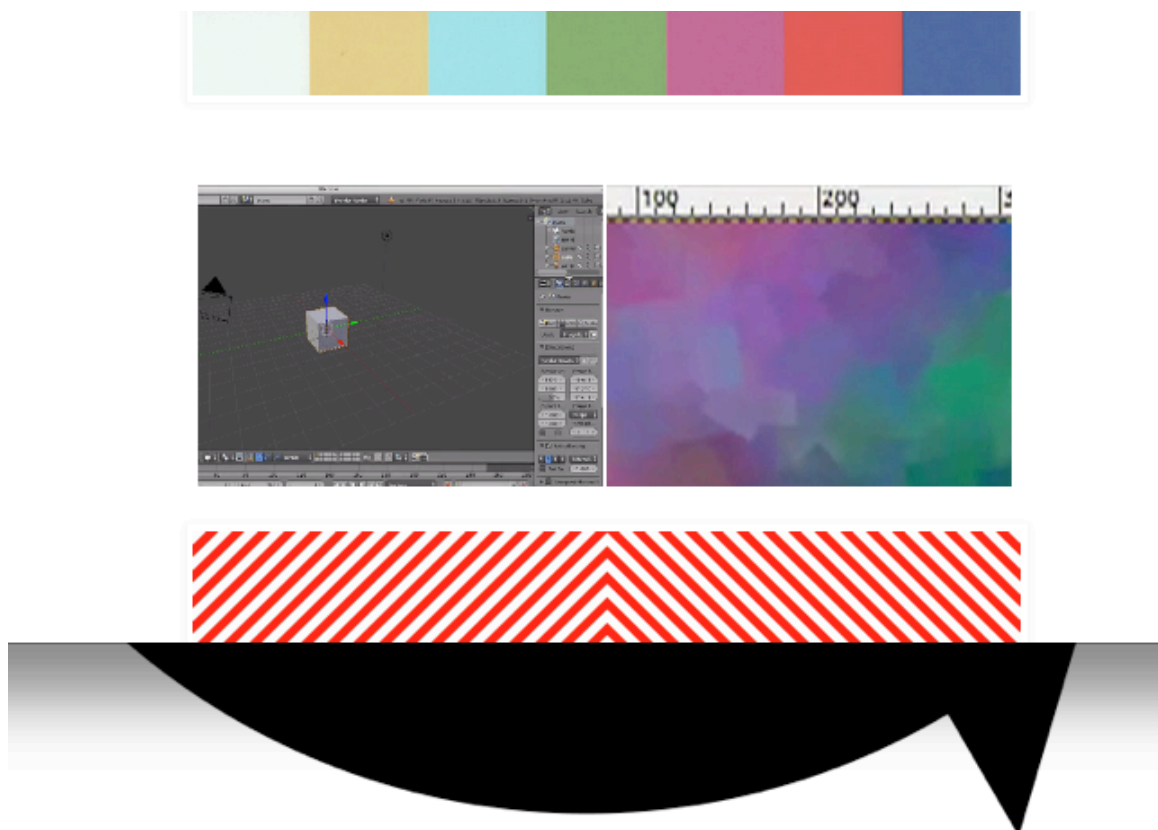


Figure 100 Screenshot of the blog post that was posted as part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. The left channel of the video documents a user going through the tutorial in 3D animation and 3D printing that is included as part of the PDF chapbook. The right channel is an edited montage of various Youtube videos of the Pearl Roundabout demolition and subsequent Pearl Roundabout replications (source: the author's blog *peddlers-and-bandits*). Image by the author.

On the left and bottom edges of the screen on the right, a digital paint ruler marked with dimension numbers moves in and out of the frame, while in the screen on the left, a cube appears and a cursor moves around the animation program selecting options from available toolboxes and menu bars. A cursor also appears in the video on the right, as the multi-colored image is suddenly overlain with a black field covered in thin meandering fissures. The slivers of pink, blue and green exposed by the fissures turn white with pronouncement of the word, “threshold,” and a series of repeated computer mouse-clicks ensue.¹⁵⁰ The rhythm of the clicks follows a series of cuts in the edited sequence that follows, jumping from the image of the fractured black field and its simulation of a broken screen, to the split image of the black, blue and white pattern on a television anchorwoman’s jacket, then finally to the twisting initiation of the Pearl monument’s fall (fig. 101).

¹⁵⁰ Ibid.

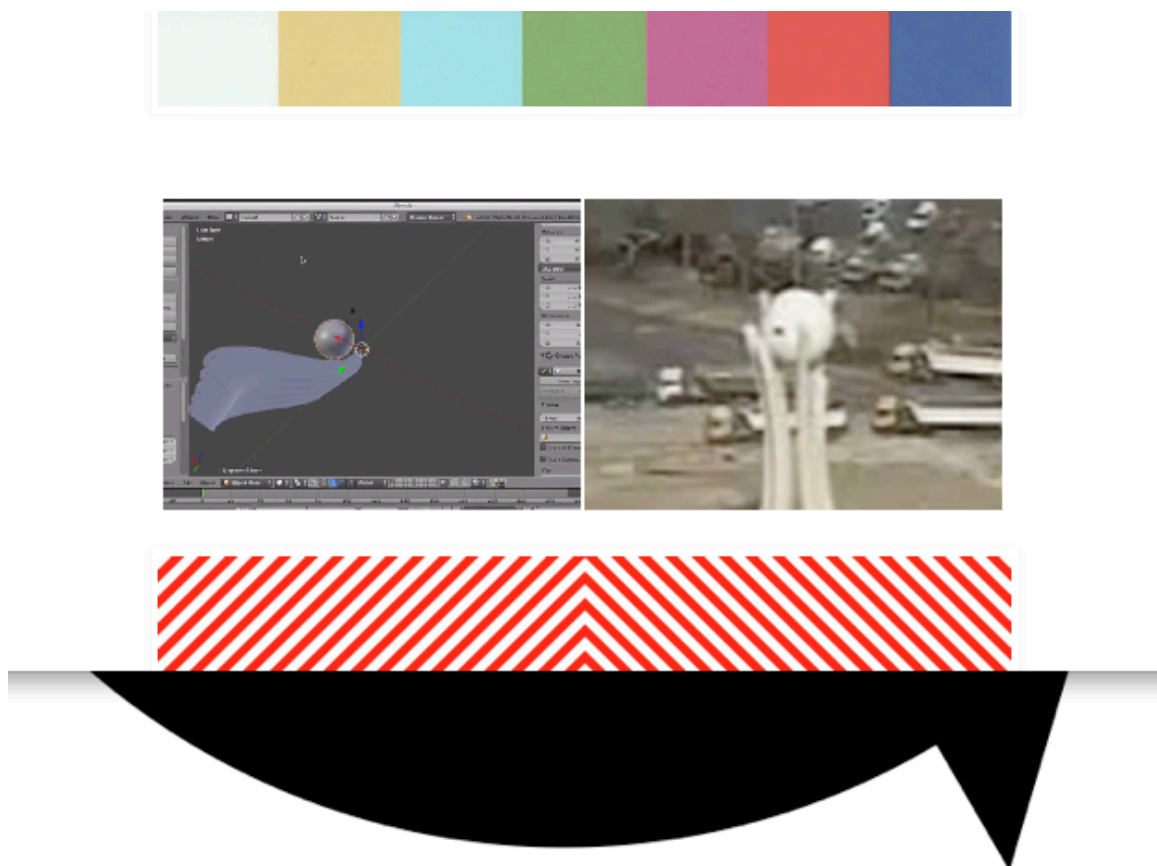


Figure 101 Screenshot of the blog post that was posted as part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. The left channel of the video documents a user going through the tutorial in 3D animation and 3D printing that is included as part of the PDF chapbook. The right channel is an edited montage of various Youtube videos of the Pearl Roundabout demolition and subsequent Pearl Roundabout replications (source: the author's blog peddlers-and-bandits). Image by the author.

Meanwhile, in the screen on the left, the slide-like form of an arabeque appears inserted into the main user window in Blender. While the slide-like form appears on the left, the video on the right jump-cuts from the twisting initiation of the original Pearl monument's fall, to the collapse of a Pearl replication being dismantled by security forces (fig.102). The sphere in the replication bounces across the ground to the left side of the screen on the right as the video jump-cuts once more to video of a tweezer applying a small pearl to a lavender-painted finger nail. A series of clips follow, from animated films of the original Pearl Roundabout to video documentation of

replications, all spliced with fractured prismatic shots of tiny pearls for nail decoration. Sometimes the audio seems to come from within the screen, in other moments it seems to record a user off-screen who controls what we see and comments: “I like this tunnel effect.”¹⁵¹ In the meantime, the screen video on the left shows the actions of a user in Blender who generates five slide-like arabesques and a primitive sphere, all elements necessary to build a replication of the Pearl monument. The elements await configuration, and to be complete, they require a sixth and final slide. In this replication, however, the sixth slide is never added. In this version, it Bahrain declares its autonomy, removing itself from the six GCC coalition states.

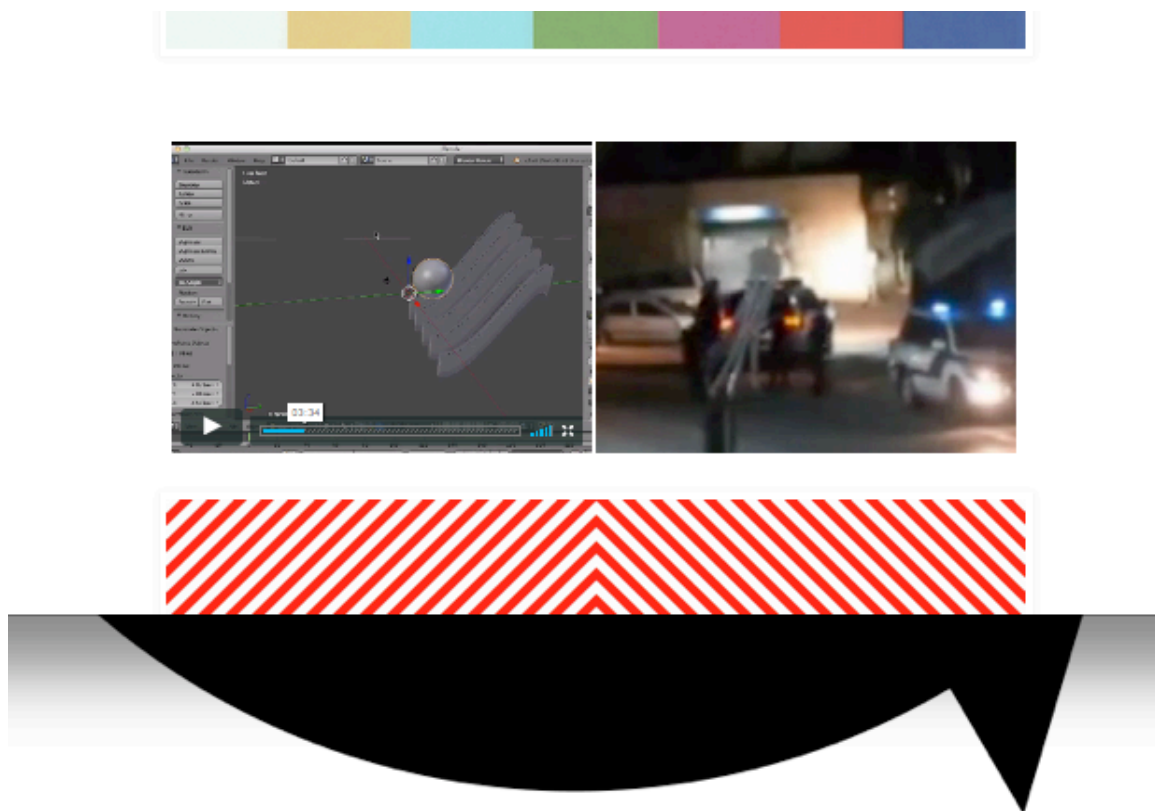


Fig. 102 Screenshot of the blog post that was posted as part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author’s contribution to the Gulf Labor Artist Coalition’s initiative *52 Weeks* (2014) (source: gulflabor.org). The blog post features a two-channel video and a link to download a PDF chapbook. The left channel of the video documents a user going through the tutorial in 3D animation and 3D printing that is included as part of the PDF chapbook. The right channel is an edited montage of various Youtube videos of the Pearl Roundabout demolition and subsequent Pearl Roundabout replications (source: the author’s blog [peddlers-and-bandits](http://peddlers-and-bandits.com)). Image by the author.

¹⁵¹ Ibid.

The accompanying PDF chapbook, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory*, begins with a screenshot from Youtube of a Pearl replication planted atop the bloated bulb of a bullwhip kelp washed up on the San Diego shore¹⁵² (fig. 103). In the background, a marbled godwit ambles slowly across the screen from right to left. The following pages introduce the accident of resemblance between Gehry's design for his Guggenheim Abu Dhabi, and Manama's fallen Pearl Roundabout with graphics, maps, blurbs, captions and a timeline.¹⁵³ A tutorial sub-titled "build, animate and print *PERP* with Blender and Makerbot" lists a sequence of steps that guide the user through 3D digital replication of the Pearl Roundabout.¹⁵⁴ The tutorial ends with a short story titled "Epi-log Ethnofiction: Trans-finite Interpolations in a Model of Bad Memory."¹⁵⁵ The story is an ethnographic fiction based on the real activities of two actual internet users, William and Haroon: William, a Thingiverse user who uploaded the slide-like arabesque (a Hermite interpolation) that the user downloads to create the Pearl replication's 'sails'; and Haroon, who used a free mapping service to circulate video of Bahrain opposition demonstrations linked to protest locations. The chapbook ends with several images of Pearl Roundabout replications printed in the same thermoplastic that is used to paint lines on asphalt roads.

¹⁵² Emily Verla Bovino, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory, or how to add a perp to the herp, the lerp to the berp already present in the library of things* (2014). Third Edition. (San Diego, CA: Mobile Irony Valve Press, 2016), 1. For a print version of the chapbook, see the attached appendix. To view the video, visit: Mobile Irony Valve, "20140904 083029_Lulu Roundabout." Online video clip, *Youtube*. September 20, 2015. Accessed December 10, 2016. <https://www.youtube.com/watch?v=AnSMFKjwLx0>

¹⁵³ Bovino, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory*, 4.

¹⁵⁴ *Ibid.*, 6.

¹⁵⁵ *Ibid.*, 15.

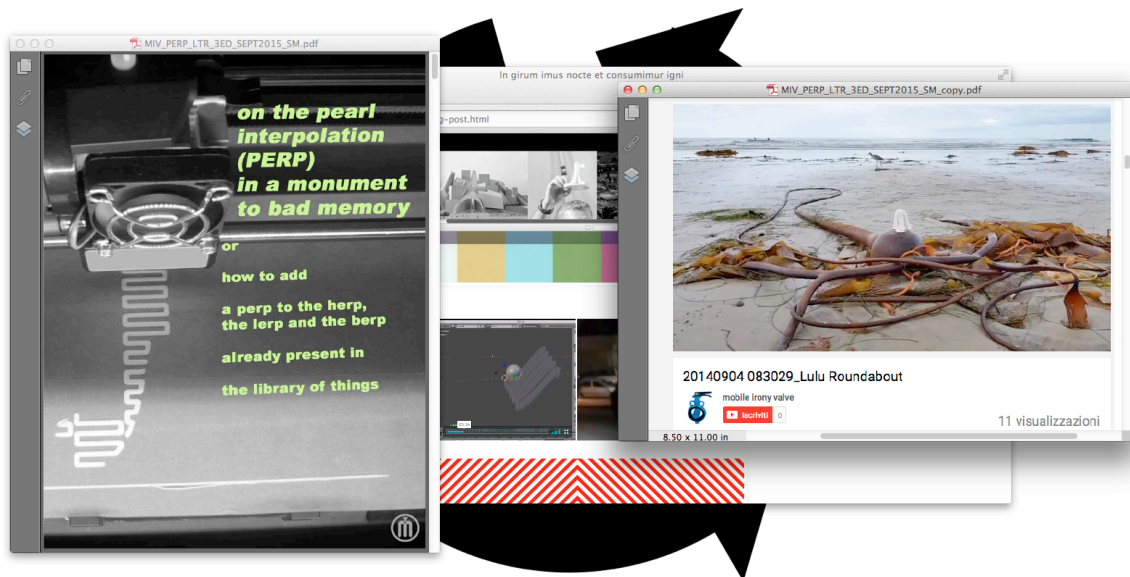


Figure 103 Screenshot configuration by the author: (right) the PDF chapbook was part of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org); (middle) the *PERP* blog post with two-channel video and a link to download a PDF chapbook (source: the author's blog peddlers-and-bandits); (right) video on a Southern California beach of a 3D printed object that was created using the *PERP* tutorial (source: the author's Youtube channel). Image by the author.

If watched to its conclusion, at approximately the 19 minute mark, the video on the left in the two-channel scroll montage shows a digital replication of the Pearl Roundabout animated in collapse. The fictional user of the tutorial whose actions are captured in the video, replays the collapse over and over until finding a configuration of collapse to select for export. The tutorial guides the user through exporting the selected moment of collapse as an object for printing. In *PERP*, any of the infinite number of moments in the fall of the Pearl Roundabout monument can be frozen and transfigured into an object for monumentalization by the user. In this gesture, the momentum of collapse that was erased by Bahrain News Agency official video documentation of the destruction of the monument, is objectified. The death of Pakistani migrant crane worker, Riaz Ahmed, during the destruction of the Manama monument is memorialized in a prescient gesture that foresaw future workplace deaths at Saadiyat Island:

on June 8 2015, an unnamed Pakistani employee died inside the Louvre Abu Dhabi, as workers laboriously mounted the final “star” on its Jean Nouvel-designed dome. He was not the first, and will likely not be the last, fatality on Saadiyat Island.¹⁵⁶

Indeed, the introduction to the tutorial suggests the replication be thought of as a “speculative design exercise for the creation of a complex of towers to house a fictional migrant worker cooperative on Manama harbor in Bahrain.”¹⁵⁷ It proposes a tactical urbanist re-invention of mega-project urbanism, where the Manama harbor is no longer the center of a new finance and tourism capital of “market orientalism,”¹⁵⁸ but rather, the capital city of plastic activism for a 21st-century movement for international migrant workers of the world.

¹⁵⁶ Gulf Labor Coalition, “‘For Security Reasons’ A Gulf Labor Report, (July 2015)” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 305.

¹⁵⁷ *Ibid.*, 2.

¹⁵⁸ Smith, *Market Orientalism*, 19.

Chapter Seven / A ‘Round’ About 52 Weeks: Gulf Labor Plastic Activism

At the 2010 Plastic Arts conference *Home Works Forum 5*, Lebanese-American artist, visual studies scholar and educator Walid Raad organized a panel to discuss the Saadiyat Island project in the United Arab Emirates capital, Abu Dhabi.¹ It was from this panel that the initial core membership of the Gulf Labor Coalition (GLC) took form.² In his history of the broader Gulf Labor movement that produced the GLC, cultural analyst and activist Andrew Ross explains that with Saadiyat Island,

Abu Dhabi’s Tourism and Development Corporation (TDIC) was planning the mother of all luxury property developments. There was good reason for artists in the Middle East to pay attention. Saadiyat’s plush real estate was to be sold on the premise that buyers could stroll to branches of the Guggenheim, the Louvre, and a new national museum partnered with the British Museum [...].³

This “stroll” was planned to take place through “signature buildings” designed by ‘starchitects’ like Gehry and his colleagues Jean Nouvel and Zaha Hadid, all architects with conflicting responses, but generally kindred ideas, about their responsibility to workers exploited in the construction of their designs.⁴ For example, when asked about deaths of migrant workers involved in building her designs in Qatar, Hadid once famously commented – “It’s not my duty as an architect to look at it.”⁵ Gehry allegedly hired a prominent human rights attorney to “[...] consult about protecting the well-being and rights of the workers constructing the [Abu Dhabi] Guggenheim project,” while at the same time he “readily admitted that, as far as ideal clients go, perhaps “the best thing is to have a benevolent dictator – who has taste!””⁶

¹ Ross, “Leveraging the Brand,” 14.

² *Ibid.*, 15.

³ *Ibid.*, 14.

⁴ *Ibid.*

⁵ Mabel Wilson, Jordan Carver and Kadambari Baxi, “Who Builds Your Architecture? – An Advocacy Project” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 100.

⁶ Wilson, Carver and Baxi, “Who Builds Your Architecture? – An Advocacy Project,” 102.

In light of this approach to development—what another GLC core member, Hans Haacke, called the “development [...] haunting everyone everywhere[;] development in this sense [as] destruction in every sense”⁷—the GLC questioned “tacitly pervad[ing] attitudes toward contemporary art” as “disinterested pleasure.”⁸ In its opposition, it instead asserted a very ‘interested’ investment in a particular collective pleasure, or as one GLC member, Ayreen Anastas puts it: “I am we are I are we am. They are we are they are. Are they.”⁹

In a group statement, the core members of GLC were asked by interviewers to respond to the question, “What do you think?” in relation to the broader query, “Why Gulf Labor?”¹⁰ Artist Ayreen Anastas responded, “I think therefore I am thinking that this ‘I’ does not make much sense nor does the ‘be’ on its own. [...] I am a worker we are artists they are prisoners and so on. No I am a prisoner we are workers they are artists.”¹¹ With a similar sense of nomadic subjectivity, artist Rene Gabri wrote:

I think there is no “I” that can think this thought. Because the thought is so big, so immense that the “I” cannot contain it or hold it together. [...] It is a thought that resists time [...]. [*A*] *nulla*, a gain is realized, again realization: nothing is gained.¹²

As his response continues, it begins to evoke the movement of the yield:

it’s a *holding pattern*, only the hold has been lost. It’s a gripless hold. The pattern is familiar. It awaits the precise moment, *kairos*. “And when it comes, then what?” We have no choice here, we have to go, the swell is sweeping us away.¹³

⁷ Ayreen Anastas, Doris Bittar, Rene Gabri, Hans Haacke, Naeem Mohaiemen and Walid Raad, “Why Gulf Labor? Statements of Intent,” *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 120-122.

⁸ The notion of art as a “disinterested pleasure” comes from the aesthetic philosophy of Immanuel Kant. Hans Haacke in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 120

⁹ Ayreen Anastas in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 123.

¹⁰ Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 114-130.

¹¹ The single-quotes used within the quotation are not original. I added them to make the passage more legible. Anastas in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 123.

¹² Rene Gabri in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 125.

¹³ My emphasis. Gabri in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 125.

In these artist statements, art-as-a-function-of-yield¹⁴ seems to express itself unconsciously through the topos of the roundabout.

The GLC began when a few of the Beirut Plastic Arts conference attendees “decided to test the waters for a Guggenheim campaign.”¹⁵ A letter signed by 43 artists was sent to the Guggenheim in June 2010, with the goal to “raise labor standards and practices by putting public pressure on a high-profile brand name.”¹⁶ Several of the core artists who participated agreed to block permission for sales by their galleries to the Guggenheim collections, and thus stood to lose substantial income from the gesture; however, as members have written, “Gulf Labor [...] never sought to ‘police’ the terms of [artist] non-cooperation with the museum.”¹⁷

The artists decided collectively to make their letter public and announced an official museum boycott at the 2011 March Meeting of the Sharjah Biennial.¹⁸ After the boycott, which was followed by a series of talks and negotiations, the GLC launched the *52 Weeks* initiative in 2013. Each week of *52 Weeks* “one of an international array of artists, writers and activists was asked to submit a work, a text or an action” that “[...] call[ed] attention to some aspect of workers’ conditions on Saadiyat Island, the political context of their plight, and the problematic compact between the Western cultural institutions and their Abu Dhabi partners.”¹⁹ Whereas the GLC boycott of the Guggenheim had been

[...] premised on using artworks strategically, either by withholding them from the Guggenheim’s acquisition plans, or by imposing conditions on particular sales, commissions, and exhibitions[,] *52 Weeks* inverted the tactic by producing and circulating artworks that directly addressed or enacted the ideas behind the boycott, while bypassing the museum and market systems altogether.²⁰

¹⁴ North, *The Yield*, 29.

¹⁵ Ross, “Leveraging the Brand,” 15.

¹⁶ *Ibid.*

¹⁷ *Ibid.*, 17.

¹⁸ *Ibid.*

¹⁹ Ghani with Aivazian, “*52 Weeks*, and Engaging by Disengaging,” 178.

²⁰ *Ibid.*, 179.

52 *Weeks* contributions like my own *Week 33* were circulated through social media networks online and eventually published in the book *The Gulf: High Culture, Hard Labor* (OR Books, 2015). The book was launched in coordination with a GLC-facilitated Gulf Ultra Luxury Faction (G.U.L.F.) occupation of the Peggy Guggenheim Collection in Venice. The occupation was a part of the project of GLC who were officially invited contributors to curator Okuwi Enwezor's 56th Venice Biennale.

The previous year, a GLC team had made field visits to a labor “village” on Saadiyat Island, a “labor accommodation site” that GLC reports would assert is more “similar to other labor camps” than the evoked “village life [...] often [...] left behind in the great migrations for work all over the world [...]”²¹ Meanwhile, numerous occupations of the Guggenheim in New York were coordinated by G.U.L.F., the self-identified GLC “spinoff devoted to direct action.”²² When in 2015, the GLC was invited by Enwezor to participate in his Venice Biennale, members defined their response in the terms of critical realism: “we shied away from creating a physical installation or work of art, and proposed instead that research, field visits and resulting reports would constitute our contribution to the exhibition.”²³ Critical realism in art (as it is defined in relation to the “model of critical realism,”²⁴ the photographic works of artist-writer Allan Sekula) is the “capacity to think together the political economy and division of labor internal to [...] practice, on the one hand, and the historical modalities of the representation of labor and political

²¹ Gulf Labor Coalition, “Observations and Recommendations After Visiting Saadiyat Island and Related Sites (March 14-21, 2014)” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 306.

²² Global Ultra Luxury Faction – G.U.L.F., “On Direct Action: An Address to Cultural Workers,” 133-136; Global Ultra Luxury Faction – G.U.L.F., “Six Occupations of a Museum (and an Alternative Plan),” 138-153. The moniker is also cited in *We Make Money Not Art*, “Book Review: The Gulf. High Culture/Hard Labor,” op. cit.

²³ Gulf Labor Coalition, “For Security Reasons’ A Gulf Labor Report, (July 2015),” 306.

²⁴ Benjamin H.D. Buchloh, “The Politics of Representation.” *The Photographic Paradigm*, Lier en Bood Series, Vol. 2, ed. Annette W. Balkema and Henk Slager (Amsterdam: Editions Rodopi, 1997), 25

economy on the other.”²⁵ The GLC core members used the practice of exhibition-making to—as Rem Koolhaas explained in his urbanistic doctrine of “Manhattanism”—“hold two opposite ideas in the mind at the same time, and still retain the ability to function.”²⁶

In the meantime, the so-called direct action “spinoff” G.U.L.F. took a more speculative realist approach, making “unsolicited alterations to [Gehry’s] building, to the spectator environment, and to the internal protocols of the museum itself, making it into a temporary zone of the marvelous while drawing connections between the speculative real estate booms and busts from Manhattan to Abu Dhabi.”²⁷ This more speculative approach both reflected on the social, economic, political and cultural implications of financial and real estate speculation, and repropounded for itself the “central question” of speculative realism and speculative aesthetics, i.e. “[h]ow is it possible for thought to access that which is not always-already mediated by thought?”²⁸ In its manifesto, G.U.L.F. rephrases this predicament specifically for its own context:

We recognize that our work, our creativity, and our potential are channeled into the operations and legitimization of the system. We work—often precariously—as both exploiters and exploited, but we do not cynically resign ourselves to this morbid *status quo*. [...] We see our proximity to the system as an opportunity to strike it with precision [...]. As we disrupt and refuse the role that art is now playing in the normal functioning of this global system that propagates racism and inequality in its shadows, we make space for something new to come into the world that would have otherwise seemed impossible.²⁹

As speculative realists Robin Mackay, Luke Pendrell and James Trafford have asserted in their attempt to bring speculative and critical realists together:

if speculation entails a release of thinking from the constraints of human phenomenality, this does not warrant our positing an absolute breach between the two. [...] In reality, [...] contemporary art encodes and perpetuates a certain set of propositions regarding the agency of the image. It is a cultural project that

²⁵ Allan Sekula. *Ship of Fools/The Dockers’ Museum*, ed. Hilde Van Gelder (Leuven: Leuven University Press, 2015), 50.

²⁶ Koolhaas, “How Perfect Perfection Can Be,” 136.

²⁷ Global Ultra Luxury Faction – G.U.L.F., “On Direct Action: An Address to Cultural Workers,” 134.

²⁸ Robin Mackay, Luke Pendrell and James Trafford, *Speculative Aesthetics*, Redactions Series 004, ed. Robin Mackay, Luke Pendrell and James Trafford (Falmouth, MA: Urbanomic, 2014), 4.

²⁹ Global Ultra Luxury Faction – G.U.L.F., “On Direct Action: An Address to Cultural Workers,” 133.

deploys aesthetic mediation in a way no less instrumentalised (if more perverse and obfuscated) than other such projects.³⁰

The dialogue between GLC and its spinoff G.U.L.F. employs the speculative realist position against itself – rather than a “revocation of contemporary art’s privilege in relation to the aesthetic” it looks to take advantage of this “privilege” to do what speculative realism has asked of a “reconfigured aesthetics”:

[it] acknowledges the real force and traction of images, experimentally employing techniques of modeling, formalisation, and presentation so as to simultaneously ‘engineer new domains of experience’ and map them through an [aesthetics] that is transdisciplinary and indissociable from sociotechnical conditions.³¹

The GLC used an official Venice Biennial invitation to disengage – to “shy away from creating a physical installation or work of art”—showing “research, field visits and [a] resulting report” in the Biennale exhibition;³² meanwhile, the GLC ‘spinoff,’ G.U.L.F., planned art museum occupations that imitated processes and practices showcased in the Guggenheim New York’s blockbuster art exhibitions, “synchroniz[ing] with the aesthetics of [...] current exhibition[s]” i.e. Italian Futurism, artist On Kawara’s conceptualism, the dematerialized object of the German Zero group, etc.³³ These gestures stage what speculative realism outlines as “contemporary art’s neurosis with regard to the aesthetic”:

despite [the] faith in the radical potential of aesthetic experience, any actual, particular image – including those that art itself produces – is assumed inevitably to be corrupted by those same forces. Aesthetic experience, incapable of realising its radical potential, can only *gesture* towards it, and must constantly strive to evade determination (or delegate it to the viewer). In the ensuing crisis, contemporary art vigilantly exposes its own compromises with the aesthetic, in an ongoing admission of failure and culpability.³⁴

³⁰ Mackay, Pendrell and Trafford, *Speculative Aesthetics*, 4.

³¹ *Ibid.*, 6.

³² Gulf Labor, “Observations and Recommendations After Visiting Saadiyat Island and Related Sites (March 14-21, 2014),” 306.

³³ Global Ultra Luxury Faction – G.U.L.F., “Six Occupations of a Museum (and an Alternative Plan),” 137.

³⁴ Mackay, Pendrell and Trafford, *Speculative Aesthetics*, 3.

G.U.L.F. followed up on its actions by launching an alternative design competition in the Guggenheim's name, calling for redesigns of the Abu Dhabi Guggenheim that would "incorporat[e] fuller attention to labor and environmental components."³⁵ What G.U.L.F. participants called their "spoof" gradually metamorphosed into *The Next Helsinki*, an actual alternative design competition for the proposed Guggenheim Helsinki.³⁶

PERP, my *Week 33* intervention of Manamaism within the *52 Weeks* initiative, takes a position in-between the critical realist approach of the Gulf Labor Coalition's contribution to the Venice Biennale, and the speculative realist approach of the G.U.L.F. spinoff and its alternative design competition (fig. 104). Circulated before the G.U.L.F. design competition, *PERP* a speculative design tutorial based on the accidental resemblance between Gehry's planned designs for the Abu Dhabi Guggenheim, and the collapsed form of the iconic roundabout monument destroyed by government officials across the Gulf in the Bahraini capital Manama.³⁷ The tutorial uses this incident of accidental resemblance – what in art history is called *pseudomorphism*³⁸—to plan the design of an international headquarters for migrant-worker cooperatives on Manama's

³⁵ Global Ultra Luxury Faction – G.U.L.F., "Six Occupations of a Museum (and an Alternative Plan)," 138.

³⁶ Ibid.

³⁷ Bovino, "Week 33," op. cit.; Bovino, "Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory," op. cit.; Bovino, "On the Pearl Interpolation (PERP) in a Monument to Bad Memory," op. cit.

³⁸ "Art historian Hal Foster calls "pseudomorphism" a "rookie mistake" in art history and defines it as "the relating of different works that merely look alike." He writes, "it comes as a surprise [...] that some scholars now aim to redeem [this] error." See Hal Foster, "Preposterous Timing." *London Review of Books*, 34, no. 21 (November 8, 2012): 12–14. Special thanks to Professor William Tronzo for suggesting I look at this article. Art historian and Warburg Institute scholar Erwin Panofsky is usually attributed with first using the term "pseudomorphosis" (citing Oswald Spengler, but without crediting him) as what occurred when "certain Renaissance figures became invested with a meaning which, for all their classicizing appearance, had not been present in their classical prototypes, though it had frequently been foreshadowed in classical literature." Erwin Panofsky, *Studies in Iconology: Humanistic Themes in the Art of the Renaissance* (New York: Harper & Row, 1972), 70–71. To put this in more general terms, Panofsky explained, pseudomorphosis as "the emergence of form A, morphologically analogous to, or even identical with form B, yet entirely unrelated to it from a genetic point of view." The latter passage is quoted in Charles A. Cramer, *Abstraction and the Classical Ideal, 1760–1920* (Delaware: University of Delaware Press, 2006), 136. For more on pseudomorphosis, see Alexander Nagel and Christopher S. Wood, *Anachronic Renaissance* (New York: Zone Books, 2010), 48, 50, 136." This footnote is quoted from Emily Verla Bovino, "On Irons, Bones and Stones, or an Experiment in California-Italian Thinking on the 'Plastic' between Aby Warburg's *plastic art*, Gelett Burgess' *Goops* and Piet Mondrian's *Plasticism*." *California-Italian Studies*. Vol. 6, no. 1 (2016), 20.

high luxury mega-project harbor. The base designs for the cluster of buildings in the international headquarters are generated by users of the tutorial who are guided through virtual reconstruction of the Pearl Roundabout in the open-source animation software *Blender*. Users animate the Roundabout monument to collapse and select moments in its fall to pause and export as an object for 3-D printing (fig. 105). Cooperative design processes include the designer of the tutorial, the tutorial user, the designers of an object imported from the Thingiverse sharing platform (i.e., a hermite slide) and the idiosyncrasies of the open-source animation software (i.e., its physics algorithm which determines the movements the monument makes when it falls). In addition, the cooperative design processes also include the printer itself: open-source software for the consumer-grade 3-D printer MakerBot Replicator, automatically generates support structure for exported object that need scaffolding for elements that would otherwise force the machine to print in the air (fig. 106). This scaffolding support structure contributes to transforming the fallen Pearl Roundabout replication into an object that no longer hovers in space, but that can be engineered in an architectural form. Support structures are floors in high-rise structures and the Pearl Roundabout's forms constitute the skeletal underpinnings of the buildings.

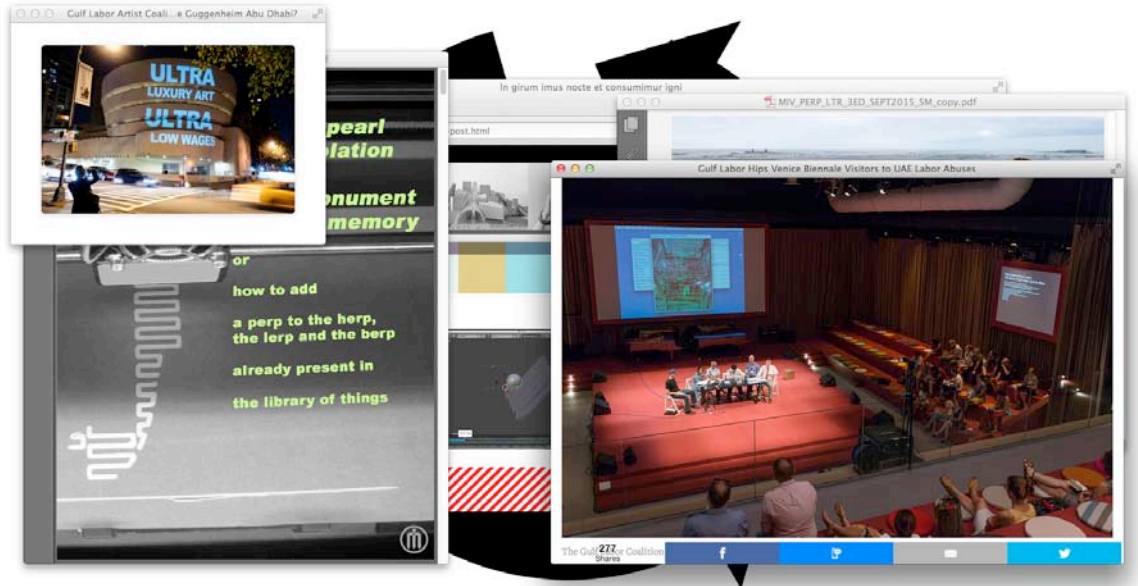


Figure 104 Screenshot configuration by the author: (top, left) Gulf Ultra Luxury Faction (G.U.L.F.) action outside of Frank Lloyd Wright's Guggenheim Museum in New York (source: gulflabor.org); (middle and background) components of *Week 33. On the Pearl Interpolation (PERP) in a Monument to Bad Memory* (2014), the author's contribution to the Gulf Labor Artist Coalition's initiative *52 Weeks* (2014) (source: gulflabor.org); (right) Gulf Labor presentation on labor abuses in the United Arab Emirates at the Venice Biennale (source: gulflabor.org). Image by the author.

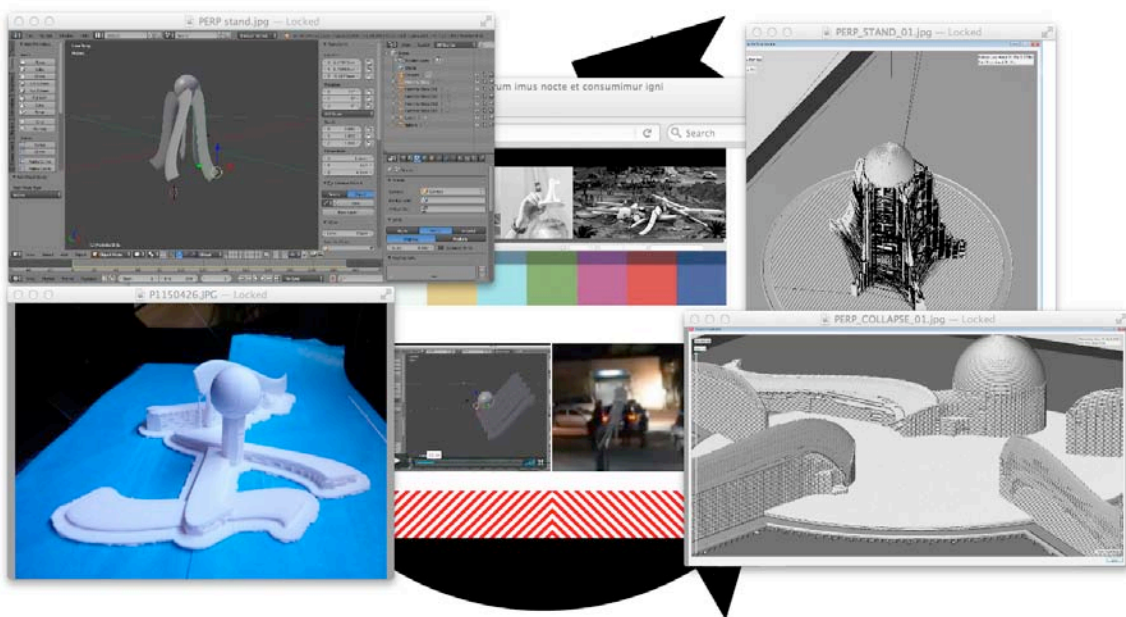


Figure 105 Screenshot configuration by the author: (top, left) screenshot from PERP 3D animation exercises; (top, right) screenshot from PERP 3D printing preview; (bottom, left) detail of PERP 3D printing preview; (bottom, left) 3D printed PERP object created using the *PERP* tutorial; (background) screenshot of the blog where the *PERP* project is accessible to users (source: the author's blog peddlers-and-bandits).
Image by the author.

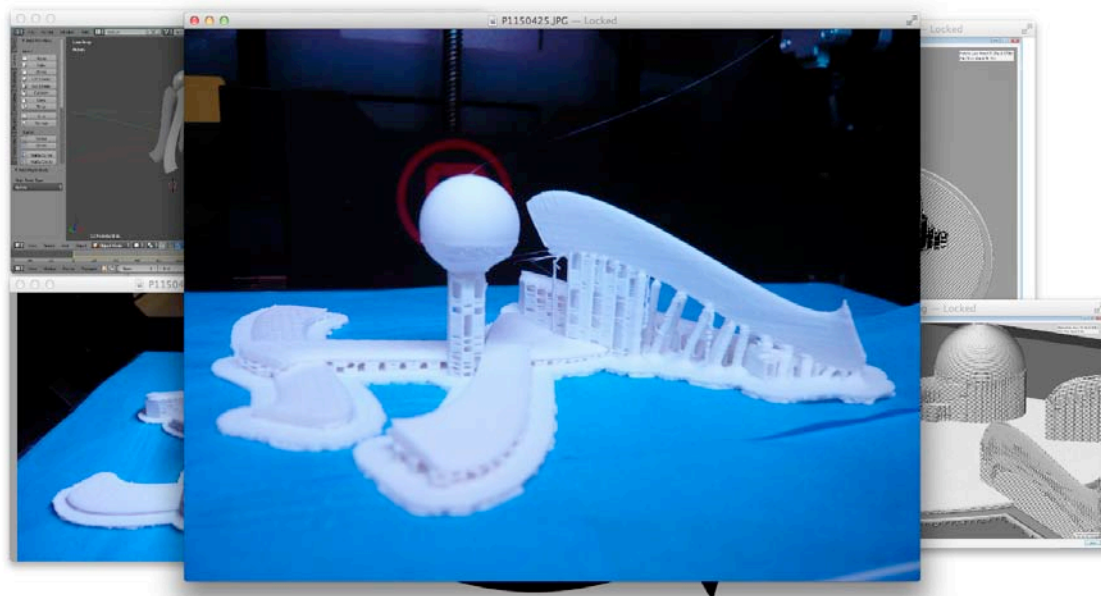


Figure 106 Screenshot configuration by the author: (foreground) 3D printed PERP object created using the *PERP* tutorial. Image by the author.

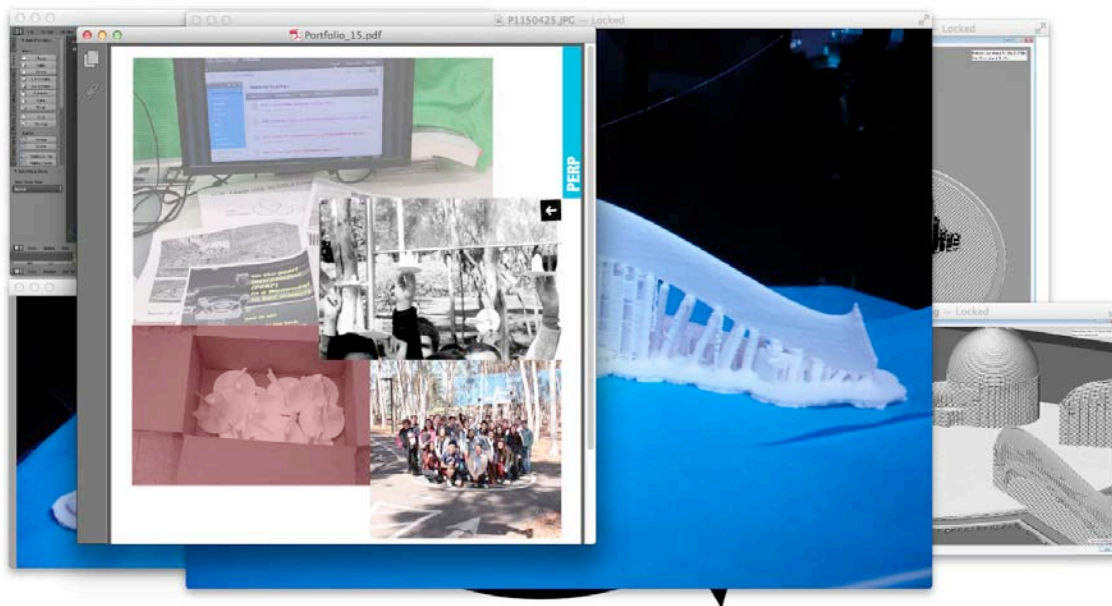


Figure 107 Screenshot configuration by the author: (foreground) images documenting the use of the *PERP* tutorial in a course on tactical urbanisms and urban planning taught by the author in the Urban Studies and Planning Program at the University of California, San Diego (UCSD). Image by the author.

After circulating *PERP* through *52 Weeks*, I used it in a course I taught on tactical urbanisms and urban planning in the Urban Studies and Planning program at the University of California, San Diego (UCSD) (fig. 108).³⁹ During the period of the Arab Spring's roundabout revolutions, UCSD's plans to improve its La Jolla campus infrastructure included the demolition of the Craft Center, an iconic structure from the university's former student center, and the construction of two miniature roundabouts in new bike paths. Both projects were planned for the same general area.⁴⁰ The Craft Center was a structure that had been built gradually over time without full institutional approval. According to the accounts of an instructor involved in building the center, it had risen like a spore, and expanded with sections that were built on holidays and in late night construction sessions to avoid officials monitoring and limiting the

³⁹ Emily Verla Bovino (Associate Instructor), *Introduction to Urban Planning* (USP100), University of California, San Diego. Urban Studies and Planning. Winter 2016.

⁴⁰ Scotty Probert, "New UCSD Bikepaths...Aren't: Angry Bikers and Informed Campus Development." *The Triton. Student Run Newspaper for UCSD Students, Faculty and Alumni*. November 15 2015. Accessed November 28, 2015. <http://triton.news/2015/11/new-ucsd-bikepaths-arent/>

efforts.⁴¹ It was part of an old Student Center complex that lost student traffic when a mega-project called the Price Center (opened in 1989 to the nickname “High Price Center”⁴²) was constructed elsewhere on campus. After being closed for three years, in 2015 the Craft Center was destroyed by a crane that mercilessly ripped its rustic iteration of modernist architectural tropes apart.⁴³ In place of its multi-nodal bungalow-like structure, the crane left behind an intersection of crossing foot-paths in a field of dirt. The UCSD miniature roundabouts were planned for the same eucalyptus groves at the bottom of the canyon slope that divides upper and lower campus. They were engineered to slow the momentum of cyclists approaching the heavily trafficked midway pedestrian path and campus protest center known as Library Walk. If it had it survived new university policies toward Student Center activities, the Craft Center would have found itself situated between the two mini-roundabouts.

⁴¹ University of California, San Diego (UCSD) Craft Center Administration. Conversation with Emily Verla Bovino. Craft Center (UCSD), San Diego, California. September 2012.

⁴² Dick Sutro, “Price Center an Attractive, if Disputed, UCSD Addition,” *Los Angeles Times*, April 16, 1989. Accessed December 10, 2016. http://articles.latimes.com/1989-04-26/news/vw-1887_1_student-center-rounded-food-court

⁴³ Former Craft Center Observations and Smartphone Video by Emily Verla Bovino. University of California, San Diego. San Diego, California. August 26, 2015. Also reported in Anonymous, “The Life and Death fo the Great UCSD Craft Center,” *The Triton. Independent Student-Run News source for the University of California, San Diego*. December 1, 2015. Accessed December 10, 2016. <http://triton.news/2015/12/the-life-and-death-of-the-great-ucsd-craft-center-2/>

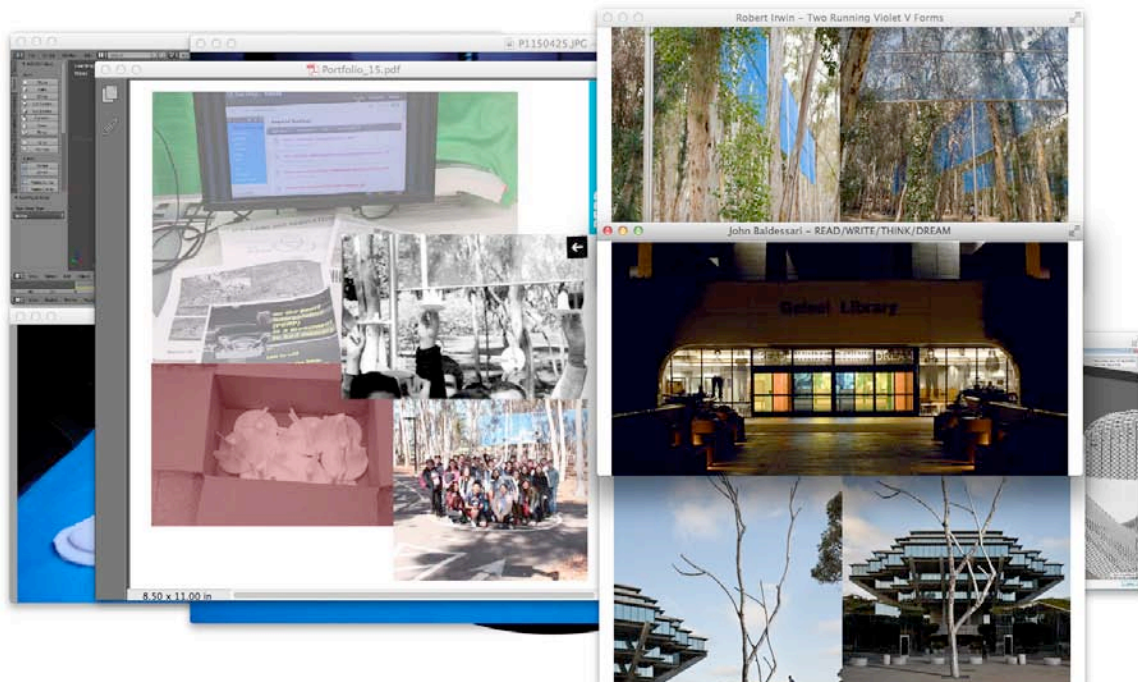


Figure 108 Screenshot configuration by the author: (left) images documenting the use of the *PERP* tutorial in a course on tactical urbanisms and urban planning taught by the author in the Urban Studies and Planning Program at the University of California, San Diego (UCSD) (source: the author); (right) works from UCSD's official collection of public art, the Stuart Collection (source: Stuart Collection, UCSD) Image by the author.

The miniature roundabouts and the Craft Center also have an interesting relationship to works in UCSD's important collection of public art, the Stuart Collection. These works bridge the 1980s with the 2000s, just like Weizman's history of roundabout revolutions from South Korea (Gwangju, 1980) to Palestine (Ramallah, 2011): one of the mini-roundabouts is directly under artist Robert Irwin's *Two Running Violet V Forms* (1983) (fig. 108, top right); the other is in the middle of Terry Allen's *Trees* (1986) and in front of architect William Pereira's monumental Geisel Library (1970) (fig. 108, bottom right) and John Baldessari's installation *Read/Write/Think/Dream* (2001) (fig. 108, middle right). This network of relations with public art makes it easier to see both the destruction of the Craft Center and the construction of the mini-roundabouts as important interventions in UCSD campus space. Though the Stuart Collection is

usually publicized as beautifying and enobling campus, its works also have the effect of encouraging critical observations about the space surrounding them.

Other artists who have spent time working as researchers on UCSD's campus have been inspired to design projects that dialogue with official Stuart Collection works. MFA alumna Sadie Barnette created the vinyl mural *Martin Luther King Street & 37th Street* (2011) as part of Thurgood Marshall college's own Public Arts program (fig. 110). The vinyl print hangs over the front of the main offices for the college's administration, and is scaled to create a trompe-l'oeil illusion that brings Martin Luther King Jr. and 37th Street from Barnette's hometown of Oakland, Northern California, to Southern California's La Jolla. The section of the street photographed for the vinyl is desolate and evokes ambivalence. The composition of the image draws the viewer into the facing road (37th street) while at the same time obstructing vision through it: a white octagon created by the reflection of light into the camera from the back of a stop sign, hovers in the center of the facing road's entrance. The stop sign is attached to the top of a tilted aluminum pole and hovers directly under the green street sign that reads "Martin Luther King, Jr." The vinyl mural plays with the irony often found in streets named for the civil rights leader—streets where the striking contradictions of American democracy are often all too visible.⁴⁴

⁴⁴"City streets named for Martin Luther King Jr. struggle across the U.S.," *The Associated Press*. January 20, 2014. Accessed June 4, 2015. http://www.nj.com/news/index.ssf/2014/01/city_streets_named_for_martin_luther_king_jr_struggle_across_us.html

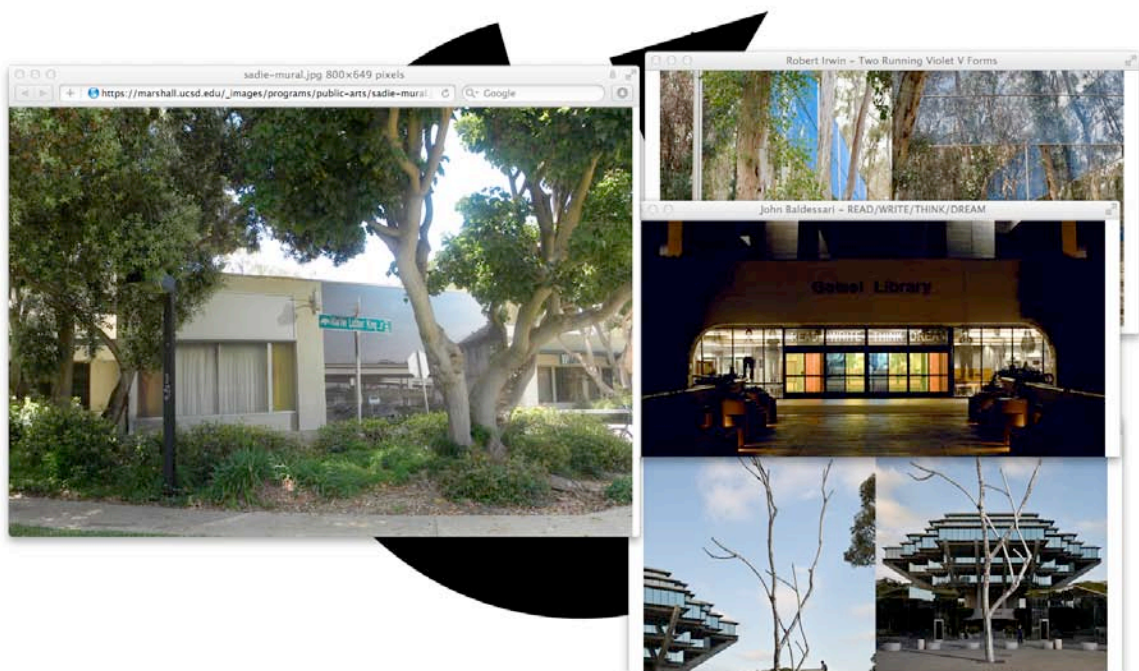


Figure 109 Screenshot configuration by the author: (left) San Francisco-based artist Sadie Barnette's *Martin Luther King Street & 37th Street* (2011) at Thurgood Marshall College, University of California, San Diego (UCSD) (source: Thurgood Marshall College); (right) works from UCSD's official collection of public art, the Stuart Collection (source: Stuart Collection, UCSD) Image by the author.

The class activity I organized for students of the course Introduction to Urban Planning (USP100) was part of both the transportation-planning and urban design modules I prepared for the lecture schedule. This section of the schedule included general introductions to both transportation planning and urban design, as well as to the politics of planning; it used roundabouts as a case study in transportation planning, and worked with the conceptual frameworks of urban designers Jan Gehl and Kevin Lynch to introduce urban design. To provide an example of the politics of planning within this context, I used the specific example of the Pearl Roundabout in Manama, its ties to British colonial planning in Bahrain, and its role in the Arab Spring “roundabout revolutions.”⁴⁵ As homework, students did the *PERP* tutorial as an individual assignment and then, in groups of five, selected one of the five objects they had each exported, to print at the UCSD Geisel Library's Digital Media Laboratory.

⁴⁵ Weizman, *The Roundabout Revolutions*, 11.



Figure 110 Screenshot configuration by the author: (left) images documenting the use of the *PERP* tutorial in a course on tactical urbanisms and urban planning taught by the author in the Urban Studies and Planning Program at the University of California, San Diego (UCSD) (source: the author); (right) Robert Irwin's *Two Running Violet V Forms*, part of UCSD's official collection of public art, the Stuart Collection (source: Stuart Collection, UCSD) Image by the author.

The day the students brought their *PERP* replications to class, we went on an excursion through campus to practice using the design terms that the students had been introduced to in readings and class presentations (i.e., the urban design canon of Lynch's "path," "edge," "district," "node" and "landmark,"⁴⁶ and Gehl's "to assemble or disperse," "to segregate or integrate," "to invite or repel," "to open up or close in," etc.⁴⁷). We discussed the works of public art we encountered, and the excursion ended with students occupying the bicycle path mini-roundabout under Irwin's iconic *Two Running Violet V Forms* with their printed thermoplastic Pearl replications in hand (Fig. 111).

⁴⁶ Kevin Lynch, "The City Image and Its Elements" from *The Image of the City* (1960) as reprinted in *The City Reader*, ed. Richard T. LeGates and Frederic Stout (New York, NY: Routledge, 1996), 98-102.

⁴⁷ Jan Gehl, *The Life Between Buildings: Using Public Space* (1971), trans. Jo Koch (New York, NY: Van Nostrand Reinhold Company, 1987), 82-129.

The gesture was joyous and melancholic, practical and absurd. Students enjoyed it, while at the same time recognizing its total futility as a political action; while they were inclined to learn more by not being confined to a classroom, the laughable occupation of mini-roundabouts seemed preposterous in comparison to the life-risking protest activities of the Arab Spring. The activity was not only an absurdist replication of the Pearl Roundabout, by way of which students felt affected by the Arab Spring's "provincialization of the West," it was also an accurate replication of ambivalence in the joys and frustrations of urban design.

From Micro to Macro: Corporealizing Pearl Roundabout Replications

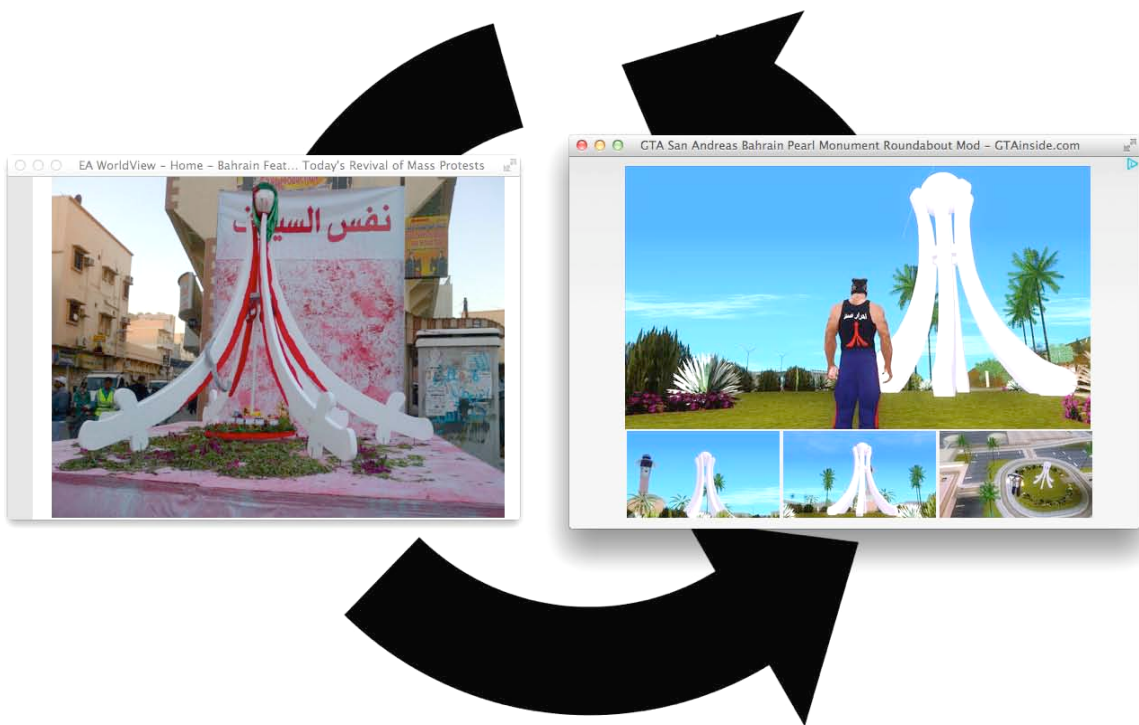


Figure 111 Screenshot configuration by the author: (left) a large Pearl Roundabout replication in Sanabis, a Manama suburb, recreated the original monument's 'sails' with six red-splashed cut-outs in wood that resemble swords (image: EA WorldView); (right) gamers playing Grand Theft Auto character Carl Johnson can discover a virtual mini-roundabout with its own miniature Pearl Roundabout replication among the game's hidden secrets (Image: Grand Theft Auto). Image by the author.

From small to medium-scale examples documented on video-sharing platforms, stock photo websites and pro-democracy propaganda outlets, Pearl Roundabout replications have also

metamorphosed into large-scale quasi-permanent models. In the opposition stronghold Sanabis, a Manama suburb, a large object in painted wood replicated the monument's 'sails' with six red-splashed cut-out shapes resembling swords (fig. 111, left).⁴⁸ The scale of replications shifted not only in dimension-as-size, but in dimension as in the 'dimensional,' that is, from two-dimensional street-graffiti ideographs to three-dimensional street sculpture, from "the four-dimensional time-space continuum of our life-world"⁴⁹ in urban planning and urban scenography, to video-game worlds in "zero-dimensional binary code and its representational form, the pixel."⁵⁰ Pearl Roundabout miniatures were replicated in steady rounds, as if spiraling through a destructive plasticity of scale. For example, in San Andreas – the Grand Theft Auto (GTA) franchise's fictional Southern California-like U.S. state – gamers playing GTA character Carl Johnson can discover a virtual mini-roundabout with its own miniature Pearl Roundabout replication among the game's hidden secrets (fig. 111, right).⁵¹

⁴⁸ Josh Shahryar, "Bahrain Feature: Today's Revival of Mass Protests." *EAWorldView*. December 7, 2011. Accessed July 17, 2014. URL: <http://www.enduringamerica.com/home/2011/12/7/bahrain-feature-todays-revival-of-mass-protests.html> Matthew Cassel, 48 Hours in Sanabis." *Al Jazeera English*. September 28 2011. <http://www.aljazeera.com/indepth/features/2011/09/201192811351850625.html>

⁴⁹ Quoted passages are expressions are from Andreas Strohl, "Introduction" in Vilém Flusser, *Writings* (Minneapolis: University of Minnesota Press, 2002), xxvi.

⁵⁰ Strohl, "Introduction," xxvi.

⁵¹ "Information." *Grand Theft Auto San Andreas* at *Rockstargames*, N.d. Accessed October 14 2016. URL: <http://www.rockstargames.com/sanandreas/>

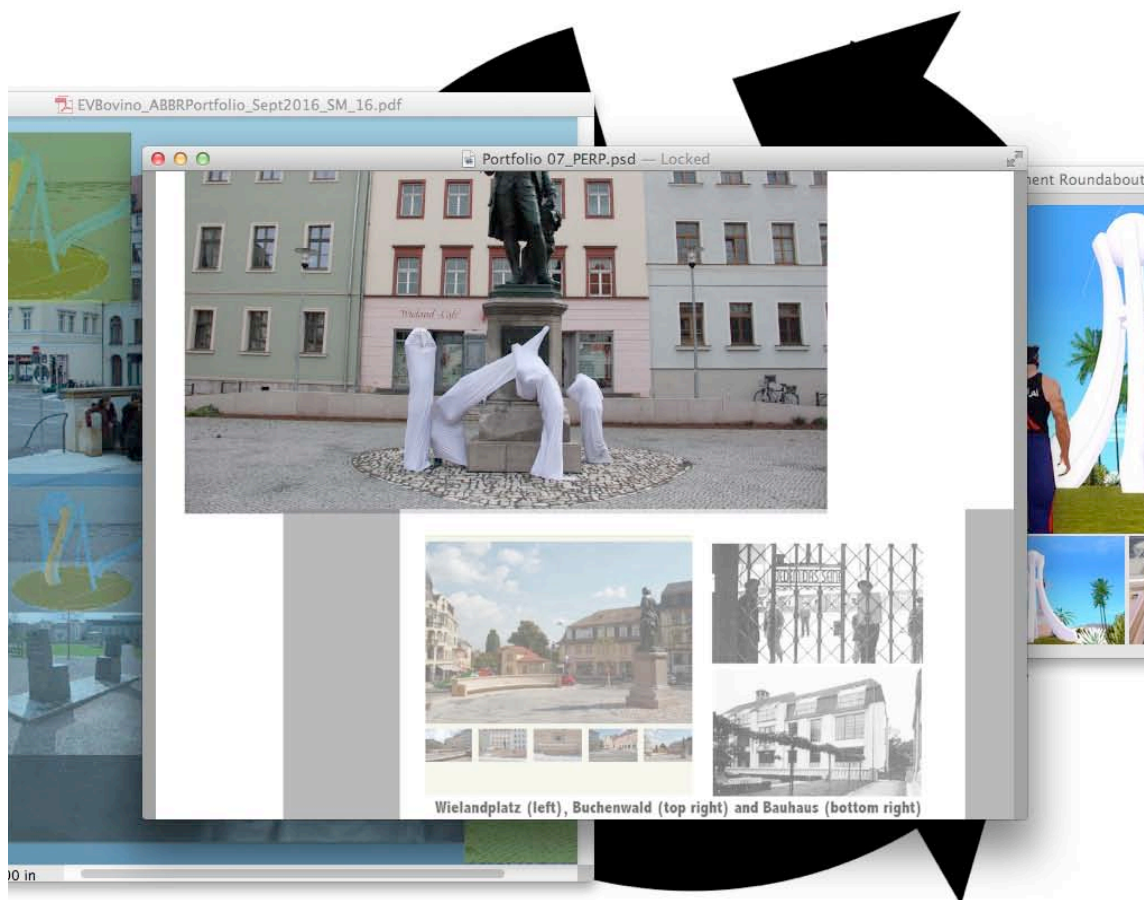


Figure 112 Screenshot configuration by the author: (top) a *PERP* movement-research workshop at the Bauhaus-Universität Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout around the central sculpture in Weimar's Wielandplatz; (below) images of the redesign of Wielandplatz and other important sites in Weimar, including the Buchenwald concentration camp and the Bauhaus school for art and architecture. Image by the author.

An actual iteration of this virtual discovery of a hidden replication returned a similar secret for anyone on a walk or a drive through the center of the East German city of Weimar in late October 2015 (fig. 112). At the height of frenzied reporting on Europe's migrant crisis and East German anti-migrant protests, a group of Weimar residents on a midday walk passed the small redesigned pseudo-roundabout junction of Wielandplatz as they always did after lunch. This time, however, they stopped and stood on the corner across from the plaza to watch a strange spectacle unfolding around the plaza's bronze sculpture. A few moments later, they were joined by tourists who had just returned from the Ettersberg Mountain after a morning visit to the

Buchenwald concentration camp memorial, 10.7 kilometers from the center of Weimar. After another few minutes, a couple approached and took out their smartphones. They had just parked their car in the first circular underground parking lot they had ever seen. The last photograph on their smartphones was taken when they emerged above ground from the subterranean stairwell that exited the parking circle: as they had emerged in the town square built over the underground circle, they had seen a monument made from two blocks of granite, “opposing granite chairs, aligned east to west.”⁵² From Google querying the phrase “Hafiz-Goethe” inscribed on the monument, they had figured out that it had been designed to evoke the “uniting of East and West” (fig. 113).⁵³ The idea was strange to them. The monument seemed more intent to fix an eternal opposition than to overcome it. Nonetheless, the designer had reportedly wanted viewers to imagine reuniting the two heavy sections of stone into the single original granite block from whence they had been split and carved. “Hafiz!” – Goethe had exclaimed in one of his poems, calling out the name of the Persian poet he considered his “intellectual ‘twin’” – “Let’s share all joy and woe, As true twin brothers, one from two.”⁵⁴

The haphazardly assembled audience, including the couple from the parking circle, observed a strange discovery: what none of them recognized to be a replication of the Pearl Roundabout monument was materializing in seven bodies sheathed in white spandex tubes that were circling around Wielandplatz’s statue of the 18th century German idealist Christoph Martin Wieland. What this audience would never know was that an urban scenography workshop of Bauhaus Universität-Weimar graduate students was engaged in a process of spontaneously improvising a Pearl Roundabout with their bodies after working with *PERP*, my *Week 33*

⁵² “Hafiz Goethe Memorial: About the location,” *genus-loci-weimar*. N.d. Accessed July 2, 2016. <https://www.genus-loci-weimar.org/en/wettbewerbsgewinner-2016/hafiz-goethe-memorial/>

⁵³ Ibid.

⁵⁴ Ibid.

contribution to GLC's *52 Weeks*.⁵⁵ The participants had sat on the curved bench that was part of the plaza's roundabout-like redesign and, behind their laptops, had struggled with configuring a strange assemblage in an open-source software most of them had never used. Following the tutorial's instructions to make a sphere mesh appear in Blender's main window was simple – the sphere was one of the software's own “primitive mesh shapes.”⁵⁶ Importing and working with the “hermite slide”⁵⁷ from Thingiverse was more difficult: the slide had to be duplicated four times for five slides to be positioned around the central sphere. Positioning the slides added further complications: it required inserting a series of long number sequences into various rotation and location fields.

⁵⁵ I was invited by the Urban Studies and Planning program to serve as a faculty mentor for a ten-day seminar in October 2015 at Bauhaus Universität-Weimar with a group of UCSD undergraduate students, two of whom I worked with closely. Organizers of the workshop asked me to contribute to facilitating a workshop on memory for the seminar. I designed the exercise *A Round About Roundabouts* for the occasion, using *PERP*. For *PERP*, see Bovino, *On the Pearl Interpolation (PERP) in a Monument to Bad Memory*, op. cit.; Bovino, “Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory,” op. cit.; See also Bovino, “Week 33,” 292-293.

⁵⁶ The term “‘primitive’ mesh shapes” comes from the open-source animation software *Blender*. The *Blender 2.78 Manual* defines it as “a common object type used in a 3D scene is a mesh. Blender comes with a number of “primitive” mesh shapes that you can start modeling from.” “Modeling – Meshes – Primitives,” *Blender 2.78 Manual*. N.d. Accessed December 27, 2016. <https://www.blender.org/manual/ko/modeling/meshes/primitives.html>.

⁵⁷ WilliamAAdams, “OpenScad Surface Solids 1.1,” op. cit. The user WilliamAAdams explains in his summary for the object, “with this [post], there is now a lerp (linear interpolation), berp (bezier interpolation), and herp (hermite interpolation) in the library. A Hermite curve is defined by two endpoints, and the tangent vectors to those points. It is somewhat related to a Bezier curve. In fact, I use the same Bernstein basis functions to express it. Some people may find it easier to deal with, some harder, but it's just another tool in the box to help you create surfaces. In this particular case, I've added a 'sweep_hermite()' module to the renderer. This is really easy to work with. You define one curve to be your 'profile', and you define another curve to be the path along which you'll sweep that profile. The module will take care of creating the appropriate polyhedra to fill in the solid. You can give a thickness, and it will extrude in that direction.”

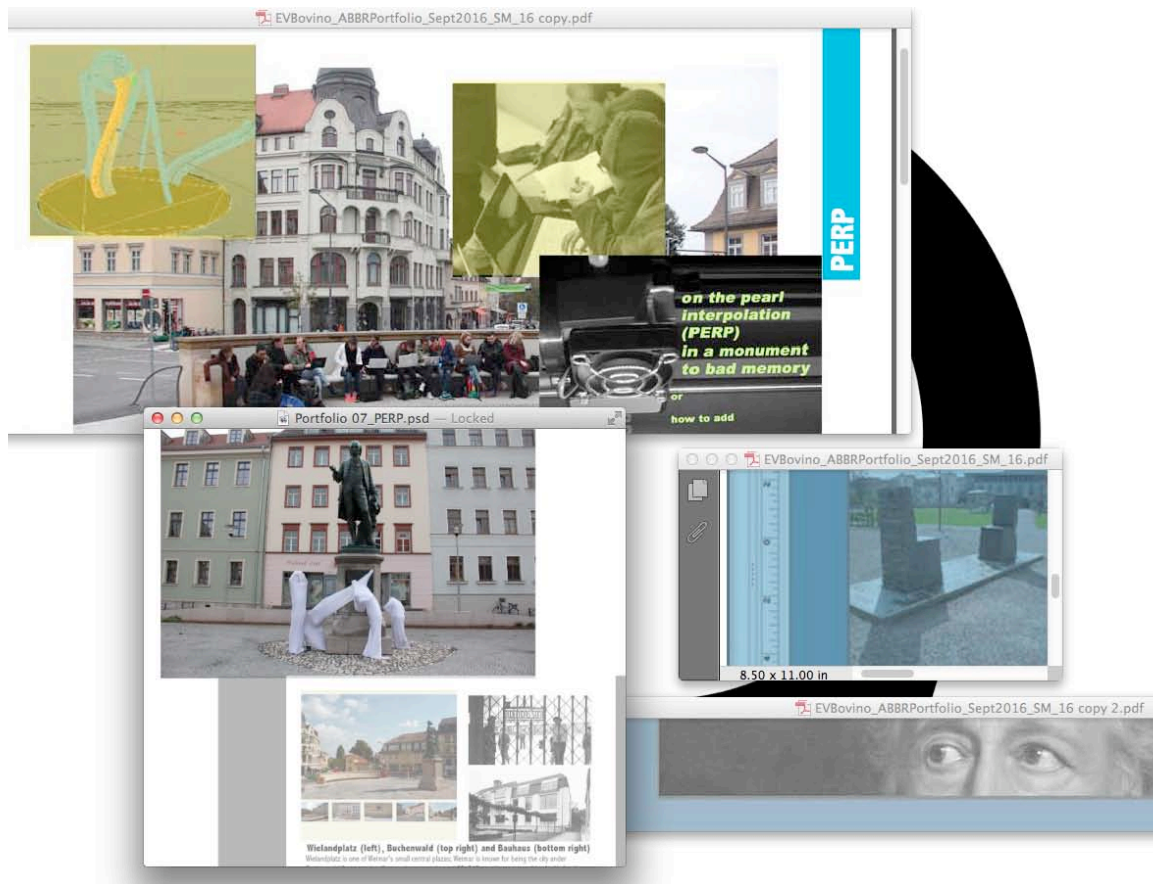


Figure 113 Screenshot configuration by the author: (right, middle) the *Hafiz-Goethe* monument in Weimar (source: photograph by the author); (top and bottom) a *PERP* movement-research workshop at the Bauhaus Universität-Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout around the central sculpture in Weimar's Wielandplatz (source: the author); (right, bottom) eyes of the Weimar poet, J.W. Goethe (source: Google Images). Image by the author.



Figure 114 Screenshot configuration by the author: (right) early 20th-century photograph of Bauhaus modernist Oskar Schlemmer's movement-research exercises (source: Google Images); (left) a *PERP* movement-research workshop at the Bauhaus Universität-Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout around the central sculpture in Weimar's Wielandplatz (source: the author); (right, bottom) eyes of the Weimar poet, J.W. Goethe (source: Google Images). Image by the author.

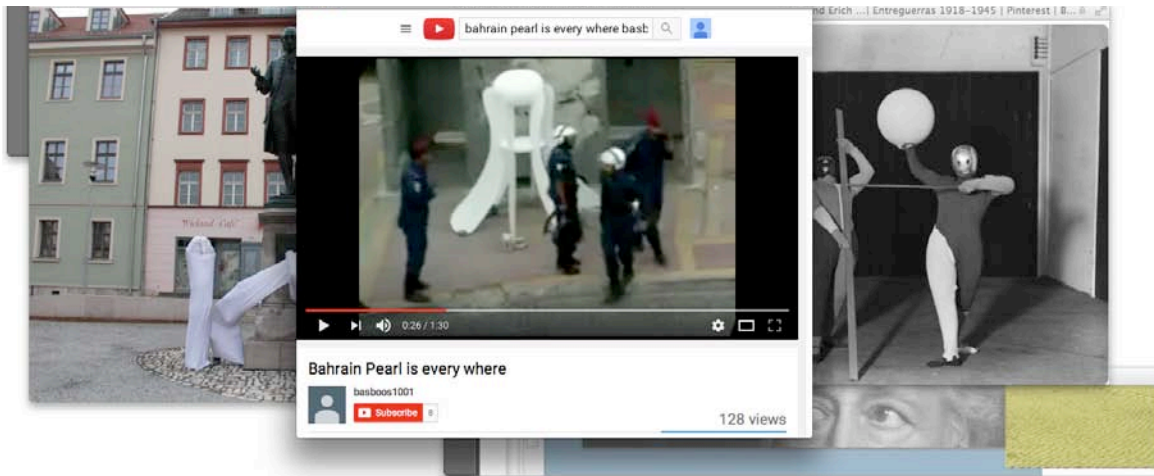


Figure 115 Screenshot configuration by the author: (left) a *PERP* movement-research workshop at the BauhausUniversität-Weimar in which participants inadvertently reproduced the image of the collapsing Pearl Roundabout around the central sculpture in Weimar's Wielandplatz (source: the author); (middle) the Youtube video post "Bahrain Pearl is everywhere," a montage of video about the Pearl Roundabout, including documentation of Pearl Roundabout replications and their dismantling by security forces (source: Basboos 1001 / Youtube); (right) early 20th-century photograph of Bauhaus modernist Oskar Schlemmer's movement-research exercises (source: Google Images); (right, bottom) eyes of the Weimar poet, J.W. Goethe (source: Google Images). Image by the author.

Just as participants had finally reached the point in the tutorial of adding physics to the strange spider-like quintaped configuration, and had begun animating it to collapse, they were interrupted. Two UCSD undergraduate students who were helping to lead the workshop recited a list of roundabout navigation rules and asked selected participants to use the rules to walk circles around the Wieland bronze at the center of Wielandplatz. The volunteer roundabout navigators were provided with white spandex tubes, and a man with a camera—a collaborating urbanist from the Bauhaus Universität— suggested various ways the tubes could be used. After approximately a half an hour, six people circling the monument found themselves pressed up around the Wieland sculpture as if driven by centripetal momentum. Each body sheathed in pearlescent white positioned itself up against the monument’s pedestal, some balanced in handstands, others on their feet.

The Weimar workshop was called *A Round About Roundabouts* (2015).⁵⁸ For the purposes of the workshop, the *PERP* project was adapted to employ historic Bauhaus modernist

⁵⁸ Emily Verla Bovino, *A Round About Roundabouts* (2015), Bauhaus Universität-Weimar, October 2015. The abstract provided to participants for the mini-lecture and workshop was the following: A Lecture on Roundabout Interfacing: The roundabout is an infrastructure-of-the-intersection that drivers have been told they should “learn to love”. It has been argued that roundabouts foster autonomy by emancipating motorists from automated off-on traffic control, yet anti-planning activists rant against the roundabout as signaling the “decline of the live-free-or-die state.” Roundabouts mark a problem-of-energy-in-the-middle caught in-between an ideological tension: a roundabout named Lulu is reported as a “monument to bad memory;” video of a “magic” roundabout (five mini-roundabouts around a central sixth) is circulated as a model of how theories in emergent behavior can be used to engineer vehicular traffic after flocking rules. In discussion of roundabouts there is a return to “modernism”: to counter negative associations with traffic circles and rotary systems, evasive action and circuitous reasoning, planners are encouraged to use the phrase “modern roundabout”; groups who call themselves Mods (for “Modernists”) regularly perform automotive “madness” at roundabouts, optimal for stunts they call “drifiting, burnouts, donuts and flames.” Are roundabouts queering intersections with “splitter islands” and “flared entrances”? Are circles that force drivers to yield as they enter junctions of straight lines, creating curves that unsettle the psychomotor memory of habitual orthogonality? Are roundabouts a mnemonic device reminding the inter-human motorist (between skin-and-bone and plastics-and-steel) that it has always been infra-human (not-quite-human)? The human as construct is nothing but the synthesis of all its functional apparatuses, whether internal or externalized organs, kidneys or cameras, smart phones or the immune system, gall bladders or roundabouts. This lecture is an introduction to the roundabout as human functional apparatus: as an interstice of infraspace between symbolic form and emotive formula, dynamic-constructive system and cooperative replication device. In a workshop session supplementary to the lecture, participants follow a

Oskar Schlemmer's movement-exercises (fig. 115, right), thus taking the phrase “meaningless, made-to-order modernism”—used by one reporter to describe the “Pearl Statue”⁵⁹—to another level. The movement of performance-participants in Wielandplatz was indeed “meaningless”⁶⁰ to any real-time on-lookers. The ephemeral monument to migrant worker, Riaz Ahmed who was killed in the Pearl Roundabout's demolition, could only be viewed for ‘meaning’ in Weimar's anti-migrant context if experienced as a Youtube video-post: it could only be seen as an embodiment of historical pseudomorphosis⁶¹—an epic struggle between stagnant Eurocentric vision (i.e., the bronzed fetishization of Wieland's poetic idealism) and the Arab Spring's “Copernican Revolution of the geopolitics of our imagination”⁶² (i.e., the writhing bodies of international students unconsciously trained to summon the ‘sails’ in Manama's Pearl Roundabout)—if experienced in juxtaposition with other images of Pearl Roundabout replications online. On the video-sharing platform, video documentation of the embodied monument in Weimar would ideally appear in an algorithmically-generated queue that played it after one of the video-posts that had inspired it: “Bahrain Pearl is Every Where” (Fig. 115, center).⁶³

training exercise in roundabout interfacing working with the rotating perspectives of Blender animation, the toolpath visualizations of Makerware drivers, and the mercurial temperament of Replicator printers.

Workshop Abstract: *The PERP Interpolation in a Monument to Bad Memory* (2014) is a training exercise in roundabout interfacing. It first circulated online as a Mobile Irony Valve contribution to the Gulf Labor Coalition protest of labor conditions at Frank Gehry's Abu Dhabi Guggenheim. It explores the accidental resemblance between Gehry's design for his Abu Dhabi mega-project and a moment in the collapse of the Pearl Roundabout monument in Bahrain. It is comprised of a short story written from ethnographic research online, a tutorial using Blender animation, Makerware software and the Replicator 3D printer, and video montage from materials gathered in youtube ethnography. It has since been re-released by Mobile Irony Valve productions in second edition with the assistance of aspiring artist, architect and planner Jane Kang (UCSD USP) and aspiring public health planner Harold de la Cruz (UCSD USP). Jane and Harold will lead participants through the *PERP Interpolation* exercise and will discuss the interfacing experiments they developed while training with it. The workshop requires no previous knowledge of Blender, Makerware or 3D printing.”

⁵⁹ Kennicott, “Bahrain's Pearl Statue is gone, but it remains an icon of democracy,” op. cit.

⁶⁰ Ibid.

⁶¹ The term “pseudomorphosis” was used by Erwin Panofsky to describe the incidence of accidental resemblance in art history. The phrase “historical pseudomorphosis” comes from German cultural historian and philosopher Oswald Spengler. See footnote 983.

⁶² Dabashi as quoted in Weizman, *The Roundabout Revolutions*, 10.

⁶³ basboos1001, “Bahrain Pearl is every where,” op. cit.

Without the mediation of the digital imagescape, however, meaning would go undetected: a replication must be seen within its replicatory chain for it to signify. As the Manama protest-sympathizer insisted in the *Guardian*'s report of the Pearl Roundabout destruction, "symbolism means nothing."⁶⁴ Precisely because meaning went undetected, and symbolism meant nothing, momentum was everything. Weimar could not refuse the engendering of its provincialization in *PERP*'s anti-monumental gesture of momentum, because it could not recognize it as such, it could only stand by and experience it: Bauhaus Universität participants felt compelled to participate though they had no interpretive or contextualizing information to inform their actions; onlookers felt compelled to stop and watch, though no one could explain what was happening. What was important in the exercise were not the human subjects who enacted it. The ideal audience was the city itself. The ideal vectors for the transmission of momentum were watchers and participants who were seeking meaning, but were denied the satisfaction of passive interpretation. Instead, they were given the pleasure of confusion and disorientation. Though watchers and participants were fundamental to the energetics of this art, it was plastic activism—art made for the city's absorption through fraught and frustrated human contemplation.

⁶⁴ Chulov, "Bahrain destroys Pearl Roundabout," op. cit.

Chapter Eight / Plastic Activism as Tactical Urbanism in Urban Scenography

In recent years, scholarship studying the performativity of architecture has contributed to a new field of urban studies called “urban scenography,”¹ or rather the design and use of the city with the purpose of affecting the social, aesthetic and kinaesthetic aspects of the environment. It has done so by evoking cultural historian Walter Benjamin’s “critical approach of thinking of the city as a *Schauplatz*.”² In the city-as-*Schauplatz* approach, the city is “literally a scene or theatre.” In architecture, this image of the city has informed the design of new spaces like the Berlin Jewish Museum (1999) (which architect Daniel Liebeskind calls a “space of encounter”)³ and the High Line Park in Manhattan’s Bowery district designed by the firm Diller Scofidio + Renfro.⁴

Like architecture, theatre studies defines urban scenography more conventionally as “the occupation of formal and informal performing spaces” in which “the building becomes the setting [...] [of] instant history [...] that will evermore mark crucial historic events and give focus to new aspirations [...] between the space and the participants.”⁵ Within this conventional definition of the building-as-setting in the city-as-theatre, urban scenography becomes the practice that emphasizes the “combustible, riotous and often dangerous” in theatre, what could be called a plastic challenge—the “challenge [...] to carve a magical space out of unpromising material, or to release a space by excavating and liberating close or unused areas and making them habitable for both performers and spectators.”⁶

¹ *Performance and the City*, ed. Kim Solga, S. Orr and D.J. Hopkins (New York, NY: Palgrave Macmillan, 2011), 225.

² Klaus van den Berg, “Staging a Vanished Community: Daniel Liebeskind’s Scenography in the Berlin Jewish Museum.” *Performance and the City*, ed. Kim Solga, S. Orr and D.J. Hopkins (New York, NY: Palgrave Macmillan, 2011), 225.

³ Van den Berg, “Staging a Vanished Community,” 225.

⁴ *Diller Scofidio + Renfro: Reimagining Lincoln Center and the High Line*, directed by Muffie Dunn and Tom Piper. (2012. New York, NY: Checkerboard Film Foundation, 2012), DVD.

⁵ Pamela Howard, *What is Scenography?* 10

⁶ *Ibid*, 8-9.

There is also a broader understanding of urban scenography, in which the “city as *Schauplatz*” is less tied to monumental building projects and conventional theatrical approaches, and is approached as “a physical form of memory that draws past experiences into the present moment, where they acquire meaning in relationship to each other and to current perceptions.”⁷ Through Benjamin’s understanding of the city as “constellation,” this understanding of urban scenography renders it “a “pathology of space” that “restores and constructs community,” with the urban scenographer playing the part of “Benjaminian physiognomist, someone who not only reads the city productively but also constructs a space that includes historical relations by treating it as a narrative that must be traversed by the visitor.”⁸

In-between the perspectives on urban scenography that approach it from the performativity of architecture, and those interested in its potentially stimulating combustibility of scene-setting in theatre, is the latter approach, which tends to base itself in tactical urbanism⁹ and art-activism.¹⁰ Art-activism can take on a variety of forms. At times, it is defined as a choice “to abandon [...] studio practice in favor of more direct political action,” with “direct political action” being conceived as action that must necessarily happen in public spaces like streets and plazas.¹¹ At other times, art-activism is understood to refer to institutional critique and the way that artists use “strategic leverage” over cultural institutions that are complicit in exploitative practices, to protest those same practices.¹² In this case, activism is not contingent upon abandoning studio practice, as studio practice (if an artist engages in it) cannot only be just as directly political as protest action, but can even involve protest action.

⁷ Van den Berg, “Staging a Vanished Community,” 225.

⁸ *Ibid.*, 228.

⁹ *Uneven Growth: Tactical Urbanisms for Expanding Megacities*, op. cit. *Ideas City*, op. cit.

¹⁰ Guy Mannes-Abbott, “The Emergent Wave of Artworld Activism” in *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 86-99 and Gregory Sholette, “Art out of Joint: Artists’ Activism Before and After the Cultural Turn,” *The Gulf: High Culture/Hard Labor*, ed. Andrew Ross (for Gulf Labor) (New York, NY: OR Books, 2015), 64-85.

¹¹ Sholette, “Art out of Joint,” 64,

¹² Mannes-Abbot, “The Emergent Wave of Artworld Activism,” 86.

As previously discussed, tactical urbanisms take an approach to studying and working, forming and deforming structures, social mores, and spatial organization in cities, that is informed by philosopher Michel de Certeau's conceptual framework of tactics and strategies.¹³ In this approach, the Situationist concept of "unitary urbanism" is also central: first proposed in the 1950s and 1960s by the artist-philosophers of the Situationist International, "unitary urbanism" "aim[ed] to form a unitary human milieu in which separation such as work/leisure or public/private will finally be dissolved."¹⁴ For example, Situationist philosopher Guy Debord asserted "the mistake made by all urbanists is to consider the private automobile...essentially as a means of transportation": unitary urbanism "replace[d] travel as an adjunct to work with travel as pleasure."¹⁵ Unitary urbanism is now proposed by scholars interested in urban scenography as a way of conceptualizing interactions between "city space" and "citizens" in which the city is treated as "a configuration of obstacles and their absence" that "influence [...] routes and [...] rhythms."¹⁶ In this context, Situationist "unitary urbanism" is understood to be a practice of "urban interventionism" based on the idea of encouraging "citizens" to take an active part in "reinterpreting urban space" by "constructing situations" that "disturb and activate."¹⁷ In this paradigm, "citizens" have two options in their interactions with urban spaces: to "be either passive or active 'interpreters' of urban space."¹⁸ They "can passively follow spatial instructions or they can start developing alternative interpretations of public spaces, turning from 'blind

¹³ De Certeau, *The Practice of Everyday Life*, Vol. 1, 37-38.

¹⁴ Guy Debord "Positions situationnistes sur la circulation (1959)" as quoted in Simon Sadler, *The Situationist City* (Cambridge, MA: MIT Press, 1998), 25.

¹⁵ Debord "Positions situationnistes sur la circulation (1959)" as quoted in Sadler, *The Situationist City*, 25.

¹⁶ Jekaterina Lavrinec, "Urban Scenography: Emotional and Bodily Experience." *LIMES: Borderland Studies*. Volume 6, Issue 1, (2013). 21-22.

¹⁷ Lavrinec, "Urban Scenography," 22. The phrase "constructing situations" is quoted in Lavrinec's "Urban Scenography" from Situationist International icon Guy Debord's 1958 essay, "Report on Constructing Situations and on the International Situationist Tendency's Conditions of Organization and Action, in *Situationist International Anthology*. Trans. Ken Knabb. Berkeley, CA: Bureau of Public Secrets, 1981 as republished on *Bureau of Public Secrets*. *Bopsecrets.org*. N.d. Accessed September 2015. <http://www.bopsecrets.org/SI/report.htm>

¹⁸ *Ibid.*, 22.

walkers' (de Certeau's term) to urban activists, who reveal new possibilities of urban space by practicing alternative activities [...], by arranging art interventions and by initiating new urban rituals.”¹⁹

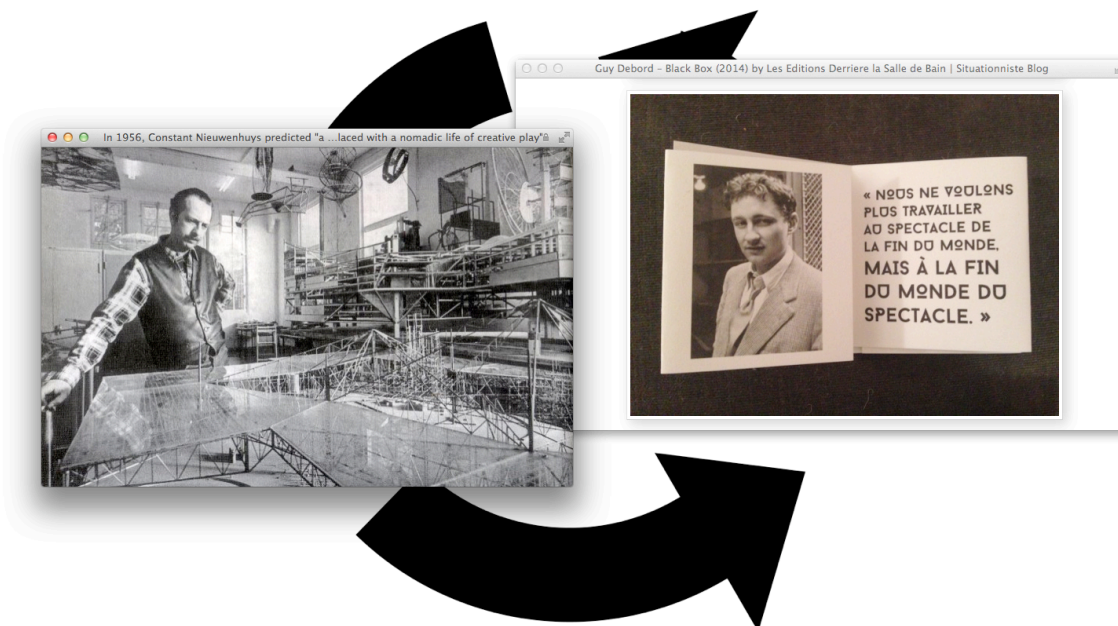


Figure 116 Screenshot configuration by the author: (left) the Situationist artist and architect Constant Nieuwenhuys in his studio (source: Google Images); (right) a recent publication with an introduction featuring a photograph of the Situationist philosopher Guy Debord alongside the quote, “We don’t want to work anymore for the spectacle of the end of the world, but for the end of the world of spectacle.” (source: Les Editions Derriere la Salle de Bain). Image by the author.

While the latter perspective does the important work of differentiating art interventions from architecture and theatre in urban scenography, it unfortunately flattens the history of the Situationist city by portraying a unified vision of unitary urbanism. In this flattening, which privileges the agency of the “citizen,” the animated character of the city is neglected. This analysis of the urban scenography as an “analytical tool”²⁰ misses the fact that the varied approaches to unitary urbanism among the Situationists created debates and even fractures within the group. This fracturing is important because it reveals the orientation of the Situationists’

¹⁹ Ibid.

²⁰ Lavrinec, “Urban Scenography,” 21.

various members, some of whom were object-oriented, others of whom were architecture or environment-oriented, others of whom were concept-oriented, and still others of whom remained committed humanists, though of an individualist-libertarian variety. Exemplary of this diversity is the difference between two conceptions of unitary urbanism: for artist and visionary urban planner Constant Nieuwenhuys, “in the absence of conditions for revolution, an evolutionary struggle against suppressive material conditions was better than no struggle at all;” meanwhile, for the philosopher, Debord, this position was “naïve reformism that failed to comprehend the “recuperative” capacities of capitalism.”²¹ Thus, while Constant proposed projects that looked to find “extreme solutions” to “purely functional problems of town planning, traffic and housing,” Debord and others “demanded that unitary urbanism be understood as ‘not a doctrine of urbanism but a critique of urbanism’” (fig. 116).²²

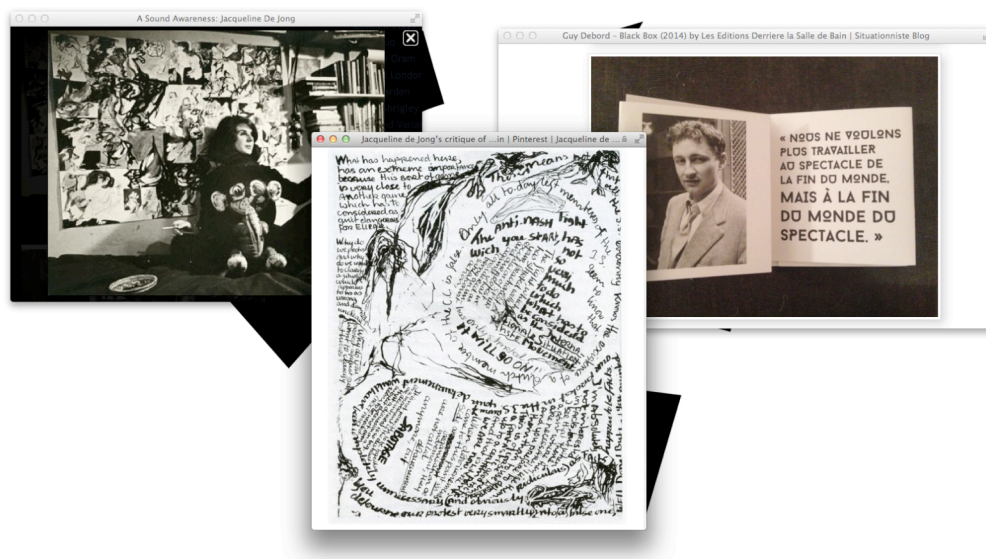


Figure 117 Screenshot configuration by the author: (left) the Situationist artist Jacqueline de Jong wearing her drawings in front of a panel of other configured drawings (source: Google Images); (middle) Jong’s *Critique* of Guy Debord written in spiralling loops and published in the magazine of the Situationist International before she ‘resigned’ from the movement; (right) a recent publication with an introduction featuring a photograph of the Situationist philosopher Guy Debord alongside the quote, “We don’t want to work anymore for the spectacle of the end of the world, but for the end of the world of spectacle.” (source: Les Editions Derriere la Salle de Bain). Image by the author.

²¹ Sadler, *The Situationist City*, 25.

²² Ibid.

The new scholarship on urban scenography also neglects the Situationist International dissent over what the Situationists famously called “*détournement*”—an “active attitude toward the everyday [...] using diversion, rerouting, distortion, etc.”²³ (self-admittedly not the Situationists’ “own invention,” but “a generally widespread practice” which they proposed “to systematize”²⁴). In the Situationist city, “*détournement*” was generally considered “more a matter of colonizing the material fabric of history than of creating new structures.”²⁵ *Détournement*, however, became an especially generative point of contention between the iconic Debord and artist Jacqueline de Jong, one of the few women who became part of the majority male Situationist International.²⁶ De Jong challenged the “absolutism” of Debord, who had always doubted the value of artistic practice in the movement, and whose position became more cynical as the years passed: art, as he explained, could always “be co-opted ... and used against us.”²⁷ After resigning from the Situationist International, de Jong founded a “2nd Situationist International” and attempted to push forward a “Situationist programme without adhering to [what she called] “old-fashioned, classical and ultra-rigid patterns of organization” [she asserted were] preferred by Debord.”²⁸ The magazine she edited to promote this new program “took the form of a winding labyrinth, the text spiraling and arcing around the pages as if in imitation of

²³ Lavrinec, “Urban Scenography,” 26. Lavrinec uses the term “detournement,” which I have changed to the original French used by Situationist philosopher Guy Debord and artist Gil J. Wolman in their “User’s Guide”: *détournement*.

²⁴ Guy Debord and Gil J. Wolman, “A User’s Guide to *Détournement* (1956)” as republished from *Situationist International Anthology*, trans. Ken Knabb (Berkeley, CA: Bureau of Public Secrets, 1981) as republished on *Bureau of Public Secrets. Bopsecrets.org*. N.d. Accessed on September 3, 2016. <http://www.bopsecrets.org/SI/detourn.htm>

²⁵ Sadler, *The Situationist City*, 153.

²⁶ Some scholars assert that rather than challenge sexism, the Situationist International “seemed to reengender the misogyny of the[ir fore-runners the] surrealists.” Charity Scribner, “Buildings on Fire: The Situationist International and the Red Army Faction,” *After the Red Army Faction: Gender, Culture and Militancy* (New York, NY: Columbia University Press, 2015), 73-94, n47.

²⁷ Robert Adlington, *Composing Dissent: Avant-garde Music in 1960s Amsterdam* (New York, NY: Oxford University Press, 2013) 39.

²⁸ Jacqueline de Jong as quoted in Adlington, *Composing Dissent*, 39.

[Situationism's] own writhing turmoil."²⁹ Issues of the journal took topological themes like "the knot, the labyrinth and the ring" (fig. 117).³⁰

What is missing from important recent work that proposes "urban scenography" as an "analytical tool"³¹ is a similar kind of conceptual rounding-off capable of breaking the ultra-rigid segmentation of urban space into buildings, bodies and empty space, with the knots, labyrinths and rings of plastic activism. New urban scenography has defined itself as an "analytical tool" that "reveals the interconnections between spatial configurations and everyday scenarios that take place in urban settings."³² It proclaims that it sees city space as "actuated by the ensemble of movements deployed within it."³³ Urban scenography conceived not as an analytical tool but as a plastic tool finds a different middle ground between the body and the city, between tactics and strategies, between the activist vandal and the infiltrating transgressor. It commands a middle voice in an image of the body as neither "passive" nor "active 'interpreter' of urban space."³⁴ It is a conceptual rounding-off of the notion of "space [...] as the effect produced by the operations that orient it, situate it, temporalize it and make it function,"³⁵ and rather than focus on bodies as "actuating"³⁶ city space, it sees the body as a "vexed relation"³⁷ that takes shape and gives shape amidst shape-shifting urban spaces.

Rounding-Off: From Viennese Actionism to Manama's Plastic Activism

Debord's practice of creating "situations" in films, psychogeographical maps and writings³⁸ has been foundational for tactical urbanist experiments with architecture, theatre,

²⁹ Ibid.

³⁰ Ibid.

³¹ Lavrinec, "Urban Scenography," 21.

³² Ibid.

³³ De Certeau as quoted in Lavrinec, "Urban Scenography," 22.

³⁴ Lavrinec, "Urban Scenography," 22.

³⁵ De Certeau as quoted in Lavrinec, "Urban Scenography," 22.

³⁶ De Certeau as quoted in Lavrinec, "Urban Scenography," 22.

³⁷ Butler and Malabou, "You Be My Body For Me," 611

³⁸ Sadler, *The Situationist City*, 11.

activism and urban scenography.³⁹ The perspective on urban scenography as plastic tool that is outlined in the present essay is informed by Debord's work and does not contest his important influence. His practice, however, is overexposed, and as such, would benefit from more dialogue with other approaches to "construct[ing] situations."⁴⁰ Turning to the practices of women in this context makes sense since, in large part, their practices have been historically underexposed. In Situationism, the often overlooked challenge to Debord's model of "détournment" by painter, editor and writer De Jong's is active expressionist resistance of Situationist dogma. This resistance can be paired in an interesting polarity with the work of another Situationist woman, poet Alice Becker-Ho, and her Situationist withdrawal into "secretive forms and practices," that is, into a definition of the "situation" as "a ruse or a trick" (fig. 119).⁴¹ The ruse and the trick are "marginal and excluded [...] practices" not "defined negatively as *resistance*," but that are instead defined positively by "their own coherence."⁴² For an art that dialogues with urban space in the middle of these stances on the "situation"—between expressionist resistance and secretive ruse—it is necessary to jump forward ten years, moving from Situationist Paris and Scandinavia in the 1950s and 1960s, to 1970s Actionist Vienna, and Valie Export's photograph *Rounding Off* (*Abrundung I*, 1976) (fig. 120).

³⁹ *Uneven Growth: Tactical Urbanisms for Expanding Megacities*, Issues in Contemporary Architecture Series, curated by Pedro Gadanho with Phoebe Springstubb, Department of Architecture and Design, Museum of Modern Art, New York, November 22, 2014 to May 10, 2015. *Ideas City*, a major collaborative initiative founded in 2011, directed by Joseph Grima, New Museum, New York. <http://www.newmuseum.org/ideascity/about>.

⁴⁰ Sadler, *The Situationist City*, 105.

⁴¹ McKenzie Wark, *The Spectacle of Disintegration: Situationist Passages Out of the Twentieth* (New York, NY: Verso Books, 2013), 165.

⁴² *Ibid.*



Figure 118 Screenshot configuration by the author: (left) work by Situationist artist Jacqueline de Jong who resigned from the Situationist International after writing a critique of fellow Situationist Guy Debord (source: Google Images); (right) Guy Debord (left) and writer Alice Becker-Ho (right), author of *The Essence of Jargon*, which proposes a theory of marginalized practices that advocates for defining them by their own “coherence” rather than as modes of “resistance.” (source: Full Stop). Image by the author.

In 2003, *Rounding-Off* found its way out of the warehouse of the collection of the Generali Foundation—the cultural foundation of the massive Italian insurance company Assicurazioni Generali—and into the travelling exhibition *Occupying Space*.⁴³ The black-and-white photograph (fig. 119) was originally conceived by Export as part of a series called *Body Configurations (Korperkonfigurationen)* and was taken by her collaborator Hermann Hendrich. In the photograph, Export lies on her side in a Vienna boulevard: the paved city-skin under her body is a patchwork of grafts, a cobblestone surface replaced over time with swatches of asphalt

⁴³ *Occupying Space. Generali Foundation Collection*, a curated display of works from the collection of the Generali Foundation, Vienna. A travelling exhibition hosted at Haus der Kunst, Munich, Germany, March 9, 2003 to May 16, 2005; Museum of Contemporary Art, Zagreb, 28 October to 9 December 2005; Witte de With, TENT. Centre for Visual Art and the Netherlands fotomuseum, Rotterdam, July 8 to August 28, 2005. The exhibitions included Valie Export’s *Abrundung* (Rounding off, 1976) from the *Body Configurations* series, 1972 – 1982.

that had gradually become the prevalent surface. Export extends her body into a back-bend that follows the edge of a rounded street corner. Her back is to the camera and her curve is concave: it is as if her body has become a fourth lens for a fourth dimension of vision that works through the eye of the viewer, the eye of Hendrich, the camera of Hendrich, and the body of Export. Her thin pale arms stretch over her head simultaneously contrasting with, and resembling, the thick white curb around the street corner. Her pliable body clothed in cuffed loose jeans and a cotton t-shirt contrasts with the thick rigid base of the dark metal lamppost on the curb platform; at the same time, her body also appears like a softer version of the lamppost collapsed in front of it. Five strips of what appears to be gaffers tape—tape used in lighting design and staging for theatre and cinema—extend over cracks in the stone sidewalk from the back of Export's heels, knees, waist, elbows and wrists. All five taped lines converge at the base of the lamppost at the center of the curved curb.

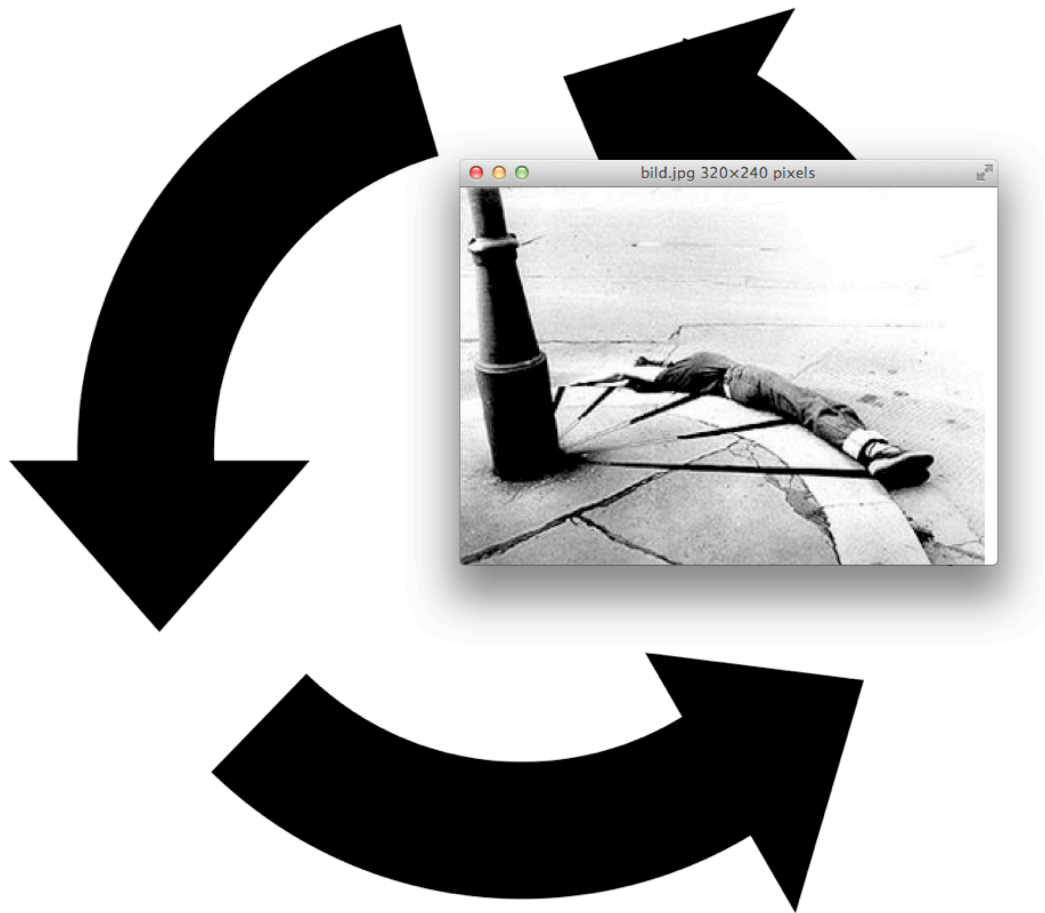


Figure 119 Screenshot configuration by the author: (left, background) the standard icon for a roundabout; (right) Valie Export's *Abrundung* (Rounding-off, 1976) from the *Körper-Konfigurationen series* (Body Configurations, 1972-1982) (source: Medienkunstnetz.de). Image by the author.



Figure 120 Screenshot configuration by the author: (left) Valie Export and Hermann Hendrich's *Stadt: Visuelle Strukturen* (City: Visual Structures) (source: achtung.photography); (left, background) the standard icon for a roundabout; (right) Valie Export's *Abrundung* (Rounding-off, 1976) from the *Körper-Konfigurationen series* (Body Configurations, 1972-1982) (source: Medienkunstnetz.de). Image by the author.

Export had also worked with Hendrich on an experimental collection of photo-essays on the body, photography and urban space published two years earlier titled *City: Visual Structures* (*Stadt: Visuelle Strukturen* 1973) (Fig. 120).⁴⁴ 'Exhumed' for display, the performance photograph *Rounding-Off* appeared before the public in 2003 like a somatic symptom on the skin of the city. Why was it that suddenly at the turn of the new millennium the "visual structure"⁴⁵ of "rounding off," seemed to be self-replicating across urban design, social engineering, environmental psychology and public display? Indeed, the same year *Rounding Off* emerged from the Generali Foundation warehouse for exhibition, a report circulated among engineers in the

⁴⁴ Valie Export and Hermann Hendrich, *Stadt: Visuelle Strukturen* (Wien: Jugend& Volk, 1973).

⁴⁵ Export and Hendrich, *Stadt: Visuelle Strukturen*, op. cit.

National Academy of Sciences declaring “a transportation revolution for urban areas” was underway.⁴⁶ Evidence for the “revolution” could be found in what the report called “rapid infiltration” of the “United States highway transportation marketplace” by “roundabouts.”⁴⁷ Increased implementation of the circular traffic junction known as the “roundabout” was explained as a response to “the needs of dealing with the interdependence of land use and transportation.”⁴⁸ It appeared that the more attention was given to the connections between how land was being used and how bodies were crossing it, the more “roundabout centered transportation designs” tended to be considered a “yardstick” for “environmental [...] benefit” and best practices in urban planning.⁴⁹

⁴⁶ T. Redington, “The Rapid Infiltration of the Canadian and United States Highway Transportation Marketplace by Roundabouts as a Transportation Revolution for Urban Areas.” *Crossing Borders: Travel, Trade, Security and Communication. Canadian Transportation Research Forum, Proceedings of the 38th Annual Conference*. (Saskatoon, Canada: Canadian Transportation Research Forum, 2003). For the abstract, see the National Academy of Sciences website: <https://trid.trb.org/view.aspx?id=688491>

⁴⁷ Redington, “The Rapid Infiltration,” op. cit.

⁴⁸ Ibid.

⁴⁹ Ibid.

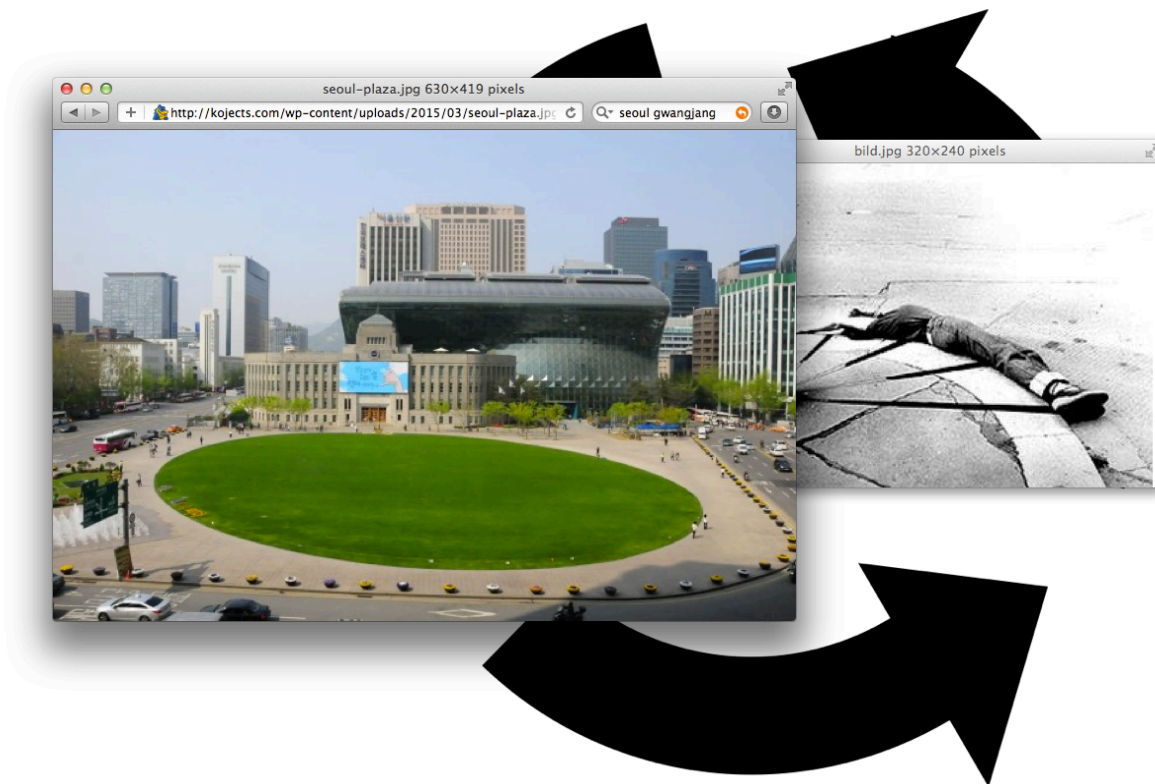


Figure 121 Screenshot configuration by the author: (left) contemporary photograph of the circular grass field in Seoul Gwangjang (Seoul Plaza) (source: kojjects.com); (left, background) the standard icon for a roundabout; (right) Valie Export's *Abrundung* (Rounding-off, 1976) from the *Körper-Konfigurationen series* (Body Configurations, 1972-1982) (source: Medienkunstnetz.de). Image by the author.

Meanwhile, across the Pacific, in the South Korean capital of Seoul, planning had begun for a circular grass field that would come to be seen as the principal defining element of the Seoul Plaza (*Seoul Gwangjang*) (fig. 121, left). The plaza was to be part of a formally designated public square in a city notorious for lacking open public spaces.⁵⁰ The monumental elliptical field inserted in the center of what otherwise would have been a rectangular plaza in front of the Seoul City Hall, compelled designers to round off curb corners.⁵¹ This rounding off of the city block was significant. Not only did it render the plaza roundabout-like, but it also softened the imposing corners of one of Seoul's characteristic mega-blocks. These mega-blocks have been associated with the 'round-about' 'colonization' of Korean urban space, in which Haussman's

⁵⁰ Hong Kal, "Seoul Spectacle: The City Hall, The Plaza and the Public." *City Halls and Civic Materialism: Towards a Global History of Urban Public Space* (New York: Routledge, 2014), 276 – 295.

⁵¹ Kal, "Seoul Spectacle," 276-295.

model of large boulevards, massive city blocks and recreation parks, was brought from mid 19th-century France to mid 20th-century Korea through Japanese colonial planning.⁵² At the new Seoul Plaza opened in 2004, traffic looped swiftly around the rounded-off square with roundabout-like fluidity, no longer halting in congested throngs at pointed street corners. The design seemed intended to make a space of leisure and recreation for sun-bathers, frisbee-throwers and badminton enthusiasts out of what would otherwise be a place for protest and civic gatherings. The goal seemed to be to keep everything moving.

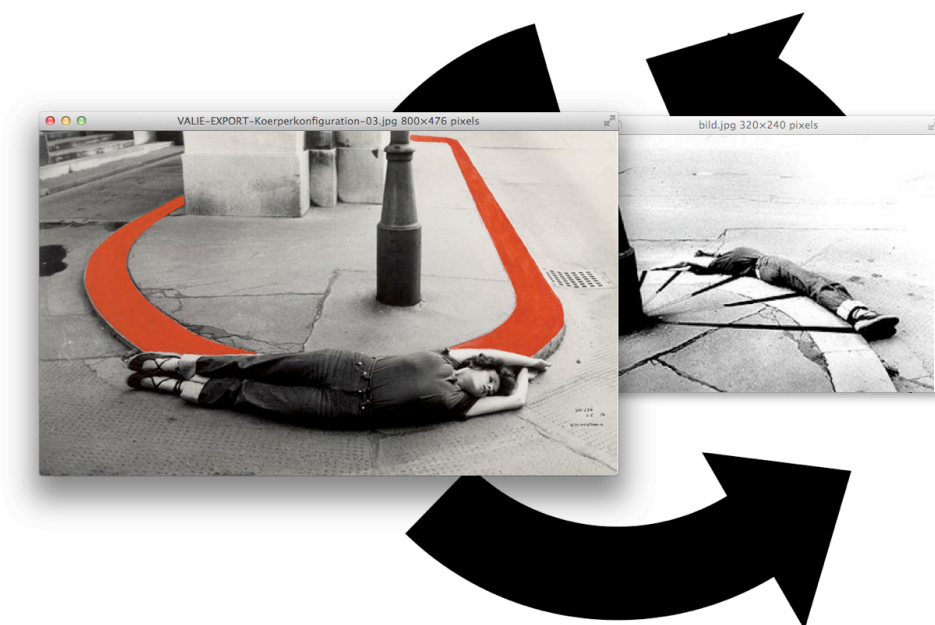


Figure 122 Screenshot configuration by the author: (left) Valie Export's, *Encirclement* from *Body Configurations* (1972-1982) (source: Museum of Modern Art, New York); (left, background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author.

Plans for the elliptical grass field at Seoul Plaza (fig. 121, left) were being worked out by urban designers and city officials⁵³ while, across the Pacific, reports on “revolution” wrought by “rapid infiltration” of roundabouts reached U.S. National Academy of Sciences members ;⁵⁴

⁵² Ibid., 277-278.

⁵³ Ibid., 276-295.

⁵⁴ Redington, “The Rapid Infiltration,” op. cit.

meanwhile, across the Atlantic, Vienna had exported display of Valie Export's photograph *Rounding Off* to Munich, Zagreb and Rotterdam (fig. 121, right).⁵⁵ Whereas in other prints from the series *Body Configurations*, Export had intervened on photographs with painted lines inscribing triangles, squares, rectangles and curves onto the print's surface (fig. 122), in this instance, it appears the lines are a more immediate intervention on the scene, actually taped onto the curb itself.⁵⁶ It is significant that the loci of the body from which the lines of tape extend are all points of tension: the Achilles tendon that points and flexes the foot, the knee that bends and extends the leg, the waist that allows the top and the bottom of the body to twist, the elbows that bend and extend the arm, and the wrist that rotates the forearm and hand. All of these points of tension are also points that can 'round off' the verticality of the human body standing erect in its most commanding stance of militarized fixity. The verticality that Export's body breaks is the same kind of stance urban historians have used to describe the "uniform monumentality" of the baroque planning style that the Hausmanization of Paris (and subsequently, many other cities) shared with Vienna: "its houses stand at attention in rank and file, according to size and facing front; they wear uniforms and are shiny from head to toe like soldiers on parade."⁵⁷

⁵⁵ *Occupying Space. Generali Foundation Collection*, op. cit.

⁵⁶ Valie Export, *Abrundung (Rounding Off)*, 1976), photograph by Hermann Hendrich from the series *Körperkonfigurationen* (Body Configurations), Generali Foundation, Vienna.

⁵⁷ Johannes Willms, *Paris, Capital of Europe: From the Revolution to the Belle Epoque* (New York, NY: Holmes & Meier, 1997), 391.

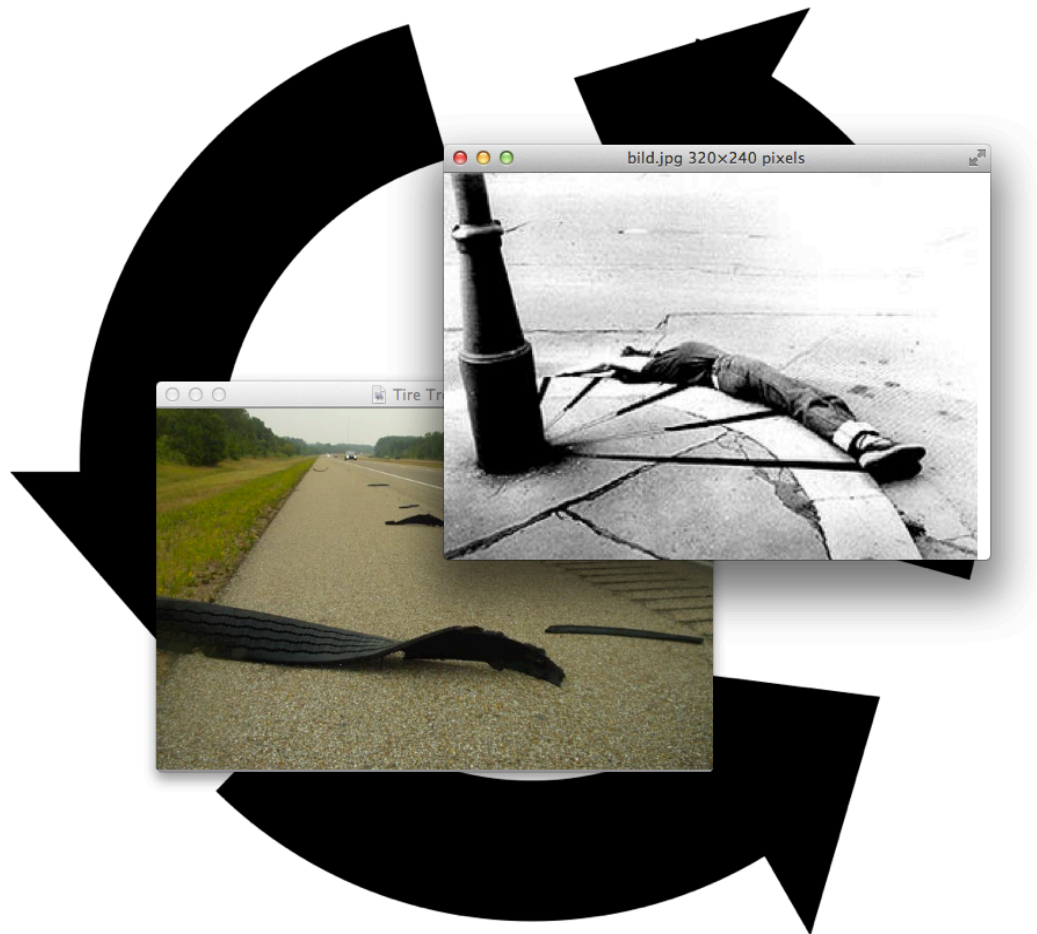


Figure 123 Screenshot configuration by the author: (left) blown-out rubber tire treads on a highway (source: Google Images); (left, background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author.

In *Rounding Off*, the lines that extend from tension-points in Export's body also resemble the spokes of a wheel. This plastic analogy with the wheel associates the body with a metonym of the street and a synecdoche for the fluid rush of vehicular traffic. Export's body is a fissure of flesh amid stone and cement cracks, between the horizontality and verticality in the street and its lamppost – a body between the viscoelastic slug pulling itself along the city surface, and the

rubber tread separated from a tire by a combination of vehicle overheating, overloading and improper pressure (fig. 123).

The upper right hand corner of Hendrich's photograph of Export is overexposed, as though bleached out from the glare of an early morning sun beating down from behind the camera. At the same time, however, the environment in the photograph feels cool and odorless; the viewer imagines Export's skin bristling in the cold of late autumn in Vienna. There is no passing traffic. The city is a silent sepulchre. However, the oblique angle from which Hendrich takes the photograph animates the frame. The angle combines with the sweeping curve in Export's body to make perceptible an invisible undercurrent of vibrations present in the space. Hendrich's document of Export's urban 'levitation' is 20th-century conceptual photography with a 19th-century occultist bent: it is Spirit photography that reveals a 'ghost' (fig. 124). This 'ghost' is the undercurrent of vibrations in the space—the phantasmic 'plastic' in urban space that is invisible to direct sight, but possible to perceive in configurations among bodies, cameras and urban spaces like Export's photograph and the replications of the Pearl Roundabout that proliferated in 2011.



Figure 124 Screenshot configuration by the author: (left) spirit photography featured in the Metropolitan Museum of Art exhibition, *The Perfect Medium: Photography and the Occult* (2005) (source: Metropolitan Museum of Art); (background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author.



Figure 125 Screenshot configuration by the author: (left) Rudolf Schwarzkogler's 3. *Aktion* (3rd Action, 1965) (source: Artnet); (background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author.

In Viennese Actionism, performance actions were aggressive manipulations of the body that experimented with violent social and religious transgression in repressive 1960s Austria.⁵⁸ From this perspective, Export's work usually tends to be seen as Actionism-‘light’: a ‘diet’ version of the male canon of Actionism. In comparison with this male canon, Export's ‘woman’s work’ never seems to go to the blood-and-guts lengths of actions by artists like Rudolf

⁵⁸ For more on Viennese Actionism, see Hubert Klocker, *Vienna Actionism: Art and Upheaval in 1960s’ Vienna* (New York: DAP Publishers, 2012).

Schwarzkogler, mythologized for allegedly castrating himself during a performance (fig. 125).⁵⁹ But, when interviewed about Actionism in 1982, Export described her work as “influenced not so much by Actionism itself, but by *the whole movement in the city* [my emphasis].” In the interview, Export clarified that, with the phrase “movement in the city,” she was referring to all the “scandals” and “actions” by artists against the Viennese “*politique*”; however, it could also be said that Export’s photographed actions, her 16mm-film works and what she called her “expanded cinema,” responded in a much more subtle way than other Actionist “scandals” and “actions” to another “movement in the city.”⁶⁰ This “movement in the city” is the movement that should be imagined tickling the city-skins of brick, mortar, concrete and asphalt into whatever their own material equivalent of gooseflesh might be—a movement pulsating through channels of urban space to its own distinct life rhythms. This movement is, in part, somaticized in the motion of bodies, but cannot be reduced to their expression or actuation of it. The city is not only a “configuration of obstacles and their absence [...] influenc[ing] the routes and rhythms”⁶¹ of bodies: it is not empty spaces activated by bodies, rather it has its own kinesthetic system.

In studies of urban sensescapes, it is considered important to acknowledge that human and animal bodies navigating the city each carry within them their own sense of proprioception. Proprioception “enables a body to experience ‘from within’ its borders, to change the position of its limbs without visual reference, and to evaluate the force that is required in order to perform a movement.”⁶² In proprioception, the principle value is usually balance. Proprioception is the body’s ability to achieve equilibrium within itself and its surroundings. It is also generally recognized that the “kinaesthetic impressions, the thermal sense and ‘somatic’ feelings”⁶³ of

⁵⁹ Kristine Stiles, *Concerning Consequences: Studies in Art, Destruction and Trauma* (Chicago: University of Chicago Press, 2016), 281.

⁶⁰ Export in Gary Indiana, “Valie Export,” op.cit.

⁶¹ Lavrinec, “Urban Scenography,” 21-22.

⁶² Madalina Diaconu, “Matter, Movement, Memory: Footnotes to an Urban Tactile Design,” in *Senses and the City: An Interdisciplinary Approach to Urban Sensescapes*. (Wien, AU: Lit, 2011), 14.

⁶³ Diaconu, “Matter, Movement, Memory,” 14.

proprioception are collectively shared by bodies in their interactions with one another. Does asserting that the city has its own kinesthetic system make an animist “assumption about the existence of a ‘soul’ of the city distinct from its inhabitants”?⁶⁴ If so, writing on urban sensescapas has warned against this.

Claiming the city has its own sense of proprioception—its own experience of itself “from within” its “borders,”⁶⁵ its own capacity to affect change in its elements, its own ability to evaluate the forces required for movement whether social, economic, political, cultural or topographical—is not to proclaim the existence of a “soul” of the city,⁶⁶ but to insist on plastic sense in each city. It is this plastic sense in cities that manifested in the rounding-off that appeared to infect space globally in the early 2000s when roundabouts infiltrated the U.S. transportation market; when an elliptical grass field rounded off a major Korean civic square; when Valie Export’s *Rounding-Off* emerged from a foundation warehouse—the latter, a ghostly return that split a crevice in the “dead place” of Vienna,⁶⁷ where far-right populism was in the process of reasserting itself in Austria’s conservative coalition government.

In the study of urbanism, two types of organizing structures usually define cultural differences between cities. These structures have been referred to as the “planned or designed or ‘created,’” and the “spontaneous, also called ‘grown,’ ‘chance-grown,’ ‘generated’ (as against ‘imposed’) or [...] geomorphic;”⁶⁸ more recently, they have been rethought in relation to the organizational processes that created or generated them, and thus, as structures resulting from either “hierarchies of command and control” or “self-organizing systems.”⁶⁹ Within this binary framework it is stressed that what matters most is not “the opposition of one to the other,” but

⁶⁴ Ibid., 15.

⁶⁵ Ibid., 14

⁶⁶ Ibid., 15.

⁶⁷ Valie Export in Gary Indiana, “Valie Export,” op.cit.

⁶⁸ Spiro Kostof, *The City Shaped: Urban Patterns and Meanings Through History* (London, UK: Thames and Hudson, 1991), 29-34.

⁶⁹ Manuel de Landa, “The Nonlinear Development of Cities.” *Eco-Tec: Architecture of the In-Between*, ed. Amerigo Marras (New York, NY: Princeton Architectural Press, 1999), 25.

degree, or rather, the determination of which structure “predominates.”⁷⁰ If “command and control” predominates then “homogeneous structures prevail” and “alien (heterogeneous) elements are weeded out.”⁷¹ If “self-organizing processes” predominate, then “a more heterogeneous mixture of elements, an articulation of diversity prevails.”⁷²

Art objects are neoplasms, abnormal growths that seem to thrive best in ecosystems where self-organizing processes prevail; however, the art object as it is understood in contemporary culture – as a reified object for symbolic display in institutional structures designed to distance the object and amplify its aura – does not only thrive because of self-organizing processes, but because it is able to conduct energy from the interactions *between* self-organizing systems and hierarchies of command and control. Within these interactions is the creative passion for destruction by way of which the artistic act becomes a microcosm of the source of life.

⁷⁰ De Landa, “The Nonlinear Development of Cities,” 25.

⁷¹ Ibid.

⁷² Ibid.



Figure 126 Screenshot configuration by the author: (left) Valie Export, *TAPP und TASTKINO Cinema* (Tap and Touch Cinema, 1968) (source: Pomeranz Collection); (background) the standard icon for a roundabout; (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author.

In one of her most iconic works of expanded cinema, *TAPP und TASTKINO* (Tap and Touch Cinema, 1968) (fig. 126), Export wore a box, built out from a vest with plastic and metal panels, and invited passers-by to reach their hands through foam blocks to touch her breasts. Export described the action as “woman’s first step from object to subject [;] she disposes of her breasts freely and no longer follows social prescriptions.”⁷³ According to Export, Austrian newspapers reported outrage the following day: “We don’t have witches now, we live in a modern time, but if we want witches, we must take Valie Export and burn her! She lets people touch her breasts, and she says, [referring to more traditional forms of cinema] celluloid you can

⁷³ Valie Export as quoted in Roswitha Mueller, *Valie Export: Fragments of the Imagination* (Bloomington: Indiana University Press, 1994), 18.

burn, but Valie Export you can't."⁷⁴ In the Austria that Export called a “dead place,” she asserted “nothing new [was] given enough of an opportunity to *grow up* [...].”⁷⁵ Her response to this dead place was a form of palpable tele-visual animation. Export’s bodyware television enacted an explosive annihilation of equilibrium in Viennese public space, breaking the domination of pornographic vision with a tactile tactical urbanism. In this action, the late nineteenth and early twentieth century transformation of ornament to object—by way of which ornament disappeared, emancipating itself from architecture to become the mobile object⁷⁶—seemed to undergo a subsequent transformation, attaching itself to the body. In Export’s Actionism, the late twentieth century body and city struggle through the same early twentieth century dilemma as architecture and ornament, eager to find respective mobility to rediscover plastic autonomy.⁷⁷

In the late 1990s, one of the arguments made in support of defining the city as “island”—whether or not it was actually an island like Manhattan or land-locked like Vienna—was the thermal sense of the city. Cities are “appreciably warmer” than surrounding areas: “concrete, asphalt and other materials that make up a city’s infrastructure retain heat” and “there are many heat-emitting devices in urban areas, such as air conditioners, cars and agglomerations of people.”⁷⁸ When Export pressed her body against Vienna’s concrete and asphalt surfaces she created a direct connection between these two synecdoches of urban thermal sense. In her photograph *Rounding-Off* (and its containing series *Body Configurations*) there are few traces of urban vegetation: even the cracks in concrete appear to have been weeded. However, since the form that Export’s body most closely resembles in *Rounding-Off* is that of the meandering crack, her body becomes the fertile humus on the city surface, an inverse extruded crack, the bump of a

⁷⁴ Export in Gary Indiana, “Valie Export,” op.cit.

⁷⁵ Ibid.

⁷⁶ Alina Payne, *From Ornament to Object: Genealogies of Architectural Modernism* (New Haven: Yale University Press, 2012), 9.

⁷⁷ Payne, *From Ornament to Object*, 9.

⁷⁸ De Landa, “The Nonlinear Development of Cities,” 23.

wound in an open blemish. Export's body is the weed "grow[ing] up" in the "dead place"⁷⁹ of the urban heat island.

Concrete—the material from which Manama's Pearl Roundabout was constructed—is cool to the touch because it conducts heat away from the body. In the transfer and capture of heat, cities-as-islands are "unstable eco-systems (...) far from equilibrium."⁸⁰ Even so-called "stable states" in cities involve moving from the "steady stable state" to the "more chaotic stable state" through "cyclic stable state[s]."⁸¹ Thus, in addition to being "islands"—literally urban heat islands—cities are also compelled to be "parasitic entities" with "high mortality rates," entities that do not "reproduce themselves," but that in order to survive their cycles of instability, engage in the "complex interplay of biological and cultural elements."⁸² At a time of instability, Manama's Pearl Roundabout became the center of such an interplay between biological and cultural elements, between human bodies and iconic monuments.

Auto-catalysis is the "positive feed-back loop in which small deviations are amplified and give rise to hereogeneity, or difference."⁸³ In the grand scheme of Manama's history, the fall of the Pearl Roundabout was a small deviation, however the momentum of its monumental fall, amplified and gave rise to difference—to Pearl Roundabout replications that disseminated gestures of opposition throughout the city and beyond. An auto-catalytic process is a process that "catalyses or accelerates itself."⁸⁴ Whereas a positive feedback-loop is explosive, a negative feedback loop "dampens or eliminates deviations."⁸⁵ The ruling government attempted to set in motion one such negative feedback loop in reaction to the opposition occupation of the Pearl Roundabout. And yet, the decision to destroy the monument only seemed to unleash the power of

⁷⁹ Export in Gary Indiana, "Valie Export," op.cit.

⁸⁰ De Landa, "The Nonlinear Development of Cities," 24.

⁸¹ Ibid.

⁸² Ibid., 25.

⁸³ Ibid., 28.

⁸⁴ Ibid.

⁸⁵ Ibid.

momentum in the Pearl monument's fall. This power of momentum was the by-product of an accident—it was a consequence of the erasure of the image of the fall in official documented footage of the destruction that circulated via domestic and international media outlets; it was a result of the original design of the monument by an anonymous artist whose engineering seemed planned for destruction.



Figure 127 Screenshot configuration by the author: (left) a still from the end of Valie Export's feature film *Menschenfrauen* (Manwoman, 1980) in a scene where one of the film's four female characters commits suicide on an electrical pole (source: Facets Video); (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (source: Medienkunstnetz.de). Image by the author.

One example of an auto-catalytic process is explosion: “explosion is driven by heat and itself produces heat which may be fed back into its own process [...] it is a self-reinforcing reaction.”⁸⁶ Sleep can be thought of similarly—it produces a low heart rate, which, in turn, feeds back into its own process, encouraging further rest. Between the stasis of sleep and the

⁸⁶ Ibid.

dynamism of explosion, auto-catalysis is plastic. And, while, as the example of sleep shows, “not all cases of auto-catalysis are explosions [...] all exhibit [...] turbulent behavior.”⁸⁷ The Pearl Roundabout destruction was not an *explosion*, but it was *explosive*, catalyzing replications of the Pearl Roundabout around Manama and its environs in the “dormant state”⁸⁸ of Bahrain. These replications were, in turn, the explosive catalyst for waves of turbulent behavior that have ebbed in a malleable map from Bahrain to Abu Dhabi, from Abu Dhabi to San Diego, from San Diego to Weimar.

In Export’s film, *Menschenfrauen* (Manwoman, 1980), one of Export’s characters kills herself with energy in a literal embrace with electricity (fig. 127).⁸⁹ The scene of the unusual suicide “with energy”—which in interviews, Export contrasts with passives stereotypes of female suicide “with pills and so on”—is choreographed from a performance Export made with electric wires.⁹⁰ In this action, suicide with energy was not intended as a “symbol” but as the affective equivalent to death by what Export calls *Gesellschaft*—death by “society.”⁹¹ Export’s action was designed to make the body speak for itself through the life pulse of the modern city, its electricity. In the Pearl Roundabout’s descent, its twisting monument spoke for itself with the momentum of revolutionary turbulence in the city (fig. 128)

⁸⁷ Ibid.

⁸⁸ Elsheshtawy, “The Great Divide: Struggling and Emerging Cities in the Arab World,” 37.

⁸⁹ Mueller, *Valie Export: Fragments of the Imagination*, 151-152. *Menschenfrauen* (*Human Woman*), directed by Valie Export (1980; Chicago, IL: Facets Video, 1989), Video VHS .

⁹⁰ Export as quoted in Mueller, *Valie Export: Fragments of the Imagination*, 151.

⁹¹ Ibid.



Figure 128 Screenshot configuration by the author: (bottom, left) the aftermath of the Pearl Roundabout demolition in a photograph that shows one of the monument's 'sails' crushing a Manama demolition crane, killing a Pakistani crane operator; (top, left) a still from the end of Valie Export's *Manwoman* (1980) in a scene where a woman commits suicide on an electrical pole (source: Facets Video); (right) Valie Export's *Rounding-off* (1976) from *Body Configurations* (1972-1982) (Medienkunstnetz.de); (bottom, right) a detail from the *PERP* project tutorial for reanimation of the Pearl Roundabout in collapse (Image: the author); (right) a detail from video of the demolition of the Pearl Roundabout showing the crushing of the monument's 'pearl' (Image: the author). Image by the author.

Chapter Nine / Swerving and Pinching, Compressing and Closing-Up

The pedestrian who occupies the void at the center of a roundabout will notice that if the yield is not respected, and the motorist poorly times how to give way to the movement of circling traffic, the vehicle will have to swerve to avoid obliteration by an on-coming rush of cars. In a roundabout, the swerve is a consequence of being out-of-time and out of rhythm. It could therefore be said to represent a disjunction in the body's proprioceptive sense of where it is in relation to itself and in relation to other bodies.

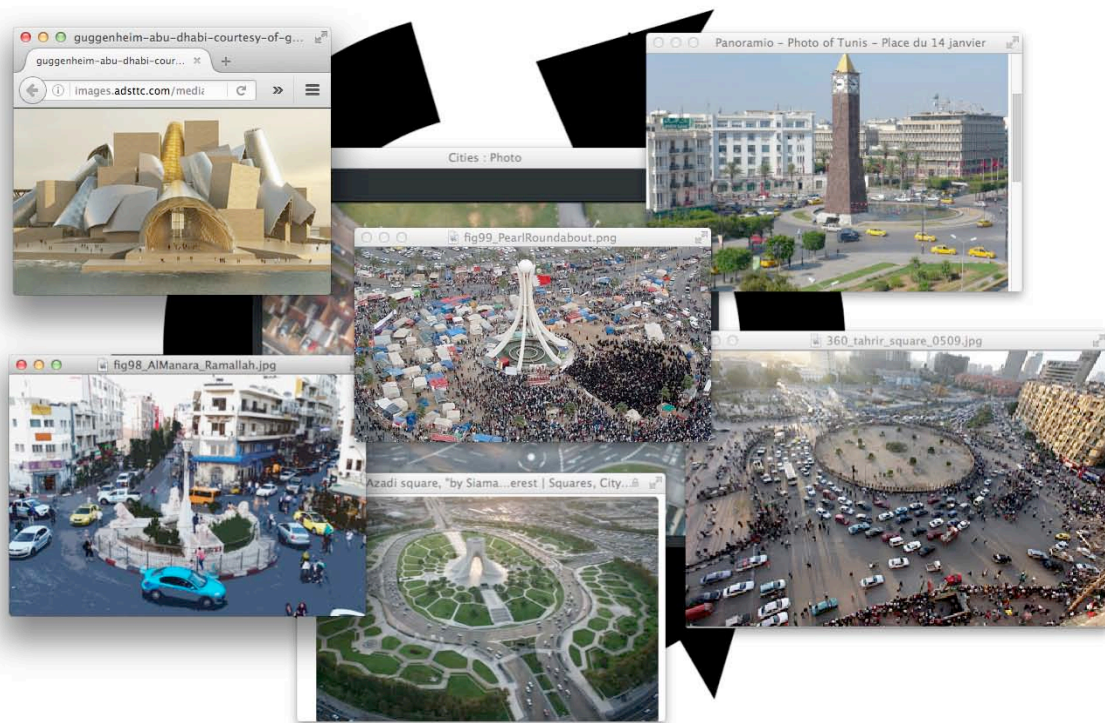


Figure 129 Screenshot configuration by the author: (middle, background, not visible) a contemporary aerial photograph of Swindon's Magic Roundabout (source: Google Images); (right, top) Tunis' Place 14 Janvier 2011 (formerly Place Novembre 7 1987, Place Bourguiba and Place d'Afrique) (source: Panoramio); (right, bottom) a contemporary photograph of traffic around Cairo's Tahrir Square (source: Google Images); (bottom) Tehran's Azadi Square (source: Google Images); (left, bottom) Al Manara Square in Ramallah, Palestine (source: Google Images); (center of image) the Pearl Roundabout in Manama, Bahrain (source: Google Images); (left, top) Abu Dhabi's Frank Gehry-designed mega-project, a franchise installment of the Guggenheim Museum (source: Google Images). Image by the author.

The present essay has explored how in the years building up to the Arab Spring's roundabout revolutions, Americans have portrayed themselves in both the news media and on social media as 'swerving' in their response to the recent 'on-rush' of roundabout-centered traffic planning in the United States. The general tendency is for U.S. motorists to complain that the roundabout imperative to yield is difficult to navigate. It is asserted that the insertion of traffic-easing rings into broad linear pathways is not only causing collisions, but can be correlated to the "decline of civilization"—a "European thing" that signals the "decline of the live free and die state."¹ Since this essay was written about roundabouts from a U.S. city—San Diego—it has reflected on this resistance to roundabouts by writing through a topology of roundabouts (fig. 129). It entered this compound roundabout typology through the history of the Pearl Roundabout, followed by a yield to a general history of Arab Spring roundabout revolutions; its circling around a new magic roundabout of roundabout revolutions with Manama's Pearl Roundabout at its center then guided navigators through a broader history of roundabout traffic planning, and exited its labyrinthine spiralling trajectory through two Pearl Roundabout replications that brought Manamaism and its plastic activism to San Diego, California and Weimar, Germany.

To round about the roundabout, this essay has also thrown four "swerve balls into the logic of things."² It occupied the roundabout with a new ball-game so as to be able to walk the reader into home base – the end of the dissertation. With its first swerve ball, it introduced the

¹ "Mark Steyn: Roundabouts and Decline of Civilization," op. cit.

² This phrase comes from poet Joan Retallack's essay "The Blue Notes on the Know Ledge." See Joan Retallack, *The Poethical Wager* (Berkeley: University of California Press, 2003), 63 – 82. See also Joan Retallack, "Blue Notes on the Know Ledge" in *Poetics Journal. Digital Archive*, ed. Lyn Hejinian and Barrett Watten (Middletown, CT: Wesleyan University Press, 2014), 1211. "The story goes that it had been, almost always, a guy kinda thing. It was of course Epicurus' term, *clinamen*. He was the first recorded player in philosophy to throw a swerve ball into the logic of things, while naming his theory of knowledge *canonic*, while the game played on in the increasingly steady state with increasingly rationalist rules, increasingly discrediting multiple logics. But the swerve that makes change possible comes in a violent collision that shakes up atom and eve. Unchained Gotterdammerung (A feminine noun: this, of course, means nothing.) It produces a moment of predictability, indeterminacy, unintelligibility. A moment that invites us to get together and work on our unintelligibilities. Can the moment of indeterminacy defeat the moment of inertia?"

non-form of the traffic roundabout by initiating readers into another middle space, an interstice between form and content called formula. The entry-point to this middle space of formula was a “visual structure”³ or “topos-formula,”⁴ a spatial configuration the essay called “rounding-off.”⁵ Attention to formula is attention to the “blur” that “as we know, is not a form,”⁶ and that therefore, require different techniques of observation. Attending to the distinction between form and formula, led the essay to take an object-oriented perspective on trauma and disaster with artist Jalal Toufic, and on iconoclasm with both medieval urban sociologist Ibn Khaldun, and contemporary classicist Jaś Elsner.

With the second swerve ball, our game occupying the roundabout played with reconceiving what is generally called proprioception. Both the clinical and common sense understandings of proprioception tend to be vaguely defined in the majority of contexts as “our mysterious ability to sense where we are in space” and the like.⁷ Proprioception is also often used interchangeably with “balance.”⁸ The essay rethought proprioception in terms of collapse and reclaimed “kinesthesia” as a term that can help broaden thinking about the sense of “where we are in space,” to include plastic sense. Beyond simply how human bodies tune themselves to other so-called animate bodies, plastic sense also includes inanimate bodies, landscapes and

³ Export and Hendrich, *Stadt: Visuelle Strukturen*, op. cit.

⁴ Brandstetter, *Poetics of Dance*, 17.

⁵ Export’s *Abrundung* (Rounding off, 1976) from the *Body Configurations* series, 1972 – 1982.

⁶ Ibid.

⁷ The quote is taken from Jon Hamilton, “How a ‘Sixth Sense’ Helps Simone Biles Fly, And the Rest of Us Walk.” *All Things Considered*. *National Public Radio*. September 21, 2016. Accessed September 25, 2016. <http://www.npr.org/sections/health-shots/2016/09/21/494887467/how-a-sixth-sense-helps-simone-biles-fly-and-the-rest-of-us-walk>. For laments in clinical textbooks about the vague definitions of balance and proprioception, see Michael L. Voight, Barbara J. Hoogenboom and William E. Prentice, *Musculoskeletal Interventions: Techniques for Therapeutic Exercise* (New York, NY: McGraw-Hill Professional, 2006).

⁸ An example in clinical textbooks can be found in Robert Donatelli, *Sports-Specific Rehabilitation* (St. Louis, MO: Churchill Livingstone/Elsevier 2007), 213.

environments in the equation. Plastic sense describes how landscapes, environments and other bodies, including objects, attune themselves to each other and to human bodies.⁹

The essay has shown how, in dance research, “kinesthetic analysis [...] entails attending to the qualitative dimensions of movement, the kind of flow, tension and timing of any given action as well as the ways in which any person’s movement interacts and interrelates with objects, events and other people.”¹⁰ The essay has slightly altered this notion of kinesthesia and rather than focus on “any person’s movement”¹¹ it has focused on “movement in the city.”¹² Urban kinesthesia has been defined as the qualitative dimensions of movement, the kind of flow, tension and timing shared among objects, events, landscapes, environments, technologies and bodies. Appropriate to the images of body and city in the 21st century, urban kinesthesia is the energetics in “[...] tensile and momentum-driven force that alternately exerts and relaxes” with the “gravity” in these shared dimensions of “flow, tension and timing.”¹³ In the 20th century, the “conception of the kinesthetic” expanded to include not only “the muscular sense of the body’s movement” but the “synthesis of information provided by muscle and joint receptors *along with* information on orientation [balance and equilibrium] contributed by the inner ear.”¹⁴ In the 21st century, the present essay has argued that the ‘conception of the kinesthetic’ has further expanded beyond information on orientation determined by properties called ‘balance’ and ‘equilibrium,’ into information on orientation as it relates to an “the “annihilation of equilibrium,” or “destructive plasticity.”¹⁵ This is a object-oriented sense of action that the essay has named plastic activism.

The third swerve ball is urban scenography, a way of studying and activating the performative spaces between architecture and urban planning. In 2011, Manama’s 300-foot tall

⁹ Forster, *Choreographing Empathy*, 185.

¹⁰ Sklar as paraphrased in Forster, *Choreographing Empathy*, 8.

¹¹ Ibid.

¹² Export in Indiana, “Valie Export,” op. cit.

¹³ Forster, *Choreographing Empathy*, 9.

¹⁴ Ibid., 74.

¹⁵ Malabou, *Ontology of the Accident*, op. cit. and Malabou, *The New Wounded*, op. cit.

Pearl monument – originally constructed to commemorate the 1982 convening of the Gulf Cooperation Council (GCC) at Manama and its coalition of six Persian Gulf nations – became the “hub of Bahrain’s rebellion.”¹⁶ This “rebellion” occupied the vast circular grass field under the massive Pearl monument in protest against authoritarian rule by Bahrain’s ruling al-Khalifa family. Protests also mobilized against the foreign influence of GCC allies—in particular Saudi Arabia and the United Arab Emirates (UAE)—and blasted what many perceived as the United States’ complicity with regime repression. The last Google Earth satellite image taken of the roundabout before it was destroyed in 2011 shows the site occupied by a tent city encampment set up in the ring around the fountain directly under the monument (fig. 130, top, middle). The next image (fig. 130 top, right) is of the roundabout razed, replaced by a junction of intersecting roads whose new name Farooq Junction, evokes the image of an all-knowing ruler (“the one who distinguishes between right and wrong”). In March 2011, after clashes with police resulted in the death of two protestors, the monument was ordered destroyed by officials. Official video of the destruction showed two demolition cranes using their grips to pull at two of the six curved beams or ‘sails’ (*dhow*) elevating the monument’s cement sphere (the roundabout’s ‘Pearl’) (fig. 130, bottom left). As the cranes pulled their respective beams, the entire monument turned on itself, its beams twisting with a disrupted equilibrium that deformed the supported sphere¹⁷ like a crushed skull between powerful hands (fig. 130, top right). The video, however, does not show the process of collapse, rather it is edited to jump from this moment of broken equilibrium to the aftermath of the fall. Reports later circulated that one of the crane operators, a Pakistani migrant worker named Riaz Ahmed, was killed when a falling beam came crashing down on his crane (fig. 130, bottom left).¹⁸

¹⁶ Chulov, “Bahrain Destroys Pearl Roundabout,” op. cit.

¹⁷ teyeodg jytsneb, “WRAP Landmark demolished in Pearl Square FM news conference 2011 News.” op. cit.

¹⁸ “Crane driver died during demolition of monument,” op. cit.



Figure 130 Screenshot configuration by the author: (top) satellite images of the Pearl Roundabout site in Manama before the Arab Spring protests (source: Google Earth); (left), during the Arab Spring protests (middle) and after demolition (right); (middle, left) the aftermath of the Pearl Roundabout demolition in a photograph that shows one of the monument's 'sails' crushing a Manama demolition crane and killing a Pakistani crane operator; (bottom, right) a detail from the *PERP* project's tutorial for reanimation of the Pearl Roundabout in collapse (Image: the author); (middle) a detail from video of the demolition of the Pearl Roundabout showing the crushing of the monument's 'pearl' (Image: Youtube); (right) video documentation of demolition of a Pearl Roundabout replication by security forces (source: Youtube).
Image by the author.

“Symbolism means nothing,” a protest-sympathizer on a Manama street reportedly told *The Guardian*: “we have the momentum.”¹⁹ The Bahraini government’s official line was that the destruction was part of a “traffic realignment and redevelopment.”²⁰ However, at a press conference, Bahrain’s foreign minister, Sheik Khalid bin Ahmed al-Khalifa justified the state-sanctioned vandalism of its own celebratory monument with iconoclastic motivation, explaining it was the “removal of a bad memory.”²¹ After the destruction, Pearl Roundabout replications

¹⁹ Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

²⁰ Kennicott, “Bahrain’s Pearl Statue is gone, but it remains an icon of democracy,” op. cit.

²¹ Bronner, “Bahrain Tears Down Monument as Protesters Seethe,” op. cit.; Siegel, “In Bahrain, Iconic Pearl Monument Destroyed,” op. cit.; “Bahrain Tears Down Protest Symbol,” op. cit.

assembled from a variety of materials, in a variety of scales, appeared on stock photo sites, in social media networks and on video-sharing platforms (fig. 130, right). Videos documented not only replications planted in a street or a square, but the mobilization of security forces ordered to dismantle and discard the modest miniatures of plastic activism. As the protest sympathizer stated, the symbolic vandalism of Bahrain's officials had 'meant nothing': the monument was speaking for itself through its own momentum.

Scholarship on what has been called "live art in art history" has attempted to address "the conundrum of how the live event or ephemeral art [...] gets written into history."²² It has done so by situating this conundrum between the universally "plastic" image as defined by Emmanuel Levinas,²³ and the theatrical "gesture" as defined by artist and poet Antonin Artaud who claimed "theatre is the only place in the world where a gesture once made can never be made the same way twice."²⁴ From this perspective, between philosophy and theatre, "live art in art history" is presented as an interval between Artaud's theatre as a space of exception for gestures of shape-shifting replication, and Levinas' universalist notion that "every image is [...] plastic," every artwork "a stature – a stoppage of time, or rather its delay behind itself."²⁵ However, between Artaud's gesture and Levinas' image, there is the question of the object. The theorization of plastic activism in this essay has attempted to address the object's position in this discourse.

Artaud asserted that the "theatre teaches precisely the uselessness of the action which, once done, is not to be done, and the superior use of the state unused by the action and which,

²² Amelia Jones, "The Now and the Has Been: Paradoxes of Live Art in Art History." *Perform, Repeat, Record: Live Art in Art History*, edited by Amelia Jones and Adrian Heathfield (Chicago, IL: Intellect, 2012), 9-24.

²³ The actual quote from Levinas used in the epigraph to introduce the "conundrum" of "live art in art history" is: "[E]very image is in the last analysis plastic, and [...] every art work is in the end a stature – a stoppage of time, or rather its delay behind itself." Jones, "The Now and the Has Been," 9-24.

²⁴ Jones, "The Now and the Has Been," 11.

²⁵ *Ibid.*

restored, produces a purification.”²⁶ As scholars have commented following philosopher Jacques Derrida’s writings on Artaud, the poet and dramaturge “set himself the task of the unachievable, resigning himself “to theatre as repetition’ but unable to renounce theatre as nonrepetition—thus, a theatre of repetition that, at some unimaginable boundary of its tautological form, does not repeat itself.”²⁷ This self-contradictory theatre of repetition is presented here as plastic activism in an urban scenography of replications. The present essay has attempted to put forth an argument about a specific kind of object that is generated through this uselessness of action—the kind of object that can be explained by a Manama protest-sympathizer asserting that “symbolism means nothing,” “momentum” means everything.²⁸ Urban scenography and the proprioception of collapse amplify the neo-plastic character of the object. This character is missing from the still-born object conceived to dwell in a gallery and museum. These still-born objects have their own power, one based on the nature of these spaces as places of conservation that adhere to an understanding of proprioceptive sense as the achievement of balance. This idea of a neo-plastic character of objects in plastic activism plays with disambiguation between Piet Mondrian’s term “neo-plasticism”²⁹ and the term “neoplastic”³⁰ in cellular biology. The neoplasm in cellular biology is “an abnormal mass of tissue that results when cells divide more than they should or do not die when they should.”³¹ Neo-plastic objects are abnormal objects that replicate more than they should, and that do not die when they should. The Pearl Roundabout replications that gave

²⁶ Antonin Artaud as quoted in Herbert Blau, “The Dubious Spectacle of Collective Identity,” *European Contributions to American Studies* 44 (2000): 21-37, as excerpted for *Antonin Artaud: A Critical Reader*, ed. Edward Scheer (London, UK: Routledge, 2004), 79.

²⁷ Blau, “The Dubious Spectacle of Collective Identity,” 79.

²⁸ Chulov, “Bahrain destroys Pearl Roundabout,” op. cit.

²⁹ Piet Mondrian, “Neo-Plasticism: The General Principle of Plastic Equivalence (1920),” *The New Art—The New Life: The Collected Writings of Piet Mondrian*, ed. and trans. Harry Holtzman and Martin S. James (Boston, MA: G.K. Hall & Co., 1986) 132-147.

³⁰ “Neoplasm.” *National Cancer Institute Dictionary of Cancer Terms*. N.d. Accessed on September 30, 2015. URL: <https://www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=46264>

³¹ “Neoplasm.” *National Cancer Institute Dictionary of Cancer Terms*, op. cit.

form to the formula of the Pearl Roundabout's momentum are a 21st century “new neo-plasticism.”³²

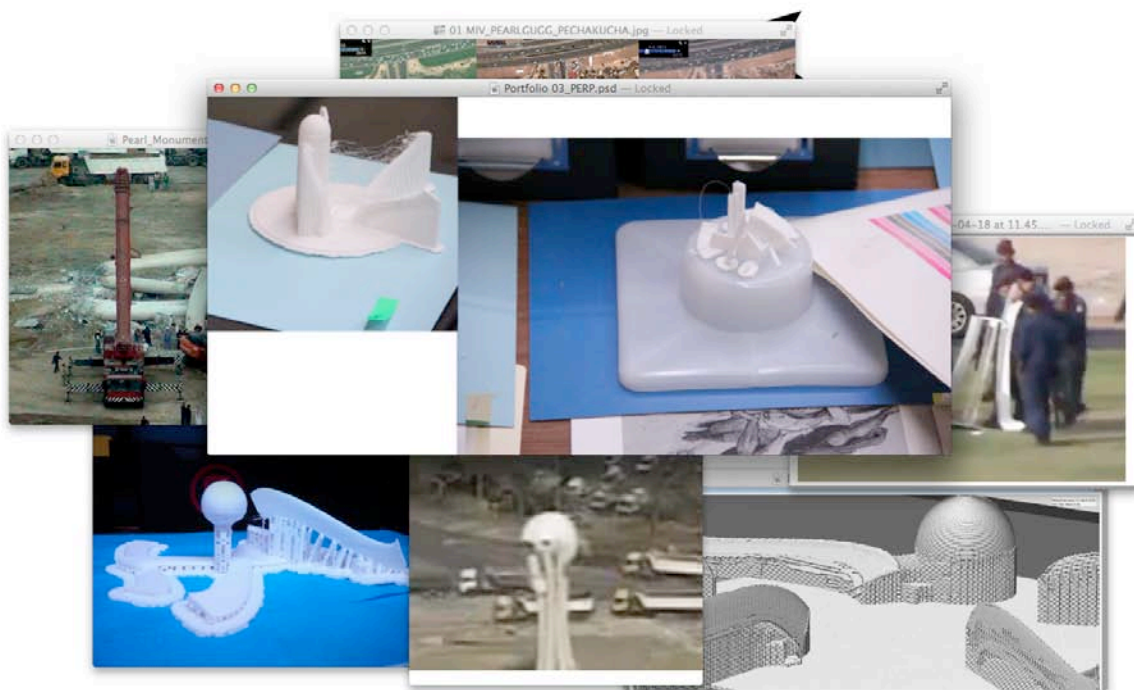


Figure 131 Screenshot configuration by the author: (top middle and bottom left) *PERP* objects printed by animating a 3D reconstruction of the Pearl Roundabout to collapse and pausing a moment in the monument's fall to be exported as a 3D object; (middle) a detail from video of the demolition of the Pearl Roundabout showing the crushing of the monument's 'pearl' (Image: Youtube); (bottom, right) a detail from the *PERP* project's tutorial for reanimation of the Pearl Roundabout in collapse (Image: the author); (right) video documentation of demolition of a Pearl Roundabout replication by security forces (source: Youtube). Image by the author.

The fourth swerve ball—the run walked-in—is a toss between theory and practice: in this exchange, pitchers bat and batters pitch, so theory and practice are not assigned fixed roles but play both positions. *PERP* (or *Week 33* of the GLC's *52 Weeks* campaign)—which might conventionally be seen as the practice component (the component that would appear most directly related to object-making)—concluded this essay. Conceived as part of the series of replications that were generated by the destruction of the Pearl Roundabout, *PERP* is a configuration of

³² The phrase “new neo-plasticism” comes from California-based Dutch artist Bas Jan Ader. Bas Jan Ader, *Pitfall On the Way to a New Neo-Plasticism*, Westkapelle, Holland, 1971. Chromogenic color print. 16 ¼ x 11 ½ in (41.3 x 29.3 cm). The Abramson Collection. Museum of Modern Art, New York. N.d. Accessed December 10, 2016. <https://www.moma.org/collection/works/192775?locale=fr>

various elements including an e-mail announcement, a web page on the Gulf Labor website (gulflabor.org) and a blog post with a scroll montage that includes a two-channel video and a downloadable PDF chapbook. The chapbook includes a timeline, a short story and a speculative design tutorial for 3D animation and 3D printing (fig. 131). Though it might conventionally be understood as art practice because the tutorial can generate an infinite series of variously scaled sculptures, the reader has been encouraged to see *both* writing and making as *both* theory and practice.

Before proceeding to make a final turn through the roundabout to conclude this chapter, and the dissertation, it is important to bring attention to one last distinction that might otherwise cause misunderstanding. Objects generated in dialogue with the street through the urban scenography of plastic activism should not be confused with what is typically called “street art.”³³ Street art is generally understood as moralizing against institutions; it engages in iconoclastic actions against systems and structures, and is usually driven by a paradox of desire in resentment over not being fully incorporated into those same systems. For this reason, street art that wears the mask of the irreverent vandal, but really bears the mark of the moralizing iconoclast, is a prime object of exchange in the same contemporary art market it claims to contest. It is a staged crisis that propels the ebb and flow of boom and bust, and its use of irony is a direct reflection of the way the commodity behaves in economic creative destruction (i.e. Banksy).³⁴ Objects generated in dialogue with the street, on the other hand, are driven more by anxiety and paranoia than by the narcissism prevalent in what is commonly known as “street art.”³⁵ To assert this

³³ Jeff Ferrell, “Foreword: Graffiti, Street Art and the Politics of Complexity,” *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (Abingdon, Oxon: Routledge, 2016), xxx-xxxiii; Jeffrey Ian Ross, “Introduction: Sorting It All Out,” *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (Abingdon, Oxon: Routledge, 2016), 3 and 8.

³⁴ Kathryn Tully, “Buying a Banksy: A Guide to the Graffiti Superstar’s Booming Market,” *Observer*. November 19, 2014. Accessed December 20, 2016. <http://observer.com/2014/11/buying-a-banksy-a-guide-to-the-graffiti-superstars-booming-market/>

³⁵ Ferrell, “Foreword: Graffiti, Street Art and the Politics of Complexity,” *Routledge Handbook of Graffiti and Street Art*, ed. Jeffrey Ian Ross (Abingdon, Oxon: Routledge, 2016), xxxiii.

distinction is not to disavow street art or the commodification of creative destruction, but simply to clarify the difference between street art objects and those discussed herein.

To conclude, a final note on the game of swerve ball that was used as a topological analogy in writing this essay: the physics of the swerve ball do not belong to actual space. Swerve balls follow knotted trajectories that not only curve but loop. They can break speeds to an absolute standstill or travel faster than light. The diamond on which swerve balls are pitched is the field of a new game built for the center circle of roundabouts. A pitcher throwing swerve balls and a batter watching swerve balls, both study the topology of knots. This essay has occupied the figure of the roundabout with a series of nested shapes: it rounded about a roundabout-diamond where swerve balls knotted objects, bodies and spaces in bights, crossing points, loops and interlocks; (a comic, but nonetheless scholarly, malleable map). It did so in order to write about plastic activism while at the same time making the reader feel its affect. It also did so in order to remind readers about the value of the the void at the center of the roundabout at a time when a new form in roundabout planning—the peanutabout³⁶—has the potential to both pinch it into obsolescence and reinvigorate it as public space (fig. 132).

In 2015, a “complex seven-way intersection created by the acute crossing” of two main streets in Cambridge, Massachusetts, became the site of a new plan for what Cambridge locals call a “peanutabout,” a pinched roundabout with two intersecting teardrop platforms at its center.³⁷ The pinched center of the roundabout circle allows for easier pedestrian access to the “peanutabout” center than is typically found in roundabouts, where entering the central circle is often prohibitive. There is evidence that, just as rounding-off was a topos-formula that prevailed in the early 2000s, the 2020s may be augured in by this pinching spatial configuration of

³⁶ Special thanks to Professor Mirle Bussell (UCSD Urban Studies and Planning) for sharing this article. Michael Andersen, “The ‘Peanutabout’ Concept Could be a Breakthrough for Diagonal Streets,” December 1, 2016. Accessed December 30, 2016. <http://usa.streetsblog.org/2016/12/01/the-peanutabout-concept-could-be-a-breakthrough-for-diagonal-streets/>

³⁷ Andersen, “The ‘Peanutabout’ Concept Could be a Breakthrough for Diagonal Streets,” op. cit.

compression. Conducting an internet image search with the phrase “pearl roundabout” returns images of the former Pearl Roundabout along with photographs of its destruction; however, with some scrolling, a structure that looks like a compressed version of the Manama monument emerges from the queried image strings (fig. 133). In this iteration of the Pearl Roundabout, seven beams converge in a single column at the pinnacle of which sits what appears to be a varnished bronze sphere treated with a patina and topped with a sharp needle. At the foot of the structure, the seven beams flare into seven concave curling arabesques that support sculptures of seven open oysters, each with its own glimmering pearl. The monumental fountain is known to UAE nationals as a “tribute” to the UAE’s pearling industry and its “opening up of the UAE to the world” before “the discovery of oil.”³⁸ Approximately 165km from the UAE’s Saadiyat Island, this “Pearl Roundabout” in the city of Sharjah—where the high profile Sharjah Biennial for contemporary art is hosted³⁹—is officially known as *Midan Al-Ittihad* (Union Square) and is in the center of a circular plat in Al-Ittihad Park.⁴⁰ “Union” or “Unity” park celebrates the unity of the seven emirates that make up the UAE. Thus, in a triangular constellation with Gehry’s Saadiyat Island Guggenheim, across the gulf from Manama (and its now absent GCC monument), there is a Pearl Roundabout still standing in Sharjah, one that survived the surpassing disaster of Bahrain’s suspended revolution and the UAE’s Arab Spring dormancy. Perhaps the fact that this topos-formula of compression—this Sharjah ‘pinching’ of the Manama’s design’s support beams;

³⁸ Butheina H. Kazim, “Beyond the sleepy village,” *Gulf News. Thinkers*. April 7, 2014. Accessed December 10, 2016. <http://gulfnews.com/opinion/thinkers/beyond-the-sleepy-village-1.1316235>

³⁹ “In this fair-haired age of Biennials, Triennials and Quinquennials, there is anxiety to be the ‘newest’ and a fear of being ‘behind’ on the latest artistic and aesthetic theories. It is refreshing and empowering to have a biennial exhibition like the Sharjah biennial, which turns its back on the intellectual Euro-American fashions that have dominated, until recently, the ‘-ennial’ market place.” Semiotician Walter Mignolo as quoted in Hamid Dabashi, “Trauma, Memory and History,” *Contemporary Art from the Middle East: Regional Interactions with Global Art Discourses*, ed. Hamid Keshmirshakan (London, UK: I.B. Tauris, 2015), 23.

⁴⁰ Andys69za, “Photographic Merit? (166 Photographs): Oysters and Pearls” *SmugMug*, N.d. Accessed December 3, 2016. <https://andys69za.smugmug.com/Photography/Photographic-Merit/>. See also “Al-Ittihad Square Park,” *Sharjah City Municipality*. N.d. Accessed December 3, 2016. “http://www.shjmun.gov.ae/v2/english/parks/myadeen/meedan_etehad.asp.”

this ornamentalized version of what was in Manama was modernist minimalism; this closing-up of the monument's beams, its metaphorical 'sails'—is evident in another “Pearl Roundabout” (a UAE Pearl Roundabout) is an indication of a more profound closing-up that lurks behind the new rhetoric of the Gulf ‘opening-up’ to global art.⁴¹



Figure 132 Screenshot configuration by the author: (top) satellite images of the Pearl Roundabout site in Manama before the Arab Spring protests (top), during the Arab Spring protests (middle), and after demolition (right) (source: Google Earth), (bottom) the Inman Square ‘Peanutabout’ (source: Boston Cyclists Union). Image by the author.

⁴¹ Walid Raad in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 114-116 and Exell, *Modernity and the Museum in the Arabian Peninsula*, 94.

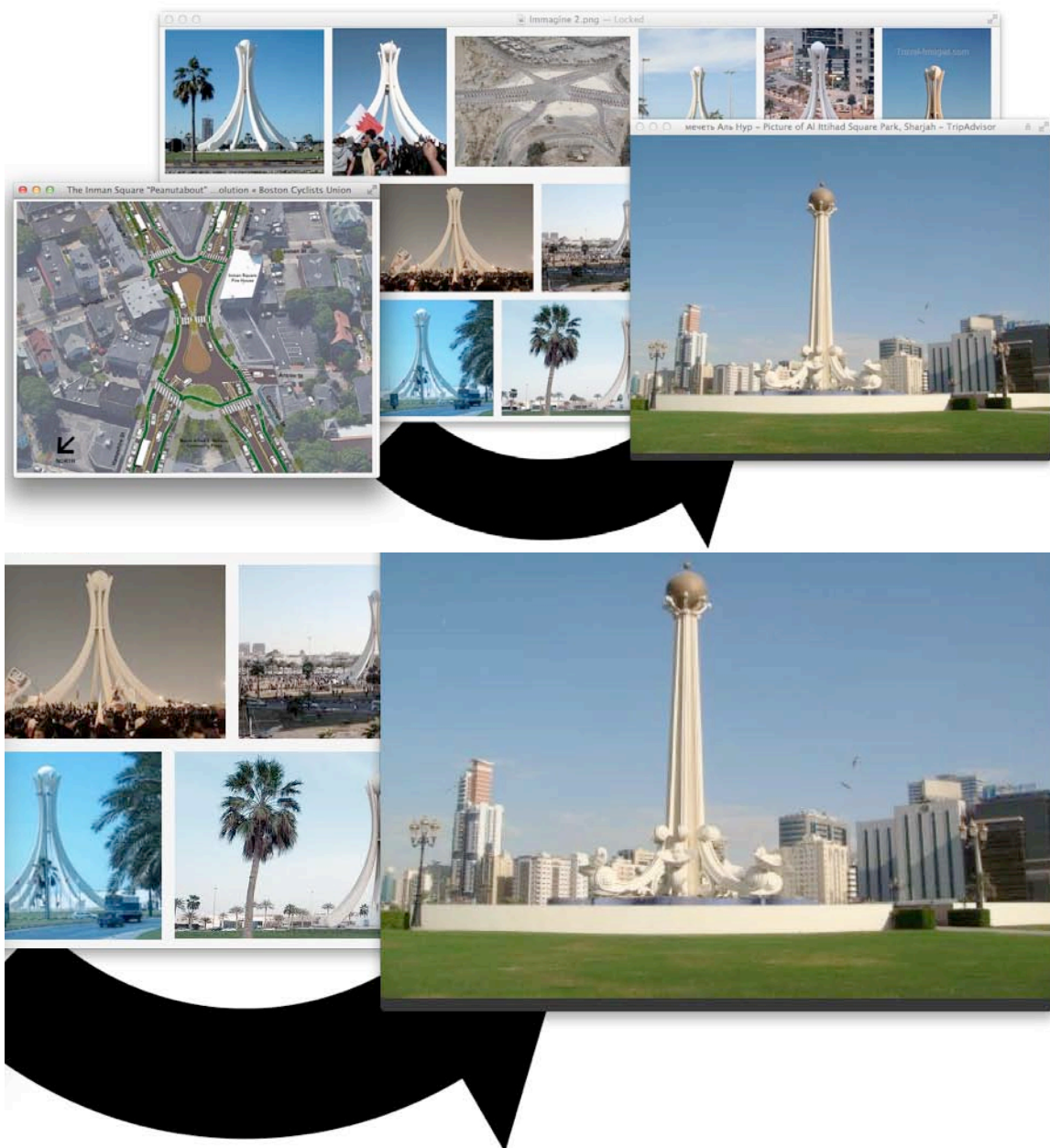


Figure 133 Screenshot configuration by the author: (bottom right) the 'Pearl Roundabout' monument at *Midan Al-Ittihad* (Union Square), in the center of a circular plat in Al-Ittihad Park in Sharjah (UAE); (top)

Google Image search for the query 'Pearl Roundabout' (source: Google Images); (top left) the Inman Square 'Peanutabout' (source: Boston Cyclists Union) 'pinches' the circle of the roundabout the way the design for the still-standing Sharjah Pearl Roundabout 'pinches' the design of Manama's now-destroyed Pearl Roundabout. Image by the author.

Co-founder of the Gulf Labor Coalition (GLC), artist Walid Raad, evoked this same sense of ‘closing-up’ in his performance, *Walkthrough*, part of his retrospective exhibition at the Museum of Modern Art, New York, in the summer of 2016.⁴² Part of the elaborate stage of the performance included a trompe-l’oeil scenography fabricated from white museum door moldings and wall panels (fig. 134). The scenographic sculpture gives the illusion of receding space despite being completely flat. Above it is a large projection screen where still scenes of similar empty museum interiors, digitized, perhaps even recreated in animation software, morph one into the other. Raad stands in front of the sculpture discussing the “growing number of festivals, workshops, museums, galleries, residencies, exhibitions, prizes, foundations, schools and journals emerging in Arab areas” from Ramallah to Sharjah. “I must say,” he explains,

I don’t care to sort through [the] caricatures, and I don’t care to find out whether the sheikhs and sheikhas in Abu Dhabi [...] are enlightened, sincere or cynical. I assume they are complex people, indeed, that they may be sincere, cynical, and enlightened at one and the same time. But I don’t know. In fact, I am quite sure that I will never know. There is one thing about which I am absolutely certain. At the opening of the Guggenheim Museum in Abu Dhabi, or another museum in Qatar, or elsewhere in the Gulf, sometime between 2017 and 2024, a proud local resident approaches the entrance only to find that he is unable to proceed. Why can’t he proceed? Why doesn’t he go in? [...] He simply feels that if he walked in, he would certainly “hit a wall.” That he would literally hit a wall. On the spot, he turns to face the onrushing crowd and screams: “Stop. Don’t go in. Be careful!” [...] The very next day, I open the newspaper, turn to page six, and look at the bottom right-hand corner. I read the following headline: “Demented Man Disturbs Opening: Claims World is Flat.” This event has already happened. This headline has already been written. About this. I am absolutely certain.⁴³

⁴² Raad, “Walkthrough,” *Scratching on things I could disavow*. Museum of Modern Art, New York, op. cit.

⁴³ Walid Raad in Anastas, Bitar, Gabri, Haacke, Mohaiemen and Raad, “Why Gulf Labor?” 114-116

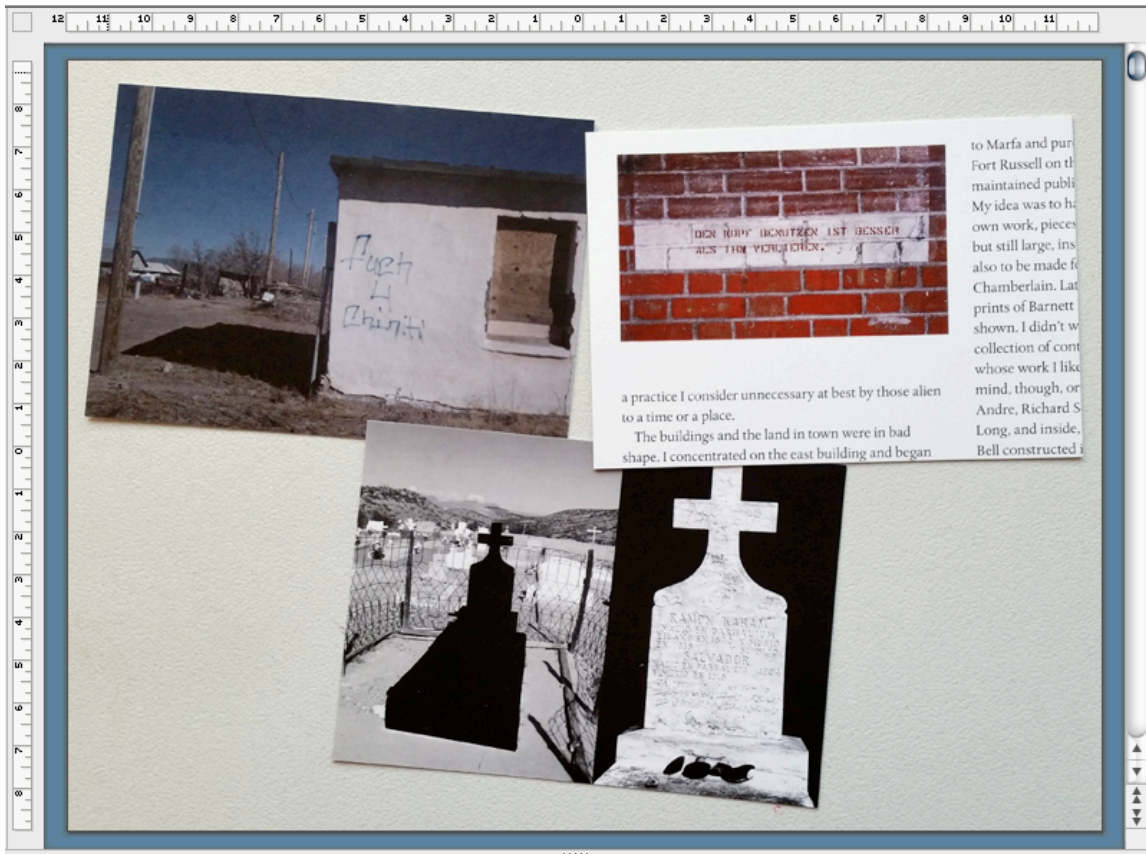


Figure 134 Screenshot configuration by the author: (foreground) Walid Raad's *Walkthrough* performance in *Scratching on Things I Could Disavow* (source: Museum of Modern Art, New York); (background) standard icon for the roundabout (source: Public Domain). Image by the author.

PART THREE

Plastic Thresholds

Better to Lose Your Head than Use It (RK-LOG), or Writing Art History through Art Practice and Ethnographic Fiction at and around Minimalist Donald Judd's Texas-Mexico Artist Museum, The Chinati Foundation/La Fundación Chinati (1979 – 1985)



This section of the dissertation, *Part Three, Plastic Thresholds*, is a presentation of the audio-drama, *Better to Lose Your Head than Use It*, Episode Two of the epic ethnofiction, *RK-LOG*. Preliminary research was supported by Fieldwork:Marfa, a program for artistic research in Marfa, Texas that was developed by three European arts institutions: ENSBA-Nantes (France), HEAD-Geneva (Switzerland) and the Gerrit Rietveld Academie (Netherlands). Further research and production was sponsored by the University of California Institute for Research in the Arts (UCIRA). Post-production was funded by the Frontiers of Innovation Scholars Program at the University of California, San Diego.

The audio-drama comprises a series of audio installments available online. The installments are designed to be listened to in a choreographed road trip through the Presidio-Chihuahua region in the Texas-Mexico borderlands. Eventually, the online platform for the audio-drama will also include access to silent video and digital paintings. The latter visual material will provide anchor images for listeners who do not take the road trip.

The various installments of the audio-drama, and a video of the durational sculpture that was created to communicate with the lost body of the fictional biological specimen, RK, are included with the dissertation on a USB drive. This material is also available online.

For the installments of the audio-drama and satellite flights of the road-trip itineraries, visit:

<http://www.bettertoloseyourhead-rklog.net>

For video of the durational sculpture, visit:

<https://vimeo.com/207037959>

The Artist Portfolio that is part of the dissertation's Appendices features additional documentation of RK-LOG episodes, including Episode Two. The portfolio has images of a series of digital paintings created during production of the episode's installments, photographic documentation of the desert land-yacht (an Airstream trailer) that was used in production of the episode, and images from the sculptural installation used to communicate with the lost body of the fictional biological specimen, RK.

A Middle Voice in Art History: Between Creative Writing and Writing Creatively

Six years ago, the journal *Art History* presented a special issue on the question of art history and creative writing.¹ The introduction to the collection of essays—the outcome of a two year project “Writing Art History” at the Courtauld Institute of Art, London—asserts the truism, “all writing is to some extent creative.”² It then proceeds to inquire: if this is accepted as a general truth, “what does it mean to write art history creatively?”³ Prefaced with this distinction between creative writing and writing creatively, contributions to the issue—later published as the book *Creative Writing and Art History*⁴—present various ways of approaching the question: some contributions explore different modes of writing art history, particularly “writing [in a manner] that is self-conscious of its own process, foregrounding form as much as content”⁵; others present historical writing on art that has a “creative element,”⁶ contemplating the work of scholars like Aby Warburg⁷ (whose projects have been discussed at length in this dissertation); others like the essay “(Blind Summit) Art Writing, Narrative, Middle Voice,” experiment with practice, attempting to reinvent creative writing by writing ‘creatively’ about art.

The essay “(Blind Summit)” is by art historian Gavin Parkinson, a lecturer at the Courtauld whose research focus on surrealism has undoubtedly influenced his perspective on the relationship between art, history, and experimental writing.⁸ As was shown in Part One of this dissertation, adherents to surrealism often worked between the literary arts, sculpture, drawing,

¹ *Special Issue: Creative Writing and Art History*, ed. Catherine Grant and Patricia Rubin, *Art History*. Vol. 34, Issue 2 (April 2011).

² Catherine Grant, “Introduction,” *Creative Writing and Art History*, ed. Catherine Grant and Patricia Rubin, (West Sussex, UK: John Wiley & Sons, 2012), 9.

³ Grant, “Introduction,” 9.

⁴ *Creative Writing and Art History*, ed. Catherine Grant and Patricia Lee Rubin (West Sussex, UK: John Wiley & Sons, 2012).

⁵ Grant, “Introduction,” 9.

⁶ *Ibid.*

⁷ Francesco Vetrella, “Under the Hat of the Art Historian: Panofsky, Berenson, Warburg,” *Creative Writing and Art History*, ed. Catherine Grant and Patricia Lee Rubin (West Sussex, UK: John Wiley & Sons, 2012), 88-109.

⁸

and painting, actively engaging with the interactions among media. The notion of ‘middle voice’ as a trope thus resonates with surrealist poetics. In “(Blind Summit),” however, middle voice is a trope based on a historical and grammatical foundation. Theorized by linguist Emile Benveniste, and critical to the writings of Roland Barthes, Hayden White, and Jacques Derrida, the “middle voice” is presented by Parkinson as an alternative to art historical “realist narratives.”⁹ These narratives, which the author describes “co-opt, conceal or concede authorial agency with the aim of objectivist mastery,”¹⁰ are exactly the kinds of narratives that students of art history are typically trained to construct. Writing about her transition from art history to art criticism, art critic and activist Carla Lonzi wrote of the “repressive” nature of this kind of training in academic art history, which she recounts drove her to seek out other forms of writing about art.¹¹ Lonzi’s art criticism is known for foregrounding voice, for staging conversations she tape-recorded and transcribed. In seeking out an alternative to the kinds of narratives that Parkinson calls narratives of “no voice,” Lonzi rediscovered aurality and orality, listening and speaking, the ear and the mouth.

Since the mouth is the source of the voice, philosopher of the voice Mladen Dolar has said that, what “matters” in any study of voice are “point[s] of intersection,” the “border region” where there is “either incorporation or emission.”¹² The present dissertation has given a name to this ‘border region’: the ‘plastic.’ Like Lonzi’s criticism and Parkinson’s art history, it has sought out alternatives to repressive narratives of mastery; however, at the same time it has also engaged with narratives of ‘no voice,’ first, by submitting to the overall format of the dissertation, and second, by using this submission as an opportunity to actually experiment with ‘no voice.’ In the artist novel RK-LOG, presented here, ‘no voice’ takes the form of the fictional character RK. In

⁹Gavin Parkinson, ““(Blind Summit) Art Writing, Narrative, Middle Voice,” *Creative Writing and Art History*, ed. Catherine Grant and Patricia Rubin, (West Sussex, UK: John Wiley & Sons, 2012), 54.

¹⁰Parkinson, ““(Blind Summit),” 54.

¹¹Carla Lonzi, *Autoritratto* (Bari, Italia: De Donato, 1969), 44.

¹²Mladen Dolar, *A Voice and Nothing More* (Cambridge, MA: MIT Press, 2006), 186.

an attempt to occupy the border region between ‘no voice’ and voice, I created a work of art historical scholarship that makes the adjective and substantive, the ‘plastic,’ into a verb of ‘middle voice’ (‘to plastic’), a verb of action that affects the doer in its acting.

Parkinson presents the “middle voice” as an alternative to realist narratives because it has “the potential to accommodate” both “content” and “form,” and “makes irrelevant the object/subject separation that has always been crucial to art writing.”¹³ As such, it

enabl[es] us to speak of certain objects in voices more attuned to their intended evacuation of narrative and meaning than current rationalist narratives like those of art history, which tend to regulate and house-train through deterministic strategies of circumscription, co-ordination, and explanation.¹⁴

What is the actual grammar of this emancipating “middle voice” that, as a trope, allows us to “attune” our voices to objects? In the grammar of verbs outlined by Benveniste, middle voice occurs with those actions, performed by a subject, that in turn directly affect the subject that performed them: examples, include “to be born, die, follow or yield to a notion of one’s own, master, lie, sit, come back to a familiar state, enjoy or benefit, suffer or endure, experience mental disturbance, take measures, and, of course, speak.”¹⁵ Verbs of middle voice are verbs that “take place within the subject [...] without the absolute requirement for the verb to form a bridge [...] to another person or an object.”¹⁶ For Barthes and Derrida, the middle voice was a “political category,” and the action of writing itself was made a verb of middle voice. As Barthes wrote, “today, to write is to make oneself the centre of the action of speech: it is to effect writing in being affected oneself; it is to leave the writer inside the writing, not as a psychological subject...but as the agent of the action.”¹⁷

Part One of this dissertation discussed philosopher and theorist of the novel Mikhail Bakhtin’s notion of the “plastic-pictorial moment” in the author’s relationship to the novel’s

¹³ Parkinson, “(Blind Summit),” 55.

¹⁴ Ibid.

¹⁵ Ibid., 55.

¹⁶ Ibid.

¹⁷ Ibid., 59.

“hero.”¹⁸ The “plastic-pictorial moment” can be considered an example of the affect of middle voice in the art of the novel because it is an event that occurs between the writer and the act of writing that (as Parkinson describes middle voice) is capable of “register[ing] and contribut[ing] to the transformations of the changing writer.”¹⁹ If writing art history “creatively” means engaging with “an embodied and embedded middle voice” that attends to the writer’s “divided attention, distraction; struggle, confusion, frustration, shortfall of language, sexual feelings, hunger, drunkenness, excitement, discomfort, fear; uncertainty, inconsistency; intrusion of memory, anticipation, and fantasy,”²⁰ then writing art history both creatively and critically through the “plastic-pictorial moment” would be a way of addressing both these transformations in the writer and equivalent transformations in the object that are de-emphasized in Parkinson’s “(Blind Summit).” It is this kind of interaction between the ‘changing writer’ and the changing object that I attempted to foreground in Part One of the dissertation by centering the history of the ‘plastic’ I presented around Maria Hassabi’s live installation, *PLASTIC* (2016). Building on Parkinson’s appeal for a more self-conscious writing of middle voice, this conclusion to the dissertation stakes the claim that there is an important understated role for the actual voice in the ‘middle voice’ alternative to realist narratives in art history.

Parkinson’s “(Blind Summit)” ends with a rather pessimistic take on the state of writing in art history, concluding with a series of questions:

Art writing in middle voice (imperfectly as it may still be practised)? Will this writing always be in parentheses or a margin? Is this still writing *art history* at all? Tell me. Should we continue to respect the law of that genre? Or will this have been part of a movement towards a newer art history?²¹

¹⁸ Mikhail Bakhtin, “Author and Hero in Aesthetic Activity (ca. 1920-1923), *Art and Answerability: Early Philosophical Essays by M. M. Bakhtin*, ed. Michael Holquist and Vadim Liapunov, trans. Vadim Liapunov (Austin, TX: University of Texas Press, 1990), 92-99.

¹⁹ Parkinson, “(Blind Summit),” 62.

²⁰ Ibid.

²¹ Parkinson, “(Blind Summit),” 63.

The conclusion draws attention to the fact that throughout Parkinson's essay, a column of streaming poetic prose occupies a gap along the left edge of the page, which in the original special issue of *Art History*, is set at a 3.5 inch margin. This writing in the margin suddenly acquires a presence: does it offer further insight into Parkinson's quandry? The specific section of text that corresponds to the above-cited passage offers the following scene in which there are four characters, a 'he,' an 'I,' 'oxygen,' and a 'sound': "[...] [i]n indeed, oxygen gets quite thin here and sometimes it is a struggle to keep going.' But he must. I hear a sound behind me, and when I look back[.]”²²

The interrupted descriptive sequence appears to pick back up if the reader returns to the essay's beginning: “a man, eyes tightly shut is drinking from a fountain that is expelling water from two openings.”²³ Thus, a struggle to keep going is interrupted by a sound that triggers a look. The tragic look back is like an Orphean turn to a lost lover, only in this case the lover is found in the everyday image of a man, eyes squeezed closed, drinking from a fountain that spits water from two ends. Between the concluding thoughts about ‘thin oxygen’ and the image of the ‘blind’ man at the water fountain is a photograph of an art object that serves as the essay's cover image.²⁴ In the image are two objects, two 1.5 by 1.5 by 1.5 centimetre micro-sculptures photographed to appear like large 19th-century era hand-warmers on a snowy background—a caption informs they are “made from dust collected in the Whispering Gallery at St. Paul's Cathedral.”²⁵

An epigraph from Roland Barthes introduces the essay: “[t]he revolutionary task of writing is not to supplant but to transgress. Now, to transgress is both to recognize and to invert;

²² Ibid.

²³ Ibid., 48.

²⁴ Cornelia Parker, *Negative of Whispers* (1997), sculpture made from dust collected in the Whispering Gallery at St Paul's Cathedral, 1.5 x 1.5 x 1.5 cm, Galerie Guy Bärtschi.

²⁵ Parkinson, “(Blind Summit),” 47.

the object to be destroyed must be presented and denied at the same time.”²⁶ Strangely, what ultimately remains with the reader about finding a ‘middle voice’ is the denial of the actual voice: its absence takes form in the micro-sculptures titled *Negative of Whispers*, two tiny dust tunnels between a gasp for breath and a thirst satisfied with eyes shut.

A threshold. Parkinson’s call for a commitment to ‘middle voice’ in art historical writing is fundamentally about art history finding a way to relate the experience of a double threshold: the threshold between various temporalities that historical writing straddles, and the threshold between subjecthood and objecthood that writers on art always navigate. Though the essay does not explicitly refer to the threshold, it calls direct attention to its figure with the mysterious, mundane “fountain that is expelling water from two openings.”²⁷ Do these two openings spit water at each other, placing the drinker between two spouts? Or do they face away from each other, forcing the drinker to choose one? The micro-sculptures made from dust are too tiny and too delicate to cover even two imaginary spouts on a remembered water fountain in the distant memory of a frustrated historian. The scenario is deliberately posed as an enigma. If a ‘newer art history’ proposed a way for the marginalized to be absorbed by canons, and for parentheses to spill their asides into the main lines of argument, would this manage to get at the middle voice Parkinson calls for? What would such a ‘newer art history’ look like?

With his book *24/7: Late Capitalism and the Ends of Sleep* (2013), art historian and theorist Jonathan Crary reflects on the consequences of contemporary “24/7 temporalities” and the demands they place on one particular verb of middle voice: to sleep.²⁸ The drive for sleeplessness is evidenced even in artifacts of progressive culture, like the colloquial qualifier “woke,” assigned to a person who demonstrates “alert[ness] to injustice in society, especially

²⁶ Ibid., 48

²⁷ Ibid.,

²⁸ Jonathan Crary, *24/7: Late Capitalism and the Ends of Sleep* (London, UK: Verson, 2013), 15.

racism.”²⁹ Late capitalism demands a state of constant alertness, not only among those who drive its systems, but among those who aim to resist its processes. Crary’s book-length essay circles around a painting he introduces in the third chapter, Joseph Wright of Derby’s *Arkwright’s Cotton Mills by Night* (1782), which he claims contains “some significant and early anticipations” of the contemporary drive to eliminate the need for sleep.³⁰ Derby’s painting of a moon-lit landscape with factories in nighttime operation “announces the rationalized deployment of an abstract relation between time and work, severed from the cyclical temporalities of lunar and solar movement”: the “novelty” of this painting is its “radical reconceptualization of the relation between work and time.”³¹ Though Crary’s book is not *about* Derby’s *Arkwright’s Cotton Mills*, its exploration of the “ends of sleep” spirals around the painting: it is an art history that is both *about* and *in the mode of* middle voice—it explores shifts in behavior that lead its writer to rethink his own existence, his own writing practice, and an old work of art in new terms, and at the center of this existential and art historical rethinking is an actual verb of middle voice, ‘to sleep.’

Artist David Maroto and art historian Joanna Zielińska shift the context of the question about the relationship between art history and creative writing to art practice in their collaborative project “The Book Lovers,” introduced in the publication *Artist Novels: The Book Lovers Publication* (2014).³² In response to a recent phenomenon of “visual artists” increasingly turning to the novel as a “medium,” Maroto and Zielińska ask “what causes the desire-to-write in visual artists” and how can artist novels be curated?³³ Artists use “different strategies” like “installation,

²⁹ Oxford Dictionaries Blog, “Word of the Year 2016: other words on the shortlist,” *Oxford Dictionaries*. Published November 16, 2016. Accessed December 4, 2016. <http://blog.oxforddictionaries.com/2016/11/word-of-the-year-2016-shortlist/>

³⁰ Crary, 24/7, 61.

³¹ *Ibid.*

³² David Maroto and Joanna Zielińska, *Artist Novels: The Book Lovers Publication* (Berlin, Germany: Sternberg Press, 2014).

³³ David Maroto and Joanna Zielińska, “Foreword,” *Artist Novels: The Book Lovers Publication* (Berlin, Germany: Sternberg Press, 2014), 6.

video, sculpture, drawing, performance, painting and the novel itself” to “integrate their novels into their artistic practice,” and Maroto and Zielińska assert that treating all of these strategies “on the same level implies a redefinition of art practice.”³⁴ In the present dissertation, I have attempted to frame my own work between art practice and art history in similar terms, proposing that tendencies like dance-in-the-museum (i.e., Maria Hassabi’s *PLASTIC* (2016) and the “artist novel” (which, as Maroto and Zielińska argue, seeks something more from the novel than simply the production of a “piece of narrative fiction”³⁵) demand a reconsideration of art practice through the concept of the ‘plastic’ and the notion of ‘plastic arts.’

To Speak is a Verb of Middle Voice: Actual Voice in Art Historical Ethno-fiction

The middle voice that has been proposed for rethinking the relationship between the artist novel, art history, writing creatively, and writing critically, is a way to work with the temporal and spatial shifts, and the fraught interchange between subjectivity and objectivization, that Part One of this dissertation showed is what constitutes the ‘plastic’ in art. In *RK-LOG*, I conceive of middle voice in both the grammatical sense, as well as in a literal sense, as a *voice* in the *middle* of the polyphony that occupies and surrounds art objects. This voice is the constant ‘chatter’ of discourse—praise, denouncement, ridicule and even silence—that circles the art object and that, through processes of historicization, the object absorbs into itself like a defense against a hostile threat. In Episode Two of *RK-LOG* (presented here) listener-viewers are invaded by the voices that haunt a monumental art object of late 20th-century art, *The Chinati Foundation/La Fundación Chinati* (1981 – 1985), the artist museum of minimalist Donald Judd (1928 – 1994). The hero of the *RK-LOG* artist novel is the fictional biological specimen, RK. The chorus of voices commanded by the afterlives of both the art object, *Chinati*, and the fictional corporeal fragment, RK, are conducted through processes of scripting, writing, improvisation, and cut-up editing of

³⁴ Maroto and Zielińska, “Foreword,” 7.

³⁵ *Ibid.*, 6.

interviews, found-audio, and field recordings. RK-LOG audio-drama, scenography, and silent video used in the creation of the novel are experienced separately in different spaces, at different times, to work with the gap between voice and vision. In audio-editing, musical attention to accent and vocal intonation plays with the split between voice and speech. The verb of middle voice, 'to speak', remakes what it means to write art history with 'plastic' vision.

Though art history continues to understand itself as a discipline dedicated to the act of looking, increasing attention is being given to listening. In recent years, a number of exhibitions have focused on the voice in contemporary art with curators seeking to bring attention to overlooked experimental practices in performance and sound art. The middle voice is a trope in RK-LOG in another sense: RK-LOG is a voice in the middle of experiments with the artist novel, between art history, performance, and sound art. The problem of the middle voice is a synecdoche not only for the problem of aurality and orality in art historiography, but for the voice of the artist-art historian split between regimes of art and regimes of art history. This voice asks 'what is the position of the actual voice – the voice that vibrates from vocal chords – in the art of the artist novel and in the art of writing art history?' The present section of the dissertation, Part Three, answers this question with the multi-installment audio-drama *Better to Lose Your Head Than Use It*, Episode Two of RK-LOG.

RK-LOG is an artist novel, a work of art historical and ethnographic fiction, that takes the form of a serialized audio-drama and silent-video epic. It writes art history 'plastically' through verbal performance, ethnography, speculative fiction, the creation of sculptural scenographic environments, movement-research, and experimental literature. It began to take form after my studies of the poems, plays, novels, and travelling caravan of artist and writer Raymond Roussel, whose work has influenced artists as varied as Marcel Duchamp, Steve Fagin

and Guy de Cointet.³⁶ Ethno-fiction is an experimental literary and film genre informed by ethnographic research³⁷: RK-LOG uses object interactions, theatre-improvisation, and performance techniques³⁸ to guide participant-performers in the creation of fictional personas that play the part of ethnographic informants in RK-LOG episodes. ‘RK’ is a fictional biological specimen and the ‘LOG’ is a collection of files that documents incidents in the specimen’s afterlife. The remains of RK are not fixed, but manifest as different parts of the body depending on both the works of art that are at the center of RK-LOG fieldwork and the landscape where an episode’s research is based.

RK-LOG has thus far always been researched and produced in landscapes that are experienced as plastic thresholds. In the United States, RK-LOG has been based between two US-Mexico trans-border regions: the San Diego-Tijuana borderlands in California, and the Presidio-Chihuahua borderlands in Texas. In the San Diego-Tijuana borderlands, the RK specimen manifested as a preserved brain in the process of being sliced on a microtome; in the Presidio-Chihuahua borderlands it is the back half of a cryogenically conserved head brought to mobile laboratories for experiments. Incidents in the afterlife of RK are improvisational prompts that get performance-participants talking about art. Fieldwork with ethno-fiction informants focuses on interacting with people whose experiences of art are traditionally underrepresented.

In *Better to Lose Your Head Than Use It*, performance-participants are presented with a near-future scenario in the afterlife of the fictional specimen RK. This scenario involves mid-twenty-first century borderlands experiments in mobile laboratories near what, in a speculative parallel world, is a forgotten monument of late nineteenth century borderlands art: minimalist Donald Judd’s *The Chinati Foundation*. The project strengthens and develops art historical

³⁶ In particular, see Raymond Roussel, *Locus Solus*. Paris: A. Lemerre, 1914.

³⁷ Victor Segalen, *René Leÿs* (1922) (Paris: Editions Chatelain-Julien, 1999); Blaise Cendrars, *Moravagine* (Paris: B. Grasset, 1926); *Jaguar* directed by Jean Rouch (1967; Brooklyn, NY: Icarus Films, 2010) DVD.

³⁸ Guillermo Gómez-Peña and Roberto Sifuentes, *Exercises for Rebel Artists: Radical Performance Pedagogy* (London, UK: Routledge, 2011); Eugenio Barba, *La Canoa di Carta: Trattato di Antropologia Teatrale* (Bologna, Italia: Il Mulino, 2004).

research and engagement in the US-Mexico borderlands by creating a variety of opportunities for participants and listener-viewers to learn about the history of *Chinati* and the mid-twentieth century art theory that informed its creation. Judd originally planned the installation for the borderlands landscape of Baja California; ultimately, he installed it on the Presidio-Chihuahua grounds of Marfa's former U.S. Fort D.A. Russell, a prisoner-of-war camp that held German prisoners-of-war from the World War Two African campaigns.³⁹ One of the several art historical outcomes of RK-LOG is the suggestion that Judd's *Chinati* project—canonized as an example of North American minimalist art, and what Judd called a “specific object”—be rethought as a ‘plastic’ object specific to the trans-border geographies of the Presidio-Chihuahua borderlands.

Better to Lose Your Head Than Use It began as a reflection upon dancer Yvonne Rainer's U.S.-Mexico border experience of a plastic threshold “on two frontiers” when she travelled to the Texas border for a visit to Judd's *Chinati*. Rainer danced with Judd's wife, Julie Finch, in the Judson Dance Theater, and Finch and Judd even named their daughter Rainer.⁴⁰ After her visit to Judd's artist museum, Rainer's subsequent cinematic works invoked the plastic threshold twice: first, with actual visual reference to Judd's *Chinati*; second, with an explicit narrative allusion to the Texas-Mexico border. *The Man who Envied Women* (1985) features footage of Judd's *15 Untitled Works in Concrete* installed outside on the *Chinati* grounds: as if halted by a sense of the sublime, the camera hesitates in front of Judd's culvert-like concrete modules installed in the desert landscape while, with eerie prescience for the future art-tourist town, a voice-over comments on the phenomenon of artist-led gentrification in urban centers.⁴¹ In *Privilege* (1990), intertitles filmed from a Macintosh SE monitor flicker with text that recounts revelation inspired by the post-modern picturesque of division and surveillance at the Texas-

³⁹ Donald Judd, “Marfa, Texas (1985)” as reprinted in *Chinati: The Vision of Donald Judd*, ed. Marianne Stockebrand (New Haven, CT: Yale University Press, 2010), 278. Lonny Taylor, “Fort D.A. Russell, Marfa,” transcript of a lecture presented at the Chinati Foundation, May 1, 2011. Accessed September 10, 2016. <https://chinati.org/programs/lonny-taylor-fort-d-a-russell-marfa>

⁴⁰ Yvonne Rainer, *Feelings Are Facts: A Life* (Cambridge, MA: MIT Press, 2006).

⁴¹ *Privilege*, directed by Yvonne Rainer (1990; New York, NY: Zeitgeist Films, 1990), VHS.

Mexico border: a character finds herself on “two different sides of two frontiers: economically, [...] on the advantaged side [of privilege] overlooking a third-world country [...] sexually, on the other side, having passed the frontier of attractiveness to men.”⁴² In both instances, spatial contexts affect existing sensory and affective capabilities by producing a new spatial politics informed by intersections among environmental aesthetics, subjectivity and spectatorship.

In *Better to Lose Your Head Than Use It*, the figure of the plastic threshold is used to deconstruct encounters with Judd’s borderlands complex. Voices of area residents who live in the borderlands region around *Chinati* imagine a near future in which this complex has become the ceremonial core of a virtual ‘Great Wall’ on the U.S.-Mexico border. Vandals and iconoclasts called ‘trespassers’ and ‘intruders’ attempt to access what is now called *Chiniti*, a memory theatre at the center of an absurd proxy war between genetically-modified salt cedar beetles and remote-controlled cockroaches. Through art historical ethno-fiction, RK-LOG puts the concept of the ‘plastic’ that has been explored in this dissertation into practice, and through practice, performs its own theorization of the ‘plastic.’

RK-LOG has been screened online, in choreographed car trips, in drive-ins, in auditoriums, and in exhibition halls. It has been experienced as an online audio drama and staged with elaborate site-specific architectural elements and sculptures. This ‘plastic’ artist novel of art historical ethno-fiction explores associations between the condition of being a “plastic body”⁴³ in a “plastic duration,”⁴⁴ and the in-betweenness that has been theorized in borderlands performance practice.⁴⁵ In RK-LOG, plastic “corporeality,”⁴⁶ “plastic identity,”⁴⁷ and “plastic sexuality”⁴⁸ are

⁴² *The Man Who Envied Women*, directed by Yvonne Rainer (1986; New York, NY: Zeitgeist Films, 2005) DVD.

⁴³ Carolee Schneeman, “Letter to Joseph Berke, Feb 14 1967,” *Correspondence Course: An Epistolary History of Carolee Schneeman and her circle* (Durham, NC: Duke University Press, 2010), 113.

⁴⁴ Marcel Duchamp, *À l’Infinif*, in the original French with a pamphlet in translation, trans. Cleve Gray (New York: Cordier & Ekstrom), 1966.

⁴⁵ Guillermo Gómez-Peña, *Friendly Cannibals* (San Francisco: Artspace Books, 1996); Critical Art Ensemble, *Electronic Civil Disobedience* (New York, NY: Critical Art Ensemble, 1994); Coco Fusco, *Corpus Delecti: Performance Art of the Americas* (New York, NY: Routledge, 2000).

explored through episodes in the afterlife of the fictional ambisexual specimen, RK. RK-LOG is informed by early twentieth century precedents for art-writing through fictional specimens and fictional case studies,⁴⁹ and contemporary research-based works of performance-practice.⁵⁰

RK-LOG research always involves complex negotiations. For example, a Michigan-based neurophysiologist agreed to work with me as a performance-participant in the Marfa episode; however, I needed to find an appropriate way for him to come to Far West Texas. I organized for him to teach three-day workshops on neurophysiology at the Marfa and Presidio Independent High Schools and used these workshops as an occasion to teach students about both neuroscience and post-conceptual art, while learning about the kind of character the neurophysiologist would play in the ethno-fiction. Through other negotiations with a city councilman and a borderlands landowner who is a Hollywood actor, I was able to dock a thirty-foot aluminum land-yacht on a plot of desert cattle-grazing land. The ‘land-yacht’ is a retrofitted trailer I re-designed for desert living and have used as a research-and-production base for desert thinking, for desert ecology observations, and for field recordings.

The plastic threshold is the articulation of a spatial politics, of a theoretical framework, and of a particular temporality. It is a specific borderlands region between Texas and Mexico; it is a way of writing art history through ethnographic fiction; and, it is malleable duration and plasticity of scale between distant historical moments and geopolitical entities. As she describes it, Yvonne Rainer’s filmic counter-narratives to dominant documentary forms play with “the

⁴⁶ Rosi Braidotti, *Nomadic Subjects: Embodiment and Sexual Difference in Contemporary Feminist Theory* (New York, NY: Columbia University Press, 2011); Rosi Braidotti, *The Posthuman* (Cambridge, UK: Polity Press, 2013).

⁴⁷ Catherine Malabou, *What Should We Do With Our Brain?* (New York, NY: Fordham University Press, 2008).

⁴⁸ Anthony Giddens, *The Transformation of Sexuality: Sexuality, Love and Eroticism in Modern Societies* (Cambridge, UK: Polity Press, 1992).

⁴⁹ Blaise Cendrars, *Moravagine* (Paris: B. Grasset, 1926); Raymond Roussel, *Locus Solus*. Paris: A. Lemerre, 1914).

⁵⁰ Janet Cardiff and Mirjam Schaub, *Janet Cardiff: The Walk Book* (Vienna, Austria: Thyssen-Bornemisza Art Contemporary, 2005); *Privilege*, directed by Yvonne Rainer, op. cit.

separation of persona and speech,” the “disparities between sound and image,” and fractured identity in autobiography “split across any number of people.”⁵¹ As a theoretical framework to writing art history through ethnographic fiction, the plastic threshold builds on Rainer’s precedent for a speculative approach to the critical distance of documentary, working with the feeling of being split across any number of people, across any number of objects, on two different sides of two frontiers—a middle voice between fact and fiction, between the word on the page and the word in the ear, between voices in the head and the voices absorbed by objects, between art history and art practice.

A Tale of Three Objects, or *Better to Lose Your Head than Use It*⁵²

Before inviting the reader to listen to *Better to Lose Your Head than Use It*, the dissertation concludes with a discussion of three objects of evidence (fig. 1) whose intentional accidental discovery between 2011 and 2012, initiated the process of creating the RK-LOG episode. I discovered the three objects during fieldwork at Donald Judd’s artist museum,⁵³ *The Chinati Foundation*, built in the Texas-Mexico borderlands between 1979 and 1985 (fig. 2).⁵⁴

⁵¹ “Yvonne Rainer (on *Privilege*),” *A Critical Cinema 2: Interviews with Independent Filmmakers*, ed. Scott MacDonald (Berkeley, CA: University of California Press, 1992), 350.

⁵² This section of the dissertation is an iteration on the script for a presentation that was given as part of the panel, “Evidence of Remembrance: Identity, National Consciousness, and Museum Culture” organized by Bennetta Jules-Rosette and Erica L. Fontana for the American Anthropological Association (AAA) 115th Annual Meeting, “Evidence, Accident, E Discovery,” Minneapolis, MN, November 16-20, 2016. The talk was originally titled “Peddlers and Bandits in the Museum, or Remembering Ramon Karam: Memorializing Plastic Identity on the Texas-Mexico Border through Artist Donald Judd’s Minimalist Museology” and has been given a new title here. The material presented is from a dissertation chapter titled “Plastic Threshold” about art-practice based experiments with the concept of the plastic at American minimalist Donald Judd’s *The Chinati Foundation/La Fundación Chinati* (1979-1985). The broader dissertation is on the concept of the plastic in artist writings, art theory, art history and evolutionary biology. The dissertation will be submitted for a PhD degree in Art History, Theory and Criticism (concentration in Art Practice; specialization in Anthropogeny) at the University of California, San Diego in June 2017.

⁵³ For more on artist museums, see AA Bronson’s *Museums by Artists* (1983). AA Bronson, *Museums by Artists*, ed. AA Bronson and Peggy Gale. (Toronto, Canada: Art Metropole, 1983).

⁵⁴ Marianne Stockebrand, “The Journey to Marfa and the Pathway to Chinati,” in *Chinati: The Vision of Donald Judd*, ed. Marianne Stockebrand (New Haven, CT: Yale University Press, 2010), 18, 30-31 and 35. Judd rented the easternmost hangar of the Fort D.A. Russell complex in 1973 and installed work there; he purchased both of the two hangars in 1973 (Stockebrand, “The Journey to Marfa and the Pathway to

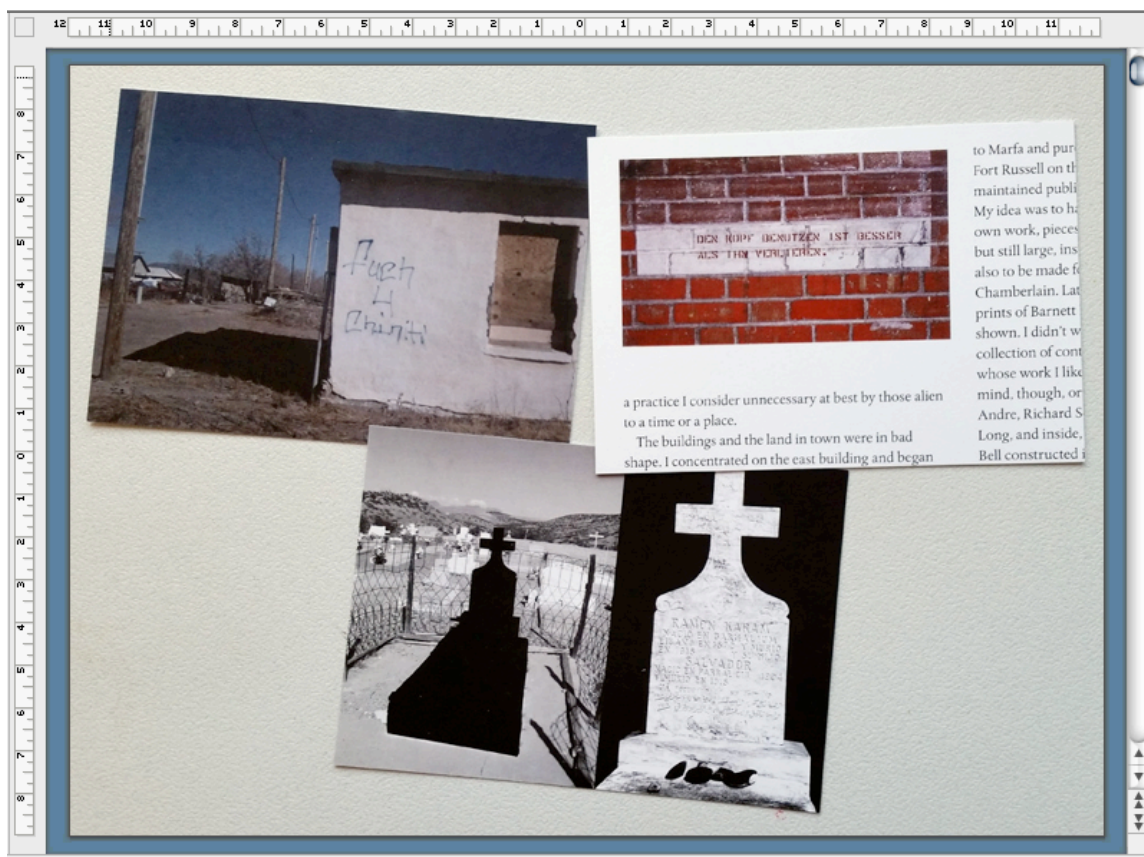


Figure 1 All of the figures in this paper are screenshots of slides from a PowerPoint presentation created by the author. Postcards of the three objects of evidence that are discussed in the essay. The postcards are from a limited edition created by the author. Image by the author.

In describing how the town of Marfa in the south of Far West Texas became the site of the artist museum he would come to name *The Chinati Foundation/La Fondation Chinati* (1986), American minimalist Donald Judd (Missouri, 1928 – New York, 1994) wrote “everyone knows that nothing is accidental, everything is fully planned.”⁵⁵ For Judd, it was no accident that in 1946—as he travelled from Alabama to California for deployment in the Korean War—he had

Chinati,”18). In 1978, the Dia Art Foundation and Judd met to plan an official project in Marfa (30-31). In 1979, he moved to Marfa (Ibid, 18). In 1985 the *Chinati* board of directors under Dia administration resigned and a new board replaced them marking the independence of the project from Dia. In 1986, what had previously been called “The Art Museum of the Pecos” was renamed “The Chinati Foundation” (Ibid, 35).

⁵⁵ Donald Judd, “Marfa, Texas (1985),” *Chinati: The Vision of Donad Judd*. New Haven: Yale University Press, 2010, 277.

sent a telegram to his mother commenting on the “beautiful country” in the region around Marfa.⁵⁶ Twenty-five years later, he would rediscover the area while “looking for a place” that “wasn’t crowded” – a potential place for installations.⁵⁷ Intentional accidental discovery occupies the interstice between the two statements Judd joined in his utterance: “nothing is accidental” and “everything is fully planned.”⁵⁸ It is a working process that creates the conditions of possibility for felicitous happenstance. Felicitous happenstance is not described as ‘felicitous’ for the “blissful”⁵⁹ affect it can induce in the artist or researcher who acts as its vector; rather, it is denominated as such because particularly well ‘suited to an occasion,’ and “fortunate”⁶⁰ for the fate of the objects it elevates to the status of evidence. As a result, felicitous happenstance differentiates itself from serendipity, which is generally understood as a kind of “dumb luck”⁶¹ that always has positive consequences for the subject at the center of its occurrence. There is nothing ‘dumb’ about felicitous happenstance; yet, though the situation from which it emerges requires keen wit and quick judgment, it does demand the ability to play dead, to inhabit a state of being without any active living intention.

To better explain how felicitous happenstance can work in artistic research towards writing ethnographic fiction (ethno-fiction),⁶² this conclusion to the dissertation focuses on the

⁵⁶ Judd, “Marfa, Texas (1985),” 277.

⁵⁷ *Ibid.*, 278.

⁵⁸ *Ibid.*, 277.

⁵⁹ “felicitous, adj.” *Oxford English Dictionary Online*. March 2017. Accessed April 10, 2017. Oxford University Press. <http://www.oed.com/view/Entry/69056?redirectedFrom=felicitous>

⁶⁰ felicitous, adj.” *Oxford English Dictionary Online*, op. cit.

⁶¹ Susan E. Alcock, “The Stratiagraphy of Serendipity,” *Serendipity: Fortune and the Prepared Mind*, ed. Mark de Rond and Iain Morley. Cambridge, UK: Cambridge University Press, 2010. 12.

⁶² The following definition of ethnographic fiction is provided by Tobias Hecht in *Afterlife: an ethnographic novel*: “an approach to the study and evocation of social life and the world of the mind that emerges from rigorous observation, makes use of certain conventions of ethnographic fieldwork and writing, but also employs literary devices. It is inspired by observation over the long run, based on recognizable scenarios, and treats a particular moment. It is not, however, restricted by these things; it takes liberties with reality.” Clifford Geertz coined the term “faction” to describe “imaginative writing about real people in real places. For both of these definitions and others, see Matt Jacobson and Soren C. Larsen, “Ethnographic Fiction for Writing and Research in Cultural Geography,” *Journal of Cultural Geography*. Vol. 21. Iss. 2. (May 2014), 181. Examples of ethnographic fiction that influenced the creation of *Better to Lose Your Head than Use It* include the films of Jean Rouch and the writings of Victor

three objects of evidence that I intentionally accidentally discovered between 2011 and 2012. I discovered the objects during fieldwork in the region around Judd's artist museum.⁶³ I call this region the Presidio-Chihuahua borderlands, and it extends between Far West Texas and Northern Mexico. The three objects that I intentionally accidentally discovered are: a World War II-era German sign (fig. 1, right, upper right), a graffitied wall (fig. 1, right, upper left), and a granite gravestone (fig. 1, right, bottom). I discovered all three objects while working as an artist-in-residence in the town of Marfa where Judd's *Chinati* is located.⁶⁴ The three objects became protagonists in *Better to Lose Your Head than Use It*, an ethnographic-fiction audio-drama I composed that is about the landscape around *Chinati*, a landscape I have since come to call the "plastic threshold" (fig. 3).⁶⁵ The plastic threshold is a crossing into a beyond that not only moves bodies,

Segalaen, Blaise Cendrars and Michel Leiris. In art criticism, Hal Foster reacted against an "ethnographic" turn in art practice in the 1990s, with the seminal essay "The Artist as Ethnographer." See Hal Foster, "The Artist as Ethnographer (1995)," *The Return of the Real: The Avant-garde at the End of the Century*. Cambridge, MA: MIT Press, 1996. 171 – 204. Invited to present at a *Fieldwork:Marfa* symposium at Marfa's Crowley Theater in Spring 2012, four months after the conclusion of my 2011 Winter residency in Marfa, I gave a talk "What is Artistic Fieldwork?" on a panel titled "Fieldwork as Methodology." My talk revisited Foster's essay in the context of the new *Fieldwork:Marfa* residency program.

⁶³ For more on artist museums, see AA Bronson's *Museums by Artists* (1983). AA Bronson, *Museums by Artists*, ed. AA Bronson and Peggy Gale. (Toronto, Canada: Art Metropole, 1983).

⁶⁴ My first period of residency was in 2011 when I was hosted by the European initiative *Fieldwork: Marfa*. This initiative was started by the ENSBA-Nantes (École Nationale Supérieure des Beaux-Arts, Nantes), HEAD-Genève (Haute École d'Arts Appliqués, Genève) and the Gerrit Rietveld Academie and was curated by Theo Tegelaers (SKOR) and Etienne Bernard (ENSBA-Nantes). The residency program has since changed sponsors: the Gerrit Rietveld Academie is no longer involved and the University of Houston has become part of the partnership. My second period of residency was in 2012 as an artist-grantee of the University of California Institute of Research in the Arts (UCIRA).

⁶⁵ This term is discussed in my doctoral dissertation *Plastics! Histories, Theories and Practices to Rethink the Concept of the Plastic, between Plasticity and Plasticism*. The term "threshold" comes from Michel Foucault's *Death and the Labyrinth* an early essay the philosopher wrote on artist Raymond Roussel's work. Foucault describes a "field of imagination" that Roussel established with language games that served to both "protect and release" his fictional world through what Foucault calls "rites of threshold and lock" (Michel Foucault, *Death and the Labyrinth*, Trans. John Ashberry (London, UK: Continuum Publishing, 2004), 10). Thresholds are crossings that "have the quality of being open and closed at the same time" (Foucault, *Death and the Labyrinth*, 159). Roussel's writings, in particular *Impressions of Africa* (*Impressions d'Afrique*, 1910) and *Locus Solus* (1914) were a principal source of influence in the development of processes used to create *Better to Lose Your Head Than Use It*.

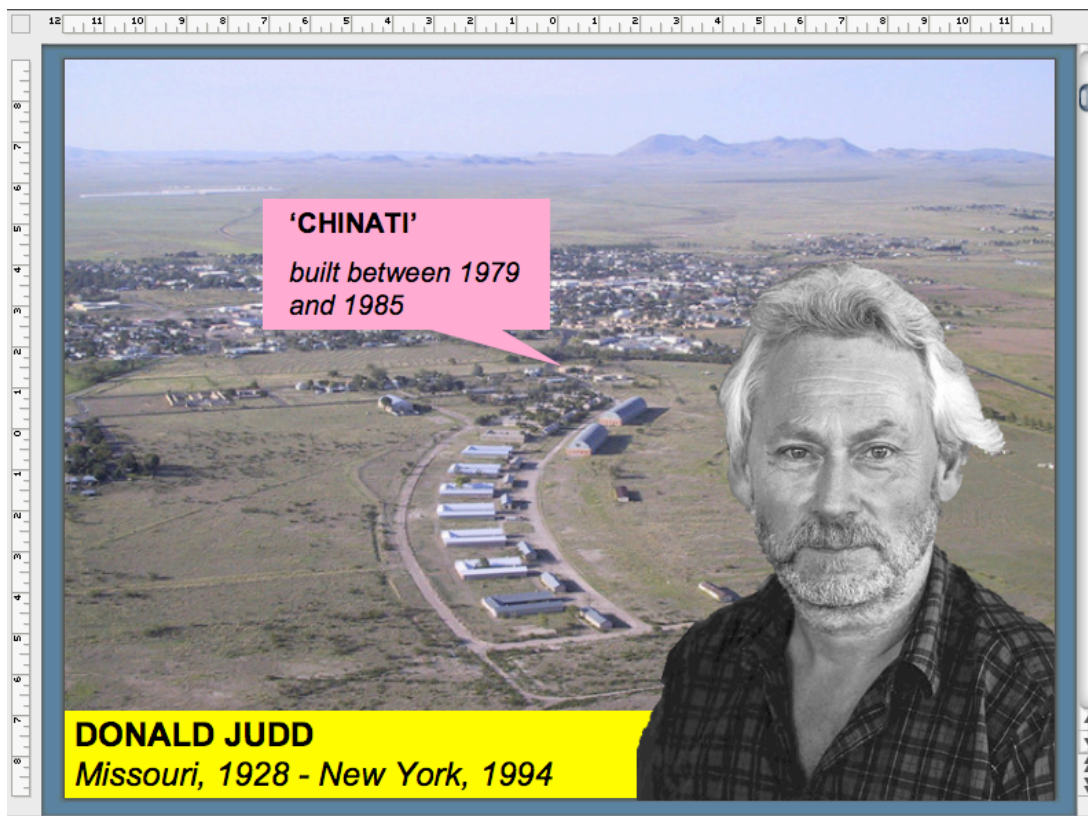


Figure 2 Screenshot of a Powerpoint Presentation by the author: Donald Judd and his artist museum, *The Chinati Foundation/La Fundación Chinati* (1979 – 1985) (photo: The Chinati Foundation). Image by the author.

but intensifies, amplifies, and fundamentally transforms them from within. The approximately six and a half hour audio-drama, *Better to Lose Your Head than Use It*, is set to a road-trip itinerary that travels between art-tourist town Marfa and a camposanto cemetery on a remote hillock approximately 20 miles west of the Texas bordertown Presidio. Presidio is the sister town of Mexico's Ojinaga, a renowned site of famous battles in the Mexican Revolution, including one for which revolutionary leader Pancho Villa allegedly staged reenactments for a film contract he signed with a Hollywood newsreel company.⁶⁶

⁶⁶ Mike Dash, "Uncovering the Truth Behind the Myth of Pancho Villa, Movie Star." *The Smithsonian Magazine*. November 6, 2012. Accessed November 10, 2012. <http://www.smithsonianmag.com/history/uncovering-the-truth-behind-the-myth-of-pancho-villa-movie->

Over the past century, the identity of the town of Marfa has shifted from provincial cattle-ranching center and military outpost, to cosmopolitan village known for pipeline protests, hydroponic tomato-farming, art tourism, food trucks, and a trailer, tent and teepee hotel (fig. 4).⁶⁷ It is common for long-awaited new restaurants and commercial activities including art galleries, to open and close in a matter of months. Despite the steady influx of new-comers and opportunity seekers, it is not easy to ‘make it’ in Marfa: “people come here looking for something,” explained one area resident, “and so you’re always kind of thinking, what are they looking for, what is it they wish they were? And then when they don’t find it they leave and you know that nothing is going to transform them.”⁶⁸

Ex-urban development in the remote semi-rural town has followed the general rules of gentrification and aestheticisation described by scholarship in urban studies and planning.⁶⁹ In Marfa, the formerly New York-based artist Judd unintentionally initiated an influx of relatively wealthy residents into what, in the 1970s, had become a struggling small town of lesser affluence. This process really began taking shape several years after Judd’s premature death from non-Hodgkin’s lymphoma when a Houston lawyer and his wife recognized the potential of Judd’s Marfa as an art-tourism niche for real estate speculation and legacy building (fig. 5).⁷⁰ The town has a population of approximately 2,000 residents, around 70% of whom self-identify as Hispanic or

star-110349996/. See also, Lonn Taylor. Conversation with Emily Verla Bovino. Personal Interview. Fort Davis, Texas, December, 2011.

⁶⁷ For more on the history of Marfa, see Stockebrand, “The Journey to Marfa and the Pathway to Chinati”; Donald Judd, “Marfa, Texas (1985)” as reprinted in *Chinati: The Vision of Donald Judd*, ed Marianne Stockebrand (New Haven, CT: Yale University Press, 2010). Cecilia Thompson, *History of Marfa and Presidio County, Texas, 1535 – 1946*. (Waco, TX: Nortex Press, 2011); Louise S. O’Connor and Cecilia Thompson, *Marfa*. Images of America Series. (Charleston, SC: Arcadia Publishing, 2009).

⁶⁸ Lonn Taylor. Conversation with Emily Verla Bovino. Personal Interview. Fort Davis, Texas, December, 2011.

⁶⁹ David Ley, “Artists, Aestheticisation and the Field of Gentrification,” *Urban Studies*, Vol. 40, No. 12 (November 2003): 2527 – 2544.

⁷⁰ O’Connor and Thompson, *Marfa*, 97.



Figure 3 (left) Objects and environments created during the scripting and editing of the RK-LOG ethno-fiction episode *Better to Lose Your Head Than Use It* based on research in Marfa, Texas; (right) digital painting sketch created to accompany the audio-drama installments from the episode. Images by the author.

Latino⁷¹; its new creative class and transient art-tourists are predominantly economically-privileged and white.⁷²

Seven years after reports about the Marfa “land boom” circulated in real estate news (fig. 4, bottom),⁷³ *Fieldwork: Marfa*, the European initiative that sponsored my artist-residency, hosted its inaugural year.⁷⁴ The proposal I submitted for the open call was accepted for the first three-month session. From my readings of Judd’s writings and other related research, I knew Judd’s *Chinati*—named for the Chinati Mountains (fig. 6)—had retrofitted the grounds of a former World War II (WWII) prisoner-of-war camp named for an American Civil War general, David Allen Russell. Though Russell had been at the bottom of his class at West Point, he had earned the respect of his colleagues fighting in the Mexican-American War (1846-1848).⁷⁵ Judd redesigned the structures at Fort D.A. Russell to house a series of permanent installations he curated, two of which are projects of his own: *100 Untitled Works in Mill Aluminum* (1982 – 1986) and *15 Untitled Works in Concrete* (1980 – 1984).⁷⁶ The *Chinati* museum complex is generally associated with North America and the state of Texas; however, Judd’s planning began with site visits to Northern Mexico in Baja California. As a result, I decided to focus my art practice and art history-based ethno-fiction research on exploring *Chinati* as an example of an artist museum specific to the U.S.-Mexico borderlands.⁷⁷

⁷¹ “2010 Census.” *CensusViewer*. Accessed September 10, 2016, <http://censusviewer.com/city/TX/Marfa>

⁷² Julia Lawlor, “The Great Marfa...Land Boom.” *The New York Times*. Published April 29, 2005. Accessed September 10, 2016. <http://www.nytimes.com/2005/04/29/realestate/the-great-marfa-land-boom.html>

⁷³ Sterry Butcher, “Fieldwork Marfa Launches International Research in Residence Program.” *Big Bend Now*. Published October 6, 2011. Accessed September 10, 2016. <http://bigbendnow.com/2011/10/fieldwork-marfa-launches-international-research-in-residence-program/>

⁷⁴ Judd, “Marfa, Texas (1985),” 278. Lonn Taylor, “Fort D.A. Russell, Marfa,” transcript of a lecture presented at the Chinati Foundation, May 1, 2011. Accessed September 10, 2016. <https://chinati.org/programs/lonn-taylor-fort-d-a-russell-marfa>

⁷⁵ Ryan A. Conklin, *The 18th New York Infantry in the Civil War: A History and Roster* (North Carolina: McFarland & Company Publishers, 2016) 303; Ezra J. Warner, *Generals in Blue: Lives of the Union Commanders* (Baton Rouge, LA: Louisiana State University Press, 1964), 416.

⁷⁶ Stockebrand, “The Journey to Marfa and the Pathway to Chinati,” 35.

⁷⁷ Judd, “Marfa, Texas (1985),” 278.

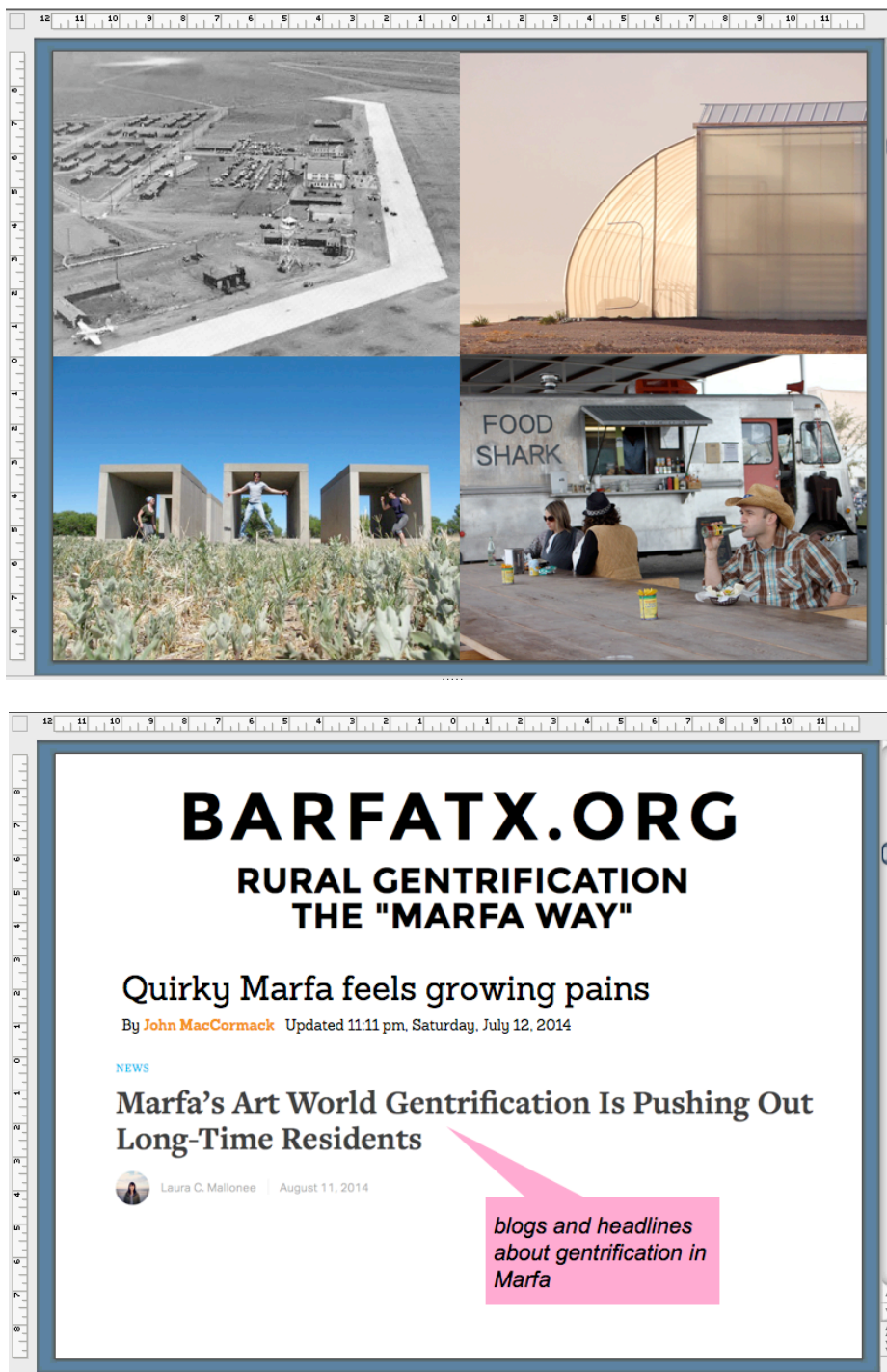


Figure 4 (top) Images of Marfa from 1946 to the present: (upper left) Marfa Army Airfield circa 1945 (photo: Marfa Historical Society and airfields-freeman.com); (upper right) greenhouses for hydroponic tomato farming (photo by the author); (lower left) art tourists at *Chinati* (photo: jumpinginartmuseums.blogspot.com); (lower right) Marfa's renowned *Food Shark* food truck (photo: the daytripper.com); (bottom) blogs and headlines about gentrification in Marfa (sources from top to bottom: barfatx.org; mysanantonio.com; hyperallergic.com). Images by the author.



Figure 5 Digital painting sketch of critical stages in Marfa gentrification: (1) 2000s: Houston lawyer, Tim Crowley; (2)1980s-1990s: New York artist, Donald Judd. Image by the author.

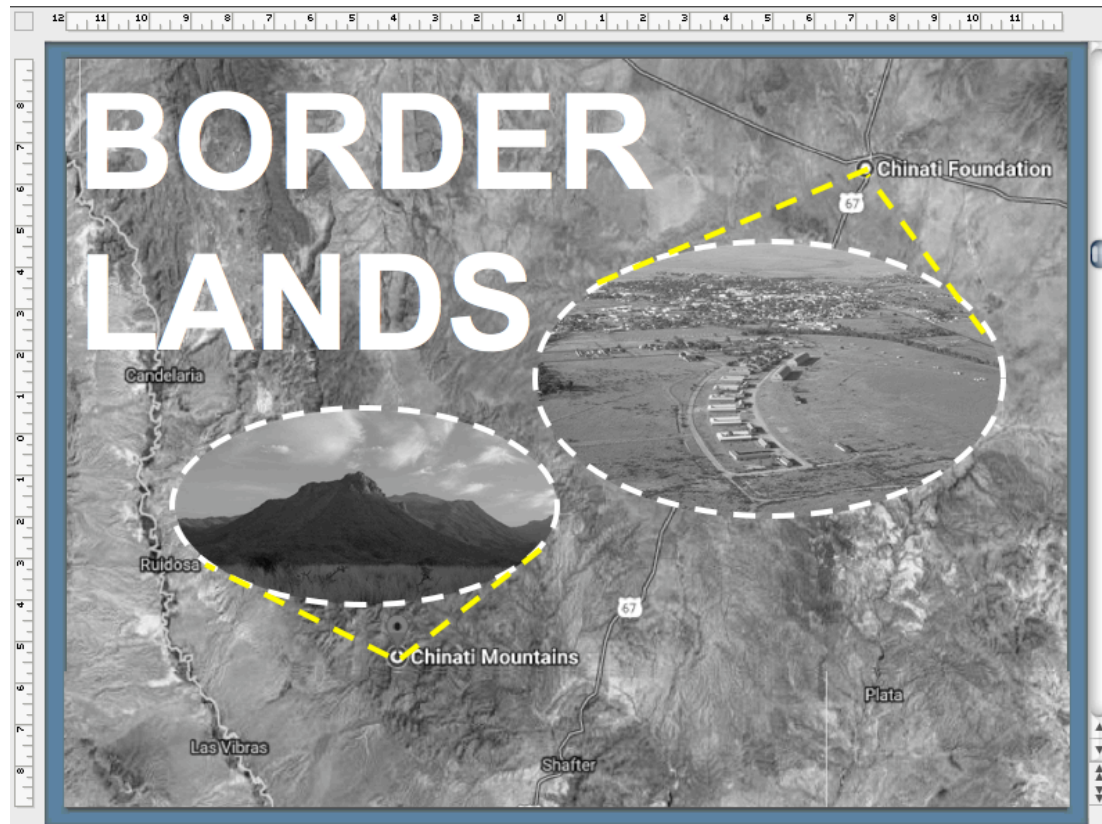


Figure 6 The plastic threshold: map of the Presidio-Chihuahua borderlands region (photo: Google maps). *The Chinati Foundation/La Fundación Chinati* (upper right; photo: The Chinati Foundation) is named for the region's Chinati Mountains (lower left; photo: tpwd.texas.gov). Image by the author.

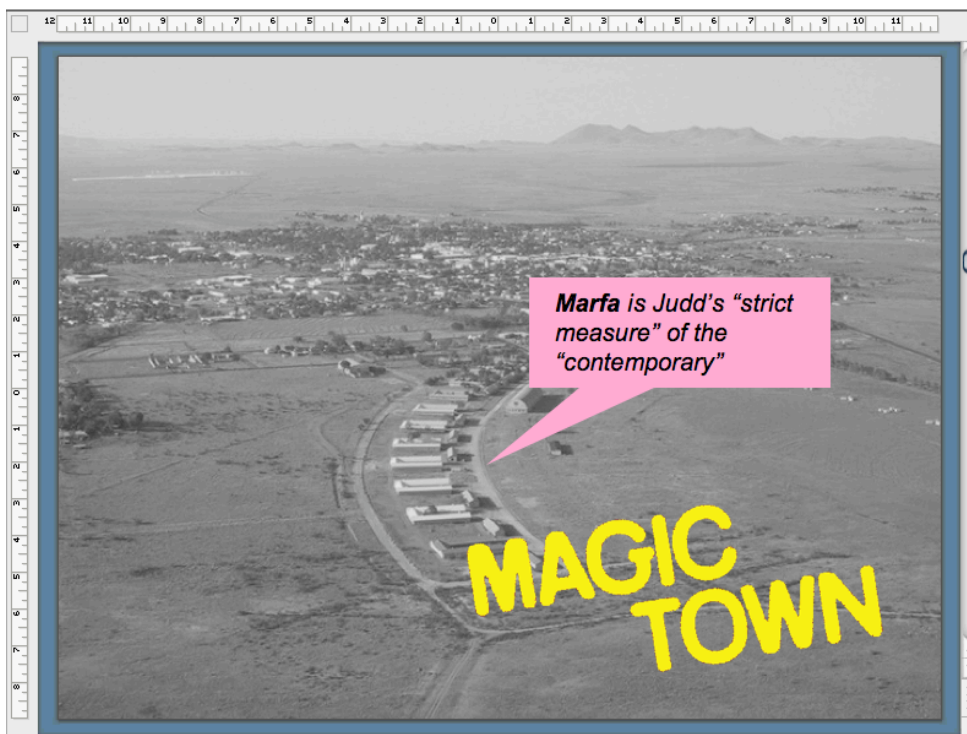


Figure 7 Marfa as Judd's 'Magic Town': (top) promotional poster for the Hollywood film *Magic Town* (1947) (image: Internet Movie Database); (botto) aerial view of Judd's *Chinati*, which he called his "strict measure" of the "contemporary" (photo: The Chinati Foundation). Images by the author.

Marfa is not just any Texas town. As Judd wrote in 1987, “somewhere, just as the platinum-iridium meter guarantees the tape-measure, a strict measure must exist for the art of this time and place. Otherwise art is only show and monkey business.”⁷⁸ By choosing Marfa, Judd selected a hub of the region’s border patrol, and the site of a former military prison camp, for his early 21st-century ‘Magic Town’ (fig. 7).⁷⁹ The now classic film *Magic Town* was released by RKO Radio Pictures in 1947.⁸⁰ Actor Jimmy Stewart plays a pollster who cheats the process of collecting national samples for his poll by gathering information from a small Midwestern town, Grandview, which research indicates is “an exact statistical microcosm of the United States,” a “mathematical miracle” that provides a “shortcut to predicting public opinion.”⁸¹ A local newspaper editor played by actress Jane Wyman publishes a story on the pollster’s strategy and the town learns of its status as “the perfect barometer.”⁸² Concerned about the reputation that will follow them for their influence on national public opinion, Grandview townspeople create libraries for each polling booth when they are surveyed.⁸³ New surveys return results that radically diverge from national trends: Grandview polls at 79% on the willingness to vote for a woman as president.⁸⁴ The idea of a woman president is considered so absurd that a new expression emerges: “he’s from Grandview” becomes a comic “punchline” to explain “idiocy.”⁸⁵

⁷⁸ Donald Judd, “The Chinati Foundation/La Fundacion Chinati (1987)” as reprinted in *Chinati: The Vision of Donald Judd*, ed. Marianne Stockebrand (New Haven, CT: Yale University Press, 2010), 281.

⁷⁹ “Magic Town” refers to the Hollywood film *Magic Town* (1947). For more on the moniker “Magic Town” derived from the 1947 Hollywood film, see James S. Fishkin, *The Voice of the People: Public Opinion and Democracy*. (New Haven: Yale University Press, 1995), 1-2. Fishkin is a political scientist known for his work on “deliberative democracy,” which considers deliberation and consensus-building rather than voting to be the most important aspect of democratic systems.

⁸⁰ *Magic Town*, film, dir. William Wellman (1947; Los Angeles, CA: RKO Radio Pictures, 2013), DVD.

⁸¹ Fishkin, *The Voice of the People*, 1.

⁸² *Ibid.*, 1.

⁸³ *Ibid.*, 1.

⁸⁴ *Ibid.*, 2.

⁸⁵ *Ibid.*

Magic Town was released a year after the young Judd's first trip to the American Southwest.⁸⁶ In 1946, Judd and four other soldiers went by bus from Alabama to California to be (as Judd describes it) "shipped to Korea to pester the world."⁸⁷ It was during this trip that Judd sent the afore-cited telegram to his mother from the town of Van Horn (74 miles northwest of Marfa), commenting "1260 population. Nice town[,] beautiful country[,] mountains."⁸⁸ In 1971, he returned to the area for a drive around the Big Bend of the Rio Grande and eventually settled in Marfa, then proposing the site for his artist museum—his "strict measure" of the contemporary.⁸⁹ The town of Van Horn is now associated with the methamphetamine epidemic news outlets regularly report on as ravaging rural America with addiction.⁹⁰ Ironically, many of Judd's fellow soldiers had actually returned home from Korea with methamphetamine addictions because the drug had been used to combat battle fatigue.⁹¹

Recent architectural theory has explored correlations between the increase in construction of museums and the rising numbers of new correctional facilities in the late twentieth century.⁹² And, in fact, "the Lone Star State [the state of Texas] is home to a disproportionate number of [...] holding spaces for [both] art and people."⁹³ In this context, Judd's *Chinati* has been described as "an exacting microcosm of carceral Minimalism" (fig. 8).⁹⁴ The "container-like constructs" in Judd's installations are "likened to holding spaces," and Judd is said to "to take on

⁸⁶ Judd, "Marfa, Texas (1985)," 277.

⁸⁷ Ibid.

⁸⁸ Ibid.

⁸⁹ Judd, "The Chinati Foundation/La Fundación Chinati (1987)," 281.

⁹⁰ Gilda Morales, "Speaking of Health – Methamphetamine," *The Van Horn Advocate*. November 3, 2016. Accessed November 5, 2016. <https://thevanhornadvocate.com/2016/11/03/speaking-of-health-methamphetamine/> "Sherrif takes a stand on meth problem in Van Horn," *The Van Horn Advocate*. December 1, 2016. Accessed December 15, 2016. <https://thevanhornadvocate.com/2016/12/01/sheriff-takes-a-stand-on-meth-problem-in-van-horn/>

⁹¹ Lukasz Kamienski, *Shooting Up: A Short History of Drugs and War*. 289

⁹² Joe Day, *Corrections & Collections: Architectures for Art and Crime* (New York, NY: Taylor & Francis, 2013).

⁹³ Day, *Corrections & Collections*, 64.

⁹⁴ Ibid, 63.

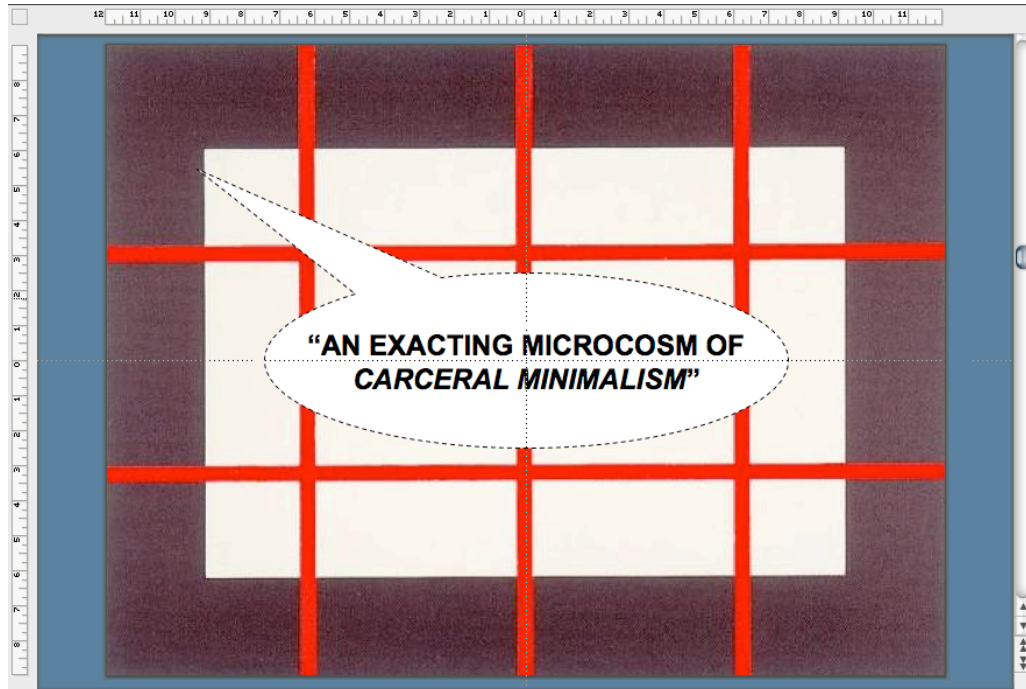


Figure 8 Judd's print for the portfolio *Artists Against Torture*, 1993 (photo: artdiscover.com). Text bubble with quote from architectural theorist Joe D'7y's *Corrections & Collections* (2013). Image by the author.

[the] theme and scale [of prisons] most directly" (fig. 9).⁹⁵ However, Judd's work with prison aesthetics represents somewhat of a dilemma for an artist who art critics and art historians have labeled as a 'minimalist.' Critics came up with the term "minimalism" twenty-years before the *Chinati* project broke ground, and the term was used to define the work of a group of artists that included Judd.⁹⁶ The word "minimal" was chosen as the root term of the critical and historical category in order to emphasize the "impersonal quality" of art fabricated with an "industrialized, serialized character."⁹⁷ In Judd's *100 Untitled Works in Mill Aluminum* – colloquially known as the "aluminum pieces" (fig. 10) – a hundred modular variants on rectangular boxes are configured in a hundred different ways, fabricated from milled aluminum plates mass-produced

⁹⁵ Ibid.

⁹⁶ For a general introductory account of this history, see "Judd, Morris and Minimalism." *Art Since 1900: Modernism, Antimodernism, Postmodernism*, ed. Hal Foster, Rosalind Krauss, Yve-Alain Bois, Benjamin H.D. Buchloh and David Joselit. (New York: NY, Thames & Hudson, 2011), 492.

⁹⁷ Ibid., 493.

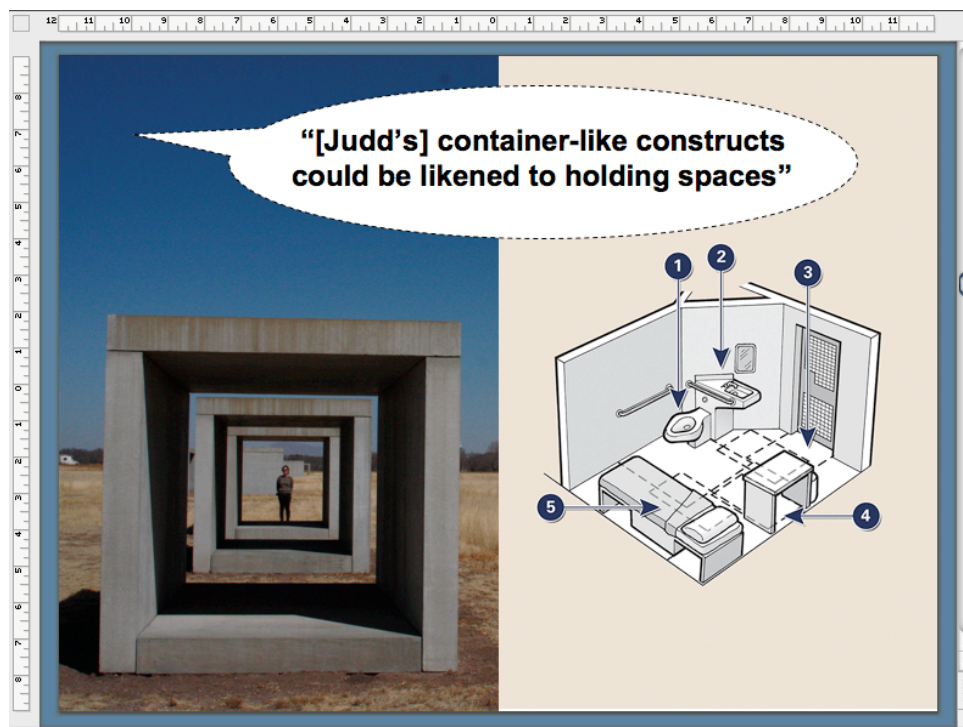


Figure 9 (top) One of the fifteen configurations in Judd's *15 Untitled Works in Concrete* (1980 – 1984) (photo: pinterest.com); (bottom) diagram of a standard prison cell (image: ada.gov). Text bubble with quote from architectural theorist Joe Day's *Corrections & Collections* (2013). Image by the author.

through factory rolling.⁹⁸ In *15 Untitled Works in Concrete* – known as the “concrete pieces” (fig. 11) – industry-produced concrete slabs assembled in sixty culvert-like forms, were designed in variations of four, and configured in sets of fifteen.⁹⁹ Each of the fifteen sets in the concrete pieces includes a minimum of two and a maximum of six individual variants.¹⁰⁰

⁹⁸ Marianne Stockebrand and Rob Weiner, “Donald Judd: Artillery Sheds with 100 Works in Mill Aluminum, 1982 – 1986,” in *Chinati: The Vision of Donald Judd*, ed. Marianne Stockebrand (New Haven: Yale University Press, 2010), 80-105.

⁹⁹ Marianne Stockebrand and Rob Weiner, “Donald Judd: Freestanding Works in Concrete, 1980 - 1984,” in *Chinati: The Vision of Donald Judd*, ed. Marianne Stockebrand. (New Haven: Yale University Press, 2010), 50-79.

¹⁰⁰ Stockebrand and Weiner, “Donald Judd: Freestanding Works in Concrete, 1980 – 1984,” 50 – 79.

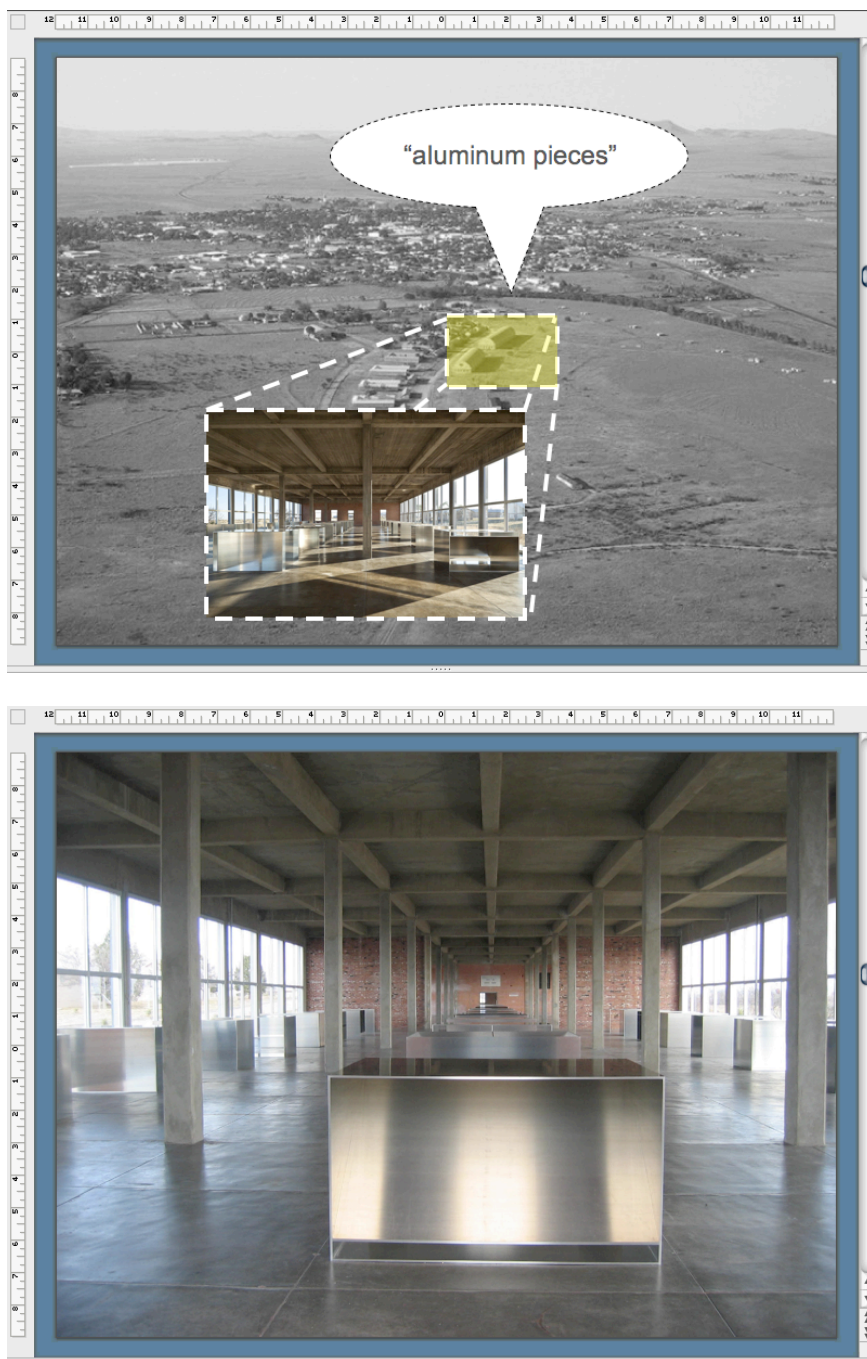


Figure 10 (top) Aerial view of the two artillery sheds where Judd's *100 Untitled Works in Mill Aluminum* (1982 – 1986) is installed (photos: *The Chinati Foundation*); (bottom) One of the one hundred works in mill aluminum installed inside the two artillery sheds (photo: *The Chinati Foundation*). Images by the author.

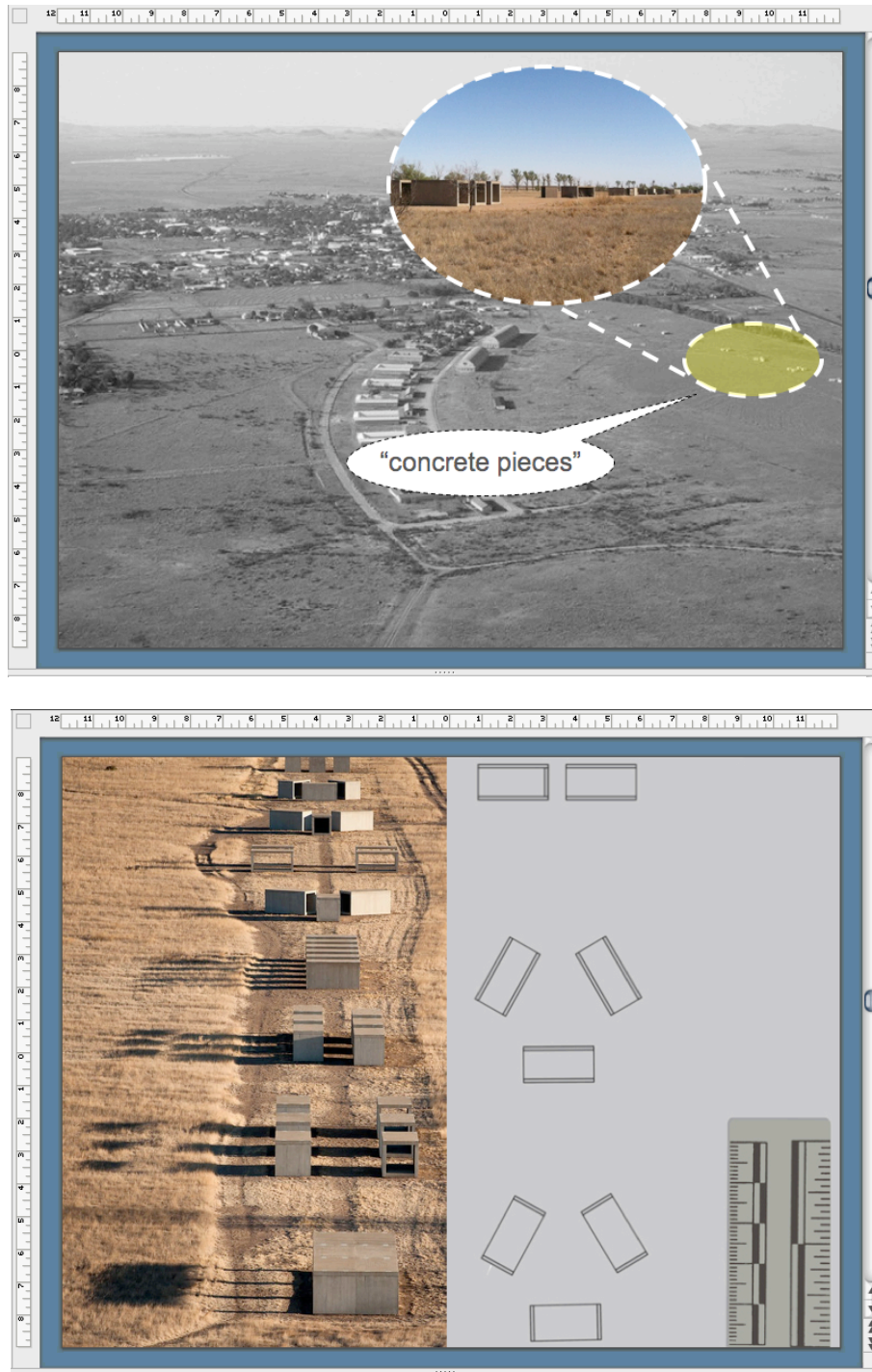


Figure 11 (top) Aerial view of Judd's *15 Untitled Works in Concrete* (photos: *The Chinati Foundation*). Image by the author; (bottom) aerial view of seven of the installation's fifteen "works" (left, photo: [pinterest.com](https://www.pinterest.com)) and a diagram of their planned configurations (right, photo by the author). Image by the author.

In both instances, seriality is the result of replication in modular forms that vary within mathematical constraints and restricted deviations.¹⁰¹ The series are “impersonal” in the sense that they emphasize the materiality of the object rather than the subjectivity of the artist; however, they can also be considered “personal” in that they engage with the scale and dimensions of the average person.¹⁰² In the aluminum pieces, each of the one hundred container-like forms occupies the spatial volume of an average human body (fig. 12, top). Each stands at a height slightly taller than a desk and extends a little shorter than the length of a reclining human body (fig. 12, top).¹⁰³ In the concrete pieces, Judd’s fifteen room-like forms are the approximate dimensions of a prison cell (fig. 12, bottom).¹⁰⁴ Judd’s objects do not reference torture chambers or solitary housing units, but they certainly feel like they allude to them.¹⁰⁵

In 1965, twenty years before creating *Chinati*, Judd published an article titled, “Specific Objects” (fig. 13).¹⁰⁶ In the article—now often treated by art historians as a ‘position paper’—Judd chose to focus on the objects of artists rather than the artists themselves, and rather than attempt to define a movement among artists (like the term “minimalism” does), Judd wrote about the “specific” quality of the artists’ objects. He observed that a principle quality of a growing

¹⁰¹ Stockebrand and Weiner, “Donald Judd: Freestanding Works in Concrete, 1980 - 1984,” 50-79; Stockebrand and Weiner, “Donald Judd: Freestanding Works in Concrete, 1980 – 1984,” 50 – 79.

¹⁰² References to the so-called “impersonal quality” of Minimalism, in “Judd, Morris and Minimalism,” 492.

¹⁰³ Each of the one hundred works has outer dimensions of 41 x 51 x 72 inches. “100 Untitled Works in Mill Aluminum, 1982 – 1986,” *Chinati*. Last updated 2016. Accessed September 15, 2016. <https://www.chinati.org/collection/donaldjudd.php>

¹⁰⁴ Each of the individual elements that make up the fifteen configurations in the work have the measurements 2.5 x 2.5 x 5 meters. The concrete slabs are 25 centimeters thick. “15 Untitled Works in Concrete, 1980-1984,” *Chinati*. Last updated 2016. Accessed September 15, 2016. <https://www.chinati.org/collection/donaldjudd2.php>

¹⁰⁵ Solitary confinement cells are reported to “generally measure from 6 x 9 x 8 x 10 feet.” Sal Rodriguez, “Frequently Asked Questions: What Are Conditions Like in Solitary Confinement?” *Solitary Watch*. Published 2015. Accessed September 10, 2016. <http://solitarywatch.com/facts/faq/>

¹⁰⁶ Donald Judd, “Specific Objects,” *Arts Yearbook* 8, 1965, as reprinted in Donald Judd, *Donald Judd: Complete Writings 1959 – 1975*, ed. Donald Judd (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 2005), 181-189.

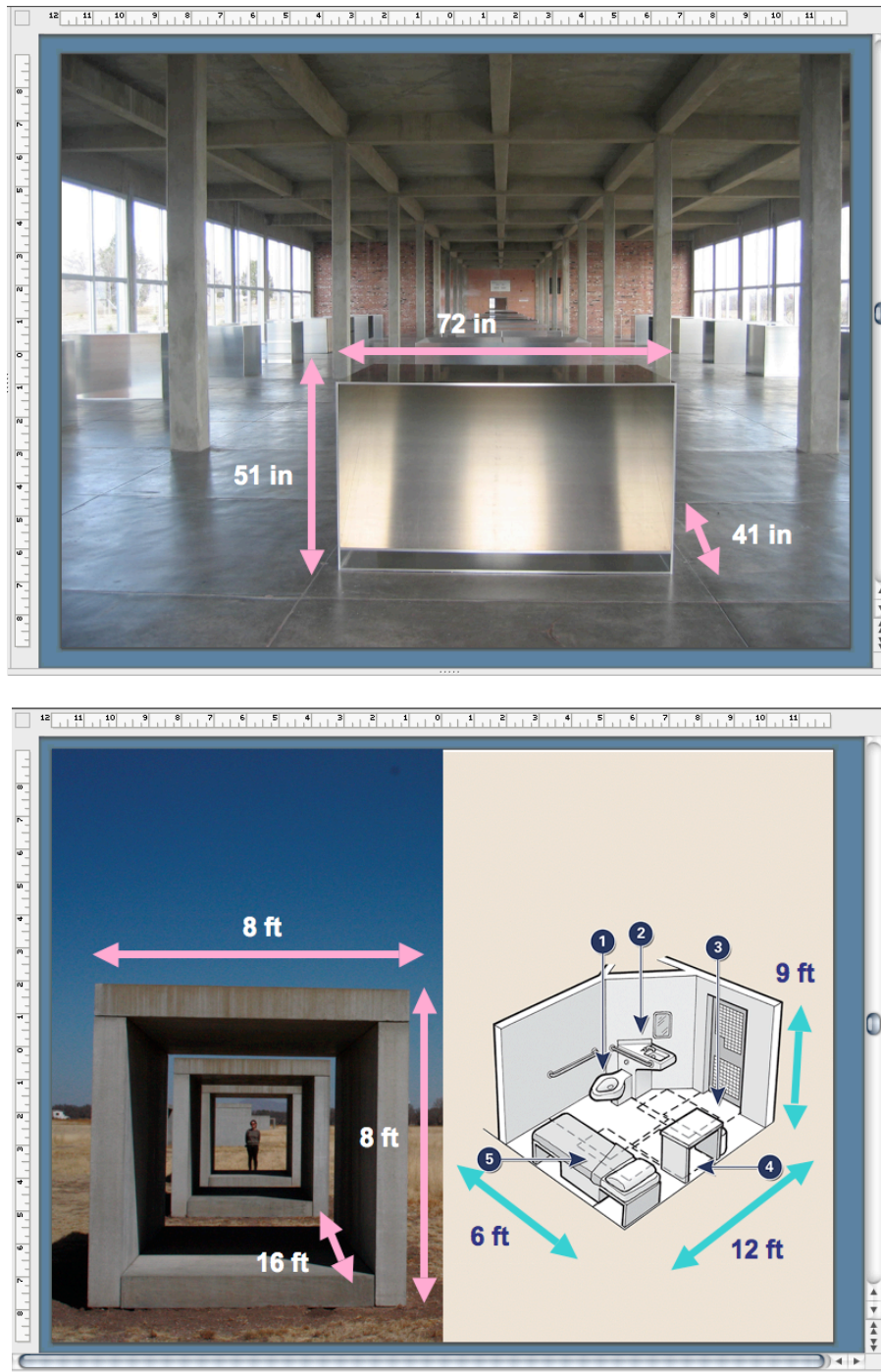


Figure 12 (top) Dimensions of one work in *100 Untitled Works in Mill Aluminum* (photo: chinati.org). (bottom) Comparison between the dimensions of one concrete unit in *15 Untitled Works in Concrete* (photo: pinterest.com) with the dimensions of the standard size Solitary Housing Unit (SHU) (photo: ada.gov). Images by the author.

number of objects produced by artists was that they were “neither painting nor sculpture.”¹⁰⁷ Even though these objects worked with “three dimensionality,” they were distinctly not sculpture.¹⁰⁸ As Judd explained, “three dimensions [are] real space,” and real space “gets rid of the problem of illusionism.”¹⁰⁹ For Judd, the “problem of illusionism” was “one of the [...] most objectionable relics of European art.”¹¹⁰ Whereas painting’s principle problem was perspective; sculpture’s problem was metaphor, or rather, the fact that sculpture was seen part by part, rather than all at once.¹¹¹ Thus, it could be said that, in the borderlands between the U.S. and Mexico, the aesthetics of Judd’s *Chinati* challenged euro-centric illusionism.

Critics argued that Judd’s mathematical formulas for the placement of objects, and his manipulation of aluminum for translucency and reflection, produced its own “illusionistic” effects.¹¹² A viewer entering the two artillery sheds where the ‘aluminum pieces’ are installed will notice that panels of individual boxes seem to disappear and reappear. This occurs when the affect of the viewer’s movement through the two spaces is combined with light and reflection from the large windows Judd built into the space to replace garage doors. In some cases, entire boxes seem transformed from aluminum into frosted glass, from solid rectangular boxes into translucent parallelepipeds; reflections transform panel surfaces into openings, making the viewer then confuse openings in panels with reflections on surfaces. Judd objected to the charge

¹⁰⁷ Judd, “Specific Objects,” 181.

¹⁰⁸ Ibid.

¹⁰⁹ Judd, “Specific Objects,” as quoted in “Judd, Morris and Minimalism,” 493.

¹¹⁰ Judd, “Specific Objects,” as quoted in David Raskin, “The Shiny Illusionism of Krauss and Judd.” *Art Journal*, Vol. 65, No. 1 (Spring 2006): 8.

¹¹¹ “Judd, Morris and Minimalism,” 493. Artist-writer Lawrence Weiner (b. 1942) has dealt extensively with the issue of metaphor in art. See John Baldessari and Lawrence Weiner, *The Metaphor Problem: Again* (Köln : Distribution Verlag Walther König) and John Baldessari, Liam Gillick, Lawrence Weiner and Beatrix Ruf, *Again the Metaphor Problem and Other Engaged Critical Discourses* (Vienna, Austria: Springer, 2007). Artist Charles Gaines provides an overview of the ‘metaphor problem’ in Charles Gaines, “Reconsidering Metaphor/Metonymy: Art and the Suppression of Thought,” *Art Lies* 64 (Winter 2009), 48–57.

¹¹² Raskin, “The Shiny Illusionism of Krauss and Judd,” 9.



Figure 13 Judd, minimalism, and specific objects. Judd referred to himself as an “empiricist.”¹¹³ Image by the author.

that his objects were “illusionistic” by differentiating between “illusionism” and what he called “matter-of-fact illusion” (fig. 13).¹¹⁴ Whereas illusionism references away from the object, matter-of-fact illusion is a “technical” result of the object’s materiality, and alludes not away from the object, but back to it.¹¹⁵

Using the three objects of evidence I intentionally accidentally discovered during artistic fieldwork at and around *Chinati*, I worked with this tension among allusion, reference, and

¹¹³ In 1981, Judd wrote, “since I leapt into the world an empiricist, ideality was not a quality I wanted.” David Raskin, *Donald Judd*. (New Haven, CT: Yale University Press, 2010).

¹¹⁴ *Ibid*, 9.

¹¹⁵ Raskin quotes a 1966 symposium transcript for a talk given by Judd titled “Is Easel Painting Dead?” and writings from 1973 by “Judd’s protégé” Fred Sandback. See Raskin, “The Shiny Illusionism of Krauss and Judd,” 9-10.

illusion to create a multi-installment episode in my epic art-historical ethno-fiction, RK-LOG.¹¹⁶ In his writings, Judd differentiated between matter-of-fact illusion and illusionism in perception; in a similar manner, his artist museum, *Chinati*, played with the conceptual space between reference and allusion—between objects that refer viewers away from “matter-of-fact” existence and objects that allude back to their own physical properties.¹¹⁷ Similarly, the three objects I discovered and worked with in the RK-LOG episode I produced in Marfa and its environs are not only protagonists in the audio-drama, they are also prompts and props in improvisation sessions I staged with ethnographic informants who volunteered as performance-participants.¹¹⁸ My aim was to explore allusion, reference, and illusion in Judd’s *Chinati* by recreating their phenomenological affect rather than making them the subject matter of discourse. For three months of fieldwork I recorded and made observations from almost every outing, conversation, and encounter, creating an extensive written and digital archive of real and fictional conversations, actual and fabricated field recordings. I spent five years processing this material, slowly discovering the narratives that could be made to emerge from fragments of co-operative story-telling without the artificial imposition of a structure.

¹¹⁶ RK-LOG is an epic ethno-fiction based on incidents in the afterlife of a fictional biological specimen labeled ‘RK.’ It has been exhibited in Italy, Czech Republic, Switzerland, Texas and California.

¹¹⁷ Raskin, “The Shiny Illusionism of Krauss and Judd,” 9.

¹¹⁸ Though there are interns and art-tourists among the performance-participants featured in the audio drama, other informants are residents of the region who live with *Chinati* and have heard of it, but have never visited it, or who have gone to the grounds on free days, but disliked it, are suspicious of it or are indifferent to it.

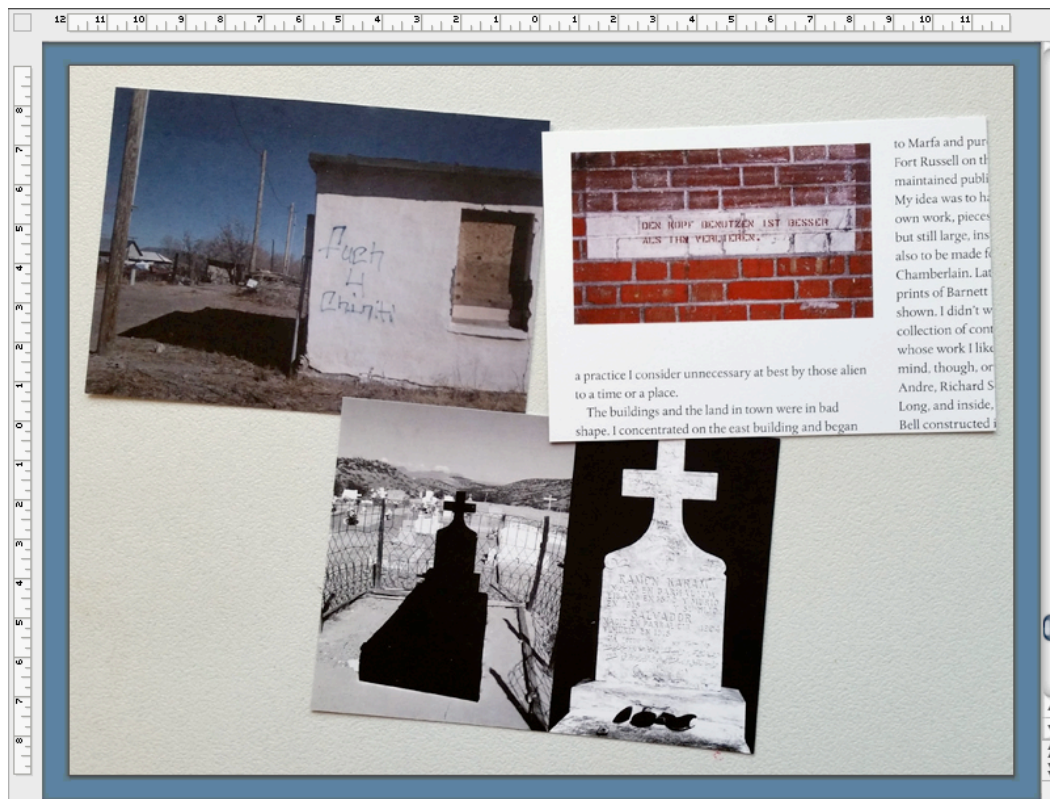


Figure 14 Postcards of the three objects I discovered between 2011 and 2012. Images by the author. (From right to left, counter-clockwise) World War II-era sign inside the artillery sheds where Judd's *100 Untitled Works in Mill Aluminum* is installed (image of the sign as it appears in the monograph *Chinati: The Vision of Donald Judd*, 2010; photo by the author); the Presidio-Chihuahua borderlands grave of "Assyrian peddler" Ramon Karam (photos by the author); the Marfa graffiti "FUCH 4 CHINITI" (photo by the author).

The first object I discovered during fieldwork—the World War II-era sign (fig. 14, top right)—is the German phrase, “*Den Kopf Benutzen ist Besser Als Ihn Verlieren*” (better to use your head than lose it). It is stenciled on brick inside one of *Chinati*'s two retrofitted artillery sheds.¹¹⁹ The second object, the graffiti, “FUCH 4 CHINITI” (fig. 14, top left) is a phrase spray-painted over a derelict adobe on South Dean Street, a cross street of Marfa's main boulevard, East San Antonio Street. Though this graffiti is rapidly fading, Google Earth satellite images of the location have immortalized it in street-view in the program's historical archive. The third object,

¹¹⁹ Judd mentions this phrase in Judd, “Marfa, Texas (1985),” 278.

the granite grave of a Syrian peddler (fig. 14, bottom), marks the burial site of Ramon Karam, whose 1918 murder on the border is reported in the U.S. Senate's *Investigation of Mexican Affairs* hearings of 1919 and 1920.¹²⁰ The Senate hearings were aimed at further militarizing the U.S.-Mexico border and promoted intervention in the Mexican Revolution on behalf of North American oil interests.¹²¹ After much searching and interviewing (as well as, broadcasting and publishing with historian, *Big Bend Sentinel* columnist, and Marfa public radio (KRTS) show host, Lonny Taylor), I discovered the impressive headstone was probably brought to the site in the 1950s by Karam's family, who moved away from the area to San Antonio after the alleged murder of Karam and his son Salvador. Interconnecting the objects in a configuration results in a "malleable map" of "plastic scale"¹²² across time and space that expands and contracts between microcosm and macrocosm—from WWII artillery sheds retrofitted for Judd's *Chinati*, to an adobe wall one mile northeast of *Chinati*, to a gravestone in the surrounding borderlands region between Presidio and remote Ruidosa, 63.5 miles southwest of Marfa.

¹²⁰ *Investigation of Mexican Affairs*. Vol. 1. 66th Congress, 2nd Session. Senate Document, Vol. 10, No. 285. Presiding Senator, Albert B. Fall. Preliminary Report and Hearings of the Committee on Foreign Relations, United States Senate. Pursuant to Senate Resolution 106, directing the Committee on Foreign Relations to Investigate the Matter of Outrages on Citizens of the United States in Mexico. Two Volumes. (Washington: Government Printing Office, 1920), 1651.

¹²¹ *Investigation of Mexican Affairs*. Vols. 1 & 2. 66th Congress, 2nd Session. December 1, 1919 to June 5, 1920. Senate Document, Vol. 10, No. 285. Presiding Senator, Albert B. Fall. Preliminary Report and Hearings of the Committee on Foreign Relations, United States Senate. Pursuant to Senate Resolution 106, directing the Committee on Foreign Relations to Investigate the Matter of Outrages on Citizens of the United States in Mexico. Two Volumes. (Washington: Government Printing Office, 1920).

¹²² El Hadi Jazairy, "Toward a Plastic Conception of Scale." *Scales of the Earth. New Geographies* 4. (Cambridge, MA: Harvard University Graduate School of Design, 2011), 1.

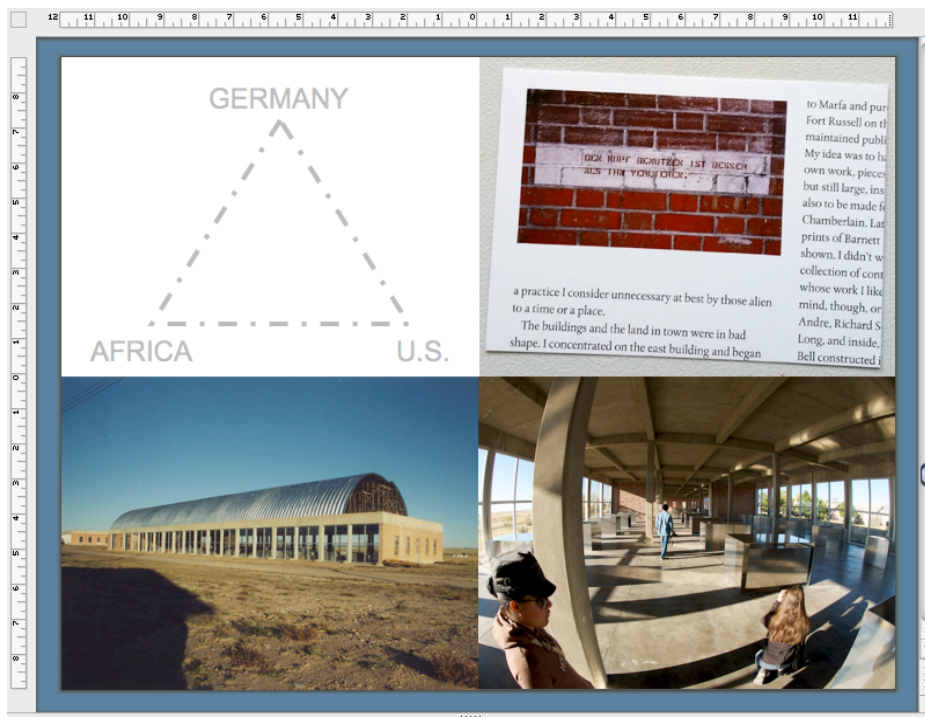
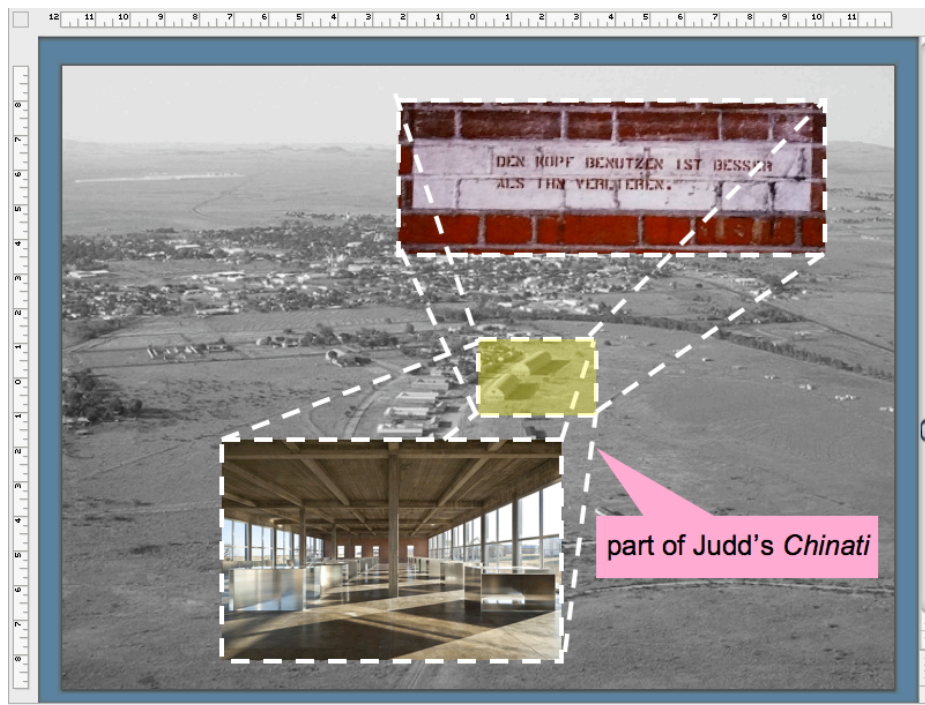


Figure 15 (Left) The WWII-era German sign inside one of the artillery sheds where Judd's *100 Untitled Works in Mill Aluminum* is installed (photos: chinati.org and *Chinati: The Vision of Donald Judd*, 2010). Image by the author. (Right) (lower right) Inside the artillery shed during a tour; (lower left) outside the artillery shed while it was being retrofitted in the 1980s (photos: chinati.org and landarts.org). Image by the author.

It is important to note that plastic scale is not just a nested mapping of zoom-in and zoom-out.¹²³ It folds and layers past and future moments in unexpected geo-political interrelations created by the movement of bodies and objects. The German sign connects Africa, Germany, and the U.S. (fig. 6); the graffiti connects Mexico, the U.S., and China (fig. 7); the gravestone connects the former Greater Syria, the Southwestern U.S., and Northern Mexico (fig. 8).

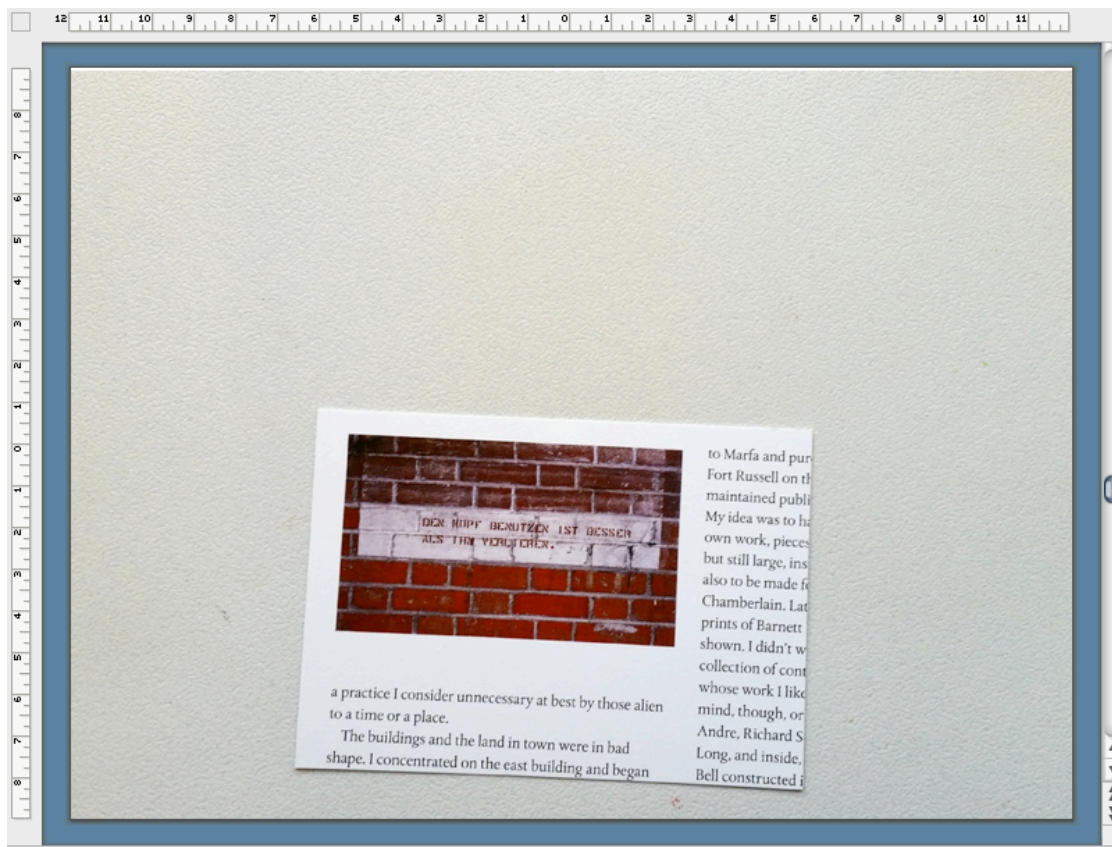


Figure 16 Postcard of the War II-era German sign inside the artillery sheds where Judd's *100 Untitled Works in Mill Aluminum* is installed (image: *Chinati: The Vision of Donald Judd*, 2010; photo by the author). Image by the author.

I discovered the painted German sign (fig. 15 and fig. 16) on my first day of fieldwork during a tour of *Chinati*. The sign measures 31.5 by 5 inches and covers two rows of brick inside one of the artillery sheds. Facing the north shed's entrance, the sign is on the right side of the

¹²³ Jazairy, "Toward a Plastic Conception of Scale," 1.

door between the main hall of the shed and the its smaller antecamera where four of 52 aluminum boxes are installed. The other 48 boxes of the total 100 are installed in the south shed. All of the boxes in Judd's *100 Works of Mill Aluminum* were numbered by Judd and, interestingly, diagrams of the installation show that the four boxes in this antecamera are the only ones installed in numerical order. The viewer enters the antecamera in front of box 100 and box 99 is on the right; box 98 is in front of 99, and box 97 then leads the visitor through the doorway and into the large hall of 48 remaining works.

Guided tours at *Chinati* are highly controlled. Visitors are not permitted to wander alone, and docents and guards (many of which were resident-interns during the period of my fieldwork) are strongly discouraged from freely interpreting Judd's work in tours of the structure with visitors.¹²⁴ Guards are given basic information to provide to those who visit the installations in self-guided viewings; docents prepare for tours by studying *Chinati* publications.¹²⁵ Guards can choose to learn more about the structures in order to be able to answer questions that arise as they follow visitors through self-guided viewings; however, this is done at each guard's own discretion.¹²⁶ To dissuade visitors from touching the pieces, some docents and guards give visitors a slab of aluminum to handle as they enter the sheds where the works are installed. A conservation intern informed me that fingerprints can burn marks into the aluminum panels in less than 48 hours.¹²⁷ When tiny mites infested the sheds and were found crawling all over some of the pieces, the sheds were closed with the aim of figuring out a way to remove them without scratching the works. Docent tours are generally confined to explaining the changes Judd made to transform the prison camp artillery sheds into artist-museum architecture. Representative

¹²⁴ Docents and Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.

¹²⁵ Docents and Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.

¹²⁶ Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.

¹²⁷ Conservation Intern at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September through December 2011.

examples are provided about the way “the size and scale of the site’s pre-existent buildings determined the nature of Judd’s installations;”¹²⁸ however, aside from technical details about Judd’s redesign, relatively little is relayed about the drama of bodies in prison camps. Docents do not always mention that German prisoners were captured in the North African campaigns and used to work in the U.S. military’s chemical warfare division.¹²⁹ Judd’s retrofitting of the deactivated fort is treated as just another matter of fact in a chain of interventions at the site. And yet, in his redesign of the sheds, Judd retained and autographed the German sign painted on the wall next to the north shed’s antecamera entryway. When asked about the sign, several guards have pointed out that a section measuring 31 by 7.5 inches (3 rows of brick) above the sign appears to have been wiped clear, as though Judd modified the original sign, choosing to keep only the bottom half.¹³⁰ The section that remains is signed “Judd ‘81” in pencil under the period at the end of the phrase “better to use your head than to lose it” (fig. 15 and fig. 16).¹³¹

None of the tours I attended in four years of fieldwork ever made any mention of Judd’s signature on the sign, nor is the signature mentioned in the definitive *Chinati* monograph.¹³² Guards to whom I showed the signature remarked that they had never noticed it.¹³³ One *Chinati* intern I interviewed told me she had been told that any discussion of the sign in a tour would distract attention away from Judd’s objects.¹³⁴ By autographing the sign, however, Judd had played deliberately with the tension between reference, and allusion. The signature references

¹²⁸ A similar phrase is quoted in my fieldnotes from a *Chinati* tour taken in November 2012. The phrase cited here is from the foundation’s website, indicating that some docents may work from a script. “100 Untitled Works in Mill Aluminum, 1982 – 1986,” *Chinati*. Published 2016. Accessed November 10, 2016. <https://www.chinati.org/collection/donaldjudd.php>

¹²⁹ Taylor, “Fort D.A. Russell, Marfa,” op. cit.

¹³⁰ Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.

¹³¹ In German, “*Den Kopf Benutzen ist Besser Als Ihn Verlieren*.” See Judd, “Marfa, Texas (1985), 278.

¹³² *Chinati: The Vision of Donald Judd*, ed. Marianne Stockebrand. New Haven, CT: Yale University Press, 2010.

¹³³ Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.

¹³⁴ Resident-Intern at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. October to January 2011.

away from the real space of the installation by calling attention to the shed's past; at the same time, the signature alludes to the real space of Judd's objects by appropriating the sign as a marker for the year, 1981, when the windows began to be installed in the retrofitted artillery sheds.¹³⁵ The German admonition is also exactly the kind of terse statement that characterizes Judd's art writing. For example, in a 1962 review of paintings by Wayne Thiebaud, Judd wrote: "the juciness of the paint is a little gross: a little grossness, like a little skepticism, is a little impossible."¹³⁶ In 1975, Judd published a letter he received from editor James Fitzsimmons of *Art International* who criticized his art writing as "off the cuff, [...] too 'informel' [...] even garrulous at times," and his style as "shambling basic-Hemingway," "formless, like conversation mostly sounds."¹³⁷ In conversation about the sign, area resident and historian Lonn Taylor asked me if I ever considered the possibility that Judd may have stenciled the sign himself. A performative intervention of the sort would have been out of character for Judd; thus while modification is possible, faked fabrication is highly unlikely.

After months of meetings and conversation, I managed to convince one docent to insert two sentences about the sign in her tour.¹³⁸ Recordings of the subtly-altered tour that resulted from these insertions are featured in installments of *Better to Lose Your Head than Use It*, the RK-LOG episode I created from Marfa ethno-fiction research. I also used the recordings of the

¹³⁵ Stockebrand and Weiner, "Donald Judd: Artillery Sheds with 100 Works in Mill Aluminum, 1982 – 1986." 92.

¹³⁶ Donald Judd, "Wayne Thiebaud," from "In the Galleries." *Arts Magazine* (September 1962) as reprinted in Donald Judd, *Donald Judd: Complete Writings 1959 – 1975*, ed. Donald Judd (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 2005), 60.

¹³⁷ Letter from James Fitzsimmons (Art International) to Donald Judd, March 21 1965, as reprinted in Donald Judd, *Donald Judd: Complete Writings 1959 – 1975*, ed. Donald Judd (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 2005), 171.

¹³⁸ At 15 minutes 16 seconds, RK-LOG Episode 2, *Better to Lose Your Head Than Use It*, Installment 1: [Box 63] *You're going to see it better if you're not looking right at it*) a docent tells her tour group: "A historical note: so there are some inscriptions here. Those are original from when German prisoners-of-war were brought over from North Africa and they were working in the space. The larger one says "unauthorized entry forbidden"; the smaller one here in red says, "better to use your head than lose it," and Judd actually signed it – you can see Judd '81. He wrote about this inscription in an article from 1985 called "Marfa, Texas". '81 was the same year that President Ronald Reagan signed the Uniform Determination of Death Act which added brain death onto the typical circulatory-respiratory definition of what qualifies as death." To listen to the episode, visit the link at the end of the paper.

altered tour in improvisation sessions with performance participants. The intervention features two concise sentences on the Uniform Determination of Death Act drafted by a Presidential Commission under the Reagan Administration and approved for the United States in 1981. The Declaration has been described as an official “equation of brain death with death itself” for the purposes of easing “societal acceptance” of “heart-beating organ procurement”: it is said to have “singled out a specific state of impaired consciousness [irreversible coma and apnea], redefined it as brain death, and equated this specific medical condition with human death.”¹³⁹ It replaced definitions of death that associated the end of life with cessation of function in the cardio-pulmonary system. It thus marks a shift of the center of death away from the organ of the heart (the central organ of the body in much indigenous oral culture of the Presidio-Chihuahua region) to the brain, signifying a new cultural and political order.

I discovered the graffitied wall (fig. 17, top left) during walks around Marfa that were part of my regular fieldwork practice. As promotional material for a 1991 gallery show in Madrid, Judd had made an exhibition poster from a photograph of graffiti in Spain: a stone wall sprayed with another Judd-like phrase, “*Sadam es Malo[,] Bush es Peor...*” (“Sadam is Bad[,] Bush is Worse...”) (fig. 17, bottom left).¹⁴⁰ The Marfa graffiti is also a denunciation, only in this case, its protest is directed against Judd’s own *Chinati*. It reads “FUCH 4 CHINITI,” which all Marfa residents and tourists interviewed interpreted as “FUCK YOU CHINATI.”¹⁴¹

¹³⁹ Joseph L. Verheijde, Mohamed Y. Rady and Joan L. McGregor, “Brain Death, States of Impaired Consciousness, and Physician-Assisted Death for End-of-Life Organ Donation and Transplantation,” *Medicine, Health Care, and Philosophy*. Vol. 12, Iss. 4. (2009), 409.

¹⁴⁰ Raskin, “The Shiny Illusionism of Krauss and Judd,” 20.

¹⁴¹ Marfa residents. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. October 2011 through April 2017.

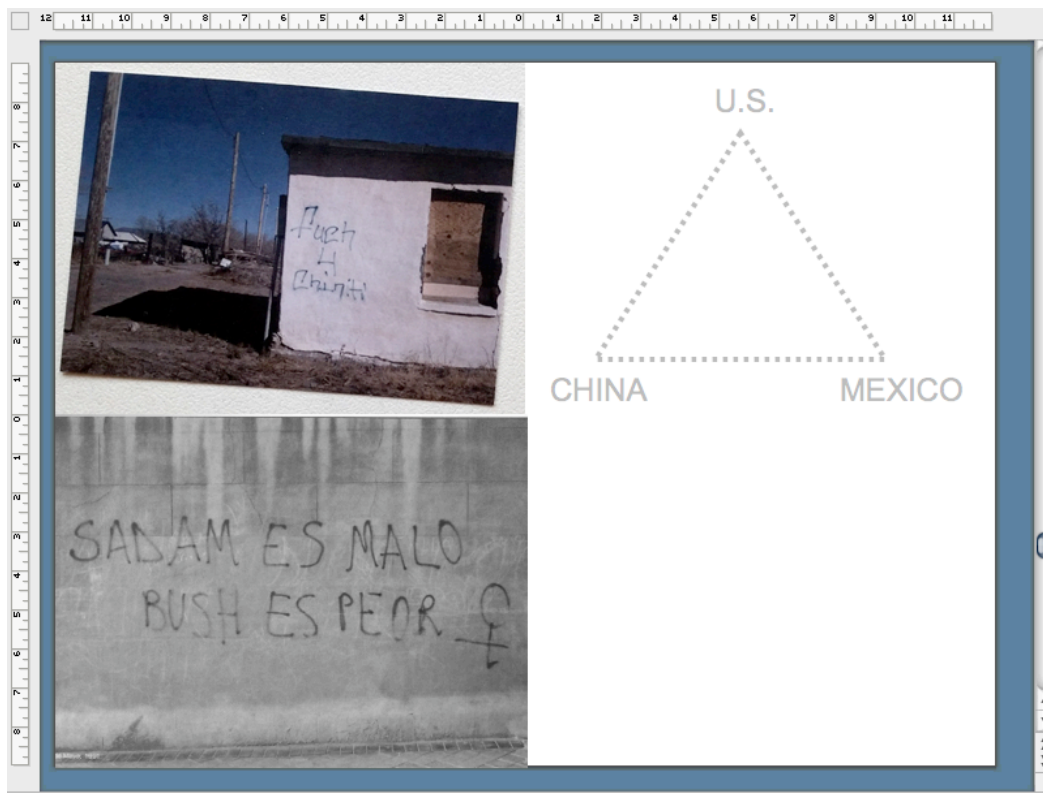


Figure 17 (upper left) Postcard of the Marfa graffiti “FUCH 4 CHINITI” (photo by the author); (lower left) detail of a promotional poster produced by Judd for a 1991 show at Galeria Theospacio, Madrid (photo: Donald Judd Foundation; from Raskin, “The Shiny Illusionism of Krauss and Judd,” 20). Image by the author.

The location of the graffiti across from Marfa’s gourmet grocery store, *The Get Go*, is tactical. What some playfully call the “food library” is a representative space of gentrified Marfa – one of what would be referred to by some town residents as a “Chi-Nazi” haunt (fig. 18).¹⁴² *Chinati* interns interviewed during fieldwork told me they had heard that “Hispanic locals” referred to most of the whites who had started frequenting the town in the 1990s as either “Chinatis” or “Chi-nazis.”¹⁴³ In *You Tube*-mediated conversations with performance-participants where “Fuch” and “Chiniti” were used as search term for queries, it also emerged that “Chinito” is a diminutive

¹⁴² Marfa residents. Conversations with Emily Verla Bovino. Personal Interviews. Marfa, Texas. October 2011 through April 2017.

¹⁴³ Ibid.

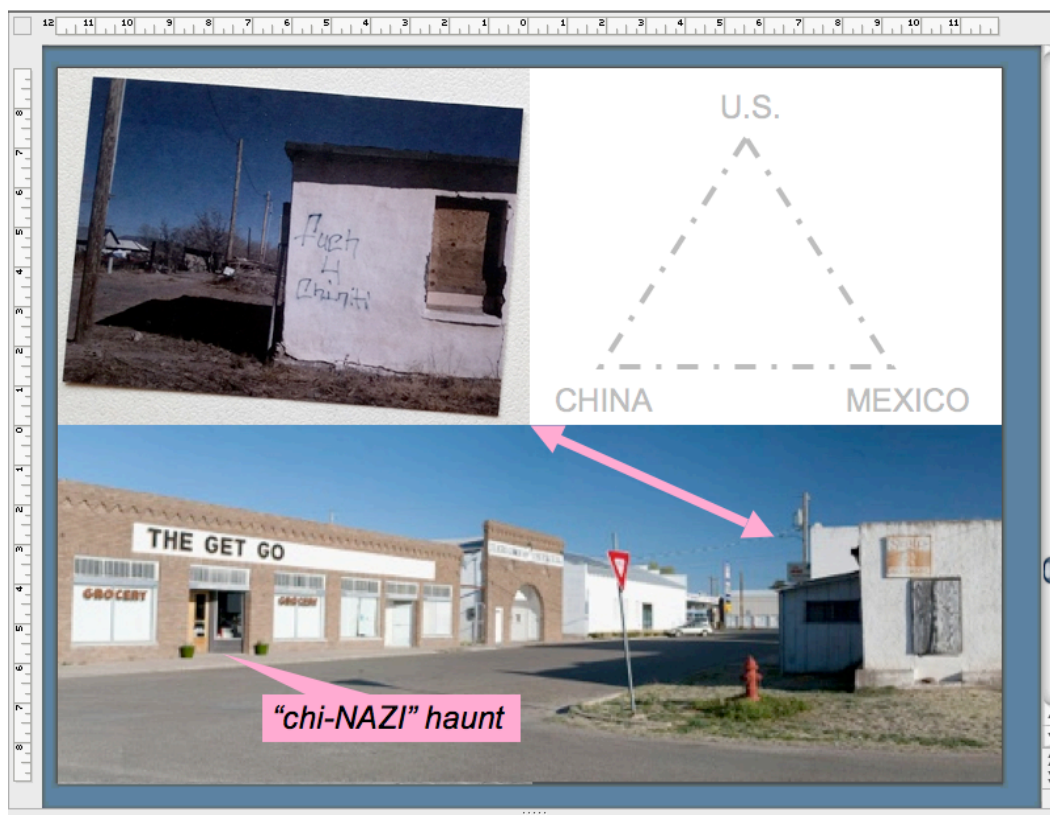


Figure 18 (upper left) Postcard of the Marfa graffiti “FUCH 4 CHINITI” (photo by the author); (bottom) panoramic photograph of The Get Go grocery store referred to as a “chi-NAZI” haunt by some Marfa residents (photo: deananewcomb.com). Image by the author.

term for Chinese man in Mexican Spanish.¹⁴⁴ “Fuck you Chinati”/“Fuch 4 Chiniti” was interpreted by some as both conscious anger about gentrifying forces set in motion by Judd’s museum, and unconscious fear about globalization, a new iteration of “yellow peril”¹⁴⁵: “We

¹⁴⁴ Marfa residents. Conversations with Emily Verla Bovino. Personal Interviews. Marfa, Texas. October 2011 through December 2011. George Lipsitz, *Footsteps in the Dark: The Hidden Histories of Popular Music* (Minneapolis: University of Minnesota Press, 2007), 127.

¹⁴⁵ “One of the oldest and most pervasive racist ideas in Western culture—dating back to the birth of European colonialism during the Enlightenment,” the “yellow peril” is an anti-Asian color-metaphor used to express anxiety over a threat specifically from China. John Kuo Wei Tchen and Dylan Yeats, *Yellow Peril! An Archive of Anti-Asian Fear*. New York, NY: Verso Books, 2014. According to Contemporary Chinese Studies scholar Leung Wing-Fai, it was coined by Kaiser Wilhelm II of Germany in the 1890s. See Leung Wing-Fai’s review of *Yellow Peril!* (2014) in Leung Wing-Fai, “Perceptions of the East – Yellow Peril: An Archive of Anti-Asian Fear.” *The Irish Times*. August 16, 2014. Accessed September 20,

can't allow China to rape our country”¹⁴⁶ was part of the nationalist rhetoric President-elect Donald Trump used to carry Texas.

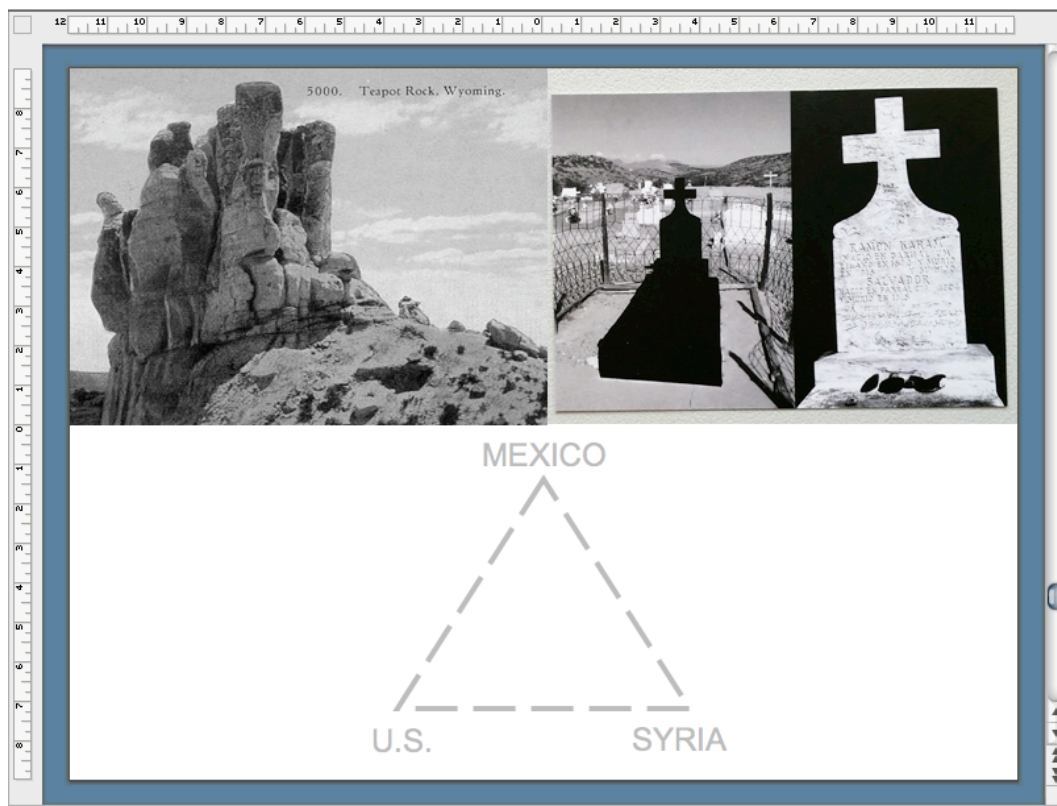


Figure 19 (Upper left) A 1920s postcard of the Teapot Rock on federal lands in Wyoming (image: wyohistory.org); (upper right) author's postcard of the Presidio-Chihuahua borderlands grave of "Assyrian peddler" Ramon Karam (photo by the author). Image by the author.

I discovered the large granite gravestone of Ramon Karam (fig. 19, top right) during fieldwork along the Rio Grande river. I gave myself the task of stopping at various roadside *camposantos*¹⁴⁷—remote roadside cemeteries along the border—and reading the names on every

2014. <http://www.irishtimes.com/culture/books/perceptions-of-the-east-yellow-peril-an-archive-of-anti-asian-fear-1.1895696>

¹⁴⁶ Rob Schmitz, "What Will a Trump Presidency Mean for China." *Morning Edition. NPR*. November 10, 2016. Accessed November 10, 2016. URL: <http://www.npr.org/sections/parallels/2016/11/10/501537328/what-will-a-trump-presidency-mean-for-china>

¹⁴⁷ In West Texas, the term "camposanto" is generally used to refer to small burial grounds in the desert. It translates literally from the Spanish as "holy field."

grave. At El Indio Cemetery—between the riverside border towns of Candelaria and Ruidosa—I discovered a large granite cross inscribed with Arabic script and the Christian symbol of the sacred heart encircled by thorns. When I returned to Marfa, I did a Google Books query for the two names on the headstone, Ramon and Salvador Karam. The query located the names in the 1919-1920 *Investigation of Mexican Affairs* hearings led by New Mexico Senator Albert B. Fall.¹⁴⁸ Shortly after the hearings, Fall was charged with secretly leasing federal oil reserves to a prominent U.S. oil baron and was convicted of defrauding the U.S. government (fig. 19, top left).¹⁴⁹

In the Senate hearings, Ramon Karam (fig. 20, top left, center of photograph) is an “Assyrian peddler” who, along with his young son Salvador, was murdered by a notorious borderlands bandit named Chico Cano.¹⁵⁰ In the hearings, Cano’s alleged ranch-raiding activities are associated with “Bolshevism” and Mexican revolutionary, Pancho Villa.¹⁵¹ Local histories, however, report conflicting accounts.¹⁵² Leonard Matlack, the Texas Ranger who testified about

¹⁴⁸ *Investigation of Mexican Affairs*. Vol. 1., 1651.

¹⁴⁹ The Teapot Dome Scandal recently returned to the news again in 2015 with an article in *The Nation*. See Richard Kreitner, “Selling off Teapot Dome,” *Nation* 300, No. 12 (March 23, 2015): 11. Over the years, it has continued to be the source of disagreements among historians and journalists, inspiring a variety of different perspectives. Laton McCartney, *The Teapot Dome Scandal: How Big Oil Bought the Harding White House and Tried to Steal the Country*. (New York, NY: Random House, 2008) and David H. Stratton, *Tempest over Teapot Dome: The Story of Albert B. Fall*. (Norman, OK: University of Oklahoma Press, 1998). Burl Noggle, *Teapot Dome: Oil and Politics in the 1920s*. (Baton Rouge, LA: Louisiana State University, 1962). Gary D. Libecap, “The Political Allocation of Mineral Rights: A Re-Evaluation of Teapot Dome.” *The Journal of Economic History* 44, No. 2, The Tasks of Economic History (June 1984): 381-291.

¹⁵⁰ *Investigation of Mexican Affairs*. Vol. 1., 1651.

¹⁵¹ *Investigation of Mexican Affairs*. Vol. 1., 60, 415, 829, 890, 1355, 1703. Several witness testimonies included assertions that connected “bolshevism” and Germany. It was claimed “Bolshevism originated in Mexico, and German propaganda circulated there.” (Ibid, 60) Mexico was also called “a haven of refuge [...] for anarchists [...] tutored by German propagandists (Ibid, 415) and that “Germany first instigated bolshevism in Mexico to ruin the country so all that was of value could be bought in at nominal prices and [...] thus paved for the establishment of kultur.” (Ibid, 465) Mexico was a “propagating ground for bolshevism against the United States” (Ibid, 1703).

¹⁵² Joyce Means. Conversation with Emily Verla Bovino. Personal Interview. Tucson, Arizona. April 2012. Joyce Means, *Pancho Villa Days at Pilaes: Stories and Sketches of Days-Gone-By from the Valentine Country of West Texas*. (El Paso, TX: Means Press, 1976). Tony Cano, *Bandido: The True Story of Chico Cano, the Last Western Bandit*. (Canutillo, TX: Reata Publishing, 1997).

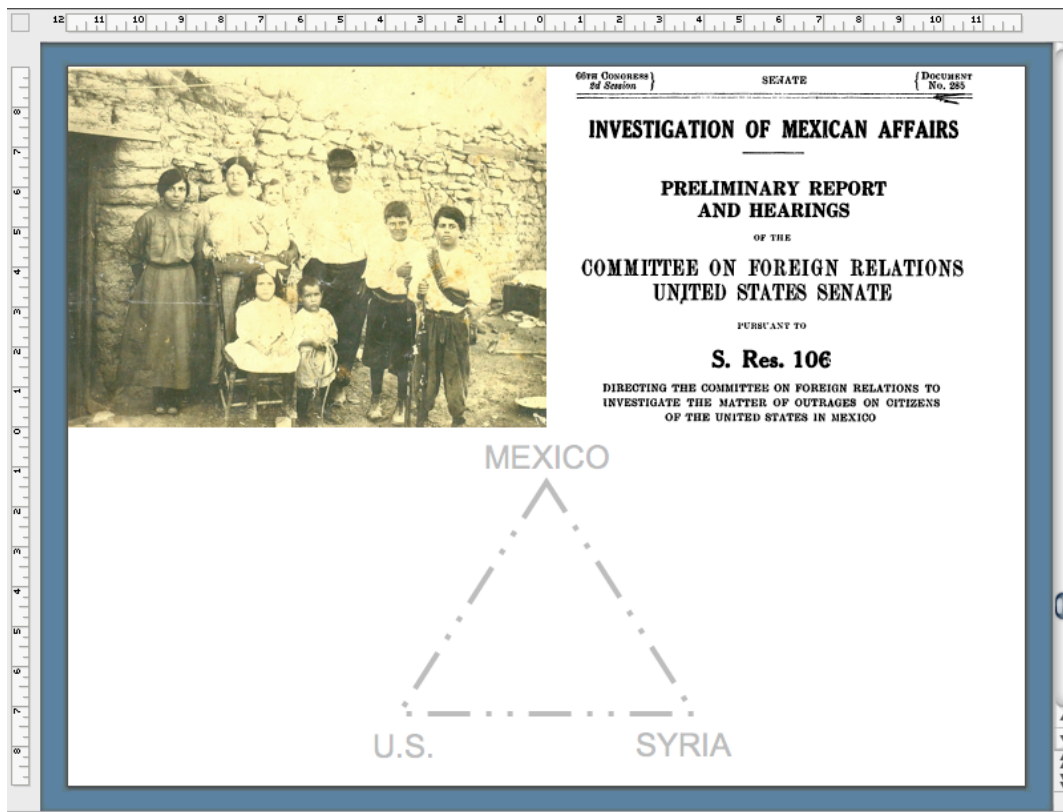


Figure 20 (Upper left) Photograph of the Karam family in Shafter, Texas circa 1916 (photo: Karam Family); (upper right) title page of the *Investigation of Mexican Affairs* preliminary report and hearings (photo by the author). Image by the author.

Karam's death at the hearings, is still famous for his feuds with Cano, and, for some, Cano is the hero and Matlack the villain.¹⁵³ In local oral histories, Karam's identity is also plastic. At times, Karam is a peddler, the victim of bandits;¹⁵⁴ in other moments, Karam is a bank robber killed for stash he hid in a coat with hundreds of pockets;¹⁵⁵ in still other iterations of the tale recounted by Ramon Karam's grandson, Raymond Karam, Karam is a gun-runner, a creditor of Pancho Villa

¹⁵³ Presidio-Chihuahua residents. Conversations with Emily Verla Bovino. Personal Interviews. West Texas and Northern Mexico. October 2011 to January 2012 and October 2012 to December 2012. See also Means, *Pancho Villa Days at Pilares*, op. cit. and Tony Cano, *Bandido: The True Story of Chico Cano*, op. cit.

¹⁵⁴ *Investigation of Mexican Affairs*. Vol. 1., 1651.

¹⁵⁵ Joyce Means. Conversation with Emily Verla Bovino. Personal Interview. Tucson, Arizona. April 2012. See also, Means, *Pancho Villa Days at Pilares*, op. cit.

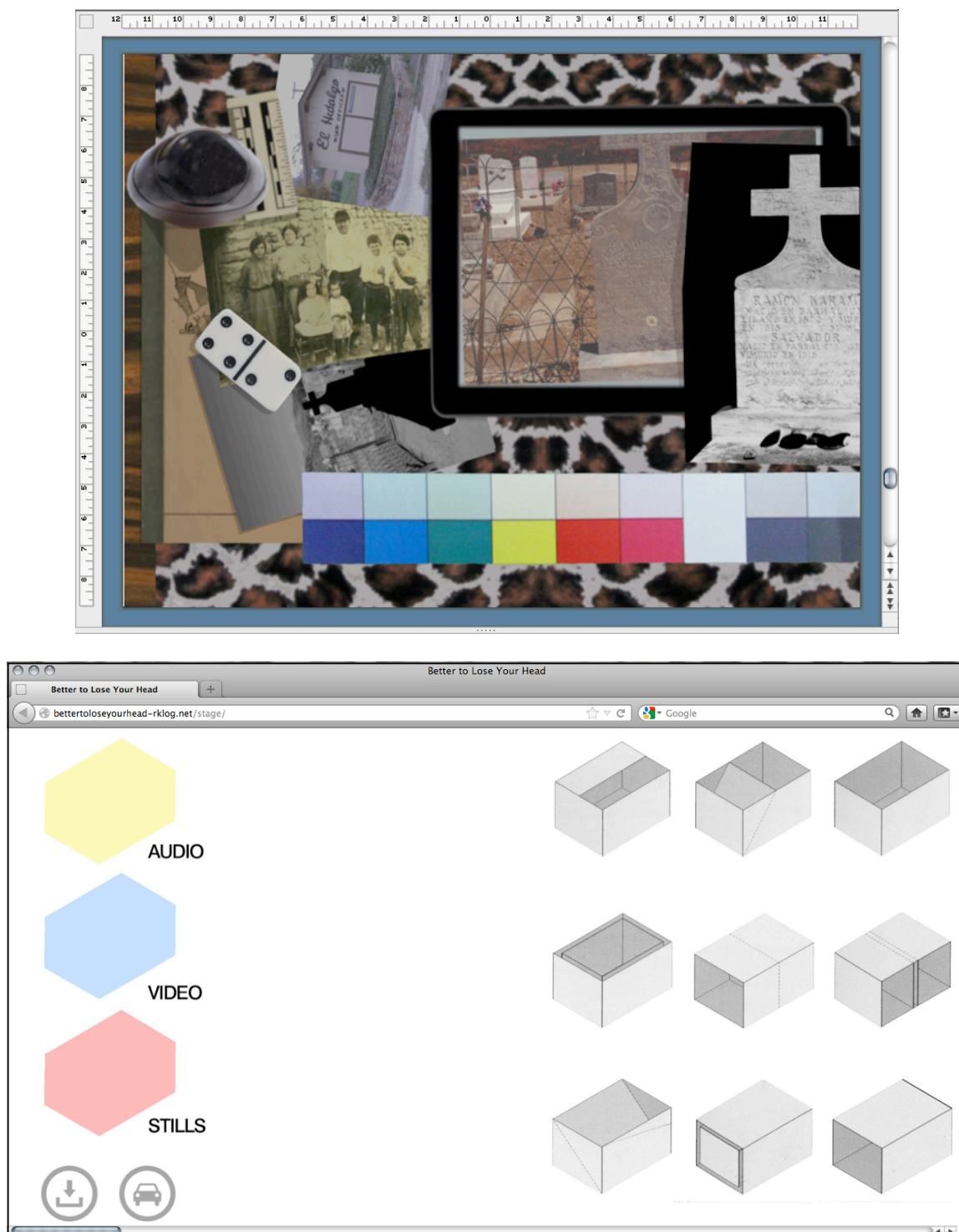


Figure 21 (top) Digital painting sketch by the author: the grave of Ramon Karam; (bottom) screenshot of audio-drama screening website (<http://www.mobile-irony-valve.net/index.php/rk-log/rk/>). Images by the author.

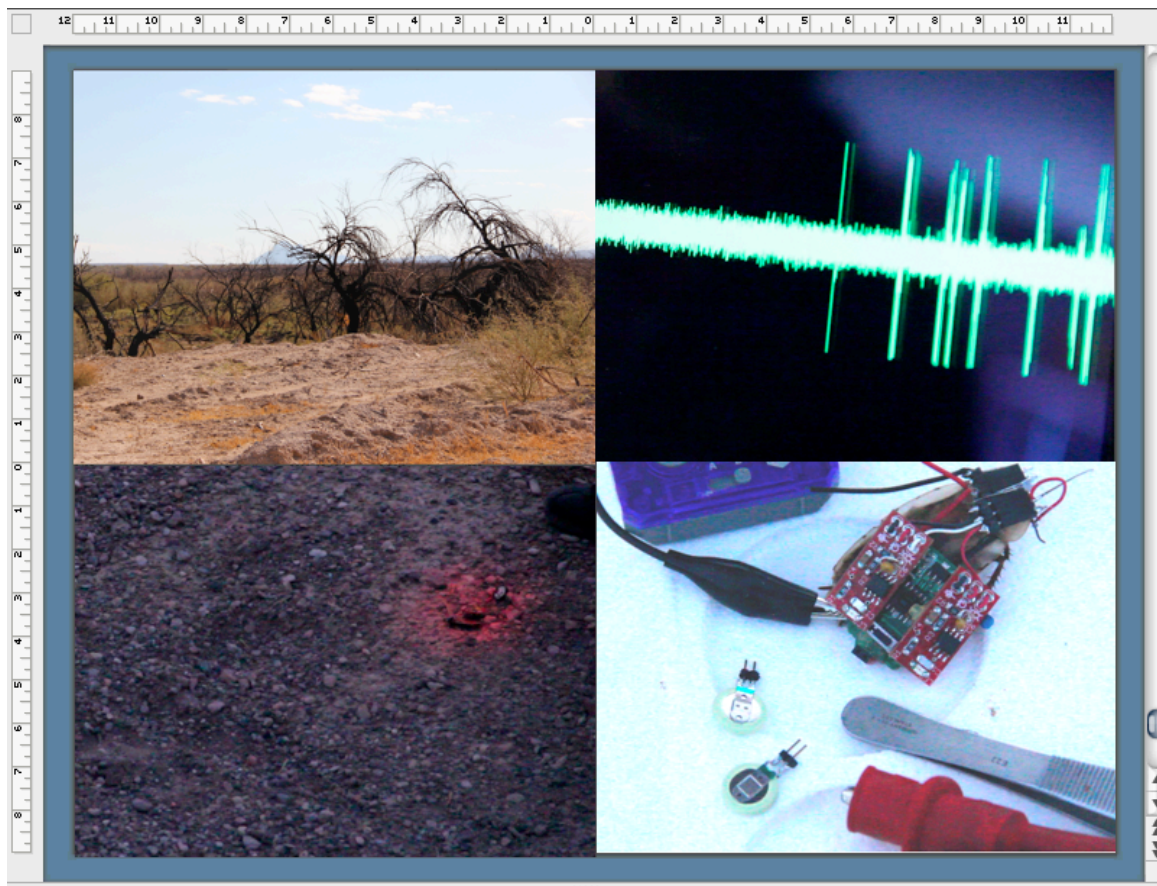


Figure 22 Stills from silent video clips that accompany the multi-installment audio-drama (photos by the author): (upper left) salt cedar trees burnt in a brush fire; (upper right) visualization of spiking neurotransmitters in a cockroach leg; (lower left) a remote-controlled cockroach crossing the border in a dried up bend of the Rio Grande River; (lower right) a cockroach being engineered with its remote-control backpack. Image by the author.

murdered by “Bandera Roja” (Red Bandana), a disgruntled mercenary or anarchist who went on a rampage when Villa’s fighters were disbanded.¹⁵⁶

In my ethno-fiction audio drama *Better to Lose Your Head Than Use It* (fig. 21 and fig. 22), these three objects of evidence I discovered accidentally (fig. 14) are protagonists in a story that alludes to Judd’s artist museology through the illusion of a near future world. In this world, the artist Donald Judd has been forgotten and is only recalled by some as ‘Jonald Dudd,’ the

¹⁵⁶ Raymond Karam. Conversation with Emily Verla Bovino. Personal Interview. San Antonio, Texas. April 2012.

venerated founder of a series of new ritual practices that aid individuals afflicted with hyperthymestic syndrome (superior memory); *Chinati* has become *Chiniti*, the ceremonial core of mysterious ceremonies inside a virtual border wall. Legislation on human experimentation has been ‘flexibilized’ and the fictional hyperthymestic RK is taken to the area for brain sampling and invasive stimulation only legal in the borderlands zone. Meanwhile, in a bend of the Rio Grande—the dried up river with two names, remote-patrolled with insect-embedded sensors and unmanned border checkpoints—a proxy war is being fought between genetically-modified salt cedar beetles and remote-controlled cockroaches. In the four years before Donald Trump’s conquest of America under the slogan “build the wall,” this speculative audio-drama based on the borderlands project of another Donald—Donald Judd (fig. 23)—used Marfa as a superforecaster of new populism, new white identity politics, and the currency of plastic identity: a “strict measure”¹⁵⁷ of the contemporary. In the audio-drama’s play with illusion and allusion, a central theme emerges: a doubling between plastic memory in the fictional biological specimen RK, and plastic identity in the sometimes-peddler, sometimes-bank-robber, sometimes-gun-runner, Ramon Karam. To the background of this doubling, the symbolic connection between U.S.-Mexico border politics and the geopolitics of Syrian migration reveals itself to be no new narrative, but rather the manipulation of a historical source of North American white anxiety that is at least a century old.¹⁵⁸

¹⁵⁷ Judd, “The Chinati Foundation/La Fundación Chinati (1987),” 281.

¹⁵⁸ Alan Gomez, “Tensions rise over Syrians crossing southwest U.S. border,” *USAToday*. November 19, 2015. Accessed November 19, 2015. <http://www.usatoday.com/story/news/2015/11/19/syrians-apprehended-southwest-border/76064112/> Eamon Javers, “‘A dangerous world’: What’s at stake when Syrian refugees are smuggled to U.S.” *CNBC*. June 7, 2016. Accessed June 30, 2016. <http://www.cnn.com/2016/06/06/a-dangerous-world-whats-at-stake-when-syrian-refugees-are-smuggled-to-us.html>

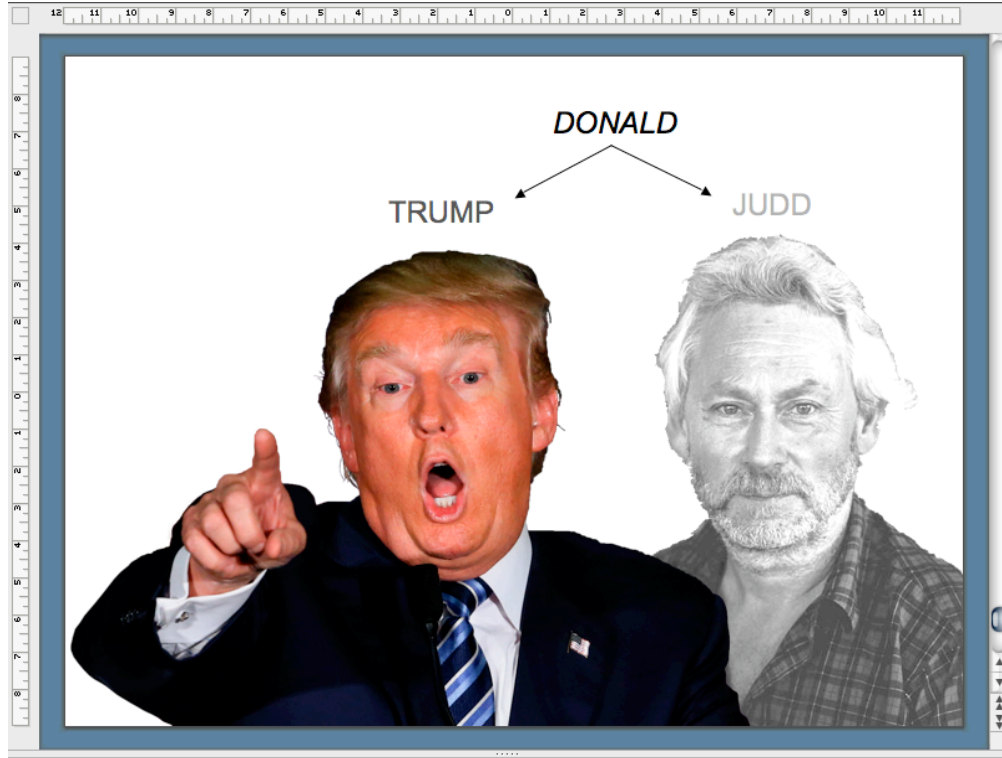


Figure 23 Two Donalds: 2016 U.S. President-elect Donald Trump (b. 1946) and American minimalist Donald Judd (1928 – 1994). Image by the author.

To make the film *Moi, un Noir (Treichville)* (1958),¹⁵⁹ ethnographer Jean Rouch worked with a group of young Nigerian immigrants living in the Ivory Coast village of Treichville in Abidjan with the idea of making a film in which members of the group played themselves. With fictional characters named Edward G. Robinson, Eddie Constantine, Tarzan, Elite, Facteur, Petite Jules and Dorothy Lamour, Rouch’s film uses improvisation to move ethnography beyond documentary and into a realm that works between everyday life and the imaginary worlds, dreams, and fantasies of its subjects. As characters, the protagonists are not only objects of ethnographic study but players of their own intentionally self-fashioned and shifting subjectivities. The tension between ethnographic representation and performative self-presentation is exemplified by the phrase “Je lui passe la parole” (literally “I pass the word to

¹⁵⁹ *Moi, un Noir (Treichville)*, film, dir. Jean Rouch (1958; Brooklyn, NY: Icarus Films, 2010) DVD.

him”) which Rouch uses to conclude his introduction to the film, opening the title sequence with the voice of Treichville character Edward G. Robinson. After the title sequence, Rouch’s camera follows the silent Edward G. Robinson, played by Oumarou Ganda (who in the 1960s and 1970s would direct his own films) through the streets of Abidjan. Ganda’s dynamic and animated voice recounts in off-camera how he came to the Ivory Coast to find work and fortune, and how he acquired the name “Edward G. Robinson,” the Hollywood actor of ‘Film Noir’ fame. In response to critical opposition to the film from various fronts, Rouch defended ethnographic fiction with the assertion “fiction is the only way to penetrate reality.”¹⁶⁰

In the case of the RK-LOG episode, *Better to Lose Your Head Than Use It*, ethnographic fiction allowed performance participants who played informants to experiment with a peculiar cult of personality specific to Marfa where, for the benefit of art tourists, residents often find themselves playing themselves as minor celebrities, initiates of an exclusive club. Ethno-fiction also allowed area residents who might have otherwise felt uncomfortable taking public ownership of racialized anxieties to give voice to concerns, albeit obliquely and subconsciously, without fear of alienation; this occurred with both informants who would identify as white and those who would identify as Hispanic or Latino.

After publishing his long-awaited *The Return of Comrade Ricardo Flores Magón* (2014)—an anthropological history of the anarchist movement during the Mexican Revolution—Chilean anthropologist Claudio Lomnitz gave a lecture in which he used his experience co-authoring the award-winning historical play *El Verdadero Bulnes* (The Real Bulnes, 2010) as an example of how “genre choice effects the work that we do” as historians and anthropologists.¹⁶¹

¹⁶⁰ Jean Rouch as quoted in Steven Feld, “Editor’s Introduction,” Jean Rouch, *Ciné-Ethnography*, ed. Steven Feld. Minneapolis, MN: University of Minnesota Press, 2003. 6.

¹⁶¹ Claudio Lomnitz, “Keynote Lecture: Public Life and Anthropology,” *International Congress of the International Union of Anthropological and Ethnological Sciences and the Japanese Society of Cultural Anthropology*, International Conference Hall of Makuhari Messe, Chiba City, Tokyo. May 15 – 18, 2014. IUAES2014.video, “02 03 Keynote Lecture Claudio Lomnitz,” *Youtube*. Video Clip. Published on October 15, 2014. Accessed March 3, 2017. <https://www.youtube.com/watch?v=6NWbafUnby0>

“What was most interesting to me about that experience,” Lomnitz asserted, “was that the dramatic form led me to different places than historical narrative would have done.” These “different places” were significant to Lomnitz for the potential they offered for disseminating anthropological and historical work in new forms. As Lomnitz explained,

in order to have drama [...] you need to have characters and dramatic situations [...], moreover dramatic writing relies exclusively on action and there’s almost no room for description in it. This is in marked contrast with historical and ethnographic writing which [...] is laden with description. It also contrasts sharply with the duty that historians and anthropologists must discharge, always to contextualize, always to dwell on gray areas, to remark on inconsistencies in character inaction, etc. [...] The result I find is that dramatic writing is in the end more philosophical than historical writing because in it the author centers squarely on what he or she thinks is the central dramatic conflict and must then take liberties with the characters in order to bring this conflict out clearly and in an exciting way [...]. As a result there is a kind of polarization of character in dramatic writing that contrasts with the constant relativization of character in anthropological writing. This is interesting because there are times when this kind of clarity of position is most welcome. [...] I communicated much about what I believed to be essential in [my] subject and in ways that were more widely available to a variegated audience. But in order to do that I had to take some liberties with both characters and events. This is relevant I think for thinking about the dissemination of anthropological work[.] [I]t is this kind of act, this reach for the ethical, political or dramatic essence of a process that interests people the most because that kind of clarity is needed for practical orientation. Given the combination of what I’ve called the expansion of anthropological dilettantism, and the combination of a vertiginous expansion of access to anthropological thinking and an equally disruptive trend to making the conditions for creating this knowledge unstable or precarious, forms of writing [...] become significant. My point, in short is this, changing structures of employment and vast open systems of dissemination produce conditions of cultural production that have a remote kinship with the movement of my Mexican [anarchist] exiles of the early 20th century, a movement between being well-established, confident and at home, to being vulnerable, pliable, [...] and always learning [...]. A movement from the confidence of occupying a major position to the tentative and mobile position of the minor. Anthropology’s future in my view will be determined by its willingness to flourish in exile.¹⁶²

The movement between what Lomnitz calls “major and minor registers” and the ability to “flourish in exile” also characterizes ethno-fiction, a minor register in-between anthropology and literature. In my own experiments with ethno-fiction, I have attempted to play with the

¹⁶² Claudio Lomnitz, “Keynote Lecture: Public Life and Anthropology,” op. cit.

“polarization” and “relativization” of character Lomnitz describes by making the plastic identities of characters and landscapes the focus of my art historical audio-drama. Providing people with the opportunity to present what they imagine to be the near future of their reality gives them control not only over the way they are represented, but over manipulation of the collective imaginary about a place, a privilege usually reserved for those who have territorialized space. In *Magic Town*, the data collection of surveys in the polling process led to a loss of power among residents of Grandview when they began to take control of their role representing the country as a barometer of public opinion. Being a ‘standard measure’ for the country forced Grandview into the paradox of having to replicate the status quo in order to maintain this vaunted role. However, when Grandview residents did begin to develop revolutionary views, they were no longer considered the vanguard, but a laughing stock. Abdiyan’s Treichville, on the other hand, was never expected to be representative, rather, as a center of migrant life, it was always potentially explosive, revolutionary, rebellious; in fact, its excentricity, its marginality, granted its migrant residents the imaginative mobility necessary to present a complex image of human life in Abdiyan that, through Rouch’s work, became its ‘standard measure’: a minor register became major. In *Better to Lose Your Head than Use It*, Marfa is the Treichville of the Presidio-Chihuahua borderlands, a “platinum iridium meter” of the contemporary in which minor becomes major, a small town becomes a dynamic node, not because of gentrification or renewal (as has been recounted), but because of the peculiar borderlands combination of historical residents, newcomers, and transient populations in a unique demographic that no longer fits the racialized ‘hispanic’ and ‘anglo’ dialectic. Over time, the town will certainly lose this fragile but stimulating plastic quality as property values continue to rise, economic and ethnic heterogeneity is homogenized, and the borderlands are remilitarized with a fence or a wall, whether virtual or physical. In the meantime, it is important to find ways to tell stories about the liquid life of plastic thresholds. Through floods and droughts, the borderlands river-with-two-names that was

chosen to mark a division always appears committed to naturally reestablishing the plastic transformative threshold as the primary architectural trope between Texas and Mexico, not the wall.

To download the eleven installments of the RK-LOG episode, *Better To Lose Your Head Than Use It*, and the itineraries of the episode road-trip, use the attached USB drive or visit: <http://www.bettertoloseyourhead-rklog.net>.

Part Three, in part, has been submitted for publication with the *Journal of Museum Anthropology* as one of a collection of papers curated by Professor Bennetta Jules-Rosette. This dissertation author was the primary investigator and author of the material featured in the article.

APPENDICES

Appendix for Part One: Plastic Beginnings..... 818

This appendix features single images of all of the path steps in the animated image configuration created in *Prezi* software to accompany Part One of the dissertation. The full animated image configuration is provided on the USB drive that accompanies the dissertation. The reader who consults this printed version of the animated image configuration should treat each in-text mention of a figure (i.e., fig. 1, fig. 2, etc.) in Part One as a prompt to turn the page to view a path step. When references to figures are repeated (i.e., fig. 1, fig. 1), the reader should still turn the page for a new *Prezi* path step, because repeated figures provide new views of image configurations in the *Prezi*.

Appendix for Part Two: Plastic Endings..... 1112

This appendix features the self-published PDF chapbook, *On the Pearl Interpolation in a Monument to Bad Memory (or how to add a perp to the herp, the lerp and the berp already present in the library of things)*, discussed in Part Two of the dissertation. For images of PERP 3D printed objects, see the PERP section of the Artist Portfolio included as the Appendix for Part Three.

Appendix for Part Three: Plastic Thresholds..... 1130

This appendix features an Artist Portfolio that includes images of presentations and exhibitions of episodes from the RK-LOG project, including Episode Two, *Better to Lose Your Head than Use It*, discussed in Part Three of the dissertation.

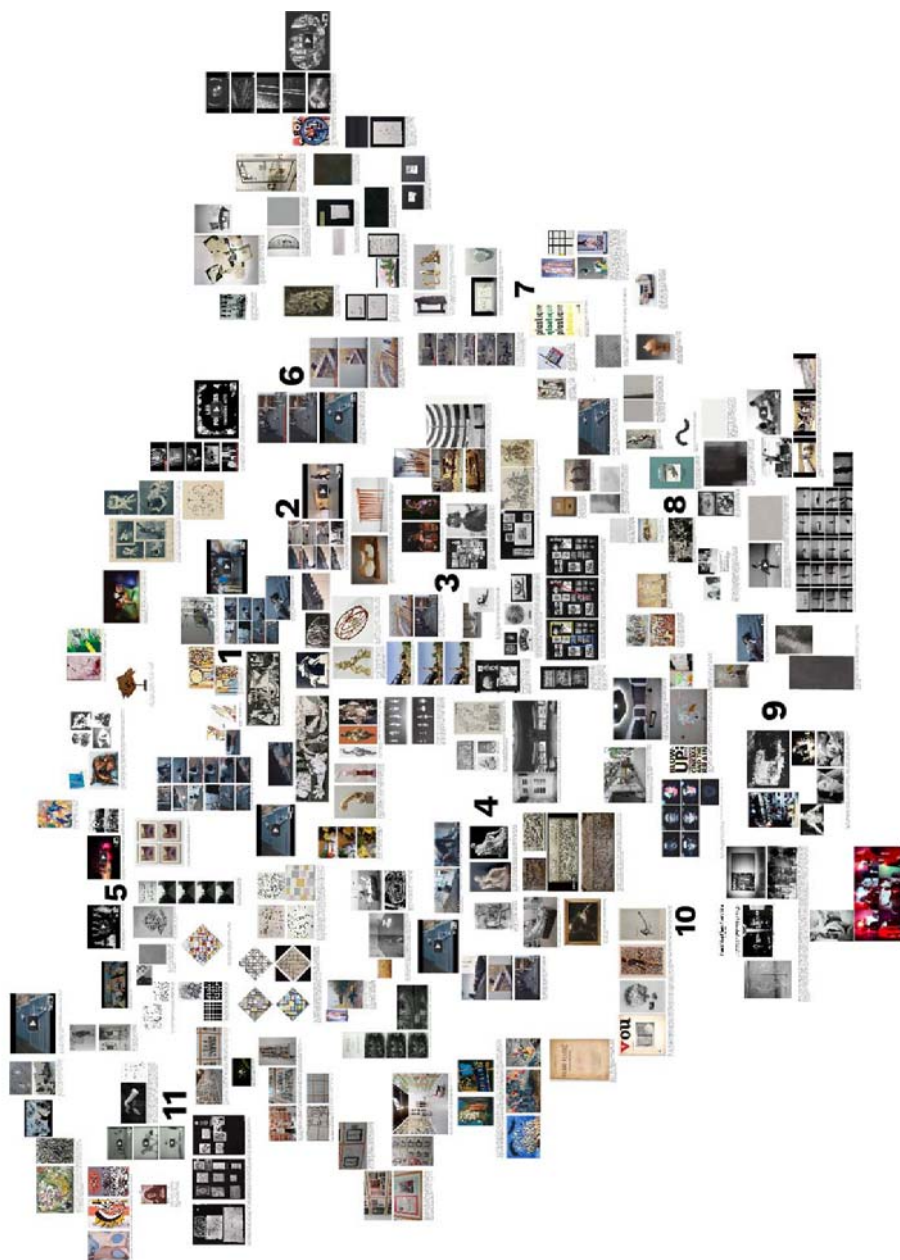
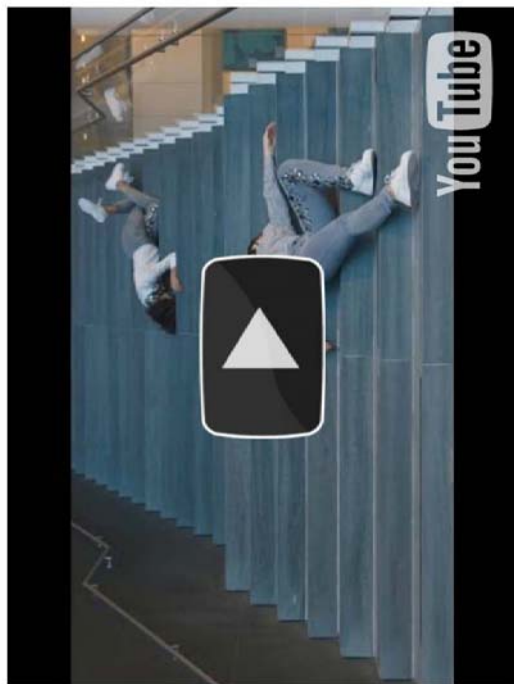








Fig. 1 Maria Hussabi, PLASTIC, PLASTIC (2016), live installation, Museum Staircase. Screenshots from MOMA video documentation post New York.





16). live installation. Museum of Modern Art, New York (MoMA) Gund Lobby
A video documentation posted on Youtube. Video: Museum of Modern Art.



Fig. 2 Malcolm de Chazal, Languste (N.d.), gouache, 76 cm by 55.5 cm (29.9 in by 21.9 in) Private collector. Image: Artnet



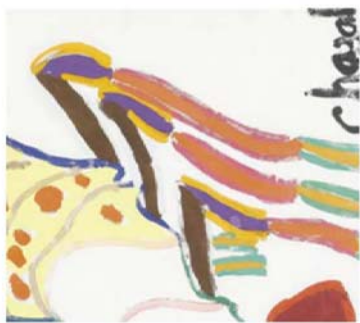


Fig. 2 Malcolm de Chazal, Languste (N.d.), gouache, 76 cm by 55.5 cm (29.9 in by 21.9 in) Private collector. Image: Artnet



und Lobby

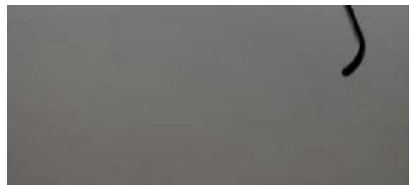


Fig. 6 Arthur Young, Bell
5ft 2.3/4 in x 7 ft 11 in x 42 ft
York. Image: Museum of Mo



Fig. 3 Robert Motherwell, Pancho Villa, Dead and Alive
(1943), cut-and-pasted printed and painted papers, wood
veneer, gouache, oil, and ink on board, 71.7 cm by 91.1
cm (28 1/4 in x 35 7/8 in). Image: Dedalus Foundation,
Inc.



Fig. 2 Malcoim de Chazal, Languste (N.d.), gouache,
76 cm by 55.5 cm (29.9 in by 21.9 in) Private collector.
Image: Artnet





4A) Gund Lobby
1 of Modern Art.



Fig. 2 Malcom de Chazal, *Language* (N.d.), gouache,
76 cm by 55.5 cm (29.9 in by 21.9 in) Private collector.
Image: Artnet



Fig. 3 Robert Motherwell, *Pancha Villa, Dead and Alive*
(1943), cut-and-pasted printed and painted papers, wood
cut, gouache, ink on paper, 100.5 cm by 100.5 cm
(39 1/4 in x 39 7/8 in). Image: DeCubus Foundation,
Inc.



Fig. 4 Pablo Picasso, *Guernica* (1937), oil on canvas, 349.3 x 776.6 cm (11 ft 6 in by 25 ft 6 in), Museo Nacional Centro de Arte Reina Sofía, Madrid, Spain.
Image: Museo Nacional Centro de Arte Reina Sofía, Madrid Spain



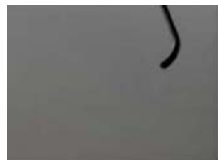


Fig. 6. Arthur Young, *Ball*, 9ft 2 3/4 in x 7 ft 11 in x 42 ft 7 in. Image: Museum of Modern Art, New York.



Fig. 3. Robert Motherwell, *Penelope VIII, Dead and Alive* (1963), cut-and-pasted printed and painted papers, wood veneer, gouache, oil, and ink on board, 71.7 cm by 91.1 cm (28 1/4 in x 35 7/8 in). Image: Detelahn Foundation, Inc.



Fig. 2. Malcolm de Chazal, *Language* (N.d.), gouache, 76 cm by 55.5 cm (29.9 in by 21.9 in). Private collector. Image: Artnet.



Fig. 4. Pablo Picasso, *Guernica* (1937), oil on canvas, 349.3 x 716.6 cm (11 ft 6 in by 25 ft 6 in). Museo Nacional Centro de Arte Reina Sofía, Madrid, Spain. Image: Museo Nacional Centro de Arte Reina Sofía, Madrid, Spain.





inguste (N.d.), gouache,
21.9 in) Private collector.

Fig. 3 Robert Mothenwell, Pancho Villa, Dead and Alive
(1943), cut-and-pasted printed and painted papers, wood
vener, gouache, oil, and ink on board, 71.7 cm by 91.1
cm (28 1/4 in x 35 7/8 in). Image: Dedalus Foundation,
Inc.



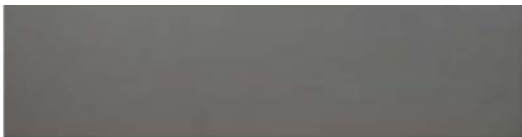


Fig. 6 Arthur
9ft 2 3/4 in x 7 ft
York. Image: Mus





er (1945), aluminum, steel, and acrylic plastic, x 302 x 1271.9 cm). Museum of Modern Art, New York.

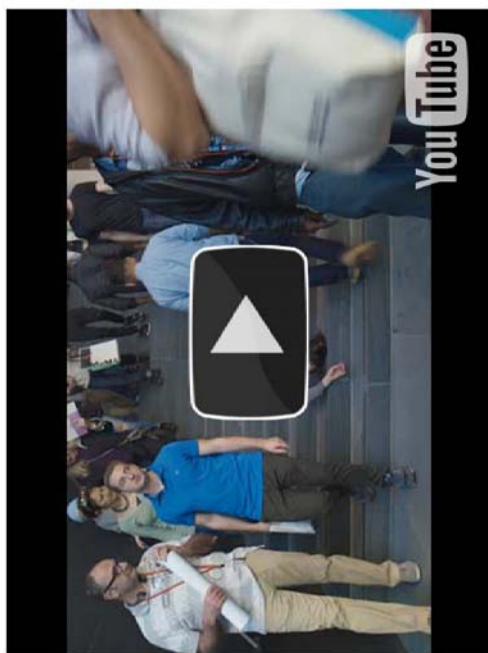
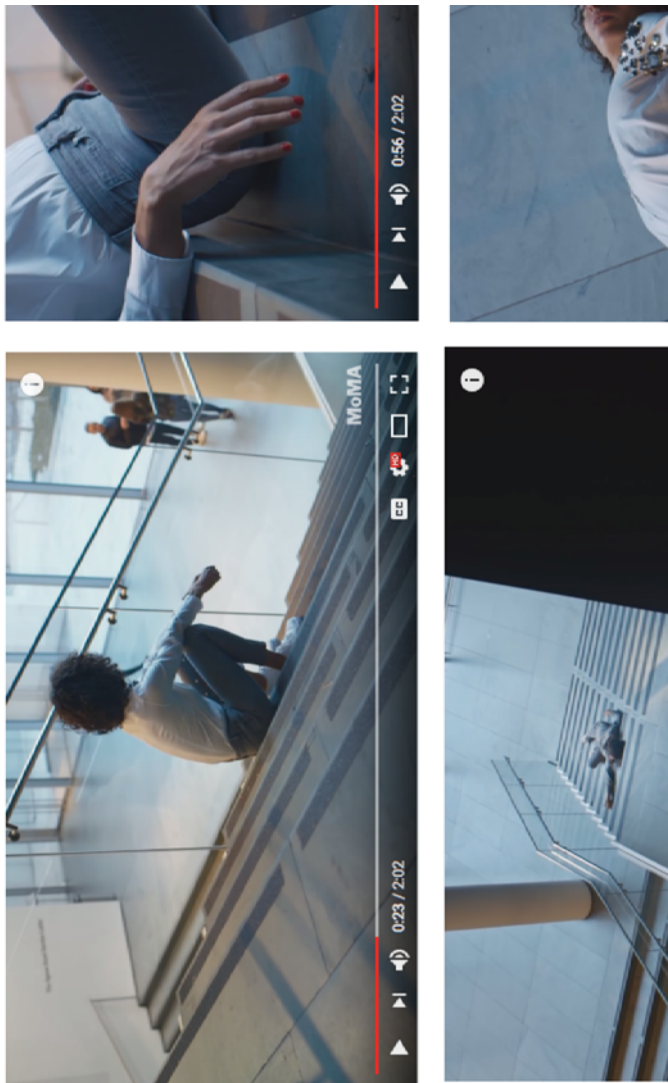
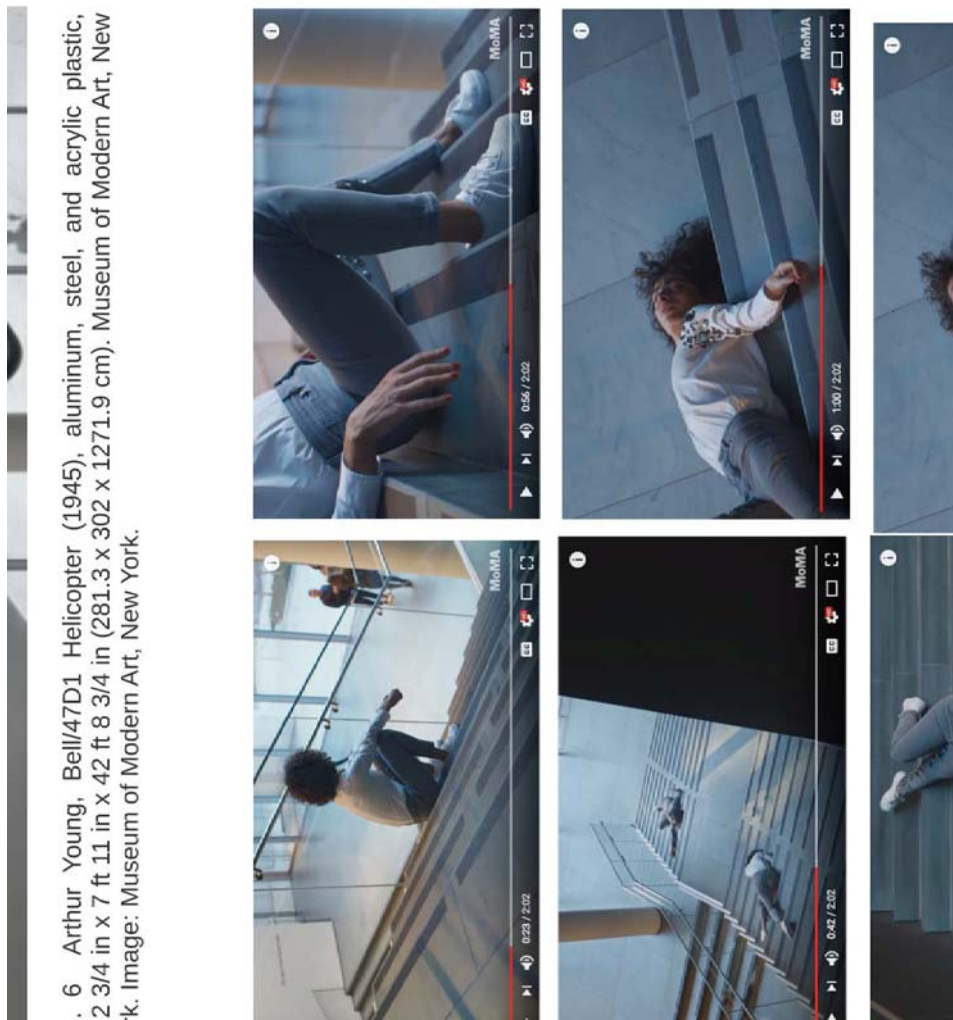


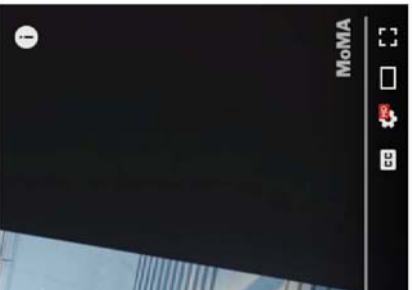
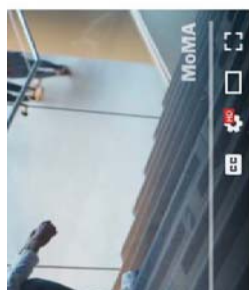
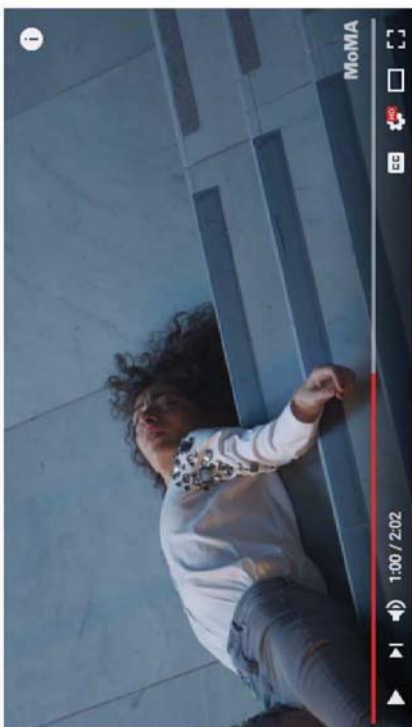
Fig. 6 Arthur Young, Bell/47D1 Helicopter (1945), aluminum, s
9ft 2 3/4 in x 7 ft 11 in x 42 ft 8 3/4 in (281.3 x 302 x 1271.9 cm). Mu
York. Image: Museum of Modern Art, New York.





6 Arthur Young, Bell/47D1 Helicopter (1945), aluminum, steel, and acrylic plastic, 2 3/4 in x 7 ft 11 in x 42 ft 8 3/4 in (281.3 x 302 x 1271.9 cm). Museum of Modern Art, New York. Image: Museum of Modern Art, New York.





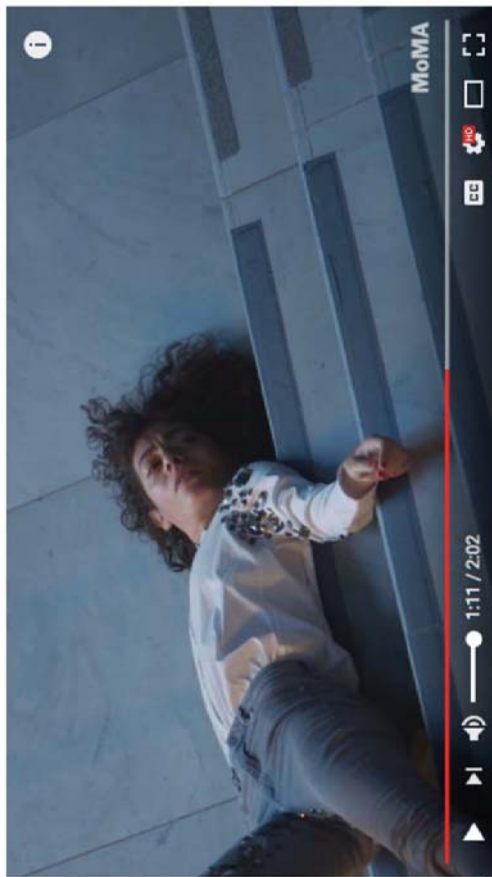
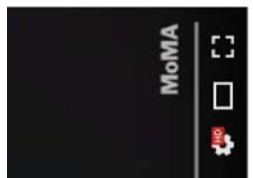




Fig. 58 Performance photograph
God, Alias, The Daughter of the
Museum of Modern Art, New York
magazine Monjoiel (Paris, 1914).



Fig. 6 Arthur Young, *Ballistic* (1985), aluminum, steel, and acrylic glass,
96.2 3/4 in x 7 ft 11 in x 42 ft 5/4 in (251.3 x 202 x 1271.8 cm), Museum of Modern Art, New
York. Image: Museum of Modern Art, New York.

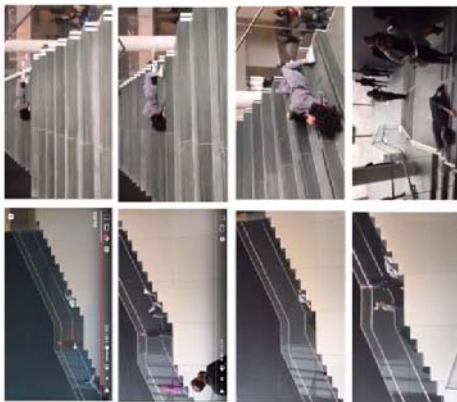
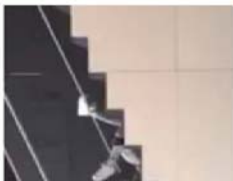


Figure 6: *Parcels With, Deal and Above*
and printed and painted papers, wood
cut on board, 1914, 11 x 11 in (27.9 x
27.9 cm), *Image: Guggenheim Foundation*.





Museum of Modern Art, New York, MOMA, New York, NY, USA. Video: Museum of Modern Art, New York, NY, USA. Video: Museum of Modern Art, New York, NY, USA.



2

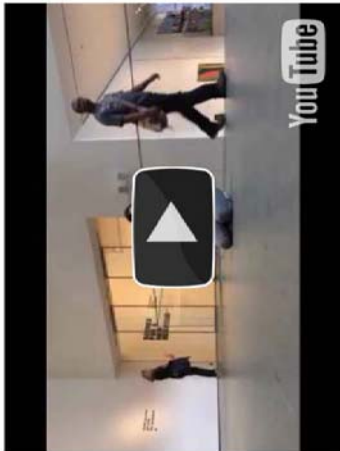
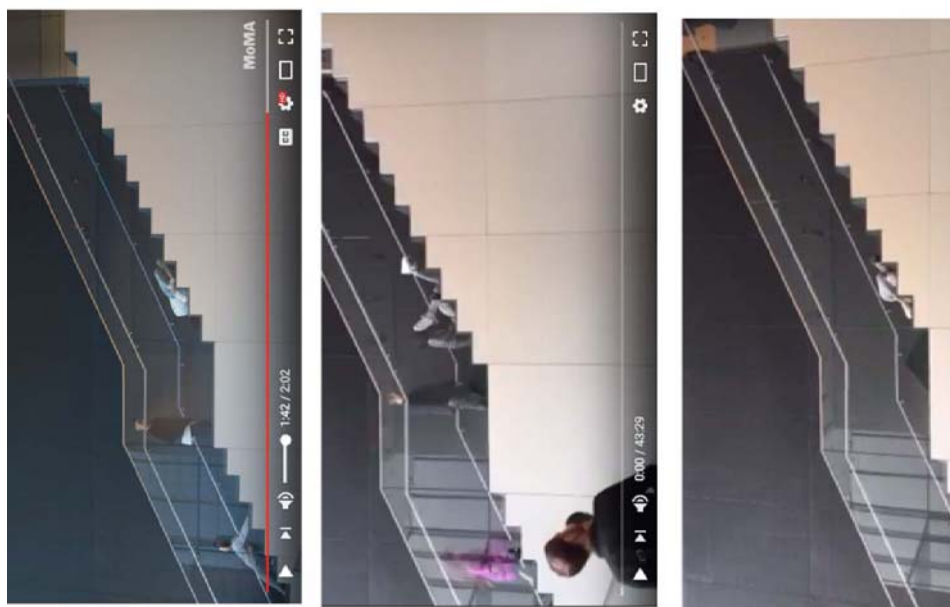
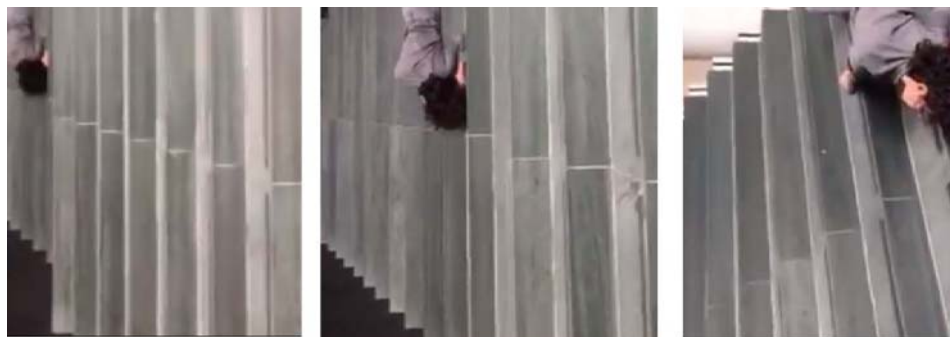


Fig. 7 Maria Hossaka, PLASTIC CODES, live installation, Museum of Modern Art, New York (MOMA), New York, NY, USA. Video: Museum of Modern Art, New York, NY, USA. Video: Museum of Modern Art, New York, NY, USA.

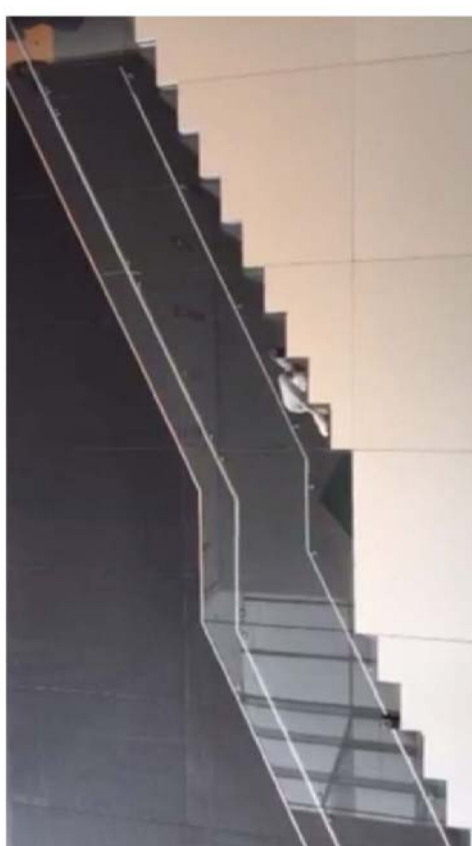
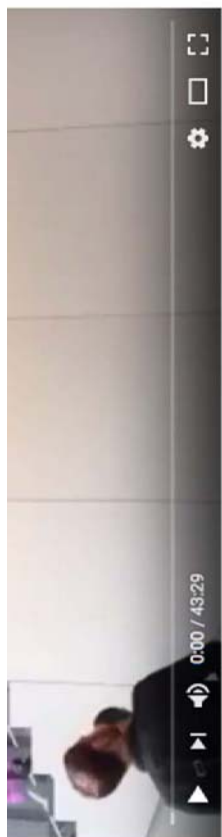


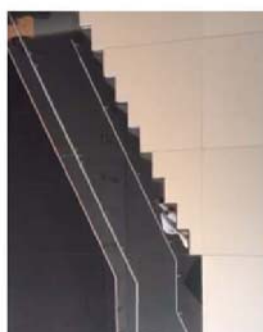
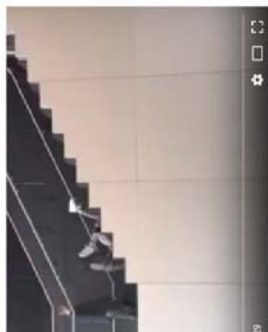
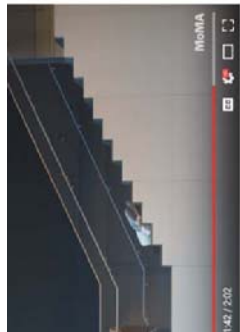
Fig. 81
Book
document
of Mod



MoMA
New York (MoMA).
Video: Museum







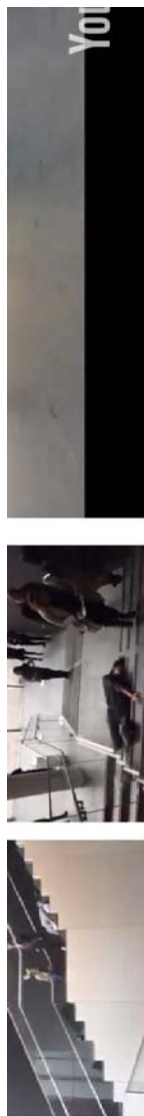


Fig. 7 Maria Hassabi, *PLASTIC* (2016), live installation, Museum of Modern Art, New York (MoMA), Gund Lobby Staircase. Screenshots from video documentation posted by Youtube user Special Collection (March 20, 2016). Video: Youtube / Special Collection.



Fig. 8 (left) Barbara Hepworth, *Pendour* (1947-48), Pendour, plane wood with color, 12 1/8 x 29 3/8 x 9 3/8 in (30.6 x 74.5 x 23.8 cm), Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington D.C. Image: Hirshhorn Museum; (right) Louise Bourgeois, *The Blind* 1947-1949), wood and paint, 70 3/8 x 96 7/8 x 17 3/8 in. (178.7 x 246.1 x 44.1 cm), Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington D.C. Image: Hirshhorn Museum.



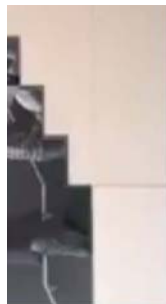


Fig. 10 (top) Aleksandr Rodchenko, Spatial Construction No. 12 (c. 1920), photograph of object. Collection unknown; Image: Museo Magazine; (bottom) Aleksandr Rodchenko, Spatial Construction No. 12 (c. 1920), plywood, open construction partially painted with aluminum paint and wire. 24 x 33 x 18 1/2 in (61 x 83.7 x 47 cm). Museum of Modern Art, New York. Image: Museum of Modern Art, New York.

Fig. 9 (top) Umberto Boccioni, Unique Forms of Continuity in Space (1913), plaster. 43.7/8 x 24.7/8 x 15.3/4 in (111.2 x 88.5 x 40 cm). Museu de Arte Contemporânea da Universidade de São Paulo, Brazil. Image: Museu de Arte Contemporânea da Universidade de São Paulo, Brazil; (bottom) Umberto Boccioni, Unique Forms of Continuity in Space (1913; cast 1931), bronze, same dimensions as plaster. Museum of Modern Art, New York (MoMA). Image: Museum of Modern Art, New York.





Fig. 9 (top) Umberto Boccioni, *Unique Forms of Continuity in Space* (1913), plaster, 43 7/8 x 34 7/8 x 15 3/4 in (111.2 x 88.5 x 40 cm), Museu de Arte Contemporânea da Universidade de São Paulo, Brazil. Image: Museu de Arte Contemporânea da Universidade de São Paulo, Brazil; (bottom) Umberto Boccioni,



Fig. 10 (top) Aleksandr Rodchenko, *Spatial Construction No. 12* (c. 1920), photograph, Collection unknown. Image: Museo Magazine; (bottom) Aleksandr Rodchenko, *Spatial Construction No. 12* (c. 1920), plywood, open construction partially painted with aluminum paint and wire, 24 x 33 x 18 1/2 in (61 x 83.7 x 47 cm). Museum of Modern Art, New York. Image: Museum of Modern Art, New York.



base of limestone
see National d'Art
New York/ADAGP.
38 x 27,94 x 22,86
(AFRS) New York/



Fig. 11 (left and center) Venus of Lespugue (c. 23,000 BCE), mammoth tusk, height 6 in (15.24 cm), Musée de l'Homme, Paris, France. Image: Archive for Research on Archetypal Symbolism; (right) detail, Venus of Lespugue. Image: Musée de l'Homme, Paris, France.

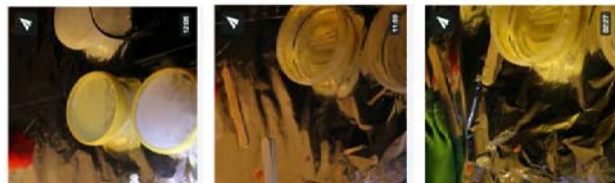


F
S
4
P
U
U
S
U





Fig. 12 (left) Constantin Brancusi, Princess X (1915-1916), polished bronze with three-part base of limestone (1915-1916), 22 x 11 x 9 in (56 x 28 x 23 cm), Musée de l'Homme, Paris; (right) Constantin Brancusi, Princess X (1915), marble and wood (22 x 11 x 9 in (56.88 x 27.94 x 22.86 cm), Sheldon Museum of Art, University of Nebraska-Lincoln. Image: Artists Rights Society (ARS) New York/ADAGP Paris.



Diagrammed productions of Enlil (c. 2300) 1) cast in wood by MIV Productions; 2) cast in wax by MIV Productions; 3) cast in silicone and wood spindles by MIV Productions. Image: MIV Productions.

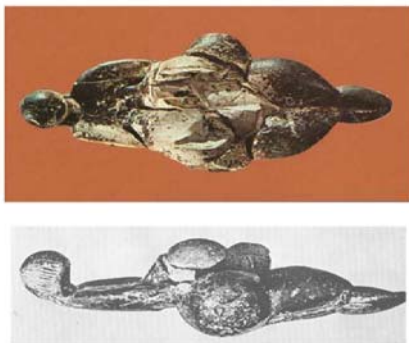


Fig. 11 (left and center) Venus of Lespugue (c. 23,000 BCE), in France. Image: Archive for Research on Acheypt Homme, Paris. Image: Musée de l'Homme, Paris, France.





Fig. 12 (left) Constantin Brancusi, *Princess X* (1915-1916), polished bronze with three-part b and plaster (not included in dimensions), 22 x 11 x 9 in (55.88 x 27.94 x 22.85 cm), Musée Moderne, Centre Georges Pompidou, Paris, France. Image: Artists Rights Society (ARS) NY Paris; (right) Constantin Brancusi, *Princess X* (1915), marble and wood (22 x 11 x 9 in (55.88 cm), Sheldon Museum of Art, University of Nebraska-Lincoln. Image: Artists Rights Society (ADAGP), Paris.

olor Planes
The Hague,
2 in (1.08 x
Aterio; (top
Miller-Müller,
vas, 19 3/8

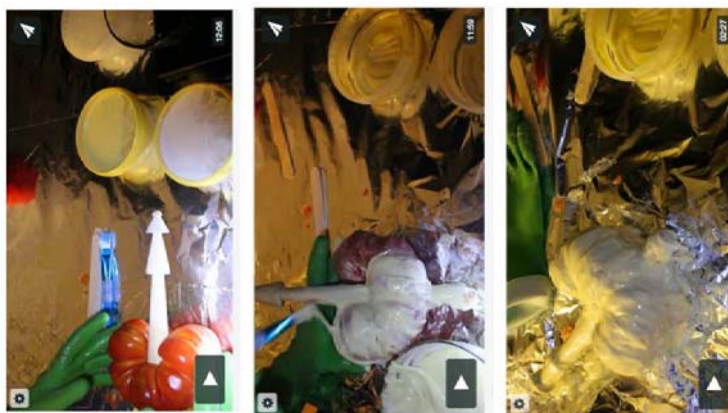


Fig. 13. Mobile Irony Valve (anagrammed productions of Emily Verla Bovino), *Lespique Venus* (c. 23kva), "I could make her by taking a tomato and piercing it through with a spindle, right?" (After Pablo Picasso), tomato, turned wood spindle, wax, silicone and aluminum foil, height 15 in (38.1 cm). Image: MNY Productions.



Fig. 11. (left and center) Venus of Lespugues (c. 23,000 BCE), minimum length back, height 6 in (15.24 cm), Musée de Préhistoire, Paris, France. Image: Archéoparc, Research on Anteprehistoric Syntubism; (right) detail, Venus of Lespugues; Image: Musée de l'Homme, Paris, France.



(left) Constantin Brancusi, Princess X (1915-1916), polished bronze with three-part base of limestone (not included in dimensions), 22 x 11 x 9 in (55.88 x 27.94 x 22.85 cm), Musée National d'Art et d'Historie Contemporaine, Paris, France. Image: Artists Rights Society (ARS) New York/ADAGP, Paris; (center) Constantin Brancusi, Princess X (1915), made of wood (22 x 11 x 9 in (55.88 x 27.94 x 22.86 cm)), Musée National d'Art et d'Historie Contemporaine, Paris, France. Image: Artists Rights Society (ARS) New York; (right) Constantin Brancusi, Princess X (1915-1916), limestone figurine, 22 x 11 x 9 in (55.88 x 27.94 x 22.86 cm), Musée National d'Art et d'Historie Contemporaine, Paris, France. Image: Artists Rights Society (ARS) New York.

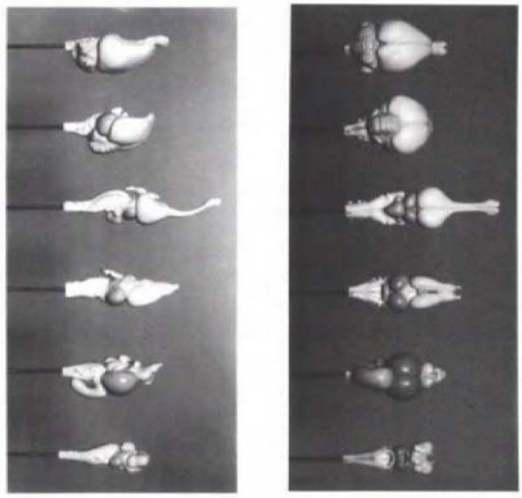


Fig. 14. Photographs of models of animal brains from Bethé Hagens, 1991, essay proposing that the Venus of Lespugues may have been, in part, a topographical map of an animal brain. The original caption to the image reads "dorsal and lateral views of animal brains (not proportionally sized), from left: larva of lamprey, trout, frog, alligator, pigeon, rabbit. The various lobes (from top) equip the animal for autonomic nervous control, motor reflexes, vision, thinking and smelling." (Hagens, "Venusus," 56). Image: Bethé Hagens and De Gruyter.



Image: Museum of Mo

Universidade de São Paulo, Brazil; (bottom) Umberto Boccioni, Unique Forms of Continuity in Space (1913; cast 1931), bronze, same dimensions as plaster. Museum of Modern Art, New York (MoMA). Image: Museum of Modern Art, New York.



Fig. 15 Prinz Gholam, FMCAeKD (2008), screenshots from video documentation of performance, Galerie Jocelyn Wolff, Paris, France. Image: Prinz Gholam.



paint, 7
Muséum



Fig. 18 Maria Haccabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MOMA). (top) fourth and fifth floor stairwell, (bottom) Grand Lobby Staircase. Screenshots of MOMA video documentation (performance excerpts) posted on YouTube. Image: Museum of Modern Art, New York.

3



Fig. 15 Prinz Ghulam, FMCAEKD (2008), screenshots from video documentation of performance, Galerie Jocelyn Wolff, Paris, France. Image: Prinz Ghulam.



Fig. 16 Prinz Ghulam, FMCAEKD (2008), screenshots from video documentation of performance, Galerie Jocelyn Wolff, Paris, France. Image: Prinz Ghulam.



Hagena 1991 essay topographical map of d and lateral views of x, trout, frog, alligator, x autonomic nervous Amuses; 96). Image:



Fig. 18 Maria Hassabi, *PLASTIC* (2016), live installation, Museum of Modern Art, New York (MoMA). (top) fourth and fifth floor stairwell, (bottom) Gund Lobby Staircase. Screenshots of MoMA video documentation (performance excerpts) posted on YouTube. Image: Museum of Modern Art, New York.



Fig. 16 Prinz Gholam, *FMCaEKD* (2008), screenshots from video documentation of performance, Galerie Jocelyn Wolf, Paris, France. Image: Prinz Gholam.

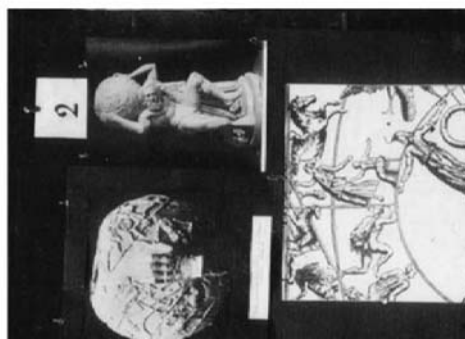


Fig. 17 Prinz Gholam, *Aegineten-Diaghilev* source images for *FMCaEKD* (2008), screenshot from prinzgholam.com. (left) The Ancient Greek Aeginetan group (5th-century BC), (right) reproduction of a photograph of a dancer in Sergei Diaghilev's Ballets Russes (1908-1929). Image: Prinz Gholam.



paint and wire. 24 x 33 >
Image: Museum of Modern

Paulo, Brazil. Image: Museu de Arte Contemporânea da
Universidade de São Paulo, Brazil; (bottom) Umberto Boccioni,
Unique Forms of Continuity in Space (1913; cast 1931), bronze,
same dimensions as plaster, Museum of Modern Art, New York
(MoMA). Image: Museum of Modern Art, New York.



Fig. 15 Prinz Gholam, FMCAeKD (2008), screenshots from video documentation
of performance, Galerie Jocelyn Wolff, Paris, France. Image: Prinz Gholam.

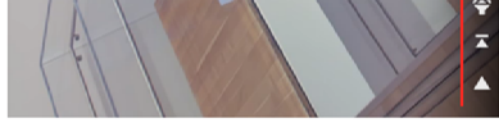




Fig. 15 Prinz Gholam, FMCAeKD (2008), screenshots from video documentation of performance, Galerie Jocelyn Wolff, Paris, France. Image: Prinz Gholam.

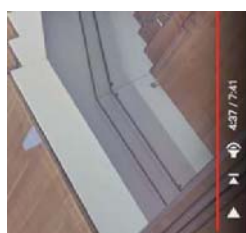
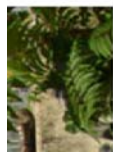


Fig. 18 Maria Hassabi, PL New York (MoMA), (top) Staircase. Screenshots of posted on Youtube. Image:



ay
of
of
us
je:



documentation
Gholam.

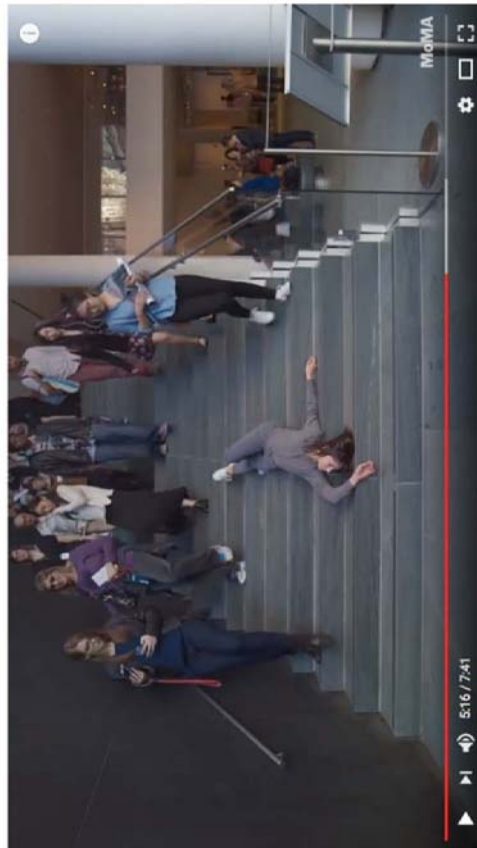


Fig. 18 Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), (top) fourth and fifth floor stairwell, (bottom) Gund Lobby Staircase. Screenshots of MoMA video documentation (performance excerpts) posted on Youtube. Image: Museum of Modern Art, New York.





© 2018, New Institute, Museum of Modern Art, in and 8th floor stairwell, (bottom) Grand Lobby, MA, video documentation (performance excerpt) room of Modern Art, New York.

3



Daughley source images for FIVE/4D (2008), screenshot
• Ancient Greek, Argemitan group (5th-century BC); (right)
• Dancer in Sergei Diaghilev's Ballets Russes (1908-1929).



Fig. 20 (left) Transmission Mask, Akela Gwall (collected 1879), Northwest Coast, Canada. Image: Canadian Museum of History, Quebec, Canada.



Fig. 19 (left) Aby Warburg, Tafel 79 (Plate 79), from the Mnemosyne Bilderreihen (Mnemosyne Image-Series, 1924-1926, also known as the Mnemosyne Atlas); The Mnemosyne Atlas version (1929) of the Mnemosyne Bilderreihen comprises 63 plates (i.e., glass slides of image configurations). Image: Warburg Institute, London, UK; (right) Aby Warburg wearing a Hopi Heims Kachina mask in Oraltz, Arizona (May 1898). Image: Warburg Institute, London.



Fig. 21 (clockwise from top) Gau (bottom left), Giuseppe Penone, Penone/ADAGP, Paris; (center) a Penone/ADAGP, Paris.





Fig. 8 (left) Barbara Hepworth, *Pendour* (1947-48), Pendour, plane wood with color, 12 1/8 X 29 3/8 X 9 3/8 in (30.5 X 74.5 X 23.8 cm), Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington D.C.; image: Hirshhorn Museum; (right) Louise Bourgeois, *The Blind Leading the Blind* (1947-1949), wood and paint, 70 3/8 x 96 7/8 x 17 3/8 in. (178.7 x 246.1 x 44.1 cm), Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington D.C.; image: Hirshhorn Museum.



Fig. 20 Haida Transformation Mask, Haida Gwaii (collected 1879), Northwest Coast, Canada. Image: Canadian Museum of History, Quebec, Canada.

3





epworth, Pendour (1947-48), Pendour, plane wood with color, 12 1/8 X 29 3/8 X 9 3/8 in (30.6 X 74.5 X 23.8 cm), Hirshhorn Museum and Smithsonian Institution, Washington D.C. image: Hirshhorn Museum; (right) Louise Bourgeois, The Blind Leading the Blind 1947-1949, wood and x 17 3/8 in. (178.7 x 246.1 x 44.1 cm), Hirshhorn Museum and Sculpture Garden, Smithsonian Institution, Washington D.C. Image: Hirshhorn



Fig. 20 Haida Transformation Mask, Haida Gwaii (collected 1879), Northwest Coast, Canada. Image: Canadian Museum of History, Quebec, Canada.





west Coast, Canada. Image:



Image-Series
at Marmoonne
s, London, UK;
rburg Institute.



Fig. 21 (clockwise from top) Giuseppe Penone, Ripetere il bosco (1969, 1997), wood, various dimensions, on view at Chapel du Méjlan, Arles, France; (bottom left) Giuseppe Penone, Albero di 12 metri, (1980), wood, 472.44 in (1200 cm) on view at Guggenheim Museum, New York. Source: Archivio Penone/ADAGP Paris; (center and bottom) Giuseppe Penone, Cedro di Versailles, (2000-2003), wood, 236.22 x 66.92 in (600 x 170 cm). Source: Archivio Penone/ADAGP Paris.





1.6 X 74.5 X 23.8 cm), Hirschhorn Museum and The Blind Leading the Blind 1947-1949), wood and an Institution, Washington D.C. Image: Hirschhorn



thwest Coast, Canada. Image:





Fig. 20 Haida Transformation Mask, Haida Gwaii (collected 1878), Northwest Coast, Canada. Image: Canadian Museum of History, Quebec, Canada.



Fig. 21 (clockwise from top) Gillespie Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Chapelle du Méjail, Arles, France; Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Musée de la Ville de Paris, Paris, France; Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Musée de la Ville de Paris, Paris, France; Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Musée de la Ville de Paris, Paris, France. Source: ACOGNO PIRELLA GÖTTSCHE LOWE.



Fig. 22 (left) Detail of Albrecht Dürer's 'Death of Orpheus' (1494), with (lower middle of plate) Albrecht Dürer's 'Tod des Orpheus (Death of Orpheus, 1494), pen drawing, 8.66 x 11.26 in (22.2 x 28.6 cm); (right) detail of Dürer's 'Death of Orpheus' (1494), pen drawing, 8.66 x 11.26 in (22.2 x 28.6 cm); (top) Albrecht Dürer's 'Death of Orpheus' (1494), pen drawing, 8.66 x 11.26 in (22.2 x 28.6 cm); (bottom) Albrecht Dürer's 'Death of Orpheus' (1494), pen drawing, 8.66 x 11.26 in (22.2 x 28.6 cm). Source: Albrecht Dürer, 'Death of Orpheus' (1494), pen drawing, 8.66 x 11.26 in (22.2 x 28.6 cm), on view at Hamburger Kunsthalle, Hamburg.



Fig. 21 (clockwise from top) Gillespie Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Chapelle du Méjail, Arles, France; Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Musée de la Ville de Paris, Paris, France; Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Musée de la Ville de Paris, Paris, France; Perrone, Répétition à basco (1969, 1997), wood, various dimensions, on view at Musée de la Ville de Paris, Paris, France. Source: ACOGNO PIRELLA GÖTTSCHE LOWE.



Fig. 21 (clockwise from top) Giuseppe Penone, *Ripetere il bosco* (1969, 1987), wood, various dimensions, on site (bottom left) Giuseppe Penone, *Albero di 12 metri*, (1980), wood, 472.44 in (1,200 cm) on view at Guggenheim Penone/ADAGP Paris; (center and bottom) Giuseppe Penone, *Centro di Versailles*, (2000-2003), wood, 236.22 x 66. Penone/ADAGP Paris.



left) Aby Warburg, *Tafel 79* (Plate 79) from the *Mnemosyne Bilderbuch* (*Mnemosyne Image-Series*, 1929), Hamburg; right) *Mask*, by the artist, *The Mnemosyne Atlas* (1929) of the *Mnemosyne Image-Series*, Hamburg; center) *Mask*, by the artist, *The Mnemosyne Atlas* (1929) of the *Mnemosyne Image-Series*, Hamburg; right) *Mask*, by the artist, *The Mnemosyne Atlas* (1929) of the *Mnemosyne Image-Series*, Hamburg; bottom) *Mask*, by the artist, *The Mnemosyne Atlas* (1929) of the *Mnemosyne Image-Series*, Hamburg.



Fig. 22 (left) Detail of Aby Warburg's *Tafel 41* (Plate 41) from the *Mnemosyne Atlas* (1929), with (lower middle of plate) Albrecht Dürer's *Tod des Orpheus* (Death of Orpheus, 1494), pen drawing, 6.86 x 11.38 in (22.5 x 28.9 cm), Hamburger Kunsthalle, Hamburg; (middle) engraving featured in Warburg's essay, *Dürer's and Italian Aniquity* (1905), "Anonymous northern Italian, Death of Orpheus (circa 1470-1480)", engraving 5.7 x 8.43 in (14.5 x 21.4 cm), Hamburger Kunsthalle, Hamburg; (right) detail of Dürer's *Death of Orpheus*, Images: Warburg Institute, London and Hamburger Kunsthalle, Hamburg.





Fig. 22 (left) Detail of Aby Warburg's Tafel 41 (Plate 26.9 cm), Hamburger Kunsthalle, Hamburg; (middle in (14.5 x 21.4 cm), Hamburger Kunsthalle, Hambu



Fig. 25 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929). (top left) Seated and lunging figures from 9th-century drawings of Perseus and Andromeda for star map constellations; (center and bottom left) ancient Greek clay vessels with painted scene of Apollo driving the sun across the sky (British Museum, London), and painted scene of Helios (sun) and Selene (moon) (Staatliche Museum, Berlin) (both 5th-century CE); (right) black-painted Lekythos vessel featuring a scene of Helios descending into the sea (Athens National Archeological Museum, Athens). Image: Warburg Institute, London.



Fig. 23 (right) Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929), (center) a diagonal configuration joins the Atlas group to the Mnemosyne group of image reproductions on Warburg's Tafel 2; (left, yellow) three images of the Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm), Museo Archeologico Nazionale, Naples, and (left, blue) three images of Mnemosyne and the muses on the Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm), Albani Collection, Louvre, Paris. Image: Warburg Institute, London.



Andromeda for star map constellations; (center and bottom left) ancient Greek clay vessels with painted scene across the sky (British Museum, London), and painted scene of Helios (sun) and Selene (moon) (Staatliche Museum, Athens); (right) black-painted Lekythos vessel featuring a scene of Helios descending into the sea (Athens Museum, Athens). Image: Warburg Institute, London.

Fig. 22 (left) Detail of Al 28,9 cm), Hamburger K in (14.5 x 21.4 cm), Har



s Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929); (center) a diagonal configuration joins the Atlas group to the Mnemosyne group of image reproduction: images of the Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm), Museo Archeologico Nazionale, Naples, and (left, blue) three images of Phaghus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm), Albani Collection, Louvre, Paris. Image: Warburg Institut

Fig. 25 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): (top left) Seated and luring drawings of Perseus and Andromeda for star map constellations; (center and bottom left) ancient Greek clay drawings of Apollo driving the sun across the sky (British Museum, London), and painted scene of Helios (Sun) at Museon, Berlin) (both 5th-century CE); (right) black-painted Lekythos vessel featuring a scene of Helios dei National Archeological Museum, Athens). Image: Warburg Institute, London.



Fig. 23 (right) Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929); (center) a diagonal configurati Tafel 2; (left, yellow) three images of the Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm), and the muses on the Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92



Fig. 26 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm), Albani Collection, Louvre, Paris. (top) Procession of the muses; (center and bottom) Mnemosyne and Socrates, and Mnemosyne and Homer (also interpreted as Mnemosyne and Zeus). Louvre, Paris. Image: Warburg Institute, London.



in the History of Religion, 1928. Plate on the Jain Religion), art, Histoire de l'art par les monuments (A History of Art by



Fig. 16 Prinz Ghulam, FMCAeKD (2009), screenshots from video documentation of performance, Galerie Jocelyn Wolff, Paris, France. Image: Prinz Ghulam.



Fig. 17 Prinz Ghulam, Aeginaen-Diaghilev source image from prinzghulam.com; (left) The Ancient Greek Aegina reproduction of a photograph of a dancer in Sergei Diaghilev's image. Prinz Ghulam.



Fig. 24 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929). (top right and left) Atlas (center-century CE), image, approx. 8th in (c.13.36) Munich, Germany; (right) Andromeda (center-century CE), schematic drawing of the constellations on the celestial globe, held by the Atlas figure (1739). image: Warburg Institute, London.



Fig. 25 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): drawings of Perseus and Andromeda for star map constellations; (center and bottom) drawing of the sun across the sky (British Museum, London), and painted vessel of Apollo driving the sun across the sky (British Museum, London), and painted vessel of Apollo driving the sun across the sky (British Museum, London). Image: National Archeological Museum, Athens. Image: Warburg Institute, London.





: (Plate 2) in the
nd left) Farnese
x. 84 in (213.36
Naples; (bottom
: on the celestial
Image: Warburg



Fig. 17 Prinz Gholiam, Aegineten-Diaghilev source images for FMCAeKD (2008), screenshot from prinzgholiam.com. (left) The Ancient Greek Aeginetan group (5th-century BC); (right) reproduction of a photograph of a dancer in Sergei Diaghilev's Ballets Russes (1908-1929). Image: Prinz Gholiam.



Fig. 19. (left) 1924-1929; Bilderreiner (right) Aby London.

Fig. 25 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929); (top left) Seated and lunging figures from 9th-century drawings of Perseus and Andromeda for star map constellations; (center and bottom left) ancient Greek clay vessels with painted scene of Apollo driving the sun across the sky (British Museum, London), and painted scene of Helios (sun) and Selene (moon) (Staatliche Museen, Berlin) (both 5th-century CE); (right) black-painted Lekythos vessel featuring a scene of Helios descending into the sea (Athens National Archeological Museum, Athens), image: Warburg Institute, London.





Warburg's Tafel 2 (Plate 2) in the Farnese Atlas (1739). Image: Warburg Institute, London.

Fig. 17 Prinz Gholam, Aegineten-Diaghilev source images for FMC-AeKD (2008), screen from prinzgholam.com. (left) The Ancient Greek Aeginetan group (5th-century BC); reproduction of a photograph of a dancer in Sergei Diaghilev's Ballets Russes (1908). Image: Prinz Gholam.



Fig. 25 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): (top left) Seated and lun drawings of Perseus and Andromeda for star map constellations; (center and bottom left) ancient Greek clay of Apollo driving the sun across the sky (British Museum, London), and painted scene of Helios (sun) at Museen, Berlin) (both 5th-century CE); (right) black-painted Lekythos vessel featuring a scene of Helios des National Archeological Museum, Athens). Image: Warburg Institute, London.





The Jain Religion).
History of Art by



Fig. 16 Prinz Gholam, FMCaekD (2008), screenshots from video documentation of performance, Galerie Jocelyn Wolf, Paris, France. Image: Prinz Gholam.



Fig. 24 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): (top right and left) Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm). Museo Archeologico Nazionale, Naples; (bottom) schematic drawing of the constellations on the celestial globe held by the Atlas figure (1739). Image: Warburg Institute, London.

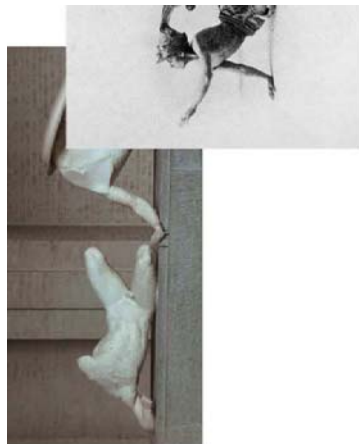
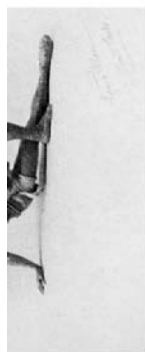


Fig. 17 Prinz Gholam, Aegneten-Daighley source images for FMCaek from prinzgholam.com. (left) The Ancient Greek Aegnetan group (51 reproduction of a photograph of a dancer in Sergei Diaghilev's Ballets Image: Prinz Gholam.



Fig. 25. Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): (top left) S drawings of Perseus and Andromeda for star map constellations; (center and bottom left) and of Apollo driving the sun across the sky (British Museum, London), and painted scene of H Museen, Berlin) (both 5th-century CE); (right) black-painted Lekythos vessel featuring a scene National Archeological Museum, Athens). Image: Warburg Institute, London.





· Aegineten-Diaghilev source images for FMCaekD (2008), screenshot
n. (left) The Ancient Greek Aeginetan group (5th-century BC); (right)
itograph of a dancer in Sergei Diaghilev's Ballets Russes (1908-1929).



i in the Mnemosyne Atlas (1929); (top left) Seated and lunging figures from 9th-century
p constellations; (center and bottom left) ancient Greek clay vessels with painted scene
Museum, London), and painted scene of Helios (sun) and Selene (moon) (Staatliche
ck-painted Lekythos vessel featuring a scene of Helios descending into the sea (Athens
Warburg Institute, London.



Fig. 19 (left) Aby Warburg, Tafel 79 (Plate 79) from the
1924-1929, also known as the Mnemosyne Atlas). The
Bilderreihen comprises 63 plates (i.e., glass slides of image
(right) Aby Warburg wearing a Hopi Hemis Kachina mask in
London.



Fig. 22 (left) Detail of Aby Warburg's Tafel 4
28.9 cm), Hamburger Kunsthalle, Hamburg
in (14.5 x 21.4 cm), Hamburger Kunsthalle,





Plate on the Jain Religion). numens (A History of Art by

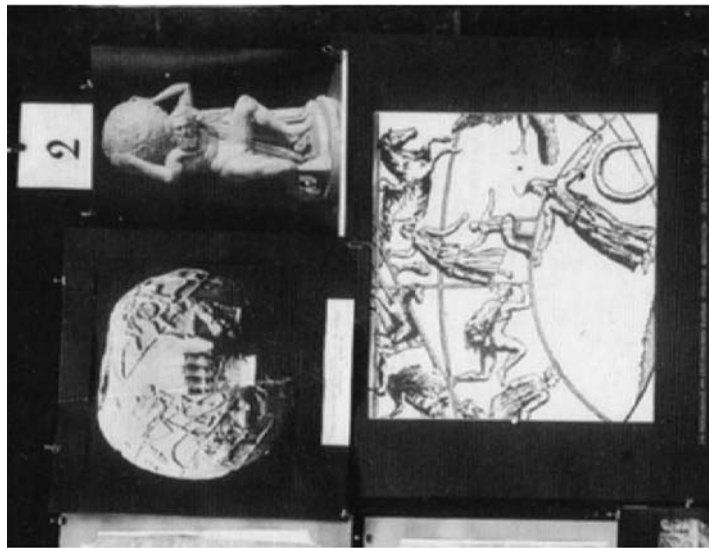


Fig. 24 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Minimosyne Atlas (1929): (top right and left) Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm), Museo Archeologico Nazionale, Naples; (bottom) schematic drawing of the constellations on the celestial globe held by the Atlas figure (1739). Image: Warburg Institute, London.

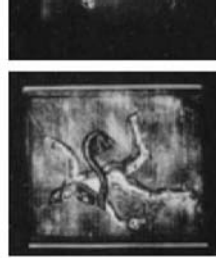


Fig. 25 Detail of Ahv Warhu



Fig. 21 (left) the inscription "MNEMOSYNE" in Greek over the entosway Humacher and Gerhard Langmaak. Image: Warburg Institute Archive.

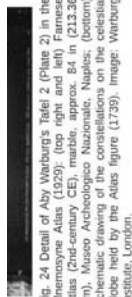


Fig. 24 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): (top right and left) Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm). Museo Archeologico Nazionale, Naples; (bottom) drawing of the constellation on the celestial globe held by the Atlas figure (1739). Image: Warburg Institute, London.



Fig. 25 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): (top left) Sea drawings of Perseus and Andromeda for star map constellations; (center and bottom left) anchor of Apollo driving the sun across the sky (British Museum, London), and painted scene of Hell Museum, Berlin) (both 5th-century CE); (right) black-painted Lekythos vessel featuring a scene of National Archeological Museum, Athens. Image: Warburg Institute, London.



Fig. 26 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm). Albani Collection, Rome. Image: Warburg Institute, London. (center and bottom) Mnemosyne and Socrates, and Mnemosyne and Homer (also interpreted as Mnemosyne and Zeus), Louvre, Paris. Image: Warburg Institute, London.



Fig. 23 (right) Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929); (center) a diagonal section of the Mnemosyne Atlas (1929); (left, yellow) three images of the Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm); (right, blue) three images of the Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm). Image: Warburg Institute, London.





er the entryway
stitute Archive.



Fig. 26 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm), Albani Collection, Louvre, Paris. (top) Procession of the muses; (center and bottom) Mnemosyne



ational Anthropological Museum, University of

the collection of the Mnemosyne Atlas



the entryway
tute Archive.

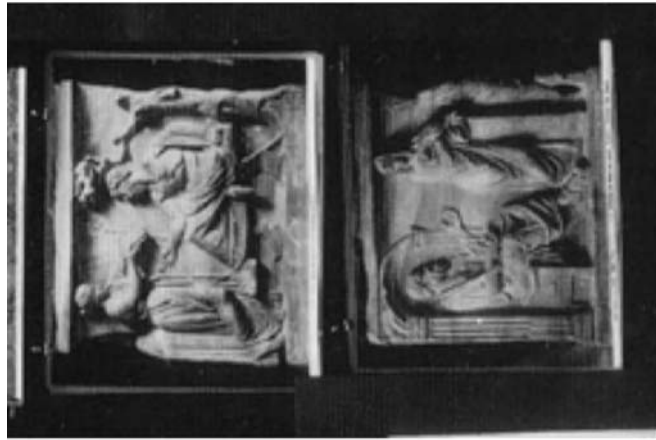


Fig. 26 Detail of Aby Warburg's Tafel 2 (Plate 2) in the Mnemosyne Atlas (1929): Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 81.10 in x 267.71 in (92 x 206 x 680 cm), Albani Collection, Louvre, Paris. (top) Procession of the muses; (center and bottom) Mnemosyne and Socrates, and Mnemosyne and Homer (also interpreted as Mnemosyne



Fig. 23 (right) Aby Warburg's Tafel 2; (left, yellow) three ir

National Archeolog



ay



"E" in Greek over the entryway
e: Warburg Institute Archive.

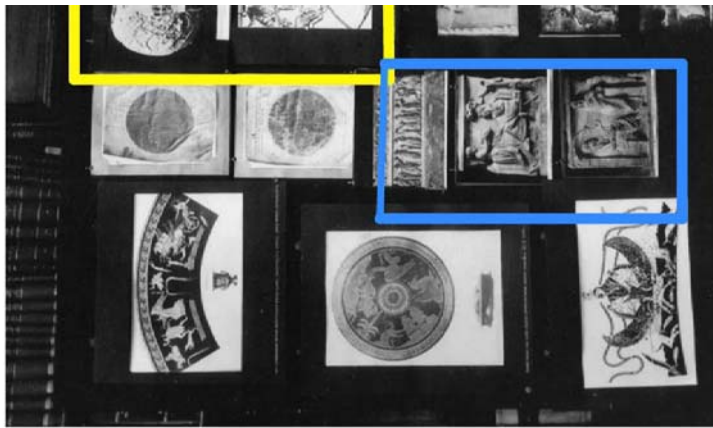
Institute, London.



Fig. 25 Detail of Aby Warburg's Tafel 2 (F
drawings of Perseus and Andromeda for s
of Apollo driving the sun across the sky (r
Museum, Berlin) (both 5th-century CE); (rig
National Archeological Museum, Athens). I



Fig. 26 Detail of Aby Warburg's Tafel 2
(Plate 2) in the Mnemosyne Atlas (1929):
Sarcophagus of the Muses (2nd-century





41
373), marble, 41.33 x
. Berlin. Image: Alte
1873) Image: Public



Fig. 28 (left) Hans Haas' Atlas zur Religionsgeschichte (Atlas on the History of
Image: Zöllner, "Eilig Reisende"; 294; (right) Seroux d'Agincourt, Histoire de
Monuments, 1823). Image University of Heidelberg Library.



Fig. 27 Photographs of Aby Warburg's research institute, Kulturwissenschaftliche Bibliothek Warburg (KBW): (left) the inscription 'to the library and (right) the library's elliptical reading room, designed by Warburg with architects Fritz Schumacher and Gerhard La

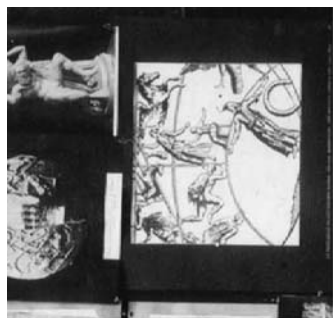


Fig. 24 Detail of Aby Warburg's Table 2 (Plate 2) in Mnemosyne Atlas (1929): (top right and left) Farni Atlas (2nd-century CE), marble, approx. 84 in (213 cm), Museo Archeologico Nazionale, Naples; (bottom) schematic drawing of the constellations on the celestial globe held by the Atlas figure (1739). Image: Warburg Institute, London.



Fig. 28 (left) H. Haas' Atlas zur Religionsgeschichte (Atlas on the History of Religion, 1928, Plate on the Jain Religion). Image: Zöllner, "Eilig Reisende," 294; (right) Seroux d'Agincourt, Histoire de l'art par les monuments (A History of Art by Monuments, 1823). Image: University of Heidelberg Library.



Fig. 29 (left) the inscription "ΜΝΗΜΟΣΥΝΗ" in Greek over the entryway of Aby Warburg's research institute, Kulturwissenschaftliche Bibliothek Warburg (KBW); (right) the library's elliptical reading room, designed by Warburg with architects Fritz Schumacher and Gerhard Langmaak. Image: Warburg Institute Archive.

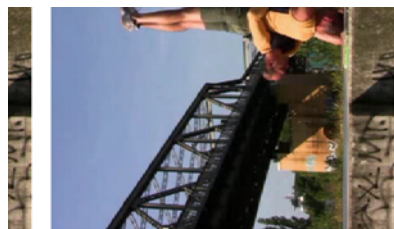
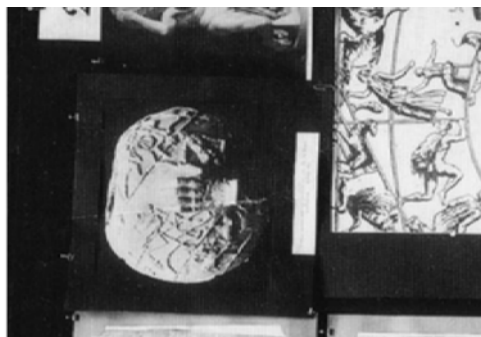


Fig. 16 Prinz Gholam, documentation of performance Prinz Gholam.



pigeon, rabbit. The various lopes (from top) equip the animal for autonomic nervous control, motor reflexes, vision, thinking and smelling. ("Hagens, "Venuses," 56). Image: Bethé Hagens and De Gruyter.



iaas' Atlas zur Religionsgeschichte (Atlas on the History of Religion, 1928, Plate on the Jain Religion); lig Reiseende," 294; (right) Seroux d'Agincourt, Histoire de l'art par les monuments (A History of Art by Image University of Heidelberg Library.

Fig. 14. Photographs of models of animal brains from Bethe Hagens 1991. essay proposing that the Venus of Lespugue may have been, in part, a topographical map of an animal brain. The original caption to the image reads "dorsal and lateral views of animal brains (not proportionally sized). from left: larva of lamprey, trout, frog, alligator, pigeon, rabbit. The various lobes (from top) equip the animal for autonomic nervous control, motor reflexes, vision, thinking and smelling." (Hagens, "Venuses," 56). Image: Bethe Hagens and De Gruyter.



Fig. 19. Occurrence Prinz G



Fig. 28 (left) Hans Haas' Atlas zur Religionsgeschichte (Atlas on the History of Religion, 1928. Plate on the Jain Religion); image: Zöllner, "Eilig Reisende," 294; (right) Seroux d'Agincourt, Histoire de l'art par les monuments (A History of Art by Monuments, 1823). Image University of Heidelberg Library.



Fig. 24 Detail of Aby



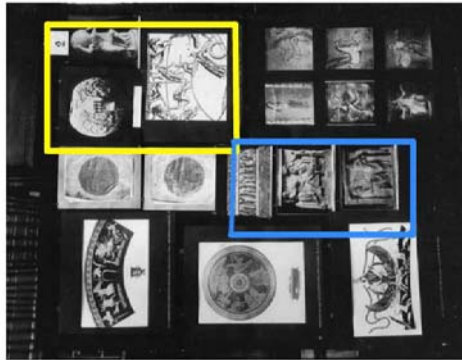
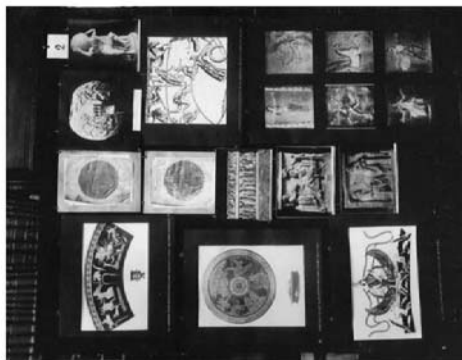


Fig. 22 (left) Detail of Aby Warburg's Table 41 (Plate 41) from the Mnemosyne 29.9 cm). Hamburger Kunsthaale, Hamburg; (middle) engraving measured 95 x 114.5 cm). Hamburger Kunsthaale, Hamburg; (right) detail of Dürer's



Fig. 25 Detail of Aby Warburg's Table 2 (Plate 2) in the Mnemosyne Atlas (1929). (top left) Seated and lunging figures from 9th-century drawings of Perseus and Andromeda for star map constellations; (center and bottom left) ancient Greek clay vessels with painted scene of Apollo driving the sun across the sky (British Museum, London), and painted scene of Helios (sun) and Selene (moon) (Staatliche Museen, Berlin) (both 5th-century CE); (right) black-painted Lukydhos vessel featuring a scene of Helios descending into the sea (Athens National Archeological Museum, Athens). Image: Warburg Institute, London.

the
ese
1.36
m)
up



E
J
a
Y
R

Fig. 23 (right) Aby Warburg's Table 2 (Plate 2) in the Mnemosyne Atlas (1929); (center) a diagonal configuration joins the Atlas group to the Mnemosyne group of image reproductions on Warburg's Table 2; (left, yellow) three images of the Farnese Atlas (2nd-century CE), marble, approx. 84 in (213.36 cm), Museo Archeologico Nazionale, Naples, and (left, blue) three images of Mnemosyne and the muses on the Sarcophagus of the Muses (2nd-century CE), marble, 36.22 x 51.10 in x 267.71 in (92 x 206 x 680 cm), Albani Collection, Louvre, Paris. Image: Warburg Institute, London.



14



Fig. 26 (left) three 'Helden' Atlas etc.' (Heldenepische Atlas etc.) on the 'History of Religion' (1876). Plates on the left (top to bottom): 'Heldenepische Atlas etc.' (Heldenepische Atlas etc.) on the 'History of Religion' (1876). Plate on the right (top to bottom): 'Heldenepische Atlas etc.' (Heldenepische Atlas etc.) on the 'History of Religion' (1876). Image: University of Heidelberg Library.



Fig. 27 Photographs of Aby Warburg's research institute. Kulturwissenschaftliche Bibliothek Warburg (KW) (left) the inscription 'ΜΗΙ ΜΟΙΣΥΝΕ' in Greek over the entrance to the library and (right) the library's elliptical reading room, designed by Warburg with architects Fritz Schumacher and Gerfried Langmaack. Image: Warburg Institute Archive.

Fig. 41.33 x
TOP: Aby
Warburg
Fig. 41.33 x



Fig. 25 (left) Aby Warburg's 'Atlas' (left) and 'Heldenepische Atlas' (right) in the Museo Archeologico Nazionale, Naples. (right) 'Heldenepische Atlas' (right) in the Museo Archeologico Nazionale, Naples. (right) 'Heldenepische Atlas' (right) in the Museo Archeologico Nazionale, Naples. Image: Warburg Institute, London.

Fig. 35. D
drawings of
Apollonius
of Perge
National A.



Fig. 28 Detail of Aby Warburg's 'Atlas' (left) and 'Heldenepische Atlas' (right) in the Museo Archeologico Nazionale, Naples. (right) 'Heldenepische Atlas' (right) in the Museo Archeologico Nazionale, Naples. Image: Warburg Institute, London.



Fig. 23 (right)
Table 2. (left)
Image: Warburg
Institute, London.

4



Fig. 33 Maria Hassabi PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA). Screenshots from MoMA video documentation posted on YouTube. Video: Museum of Modern Art, New York.



Fig. 31 Erythron Adlepo (117-138 CE, discovered in early 18th-century in Rome), marble, 63.81 x 40.55 in (157 x 103 cm), Musei Capitolini, Stanza de' Imperatori, Rome.



Fig. 29 (left) Adolf von Hildebrand, Schlafender Hirtenknabe (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 26.77 x 41.73 in (105 x 68 x 106 cm), Sammlung Konrad Fiedler, Alte Nationalgalerie, Berlin. Image: Alte Nationalgalerie, Berlin; (right) reproduction of Hildebrand's Sleeping Shepherd Boy (1871-1873) Image: Public Domain.



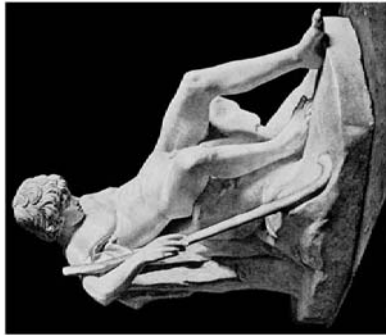
4



Fig. 23 Marina Hassabi PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA). Screenshots from MoMA video documentation posted on Youtube. Video: Museum of Modern Art, New York.



138 CE (discovered in the 1870s), marble, 61.81 x 106.35 cm, Capitoline Museums, Rome, Italy.



1873, marble, 41.33 x 106.35 cm, Berlin, Germany.

Fig. 29 (left) Adolf von Hildebrand, *Schlafender Hirtenknabe* (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 106.35 cm, Berlin, Germany; (right) *Alle Menschen werden sterben* (All Men Must Die), terracotta relief, 1873, Berlin, Germany. Image: Nationalgalerie, Berlin; (right) reproduction of Hildebrand's *Sleeping Shepherd Boy* (1871-1873). Image: Public Domain.





SLEEPING SHEPHERD BOY.
(From the Statue by Adolf Hildebrand.)

Fig. 29 (left) Adolf von Hildebrand, *Schlafender Hirtenkabe* (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 26.77 x 41.73 in (105 x 68 x 106 cm), Sammlung Konrad Fiedler, Alte Nationalgalerie, Berlin. Image: Alte Nationalgalerie, Berlin; (right) reproduction of Hildebrand's *Sleeping Shepherd Boy* (1871-1873) Image: Public Domain.

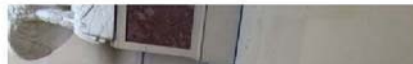
ed
x
za



Statue de la Jeunesse de
Statue et Engraving
© 2007 Photo / Photo



Fig. 27
to the lit



(183 cm





Fig. 27 Photographs of Aby Warburg's library and (right) the library



Fig. 30 (top left) 'Sleeping Endymion' detail from Sarcophagus with the legend of Selene and Endymion (230-240 CE, discovered 1805), marble, 37.40 x 82.28 x 236.22 in (95 cm x 209 cm x 600 cm), Louvre, Paris / RMN / Hervé Lewandowski; (top right) 'Sleeping Endymion' detail from Sarcophagus with a myth of Selene and Endymion (early 3rd-century CE), marble, approx 37.40 x 82.28 x 236.22 in (approx. 95 cm x 209 cm x 600 cm) Musei Capitolini, Palazzo dei Conservatori, Rome. Image: Musei Capitolini, Rome; (bottom) the two integral sarcophagi.



marble, 72.05 in long (183 cm



inell d'Endymion) (1793), Louvre, Paris. Image:



Museum of Modern Art, New York.



Fig. 31. Endymion Asleep (117-138 CE; discovered in the city of Rome), marble, 43.1 x 40.55 (167 1/2 x 160 1/8 cm), Musei Capitolini, Stanza del Imperatori, Rome.



Immo Capena. The Sleeping Endymion (1810, 1822), marble, 72.05 in long (183 cm), Derryshire, Derryshire.



Fig. 29 (left) Adolf von Hildebrand, Schlafender Hirtenkub (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 26.77 x 41.73 in (105 x 68 x 106 cm), Sammlung Konrad Fiedler, Alte Nationalgalerie, Berlin, Image: Alte Nationalgalerie, Berlin; (right) reproduction of Hildebrand's Sleeping Shepherd Boy (1871-1873) Image: Public Domain.





Fig. 33 Maria Hassabi PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), Screens Museum of Modern Art, New York.

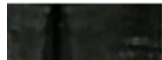


Fig. 29 (left) Adolph von Hildebrand, Schlafender Hirtenkabe I 26.77 x 41.73 in (105 x 68 x 106 cm), Sammlung Konr Nationalgalerie, Berlin, (right) reproduction of Hildebrand's Domain.



Fig. 31 Endymion Asleep (117-138 CE, discovered in early 18th-century in Rome), marble, 61.81 x 40.55 in (157 x 103 cm), Musei Capitolini, Stanza dei Imperatori, Rome.





der Eclat.

pointed points, eggs, paper bags, poster, string of lychnis, bimby, cake and radio. Image: Ben Jan Adler (2019), *Crump 13*, wall-mounted, part of the project *in Support of the Muzubun* (2019). Image: Ben Jan Adler (2019), *Crump 13*, wall-mounted, part of the project *in Support of the Muzubun* (2019). Chicago de Arte Contemporanea, 2020. Image: Centro Chicago de Arte Contemporanea.

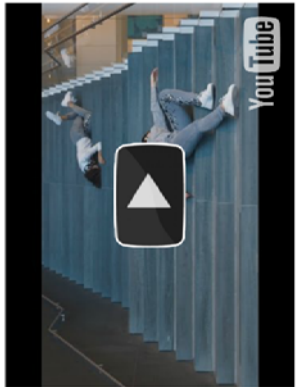


Fig. 36. Ben Jan Adler, *Crump 13*, wall-mounted, part of the project *in Support of the Muzubun* (2019). Image: Ben Jan Adler (2019), *Crump 13*, wall-mounted, part of the project *in Support of the Muzubun* (2019). Chicago de Arte Contemporanea, 2020. Image: Centro Chicago de Arte Contemporanea.



Fig. 35. *Henry Thoreau* by OTEC (2018), live installation, Museum of Modern Art, New York (USA). Screenings from looka video documentation posted on YouTube. Video: Museum of Modern Art, New York.

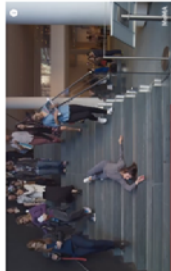
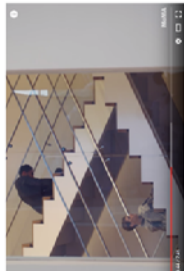
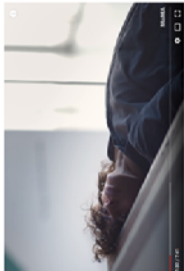


Fig. 31. Erlkönig (1871-78). CE, discovered by the artist in 1871, bronze, 40,55 in. (102 x 102 cm), Musée Capodimonte, Piazza dei Imperatori, Rome.



© Erlkönig, unbekanntes Bild.

Fig. 29. (left) Adolf von Hildebrand, *Schlenderer Erlkönige* (Sleeping Shepherd Boy, 1871-1872), marble, 41,23 x 21,23 x 21,23 cm, Staatliche Museen zu Berlin - Staatliche Museen Preussischer Kulturbesitz, Nationalgalerie, Berlin; (right) reproduction of Hildebrand's *Sleeping Shepherd Boy* (1871-1872). Image: Public Domain.



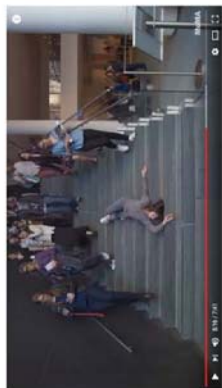


Fig. 34. Mies van der Rohe, *Plastic* (2016), the installation, Museum of Modern Art, New York (MoMA) (curved Lobby Staircase (top and bottom) and stairwell) between 4th and 5th floors (middle). – Screenshots from MoMA video documentation posted on Youtube: Video Museum of Modern Art, New York.



Fig. 29 (left) Adolf von Hildebrand, *Schleifer der Hildebrand* (1895), marble, 26.77 x 41.73 m (106 x 165 x 106 cm), Staatl. Museum Kassel, Kassel, Germany; (right) reproduction of Via Domini.



Fig. 31. Endymion Asleep (117-138 CE, discovered at Aphrodisias, Asia Minor), marble, 181 x 40.55 x 15.57 x 10.37 cm, Musei Capitolini, Stanza del Imperatori, Rome.



Fig. 33. Artemis Carya, *The Sleeping Endymion* (1810-1821), marble, 72.05 m long (185 cm long), Chatsworth, Derbyshire, England, Derbyshire.



7). Screenshots from MoMA video documentation posted
in Museum of Modern Art, New York.



Fig. 32 Antonio Canova, *The Sleeping Endymion* (1819-1822), marble, 72.05 in long (183 cm long), Chatsworth, Derbyshire. Image: Chatsworth, Derbyshire.



Fig. 35 Anne-Louis Girodet, *Effet de Lune (Le Sommeil d'Endymion)* (1793), oil on canvas, 77.95 x 102.76 in (198 x 261 cm). Louvre, Paris. Image: Louvre, Paris / Dequier.



Fig. 30 (top
1805), mar
Lewandows



Fig. 13. *A* Verla Bow (aluminum), *B* Pabst P&G aluminum



Fig. 36. (top) Bas Jan Ader, *Ocean Wave* (1975), Guppy 13 sailboat, part of the project in Search of the Miraculous (1975). Image: Bas Jan Ader Estate; (bottom) *Ocean Wave* discovered by a Spanish fishing boat in 1976, exhibited at Centro Contemporanea Contemporanea. 2010. Image: Centro Galego de Arte Contemporanea.

Neo-
zonic
acum
derm
Ban,
Yak,
LTH



Fig. 37. (left) Bas Jan Ader, *Light Vulnerable Objects Threatened by Eight Cement Blocks* (1970), cement blocks, rope, pillows, potted plants, eggs, paper bags, poster, string of lipsticks, battery, coke and radio. Image: Bas Jan Ader Estate; (right) *Eva* (1975), a sculpture made of paper, wood, and rope. Image: Bas Jan Ader Estate; (bottom) *Light Vulnerable Objects Threatened by Eight Cement Blocks* (1970), 31 in (77.8 to 32.2 cm) in diameter, Museum of Modern Art, New York. Image: Museum of Modern Art, New York.



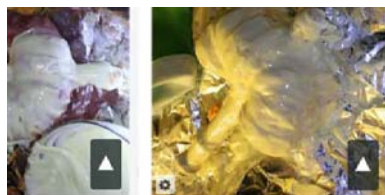


Fig. 13. Mobile Irony Valve (Verla Bovino), Lespugue Vent taking a tomato and piercing it (Pablo Picasso), tomato, turned aluminum foil, height 15 in (38.



Fig. 36 (top) Bas Jan Ader, Ocean Wave (1975), Guppy 13 sailboat, part of the project In Search of the Miraculous (1975), Image: Bas Jan Ader Estate; (bottom) Ocean Wave discovered by a Spanish fishing boat in 1976, exhibited at Centro Galego de Arte Contemporanea 2010. Image: Centro Galego de Arte Contemporanea.



Cement Bricks (1970), cement blocks, rope, pillows, and radio. Image: Bas Jan Ader Estate; (right) Eva Tenen units, each 19 to 20 1/4 in (48 to 51 in) x 11 to 12 in. Image: Museum of Modern Art, New York.





Fig. 36 (top) Bas Jan Ader, *Ocean Wave* (1975), Guppy 13 s project in *Search of the Miraculous* (1975). Image: Bas Jan Ader. *Ocean Wave* discovered by a Spanish fishing boat in 1976. © Galego de Arte Contemporanea 2010. Image: Centro Contemporanea.

o-
1/c
im
un,
15,
m,
he



Fig. 37 (left) Bas Jan Ader, *Light Vulnerable Objects Threatened by Eight Cement Bricks* (1970), cement blocks, rope, pillows, potted plants, eggs, paper bags, poster, string of lightbulbs, birthday cake and radio. Image: Bas Jan Ader Estate; (right) Eva Hesse, *Repetition Nineteen III* (1968), fiberglass and polyester resin, nineteen units, each 19 to 20 1/4 in (48 to 51 in) x 11 to 12 3/4 in (27.8 to 32.2 cm) in diameter, Museum of Modern Art, New York. Image: Museum of Modern Art, New York.





Fig. 36 (top) Ba project In Search



table Objects Threatened by Eight Cement Bricks (1970), cement blocks, rope, pillows, string of lightbulbs, birthday cake and radio. Image: Bas Jan Ader Estate; (right) Eva Bergman and polyester resin, nineteen units, each 19 to 20 1/4 in (48 to 51 in) x 11 to 12 in. Image: Museum of Modern Art, New York

Ader, Pitfall on the Way to a New Neo-
 ikapelle, Holland (1971), chromogenic
 4 x 11 1/2 in (41.3 x 29.2 cm), Museum
 New York. Image: Museum of Modern
 k; (adjacent left) Piet Mondrian,
 'estkapelle (1909-1910), oil on canvas,
 n (135 x 75 cm), Gemeentemuseum, The
 ags. Image: Gemeentemuseum, The



Fig. 37 (left) Bas Jan Ader, *Light Vulnerable Objects Threatened by Eight Cement Bricks* (1970) potted plants, eggs, paper bags, poster, string of lightbulbs, birthday cake and radio. Image: B
 Hesse, *Repetition Nineteen III* (1968), fiberglass and polyester resin, nineteen units, each 19 to 2
 3/4 in (27.8 to 32.2 cm) in diameter, Museum of Modern Art, New York. Image: Museum of Modern



Fig. 29 Bas Jan Ader, *Patrol on the Way to a New Hope*, 1970. Installation view at the Herta and Paul Amirian Department of Modern Art, New York. Image: Museum of Modern Art, New York. Installation view at the Maastricht University Museum, Maastricht, 2014. Image: Maastricht University Museum. Installation view at the Gemeentemuseum, The Hague, 1970. Image: Gemeentemuseum, The Hague, 1970.

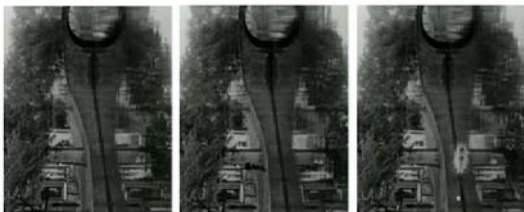
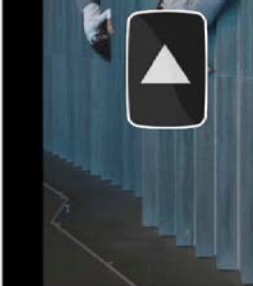


Fig. 38 Film Stills from *Bas Jan Ader, Fall II, Amsterdam (1970)*, 16mm film, 19 seconds. Image: Bas Jan Ader Estate.



Fig. 37 (left) Bas Jan Ader, *Light/Vulnerable Objects Threatened by Eight Cream*, 1970. Installation view at the Herta and Paul Amirian Department of Modern Art, New York. Image: Museum of Modern Art, New York. (right) *Light/Vulnerable Objects Threatened by Eight Cream*, 1970. Installation view at the Herta and Paul Amirian Department of Modern Art, New York. Image: Museum of Modern Art, New York.





Hague, Haags.

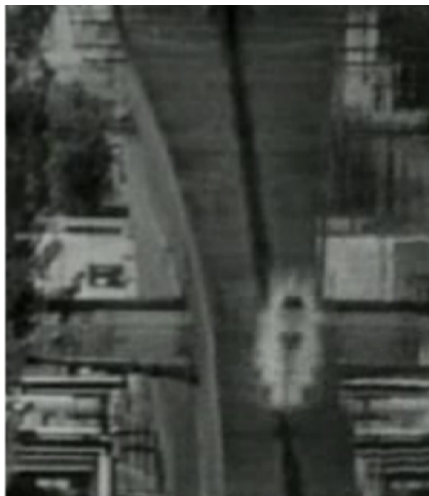
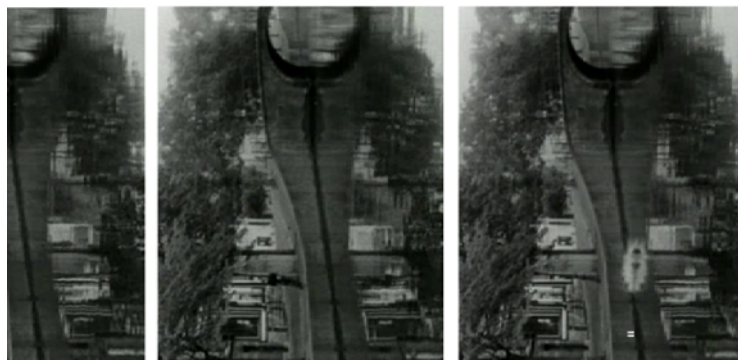


Fig. 38 Film Stills from Bas Jan Ader, Fall II, Amsterdam (1970), 16mm film, 19 seconds. Image: Bas Jan

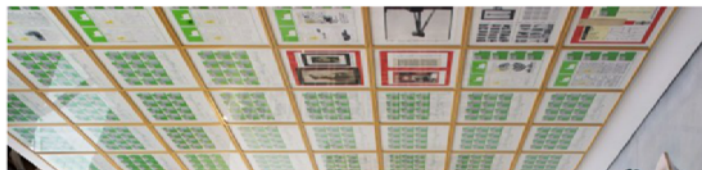




Fig. 36 Bao Jan Adler, *Profile on the Way to a New Horizon*, 1970, mixed media, 100 x 100 x 100 cm, Museum of Modern Art, New York. Image: Museum of Modern Art, New York. *Profile on the Way to a New Horizon* is a sculpture by Bao Jan Adler, 1970, mixed media, 100 x 100 x 100 cm, Museum of Modern Art, New York. Image: Museum of Modern Art, New York. *Profile on the Way to a New Horizon* is a sculpture by Bao Jan Adler, 1970, mixed media, 100 x 100 x 100 cm, Museum of Modern Art, New York. Image: Museum of Modern Art, New York.



Fig. 38 Film stills from Bao Jan Adler, *Fall II, Amsterdam* (1970), 10mm film, 19 seconds. Image: Bao Jan Adler Estate.



Fig. 39 Bao Jan Adler, *Light Vase* (1970), cement blocks, rope, pillow, 100 x 100 x 100 cm, Museum of Modern Art, New York. Image: Museum of Modern Art, New York.



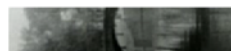
Fig. 37 (left) Bao Jan Adler, *Light Vase* (1970), cement blocks, rope, pillow, 100 x 100 x 100 cm, Museum of Modern Art, New York. Image: Museum of Modern Art, New York. (right) Bao Jan Adler, *Profile on the Way to a New Horizon* (1970), mixed media, 100 x 100 x 100 cm, Museum of Modern Art, New York. Image: Museum of Modern Art, New York.



Fig. 40 The four lozenge paintings: (counter-clockwise from top left to bottom right) Piet Mondrian, Composition with grid 5; lozenge, composition with colors (1919), oil on canvas, diagonal 33.07 in (diagonal 84 cm), Rijksmuseum Kröller-Müller, Otterlo. Image: Rijksmuseum Kröller-Müller, Otterlo; (bottom left) Piet Mondrian, Composition with grid 6; lozenge, composition with colors, (1919), oil on canvas, diagonal 26/38 in (diagonal 67 cm), Rijksmuseum Kröller-Müller, Otterlo; (top right) Piet Mondrian, Composition with Grey Lines (Lozenge) (1918), oil on canvas, diagonal 47.64 in (diagonal 121 cm), Gemeentemuseum, The Hague; (bottom right) Piet Mondrian, Composition in Black and Grey (Composition with Grid 4 [Lozenge], 1919), oil on canvas, 23 5/8 x 23 11/16 in (60 x 60.2 cm), Philadelphia Museum of Art.



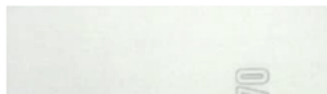
Fig. 39 Bas Jan Ader, Pitfall on the Way to a New Neoplasticism, Westkapelle, Holland (1971), chromogenic color print, 16 1/4 x 11 1/2 in (41.3 x 29.2 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (adjacent left) Piet Mondrian, Lighthouse at Westkapelle (1909-1910), oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags.



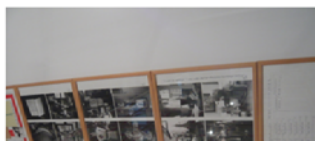
with colors (1919), oil on canvas, diagonal 33.07 in (diagonal 84 cm), Rijksmuseum Kroller-Muller, Otterlo. Image: Rijksm
 Otterlo; (bottom left) Piet Mondrian, Composition with grid 6: lozenge, composition with colors, (1919), oil on canvas, diagona
 cm), Rijksmuseum Kroller-Müller, Otterlo; (top right) Piet Mondrian, Composition with Grey Lines (Lozenge) (1918), oil on can
 (diagonal 121 cm), Gemeentemuseum, The Hague, Haags; (bottom right) Piet Mondrian, Composition in Black and Grey (C
 [Lozenge], 1919), oil on canvas, 23 5/8 x 23 11/16 in (60 x 60.2 cm), Philadelphia Museum of Art.



Fig. 39 Bas Jan Ader, Pitfall on the Way to a New Neo-Plasticism, Westkapelle, Holland (1971), chromogenic color print, 16 1/4 x 11 1/2 in (41.3 x 29.2 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (adjacent left) Piet Mondrian, Lighthouse at Westkapelle (1909-1910), oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags



1,300 framed works on paper and 19
th permission of Dia Foundation, New



story 1880-1983
of the installation's 1,900
permission of Dia

example of a Herman-Hering grid. (bottom right) wavy lines, disrupts the
effect of luminances in the Herman-Hering grid. Image: Schaller Lab, MIT.



Fig. 40 The four lozenge paintings: (counter-clockwise from top left to bottom right) Piet Mondrian, Composition with grid 5; lozenge, composition with colors (1919), oil on canvas, diagonal 84 cm, Rijksmuseum Kröller-Müller, Otterlo; image: Rijksmuseum Kröller-Müller, Otterlo; (bottom left) Piet Mondrian, Composition with colors (1919), oil on canvas, diagonal 26/28 in (diagonal 67 cm), The Museum of Modern Art, New York; image: The Museum of Modern Art, New York; (bottom right) Piet Mondrian, Composition with grid 4 (Lozenge), 1919, oil on canvas, 28.5/28 x 23.1/17.6 in (80 x 60.2 cm), Philadelphia Museum of Art.



Fig. 42 Piet Mondrian, Victory Boogie Woogie (1942-1944), oil and paper on canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags.

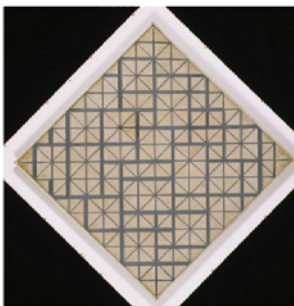
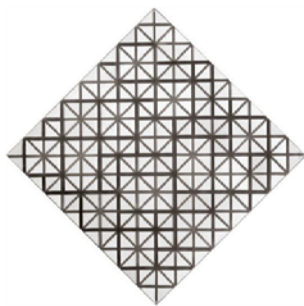


Fig. 41
(Cano film.)

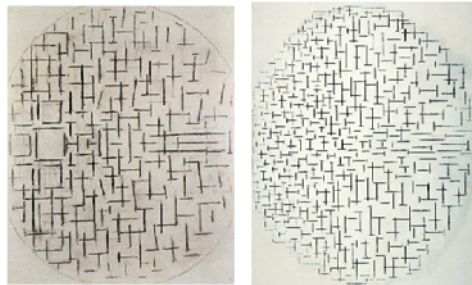


Fig. 41 The transition from the Plus-Minus manner (1914-1915) to C (1917) (top left) Piet Mondrian, Pier and Ocean (1914-1915), gouache on paper, 100 x 100 cm, Rijksmuseum Kröller-Müller, Otterlo. Image: Rijksmuseum Kröller-Müller, Otterlo. Composition in lines, second state (1916-1917), oil on canvas, 24.1/26 in (69 x 61.2 cm), Museum of Modern Art, New York. Image: MoMA, New York.

postcards are arranged
works on paper and 19
of Dia Foundation, New

ornamental systems. Image: Blokcamp, Mondrian, 122; (bottom left) an
example of a Herman-Hering grid; (bottom right) wavy lines disrupts the
effect of luminances in the Herman-Hering grid. Image: Schiller Lab, MIT.

Fig. 42 F
canvas, 51
Image: Ge

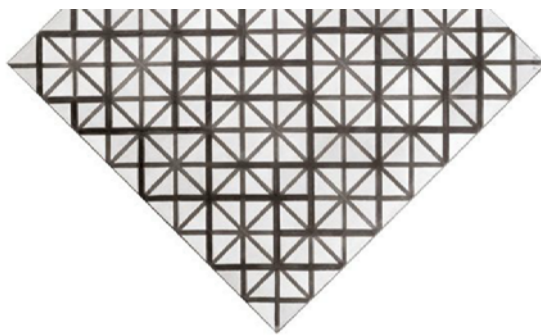
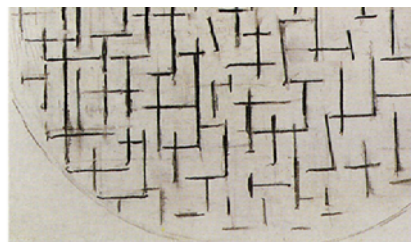
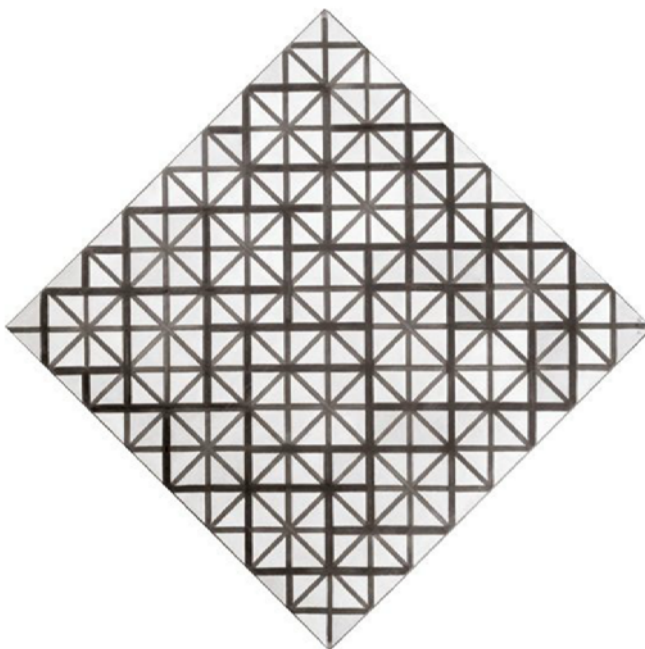


FIG. 42 Piet Mondrian, *Victory Boogie Woogie* (1942-1944), oil and paper canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, H
Image: Gemeentemuseum, The Hague, Haags.



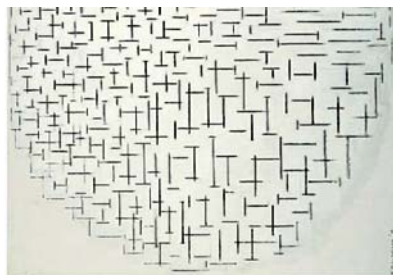
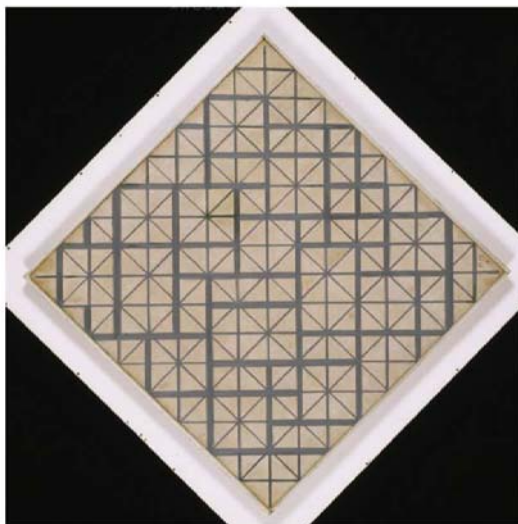
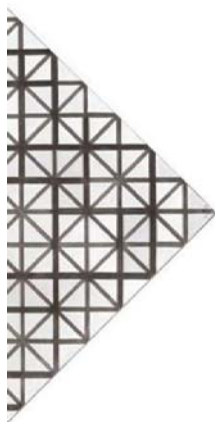


Fig. 41 The transition from the Plus- (1917); (top left) Piet Mondrian, Pier a Haags. Image: Gemeentemuseum, Tj Rijksmuseum Kröller-Müller 108 cm). Rijksmuseum Kröller-Müller right) Piet Mondrian, Composition in li Otterlo. Image: Rijksmuseum Kröller-M



inings: (counter-clockwise from top left to bottom right) Piet Mondrian, Composition with grid 5; lozenge, composition nvas, diagonal 33.07 in (diagonal 84 cm). Rijksmuseum Kröller-Müller; Otterlo. Image: Rijksmuseum Kröller-Müller, idrian, Composition with grid 6; lozenge, composition with colors, (1919), oil on canvas, diagonal 26/38 in (diagonal 67 iller, Otterlo; (top right) Piet Mondrian, Composition with Grey Lines (Lozenge) (1918), oil on canvas, diagonal 47.64 in emuseum, The Hague, Haags; (bottom right) Piet Mondrian, Composition in Black and Grey (Composition with Grid 4 as, 23 5/8 x 23 11/16 in (60 x 60.2 cm), Philadelphia Museum of Art.



Fig. 43 Film stills fr (Geometric), Weskka film, 1 min 49 second



Fig. 50 Hallmark Company, Victory Boogie-Woogie puzzle (1967). Image: Troy, The Afterlife of Piet Mondrian, 18.



Fig. 42 Piet Mondrian, Victory Boogie Woogie (1942-1944), oil and paper on canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags.

Town and Country magazine. Image: Troy, The Afterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch and Mondrian's Victory Boogie Woogie (1942-1944).

(1952). Image: arabesques.



117 manual of (bottom left) an ies disrupts the Miller Lab, MIT.





Fig. 44 Bas Jan Ader, *On the Road to a New Neo-Plasticism* (1971), 4.5 x 11.45 in (30 x 30 cm), Bas Jan Ader Estate. Image: Bas Jan Ader



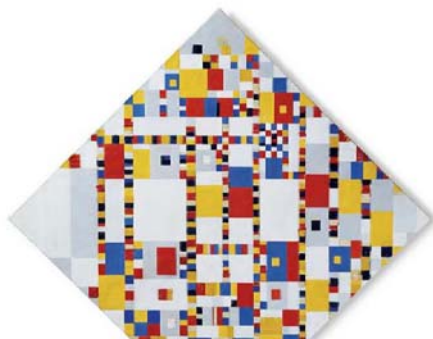
Fig. 43 Film stills from Bas Jan Ader, *Broken Fall* (Geometric), Westkapelle, Holland (1971), 16mm film, 1 min 49 seconds. Image: Bas Jan Ader Estate.



Fig. 50 Halmark Company, *Victory Boogie-Woogie* puzzle (1967). Image: Troy, The Afterlife of Piet Mondrian, 18.



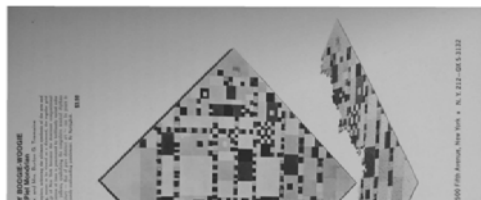
(1944) fashion spread
lan's New York studio for
zine. Image: Troy, The
160. (upper left) detail of
Indian's Victory Boogie



Mondrian, *Victory Boogie Woogie* (1942-1944), oil and paper on 50 in (127 x 127 cm), Gemeentemuseum, The Hague, Haags Geniemuseum, The Hague, Haags.



for many years. It was a highly photographic or technical work, and produced with the intention of being
Image: Public Domain.



Boogie-Woogle puzzle (1967).
t Mondrian, 18.

Broken Fall
(geometric)
West Kaselle - Holland



Fig. 44 Bas Jan Ader, On the Road to a New Neo-Plasticism (1971), four C-type prints, 11
4/5 x 11 4/5 in (30 x 30 cm), Bas Jan Ader Estate. Image: Bas Jan Ader Estate.

broken tall
(geometric)
West Kapelle - Holland



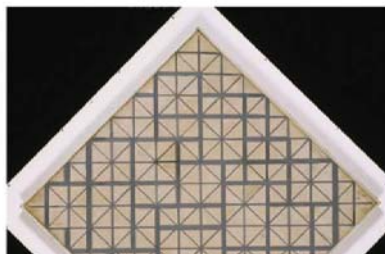
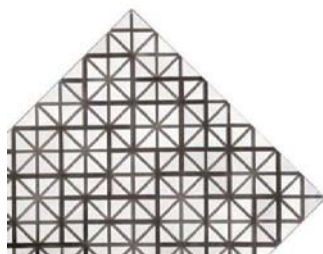
Moogje puzzle (1967).
8.



Fig. 44 Bas J
4/5 x 11 4/5 in



y Boogie-Woogie puzzle (1967).
Mondrian, 18.



composition with grid 5; lozenge, composition
 Otterlo. Image: Rijksmuseum Kröller-Müller,
 di on canvas, diagonal 26/38 in (diagonal 67
 ige) (1918), oil on canvas, diagonal 47.64 in
 in Black and Grey (Composition with Grid 4

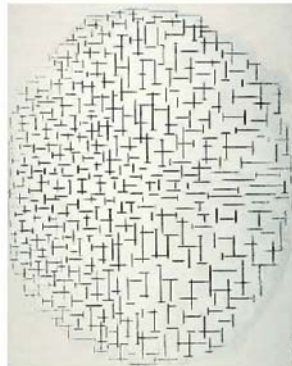
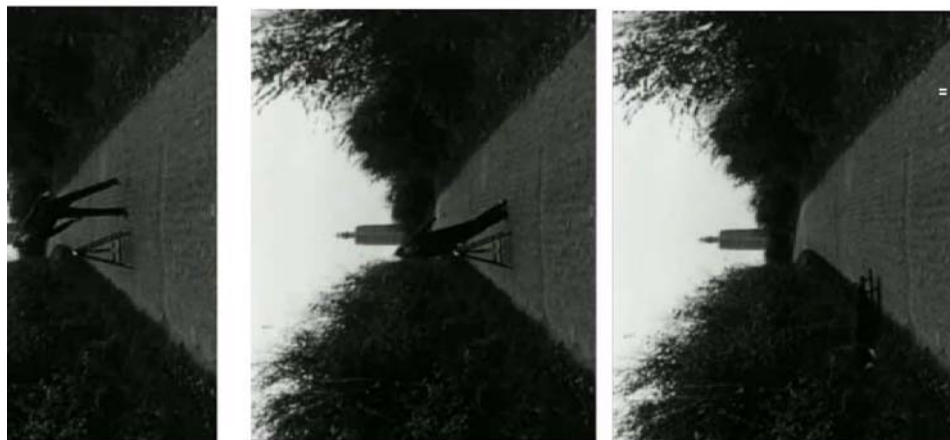


Fig. 41. The transition from the Plus-Minus manner (1914-1915) to Compositions in Line (1916-1917) and Compositions with Color Planes (1917); (top left) Piet Mondrian, Pier and Ocean (1914-1915), charcoal on paper, 20.07 x 24.80 in (51 x 63 cm), Gemeentemuseum, The Hague, Haags; Image: Gemeentemuseum, The Hague, Haags; (bottom left) Piet Mondrian, Composition in line, second state, 42.52 x 42.52 in (108 x 108 cm), Rijksmuseum Kröller-Müller, Otterlo. Image: Rijksmuseum Kröller-Müller, Otterlo. Image: Rijksmuseum Kröller-Müller, Otterlo; (top right) Piet Mondrian, Composition in line, second state (1916-1917), oil on canvas, 42.52 x 42.52 (108 x 108 cm), Rijksmuseum Kröller-Müller, Otterlo. Image: Rijksmuseum Kröller-Müller, Otterlo; (bottom right) Piet Mondrian, Composition with Color Planes 5 (1917), oil on canvas, 19.3/8 x 24.1/8 in (49 x 61.2 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York.

Fig. 44
4/5 x 11



paper on
, Haags.



1), oil and paper on
The Hague, Haags.

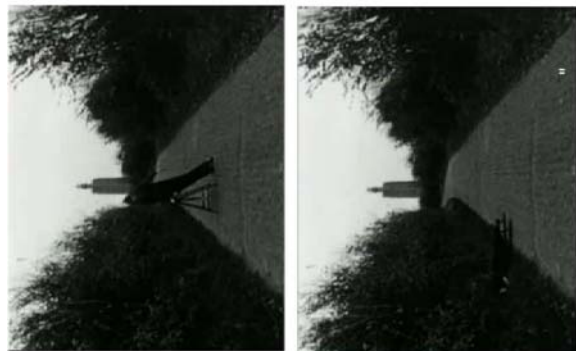


Fig. 43 Film stills from Bas Jan Ader, Broken Fall
(Geometric), Westkapelle, Holland (1971), 16mm
film, 1 min 49 seconds. Image: Bas Jan Ader Estate.



woogie (1942-1944).

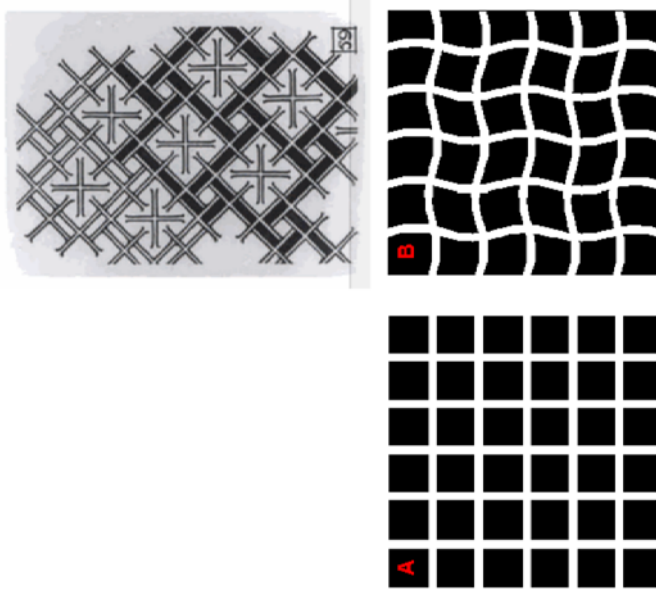


Fig. 45 (top) An illustration from Herman Hana's 1917 manual of ornamental systems. Image: Blotkamp, Mondrian, 122; (bottom left) an example of a Herman-Hering grid; (bottom right) wavy lines disrupts the effect of luminances in the Herman-Hering grid. Image: Schiller Lab, MIT.



postcards are arranged on paper and 19 works of Dia Foundation, New York.

Fig. 42 Piet Mondrian, 50 x 50 cm. Image: Gemeentemuseum Den Haag.

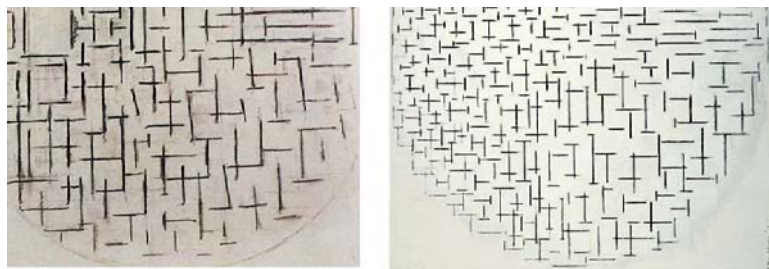
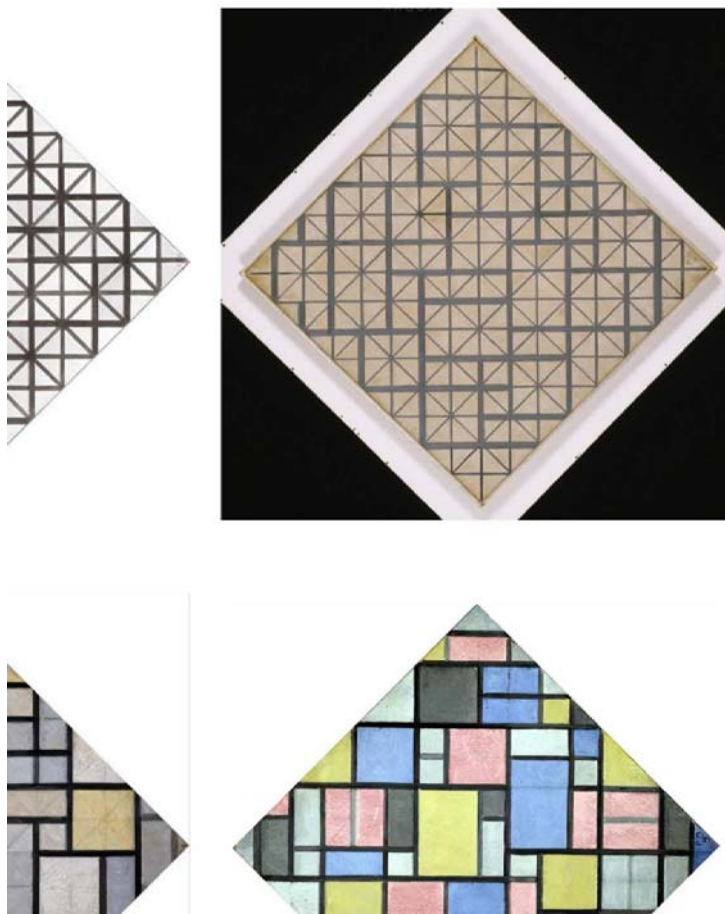


Fig. 41 The transition from the Plus- (1917); (top left) Piet Mondrian, Pier a Haags, image: Gemeentemuseum, TI 108 cm), Rijksmuseum Kröller-Müller right) Piet Mondrian, Composition in li Oterlo, image: Rijksmuseum Kröller-1 x 24 1/8 in (49 x 61.2 cm), Museum of



paintings: (counter-clockwise from top left to bottom right) Piet Mondrian, Composition with grid 5: lozenge, composition canvas, diagonal 33.07 in (diagonal 84 cm), Rijksmuseum Kröller-Müller, Otterlo, image: Rijksmuseum Kröller-Müller, Mondrian, Composition with grid 6: lozenge, composition with colors, (1919), oil on canvas, diagonal 26/38 in (diagonal 67 Müller, Otterlo; (top right) Piet Mondrian, Composition with Grey Lines (Lozenge) (1918), oil on canvas, diagonal 47.64 in riemuseum, The Hague, Haags; (bottom right) Piet Mondrian, Composition in Black and Grey (Composition with Grid 4 inwas, 23 5/8 x 23 11/16 in (60 x 60.2 cm), Philadelphia Museum of Art.

ig grid. Image: Schiller Lab, MIT.

Fig. 42 Piet Mondrian, Victory Boogie Woogie (1942-1944), oil and paper canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, The Netherlands. Image: Gemeentemuseum, The Hague, Haags.

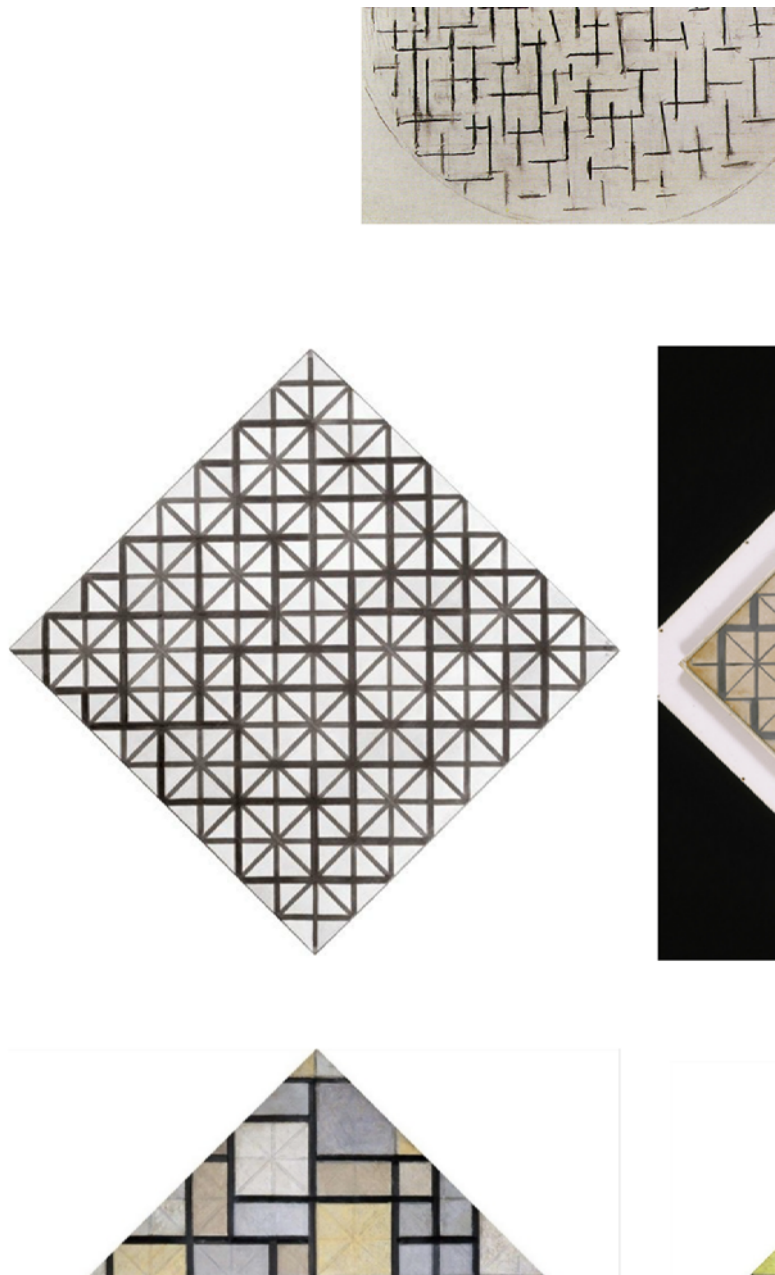




Fig. 48 Opening shot from the 1957 film Desk Set, starring Katherine Hepburn and Spencer Tracy. Image: Fox Home Entertainment.

Fig. 52 King Oliver's Creole Jazz Band, Music from The Gennett Sessions, April 5-6, 1923). Richmond, Indiana. (10-inch) / mono. Image: Public Domain.

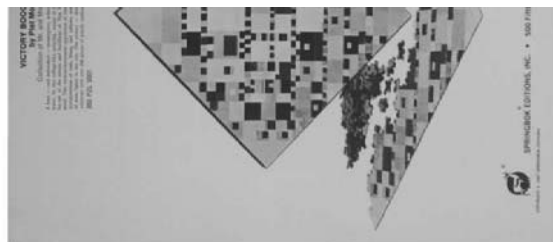
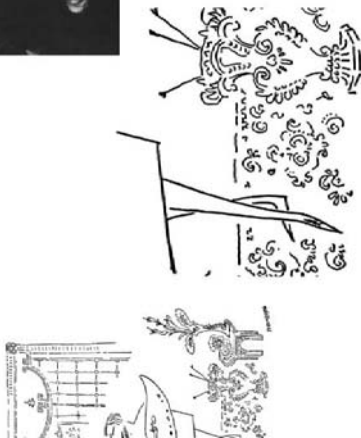


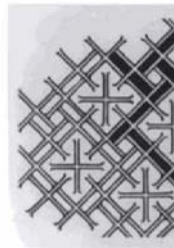
Fig. 50 Hallmark Company, Victory Brooch. Image: Troy, The Afterlife of Piet Mondrian.



Fig. 46 "Black is Right" (1944) fashion spread photographed in Piet Mondrian's New York studio for Town and Country magazine. Image: Troy, The Afterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch and Mondrian's Victory Boogie Woogie (1942-1944).



Mondrian cartoon from The New Yorker (1952). Image: 205; (right) detail of perpendiculars and arabesques.





1957 film Desk Set, starring Katherine Hepburn and Spencer Tracy. Image: Fox Home Entertainment.

Fig. 48 Opening shot from the 1957 film Desk Set, starring Katherine Hepburn and Spencer Tracy. Image: Fox Home Entertainment.

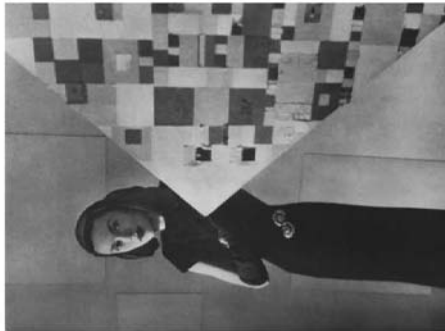


Fig. 46 "Black is Right" (1944) fashion spread photographed in Piet Mondrian's New York studio for Town and Country magazine. Image: Troy, The Afterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch and Mondrian's Victory Boogie Woogie (1942-1944).



Mondrian cartoon from The New Yorker (1952). Image: 05; (right) detail of perpendiculars and arabesques.



Fig. 50 Image:



Aves, Saint-Laurent's Troy. The Afterlife of Stella Browne's suit (c. 1945). Image: p. 212.



Fig. 48. Opening shot from the 1957 film Desk Set, starring Katherine Hepburn and Spencer Tracy. Image: Fox Home Entertainment.

Fig. 52. King Oliver's Gennett Sessions. Ap (10-inch) / mono. Image:



Fig. 47 (left) Saul Steinberg's Piet Mondrian cartoon from The New Yorker (1952). Image: Troy. The Afterlife of Piet Mondrian, 205; (right) detail of perpendiculars and arabesques.



Fig. 46 "Black is Right" (1944) fashion spread photographed in Piet Mondrian's New York studio for Town and Country magazine. Image: Troy. The Afterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch and Mondrian's Victory Boogie Woogie (1942-1944).



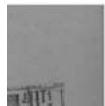


Fig. 47. Opening shot from the 1957 film *Desk Set*, starring Katherine Hepburn and Spencer Tracy. Image: Fox Home Entertainment.

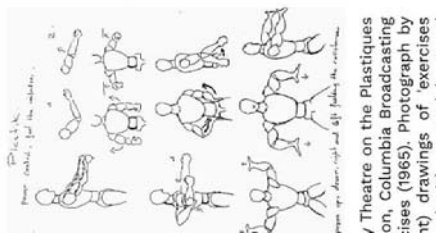


Fig. 48. Opening shot from the 1957 film *Desk Set*, starring Katherine Hepburn and Spencer Tracy. Image: Fox Home Entertainment.





Fig. 49 (bottom) designer Yves Saint-Laurent's "Mondrian-inspired" dress. Image: Troy, The Alterlife of Piet Mondrian, 206; (top) designer Stella Browne's "Piet Mondrian inspired" dress suit (c. 1945). Image: Troy, The Alterlife of Piet Mondrian, 212.



Theatre on the Plastiques on, Columbia Broadcasting (1965). Photograph by (1) drawings of 'exercises

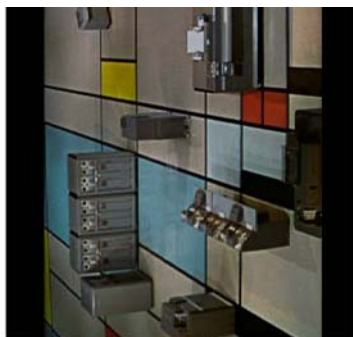


Fig. 48 Opening shot from the 1957 film Desk Set Tracy Image: Fox Home Entertainment.

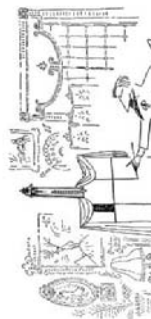




Fig. 45. Desk Set, starring Katherine Hepburn and Spencer Tracy.

Fig. 46. "Black is Right" (1944) fashion spread photographed in Piet Mondrian's New York studio for Town and Country magazine. Image: Troy, The Alterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch and Mondrian's "Victory Boogie Woogie" (1942-1944).



Fig. 51. (left) Music for 18 Hulan Gemmett Sessions, April 5-6, 1923), Richmond, Indiana. Music: digitized single 7 1/8 rpm (30-inch) mono. Image: Public Domain.

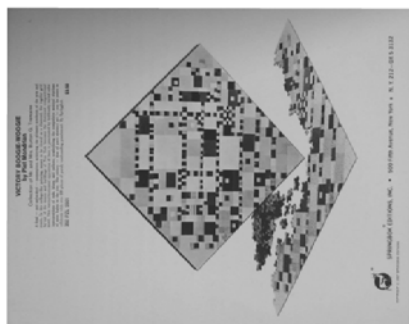


Fig. 50. Helmsmark Company Victory Boogie-Woogie puzzle (1967). Image: Troy, The Alterlife of Piet Mondrian, 18.

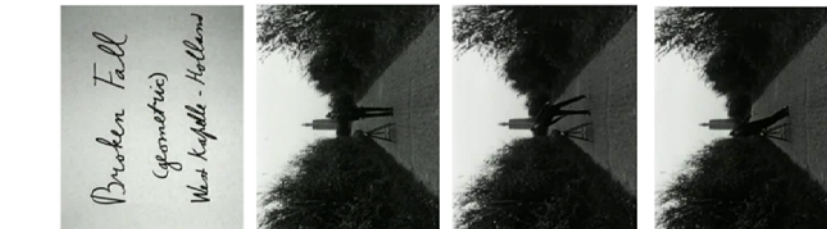


Fig. 4
415 x



Fig. 46 "Black is Right" (1944) fashion spread photographed in Piet Mondrian's New York studio for Town and Country magazine. Image: Troy, The Alterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch and Mondrian's "Victory Boogie Woogie" (1942-1944).



Fig. 52. Image: abesques.

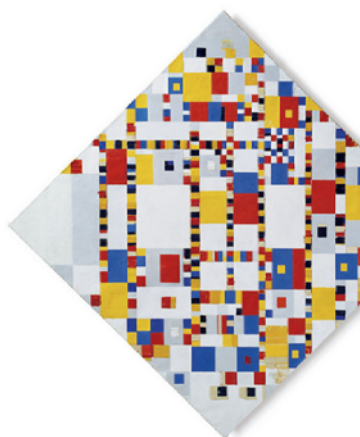
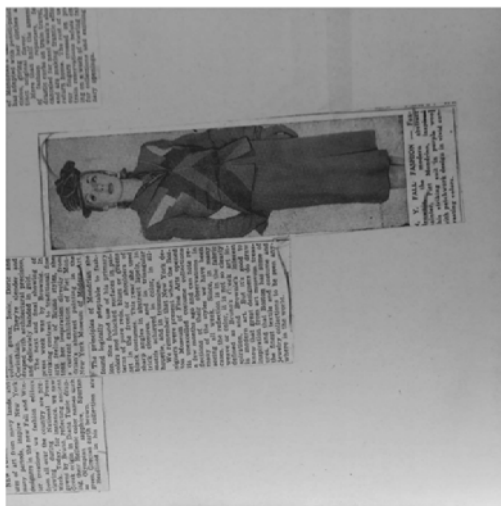


Fig. 132 Maria Hassabi, PLASTIC (2016), live installation. Museum of Modern Art, New York (MoMA) Gund Lobby Staircase. Screenshots from MoMA video documentation posted on YouTube: Museum of Modern Art, New York.





see Hepburn and Spencer



Fig. 52 King Oliver's Creole Jazz Band, Music from The Chronological Classics (1923, Geni.net Sessions, April 5-6, 1923), Richmond, Indiana. Music: digitized single / 78 rpm (10-inch) / mono. Image: Public Domain.



Fig. 51 (left) Music for 16 Futurist Noise Imoners. (c. 1913). Video: PERFORMA; (right) photographs Image: Public Domain.

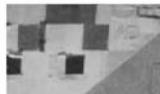


Fig. 46 "Black is Right" (1944), fashion spread photographed for Madame Tenebre, The Town and Country magazine, Image: Troy. The Afterlife of Piet Mondrian, 169; (upper left) detail of arabesque brooch, and Mondrian's Victory Boogie Woogie (1942-1944).

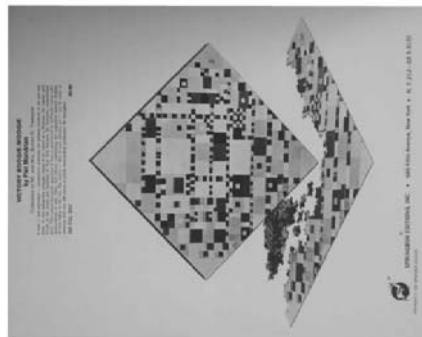


Fig. 50 Hallmark Company, Victory Boogie-Woogie puzzle (1967). Image: Troy, The Afterlife of Piet Mondrian, 18.

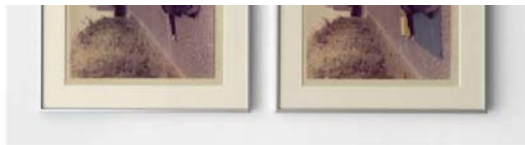
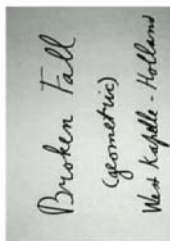


Fig. 44 Bas Jan Ader, 1965. 4,5 x 11,45 in (30 x 30 cm)





Fig. 53 Gino Severini, *Sea-Dancer* (1914), oil on canvas with artist's painted frame, 41.172 x 33.13716 in (105.3 x 85.9 cm), Guggenheim Museum, Venice. Image: Solomon R. Guggenheim Foundation Peggy Guggenheim Collection, Venice, 1976.

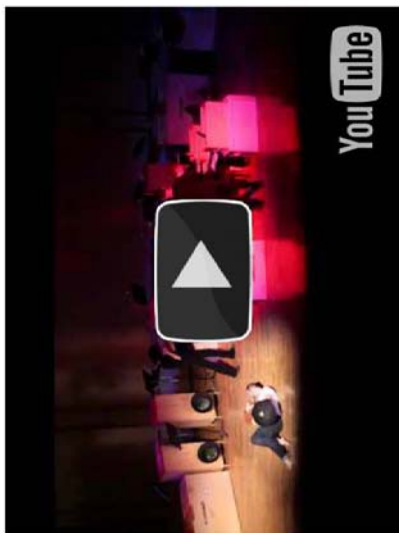
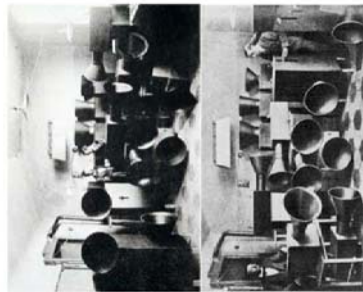


Fig. 51 (left) Music for 16 Futurist Noise Intoners, a reconstruction of Luigi Russolo's compositions for his 'intonarumori' (noise intoners) (c. 1913). Video: PERFORMA; (right) photographs of Russolo with his 'intonarumori' as published with his manifesto *Art of Noises* (1913). Image: Public Domain.



5

Broken Fall



F
S
R
C

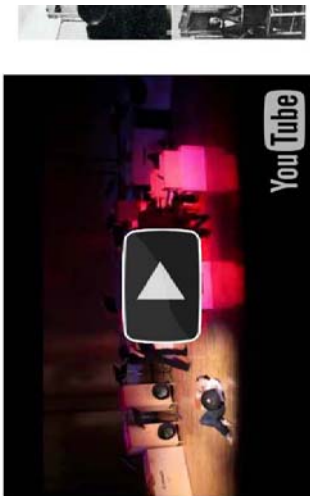
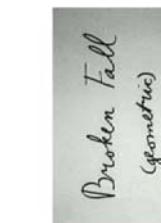


Fig. 51 (left) Music for 16 Futurist Noise Intoners, a reconstruction of Luigi Russolo's composition (c. 1913). Video: PERFORMA; (right) photographs of Russolo with his 'intonatori' as published in image: Public Domain.



Fig. 52 King Oliver's Creole Jazz Band, Music from The Chronological Classics (1923, Gramme Sessions, April 5-6, 1923), Richmond, Indiana. Music: digitized single / 78 rpm (20-msec) mono. Image: Public Domain.

5





ammoth tusk, height 6 in (15.24 cm), Musée de
 al Symbolism; (right) detail, Venus of Lespugue.

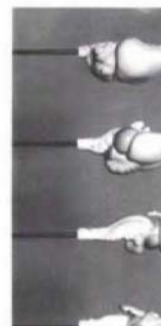


Fig. 9 (top) Umberto Boccioni, Unique Forms of Continuity in
 Space (1913), plaster, 43 7/8 x 34 7/8 x 15 3/4 in (111.2 x 88.5 x
 40 cm), Museu de Arte Contemporânea da Universidade de São
 Paulo, Brazil. Image: Museu de Arte Contemporânea da
 Universidade de São Paulo, Brazil; (bottom) Umberto Boccioni,
 Unique Forms of Continuity in Space (1913; cast 1921), bronze,
 same dimensions as plaster, Museum of Modern Art, New York
 (MoMA); Image: Museum of Modern Art, New York.



Fig. 10 (top) Aleksandr Rodchenko, Spatial Construct
 object. Collection unknown. Image: Museo Magazine; (l
 Construction No. 12 (c. 1920), plywood, open constru
 paint and wire, 24 x 33 x 18.12 in (61 x 83.7 x 47 cm
 Image: Museum of Modern Art, New York.





Fig. 5. Mirra Hassid's PLASTIC (2018), live installation, Museum of Modern Art, New York. (top) Grand Lobby staircase. Still from MoMA video documentation posted on YouTube. Video: Museum of Modern Art, New York.



1 m (32.84 cm). Musée de l'Homme, Paris. (top) Detail. Venus of Lesparges.



Fig. 8. (top) Umberto Boccioni, *Unidade Brasileira* (1928), bronze, cast 1933, same dimensions as plaster. Museum of Modern Art, New York (MoMA). Image: Museum of Modern Art, New York.



Fig. 10. (top) Aleksandr Rodchenko, *Spatial Construction No. 12* (c. 1920), photograph of object. Collection unknown. Image: Museo Magazine. (bottom) Aleksandr Rodchenko, *Spatial Construction No. 12* (c. 1920), plywood, open construction partially painted with aluminum paint and wire, 24 x 33 x 13-1/2 in (61 x 83.7 x 47 cm). Museum of Modern Art, New York. Image: Museum of Modern Art, New York.





Fig. 9 (top) Umberto Boccioni, *Unique Forms of Continuity in Space* (1913), plaster, 43.718 x 34.718 x 15.214 in (111.2 x 88.5 x 40 cm), Museu de Arte Contemporânea da Universidade de São Paulo, Brazil. Image: Museu de Arte Contemporânea da Universidade de São Paulo, Brazil; (bottom) Umberto Boccioni, *Unique Forms of Continuity in Space* (1913; cast 1931), bronze, same dimensions as plaster, Museu de Modern Art, New York (MoMA). Image: Museum of Modern Art, New York.



Fig. 10 (top) Aleksandr Rodchenko, *Spatial Construction No. 12* (c. 1920), photograph of object, Collection unknown. Image: Museo Magazine; (bottom) Aleksandr Rodchenko, *Spatial Construction No. 12* (c. 1920), plywood, open construction partially painted with aluminum paint and wire, 24 x 33 x 18 1/2 in (61 x 83.7 x 47 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York.

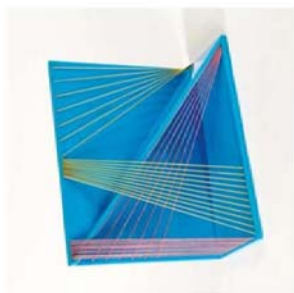


Fig. 8
Sculpture
paint,
Muse





Fig. 53 Gino Severini, *Sea-Dancer* (1914), oil on canvas with artist's painted frame, 41 1/2 x 33 1/2 in (105.3 x 85.9 cm), Guggenheim Museum, Venice. Image: Solomon R. Guggenheim Foundation. Peggy Guggenheim Collection, Venice, 1976.



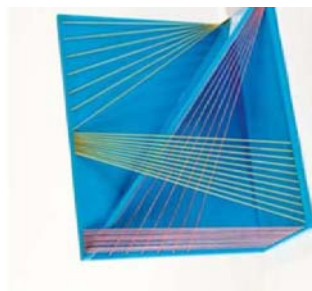
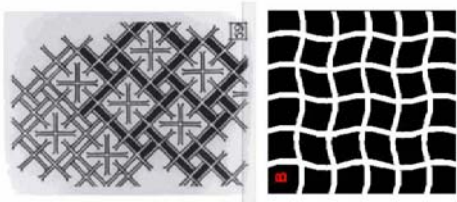


Fig. 53 Gino Severini, *Sea-Dancer* (1914), oil on canvas with artist-s painted frame, 41 1/2 x 33 13/16 in (105.3 x 85.9 cm), Guggenheim Museum, Venice. Image: Solomon R. Guggenheim Foundation Peggy Guggenheim Collection, Venice, 1976.



The New Yorker (1952). Image: perpendiculars and arabesques.



Herbert Hoover's 1917 manual of geometry, Mondrian, 122: (bottom left) an isometric grid; (bottom right) wavy lines disrupts the grid. Image: Schiller Lab, MIT.



Fig. 46 "Black is Right" (1944) fashion spread photographed in Piet Mondrian's New York studio for the magazine Harper's Bazaar. (upper left) detail of arabesque brooch and Mondrian's Victory Boogie Woogie (1942-1944).



Fig. 50 Halmark Company, Victory Boogie-Woogie puzzle (1967). Image: Troy, The Alterlife of Piet Mondrian, 18.

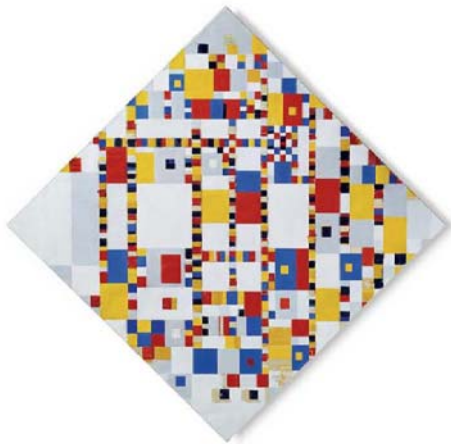


Fig. 42 Piet Mondrian, Victory Boogie Woogie (1942-1944), oil and paper on canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags.



Fig. 43 Film stills from Bas Jan Ader, Broken Fall (Geometrie), Westkapelle, Holland (1971). 16mm film, 1 min 49 seconds. Image: Bas Jan Ader Estate.



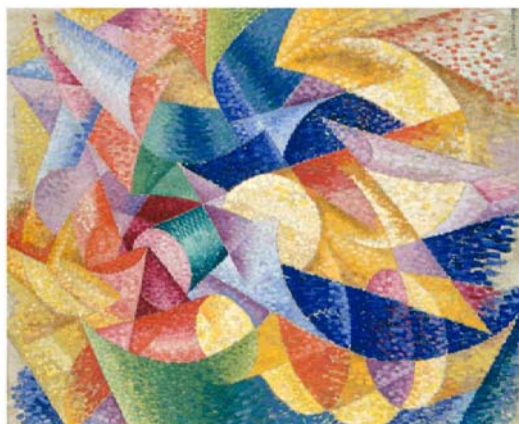
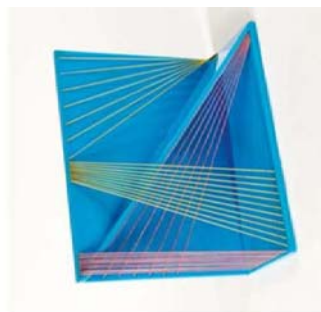


Fig. 53 Gino Severini, *Sea-Dancer* (1914), oil on canvas with artist's painted frame, 41 1/2 x 33 13/16 in (105.3 x 85.9 cm), Guggenheim Museum, Venice. Image: Solomon R. Guggenheim Foundation Peggy Guggenheim Collection, Venice, 1976.



vas
3 x
non
elim

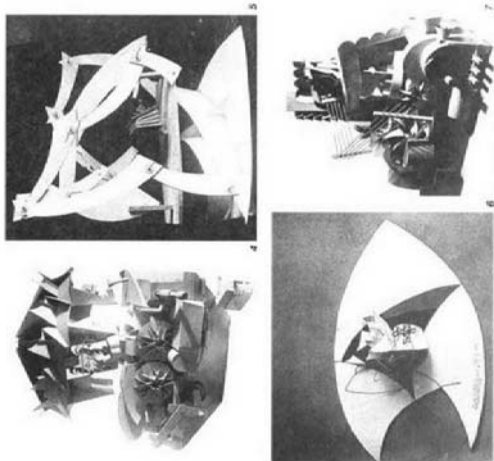
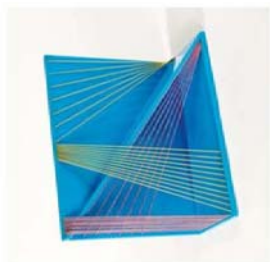
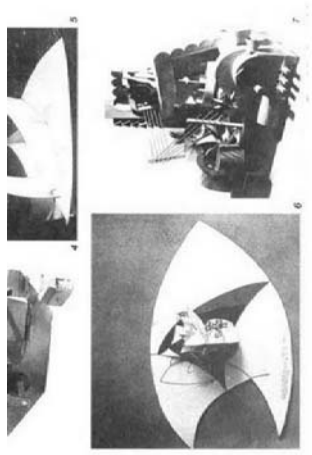


Fig. 54 (top right) Giacomo Balla, Colored Plastic Complex with Force Lines (1913), plastic and thread, 15.7 x 11.8 x 5.9 in (40 x 30 x 15 cm), private collector. Image: Artnet; (bottom right) Giacomo Balla, Colored Plastic Complex with Din = Speed (1914), paint, wood, cardboard and tin sheets, 20.47 x 23.62 x 2.76 in (52 x 60 x 7 cm), on view at Palazzo Reale, Milan (2008), private collection. Image: Futur-ism, Associazione Culturale; four plastic complexes by Fortunato Depero (c. 1914/1915, all destroyed), dimensions not specified. Image: Carollo, | Futuristi, 26.





Fig. 56 Giacomo Balla, *The Spell is Broken* (1922), oil on canvas, 1 private collection; Giacomo Balla, *Numbers in Love* (1923), oil on 55 cm) Museo di Arte Moderna e Contemporanea di Trento e Rover



ce Lines (1913), plastic and thread, 15.7 x 11.8 x 5.9 in (40 x 30 x 15 cm), private collector. *Line Din = Speed* (1914), paint, wood, cardboard and tin sheets, 20.47 x 23.62 x 2.76 in (52 x 60 x 7 cm), private collection; *Line Din = Speed*, Associazione Culturale "I quattro complessi di Fortunato" per Carolla, I Futuristi, 26.

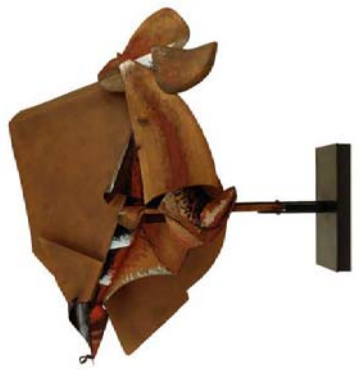


Fig. 55 Umberto Boccioni, *Dynamism of a Galloping Horse + Houses* (1915), gouache, wood, cardboard and painted copper and iron, 44.45 x 45.28 in (112.9 x 115 cm), Peggy Guggenheim Collection, Venice. Image: Solomon R. Guggenheim, Peggy Guggenheim Foundation, Venice.



10 x 30 x 15 cm), private collector.
tin sheets, 20.47 x 23.62 x 2.76 in
r plastic complexes by Fortunato



Fig. 56 Giacomo Balla, *The Spell is Broken* (1922), oil on canvas, 17.5 x 12.8 in (44.5 : private collection; Giacomo Balla, *Numbers in Love* (1923), oil on canvas, 30.32 x 21.55 cm) Museo di Arte Moderna e Contemporanea di Trento e Rovereto (Mart), Roveret

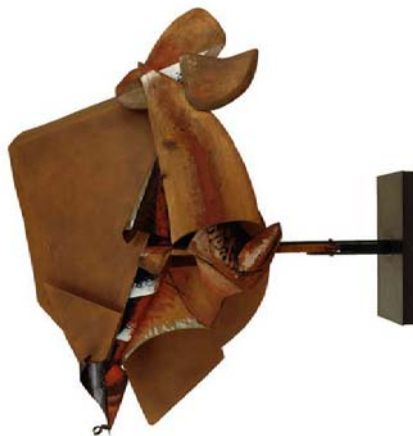
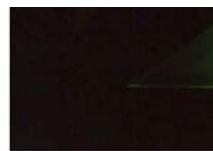


Fig. 55 Umberto Boccioni, *Dynamism of a Galloping Horse + Houses* (1915), gouache, wood, cardboard and painted copper and iron, 44.45 x 45.28 in (112.9 x 115 cm), Peggy Guggenheim Collection, Venice. Image: Solomon R. Guggenheim, Peggy Guggenheim Foundation, Venice.



Fig. 56 Giacomo Balla, *The Spell is Broken* (1922), oil on canvas, 17.5 x 12.8 in (44.5 x 32.5 cm), private collection; Giacomo Balla, *Numbers in Love* (1923), oil on canvas, 30.32 x 21.65 in (77 x 55 cm) Museo di Arte Moderna e Contemporanea di Trento e Rovereto (Mart), Rovereto.



5 cm),
(77 x



Fig. 57 Elio Marchegiani, Reconstruction of Giacomo Balla's scenography for Feu d'Artifice (Fireworks, 1917), abstract action of light and color with music by Igor Stravinsky for Sergej Djagilev's Ballets Russes, at Teatro Costanzi, Rome (1997), various materials, 216.54 x 354.33 x 314.96 in (550 x 900 x 800 cm), Castello di Rivoli Museo d'Arte Contemporanea. Image: Castello di Rivoli Museo d'Arte Contemporanea.



THE SKETCH SUPPLEMENT. *Photographed by the author.*

Jan. 5, 1914.

IS THE SUN PROUD OF HIS DAUGHTER? FUTURIST DANCING.

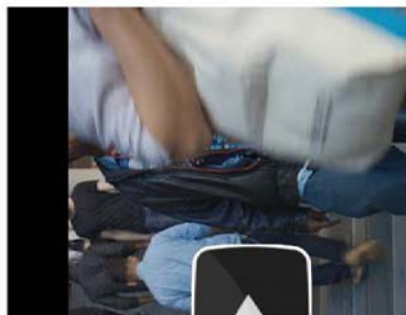
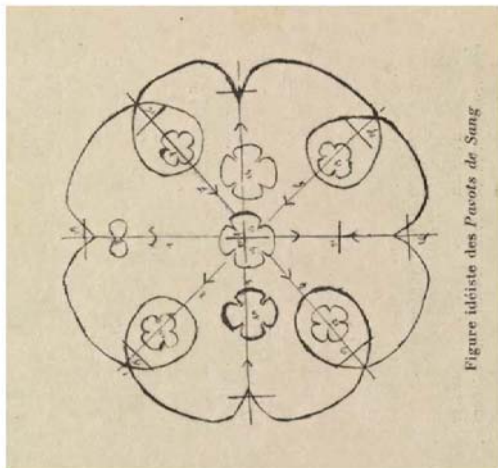
THE VOICE OF METZELLE / ALMA, THE PEOPLE MISS / ALMA, THE YOUNG GEE ALMA, THE DAUGHTER OF THE SUN - MISS VALENTINE IN SAINT-PIERRE GIVING FUTURIST DANCES AT THE FORTIER THEATRE, PARIS.

The sketches were made by the author in the studio of the artist, M. Metzelle, at the Fortier Theatre, Paris. The costumes were made by the artist, M. Metzelle, at the Fortier Theatre, Paris. The photographs were taken by the author at the Fortier Theatre, Paris. The sketches were made by the author in the studio of the artist, M. Metzelle, at the Fortier Theatre, Paris. The costumes were made by the artist, M. Metzelle, at the Fortier Theatre, Paris. The photographs were taken by the author at the Fortier Theatre, Paris.





Fig. 58 Performance photographs of Valentine de Saint-Point's *Mitachorie* (1914). "The Youth of Botticelli; Alias, The Purple Muse; Alias, The Young God; Alias, The Daughter of the Sun; Mime, Valentine de Saint-Point giving Futurist Dances at the Poirier Theatre, Paris," *The Sketch Supplement* (1914). Image: Jerome Robbins Dance Collection; (below) Valentine de Saint-Point, *Mitachorie* (Paris, 1914). Image: Jerome Robbins Dance Collection.





das. The Young
ch. Supplement
ublished in the

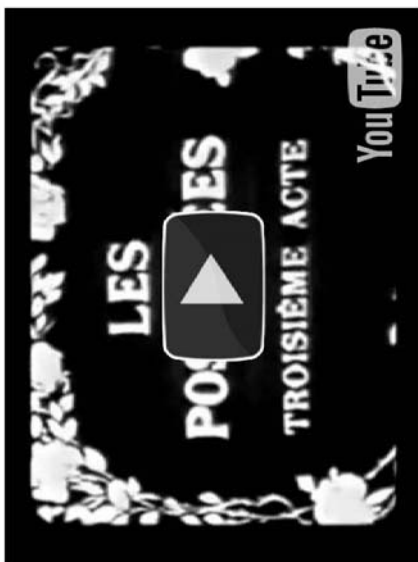
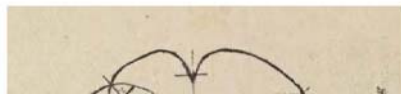
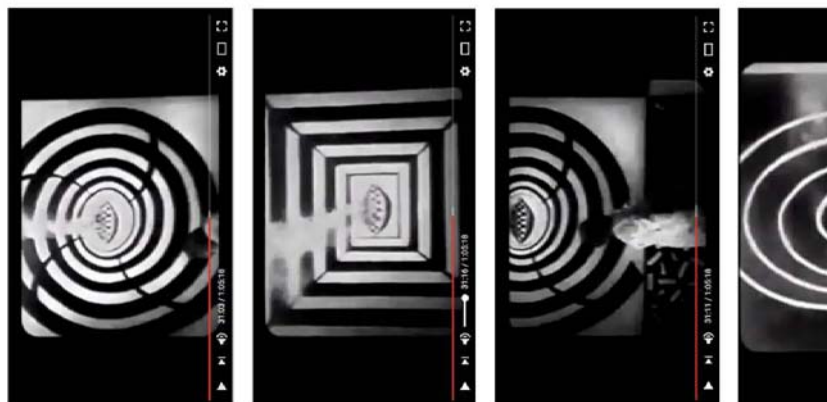


Fig. 60 Anton Giulio Bragaglia's Futurist film *Thais* (*Les Possédés*) (1917), featuring a scenography with designs from 16th-century Italian Hermeticist philosopher Giordano Bruno's woodcuts (bottom left, zigzag-line design in center of scenography; second from bottom left, concentric spiraling oval above the head of *Thais* and poison gas smoke), image: YouTube / La Cinématique Française.





Fig. 60 Anton Giulio Bragaglia's Futurist film *Thais* (*Les Possédées*) (1917), featuring a scenography with designs from Hermeticist philosopher Giordano Bruno's woodcuts (bottom left, zigzag-line design in center of scenography; second concentric spiraling oval above the head of *Thais* and poison gas smoke). Image: Youtube / La Cinématique française





3 Performance photographs of Valentine de Saint-Point's *Métachorie* (1914) "The Youth of Botticelli; Alias, The Purple Muse; Alias, The Young Alias, The Daughter of the Sun; Mme. Valentine de Saint-Point giving Futurist Dances at the Poirier Theatre, Paris;" The Sketch Supplement Image: Jerome Robbins Dance Collection; (below) Valentine de Saint-Point, *Idealist Figure from Blood Poppies* (1914) as published in the *zine Montjoie!* (Paris, 1914). Image: Jerome Robbins Dance Collection.

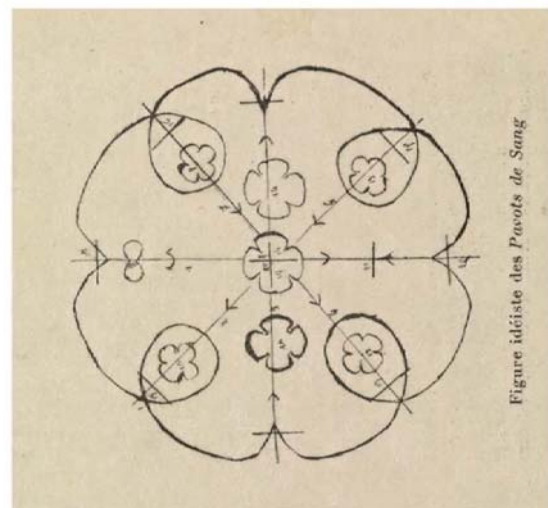
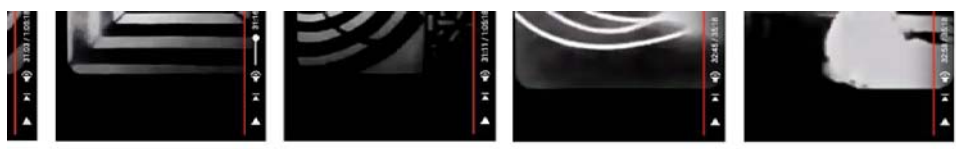
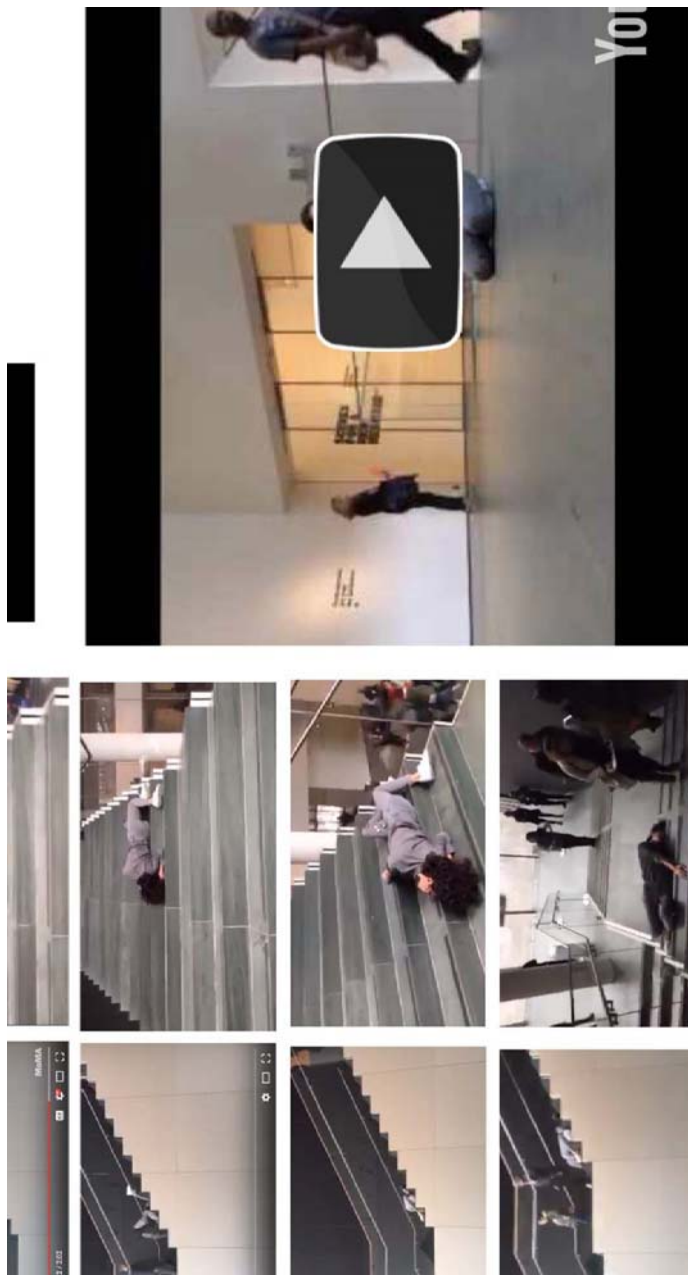


Figure idéaliste des Pavots de Sang

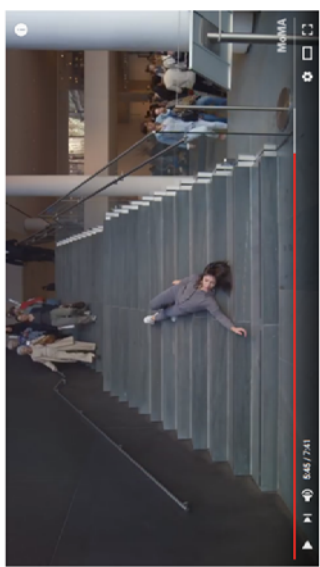




ssabi, *PLASTIC* (2016), live installation, Museum of Modern Art, New York (MoMA), aircase. Screenshots from video documentation posted by Youtube user Special h 20, 2016). Video: Youtube / Special Collection.



181. The woman in the video is lying on the stairs, and the camera is positioned above her, showing the head of Thais and poison gas smoke. Image: Youtube / La Cinémathèque française.



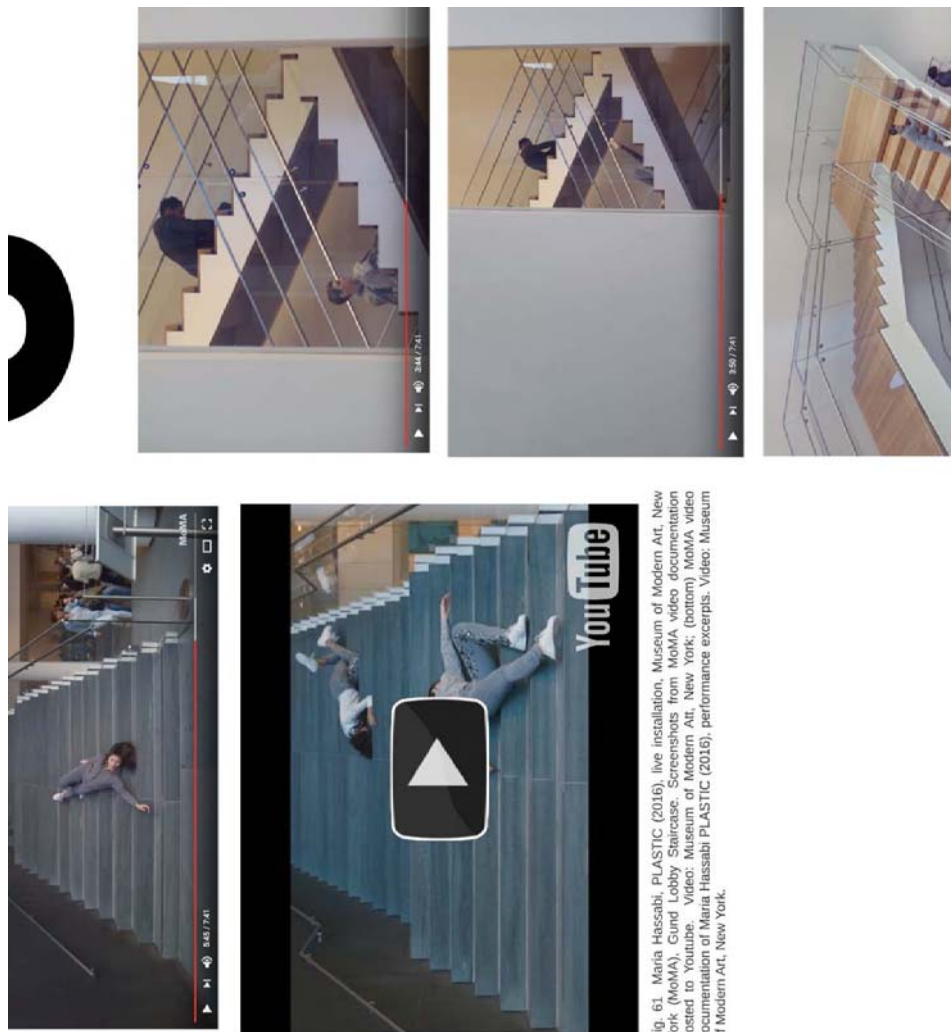
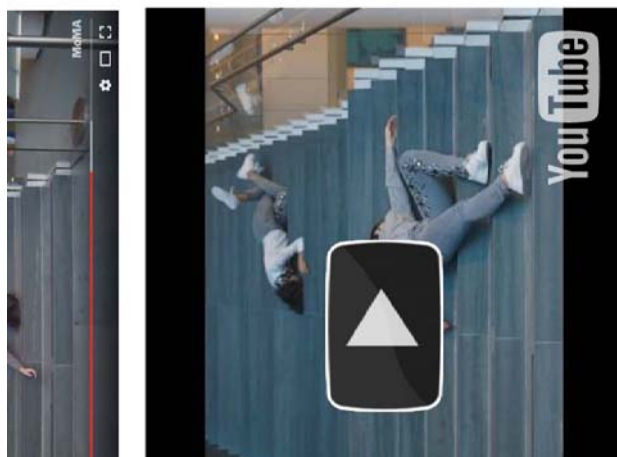
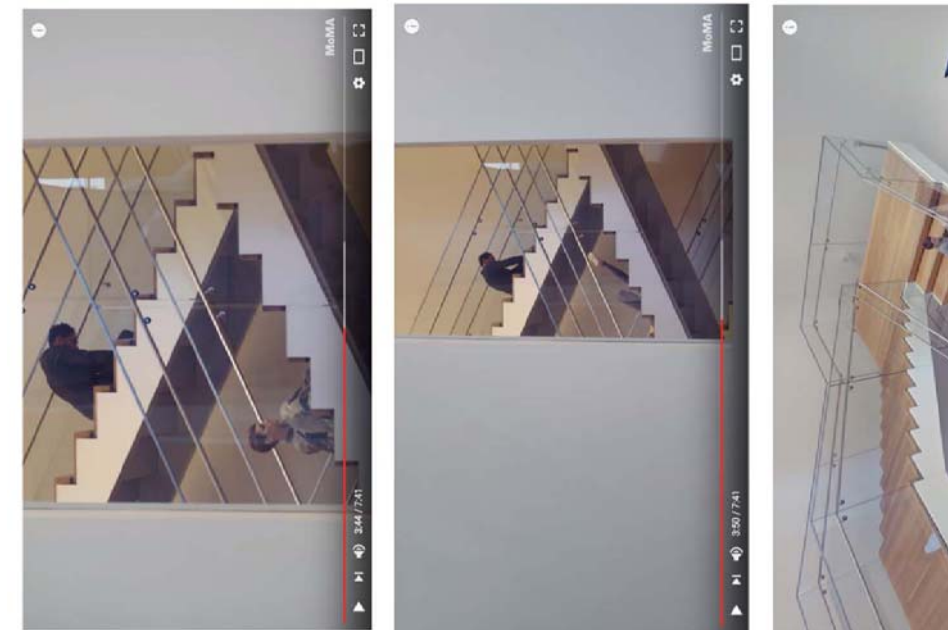


Fig. 61. Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), Gund Lobby Staircase. Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York; (bottom) MoMA video documentation of Maria Hassabi PLASTIC (2016), performance excerpts. Video: Museum of Modern Art, New York.





PLASTIC (2016), live installation, Museum of Modern Art, New York City. Screenshot from MoMA video documentation of Museum of Modern Art, New York; (bottom) MoMA video of Plastic (2016), performance excerpt. Video: Museum of Modern Art



1. Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), Gund Lobby Staircase. Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York; (bottom) MoMA video documentation of Maria Hassabi PLASTIC (2016), performance excerpts. Video: Museum of Modern Art, New York.



Fig. 62 Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), stairwell between the fourth and fifth-floor Painting and Sculpture Galleries. Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York.



Fig. 70 (no. 2) (1.67 x Phyllide

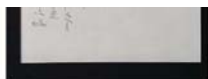
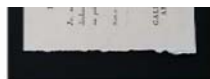


Fig. 73. "Use glass," facsimile "subscription Duchamp, A L & Ekstrom, I New York. ima permission of t York.





Fig. 63. Arnold Rosenberg, Marcel Duchamp playing chess on a sheet of Glass (1958), silver gelatin print, 11 x 14 in (27.94 x 35.56 cm), Francis M. Naumann Fine Art. Image: Francis M. Naumann Fine Art.



Fig. 58 Performance photographs of Valentine de Saint-Point's *Métachorie* (1914) "The Youth of Botticelli; Alias, The Purple Muse; Alias, The Young God; Alias, The Daughter of the Sun. Mme. Valentine de Saint-Point giving Futurist Dances at the Poirier Theatre, Paris," The Sketch Supplement (1914). Image: Jerome Robbins Dance Collection; (below) Valentine de Saint-Point, *Idealist Figure from Blood Poppies* (1914) as published in the magazine *Montjoie!* (Paris, 1914). Image: Jerome Robbins Dance Collection.

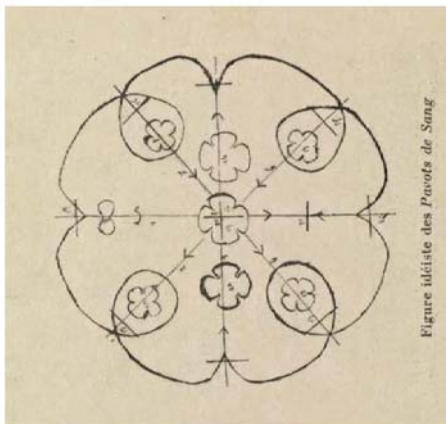


Figure idéaliste des Pavois de Sang

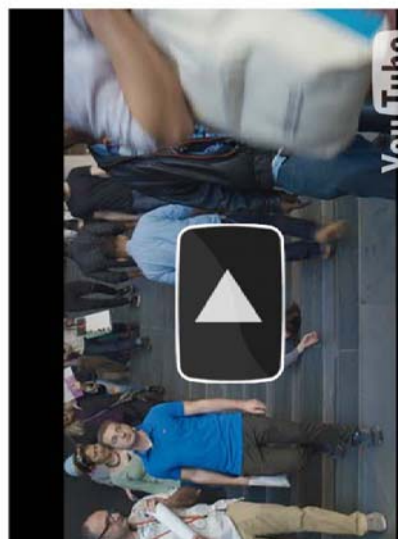




Fig. 63. Arnold Rosenberg, Marcel Duchamp playing chess on a sheet of Glass (1959), silver glass, 10.5 x 15.5 x 35.5 cm, Edition of 100, signed and numbered, Paris, France, M. Naumain Fine Art. Image: François M. Naumain Fine Art.



Fig. 64 (left) Marcel Duchamp, A L'Infinifit (The White Box) (Corder & Ekstrom, 1966), limited edition of facsimile reproductions, numbered 1/150. Image: Cordier & Ekstrom, (right) Another edition of A L'Infinifit on sale at auction. Image: Abnast.



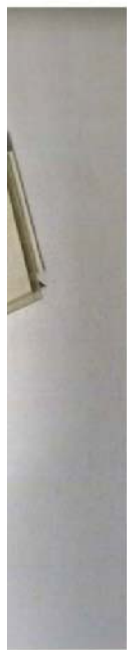


Fig. 64 (left) Marcel Duchamp, A L'infinifit (The White Box) (Cordier & Ekstrom, 1966), limited edition of facsimile reproductions numbered 1/150. Image: Fondazione Berardelli; (right) Another edition of A L'infinifit on sale at auction. Image: Artnet.

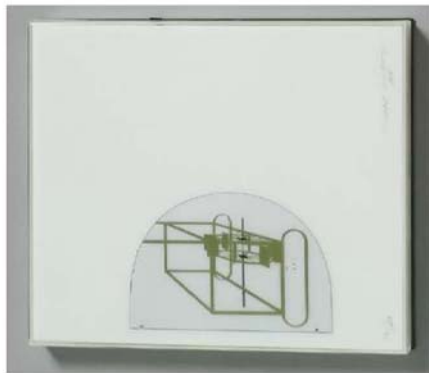


Fig. 65
Bac
lead
incl
Phil

Fig. 65 (left) Marcel Duchamp, Glass Glider Containing a Water Mill in Neighboring Metal (1913-1915), oil and lead wire on glass, 58.38 x 32.15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art. (right) Marcel Duchamp, The Glider, screenprint reproduction on Plexiglass, on front of the box container for A L'infinifit (The White Box) (Cordier & Ekstrom, 1966), limited edition of facsimile reproductions numbered 1/150. Image: Author's photograph with permission of Museum of Modern Art.





(left) Marcel Duchamp, *A L'infinifit (The White Box)* (Cordier & Ekstrom, limited edition of facsimile reproductions numbered 1/150. Image: one Berardelli; (right) Another edition of *A L'infinifit* on sale at auction. Artnet.

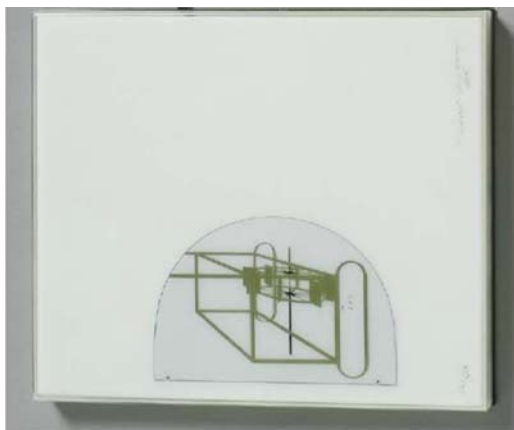
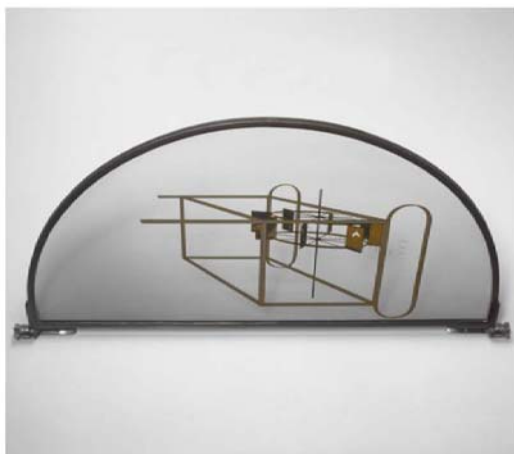


Fig. 65 (left) Marcel Duchamp, *Glass Glider Containing a Water Mill in Neighboring Met* (1913-1915), oil and lead wire on glass, 58 3/8 x 32 15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art. (right) Marcel Duchamp, *The Glider*, screenprint reproduction on Plexiglass, on front of the box container for *A L'infinifit (The White Box)* (Cordier Ekstrom, 1966), limited edition of facsimile reproductions numbered 1/150. Image: Author photograph with permission of Museum of Modern Art.



Fig. 65 (left) Marcel Duchamp, *A L'Infini (The White Box)* (Corder & Ekstrom, 1913-1915), oil and lead wire on glass, 58 3/8 x 32 15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art; image: Philadelphia Museum of Art; (right) Another edition of *A L'Infini* on sale at auction.

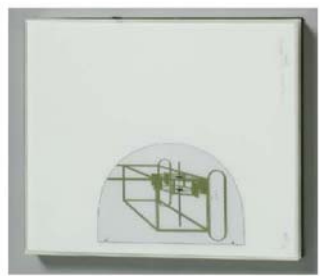


Fig. 65 (left) Marcel Duchamp, *Glider*, Containing a Water Mill in Neighboring Metal (1913-1915), oil and lead wire on glass, 58 3/8 x 32 15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art; image: Philadelphia Museum of Art; (right) Marcel Duchamp, *The Glider*, screenprint reproduction on plexiglass, on front of the box container for *A L'Infini (The White Box)* (Corder & Ekstrom, 1986), limited edition of facsimile reproductions numbered 3/150. Image: Author's photograph with permission of Museum of Modern Art.



Fig. 66 Marcel Duchamp, *The Bride Stripped Bare by Her Bachelors - Even (The Large Glass)* (1915-1923), oil, varnish, lead foil, lead wire, and dust on two glass panels, 9 feet 1 1/4 inches x 70 inches x 3 3/8 inches, (277.5 x 177.8 x 8.6 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art.



lead foil. It
 inches x 7
 Philadelphia

Fig. 65 (left) Marcel Duchamp, Glass Glider Containing a Water Mill in Neighboring Metal (1913-1915), oil and lead wire on glass, 58 3/8 x 32 15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art. (right) Marcel Duchamp, The Glider, screenprint reproduction on Plexiglass, on front of the box container for A L'infinifit (The White Box) (Cordier & Ekstrom, 1966), limited edition of facsimile reproductions numbered J/150. Image: Author's photograph with permission of Museum of Modern Art.

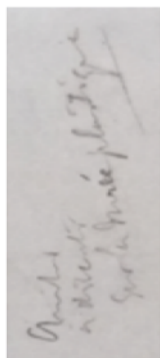
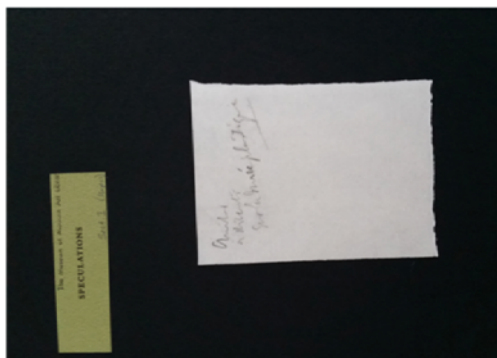


Fig. 67. "Try to argue for the plastic duration," facsimiled note from Marcel Duchamp, A L'infinifit (The White Box) (Cordier & Ekstrom, 1966). Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

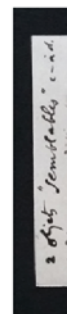
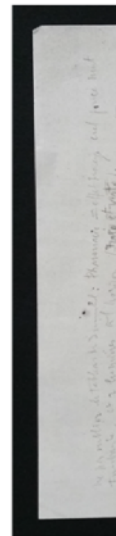


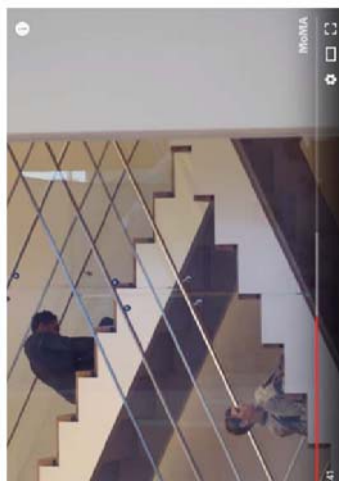


Fig. 69 (left) Fernand Léger, Study for poster for Abel Gance's film *The Wheel* (c. 1922), gouache on paper, 16.178 x 12.176 in (41 x 31 cm), private collection on view at Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (right) Abel Gance, *The Wheel* (1922), silent film, black-and-white. Image: Film Preservation Associates, Hat Creek, California.





Fig. 70 Marcel Duchamp, *Nude Descending a Staircase* (no. 2) (1912), oil on canvas, 57 7/8 x 35 1/8 inches (147 x 89.2 cm). Philadelphia Museum of Art. Image: Philadelphia Museum of Art.



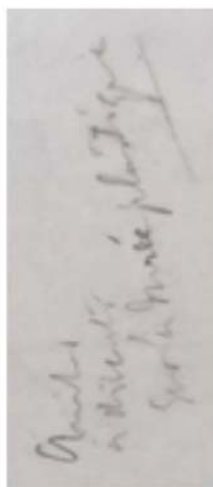
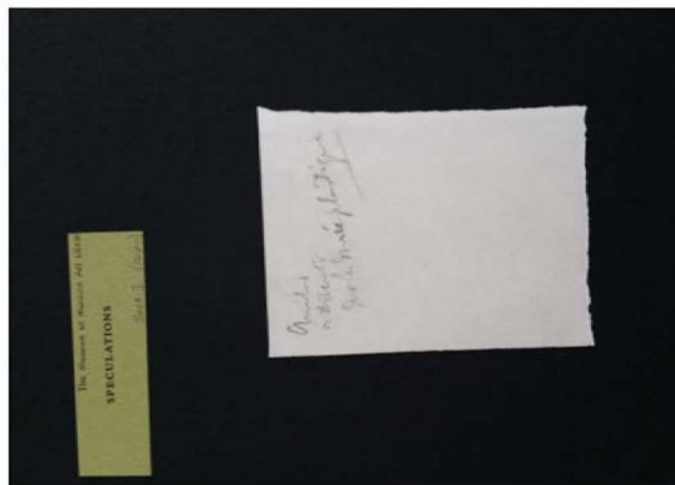


Fig. 67. "Try to argue for the plastic duration," facsimiled note from Marcel Duchamp, *À l'infinif* (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.



duration," facsimiled note from Marcel Duchamp, *A* Ekstrom, 1966), Museum of Modern Art, New York. ermission of the Museum of Modern Art, New York.



Fig. 75 Marcel Duchamp, *Chocolate Grinder*, 1 (1914), oil, graphite, and thread on canvas, 25 21 3/8 inches (65.4 x 54.3 cm), Philade Museum of Art. Image: Philadelphia Museum of



Fig. 71. The 'Pharmacy' sketch, facsimiled note from Marcel Duchamp, *A L'infinifit (The White Box)* (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.



re
ith
:el
er
rt,
re
:w

2 Objets "semblables" c-à-d.
de dimensions différents mais
l'un étant toujours supérieur
de l'autre (comme 2 chaises,
"transatlantiques", une grande
et une de poupée)
pourraient servir
à établir une perspective
4 Dimytle =
l'un pas par les
placant par les schémas
l'une par rapport
à l'autre dans l'espace 3
mais en simplifiant
considérablement les illusions
d'optique produites par
ces 2 dimensions



Fig. 72. "2 'similar' objects, i.e., of different dimensions but one being the replica of the other," facsimiled note on verso with watercolor on recto, from Marcel Duchamp, A L'infinifit (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

EKSTROM, 1966), MUSEUM OF MODERN ART, NEW YORK.
Permission of the Museum of Modern Art, New York.

21 3/8
Museum

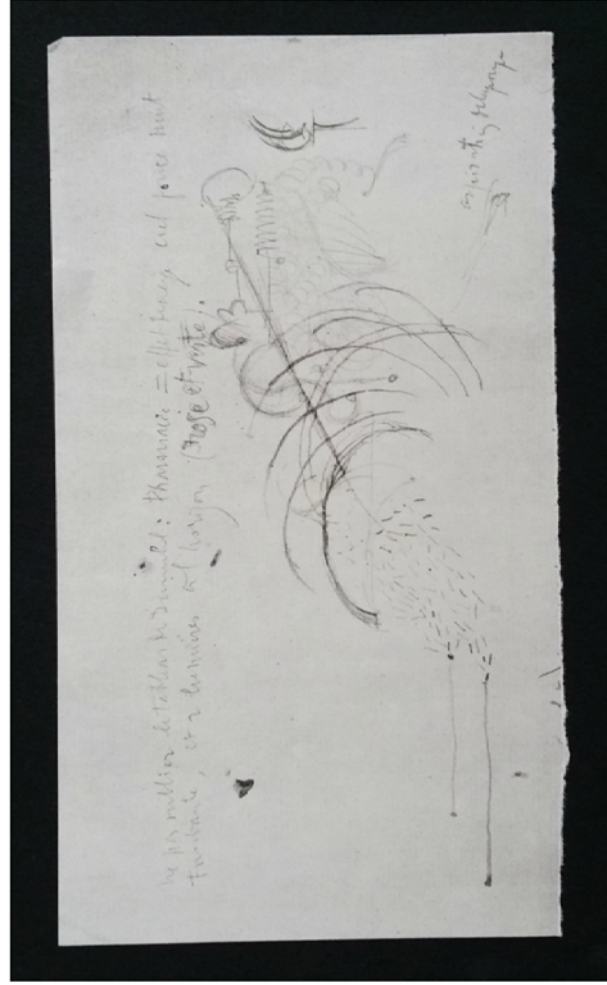


Fig. 71. The 'Pharmacy' sketch, facsimiled note from Marcel Duchamp, À L'infinitif (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

Fig. 71. "Ultraviolet Light," 1942, oil on canvas, 57 7/8 x 35 1/8 inches (147 x 89.2 cm). Philadelphia Museum of Art. Image: Philadelphia Museum of Art.

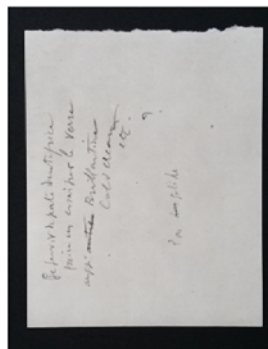
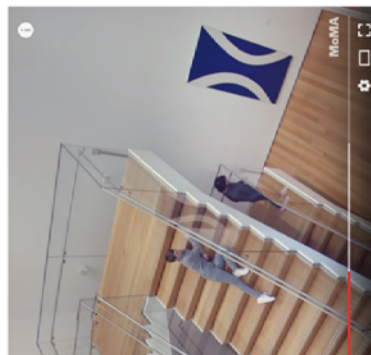
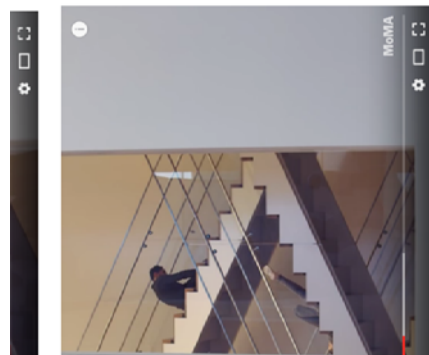


Fig. 73. "Use tooth paste make a test on the glass," facsimiled note on verso with 'subscription bulletin' recto, from Marcel Duchamp, A L'infinifit (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. image: photo by the author with the permission of the Museum of Modern Art, New York.



live installation, Museum of Modern Art, New York and fifth-floor Painting and Sculpture gallery. Video: documentation posted to Youtube.

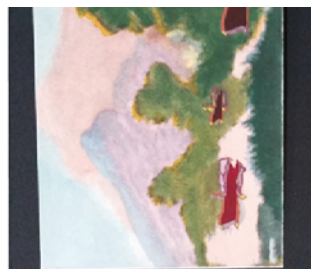


Fig. 72. "2 'similar' objects, i.e., other," facsimiled note on verso with 'The White Box' (Cordier & Ekstrom, 1966). photo by the author with the permission of the Museum of Modern Art, New York.



75 Marcel Duchamp, *Chocolate Grinder, No. 2*, 1917, oil, graphite, and thread on canvas, 25 3/4 x 31 1/2 inches (65.4 x 54.3 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art.



Fig. 69 (left) Fernand Léger, *Study for poster for Abel Gance's film The Wheel* (c. 1922), gouache on paper, 16 1/8 x 12 1/16 in (41 x 31 cm), private collection on view at Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (right) Abel Gance, *The Wheel* (1922), silent film, black-and-white. Image: Film Preservation Associates, Hat Creek, California.



Fig. 74 "Milky Way," facsimiled note on verso with print advertisement for "chocolate toxin" (Hershey, Pennsylvania) on recto, from Marcel Duchamp, *A L'infini (The White Box)* (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

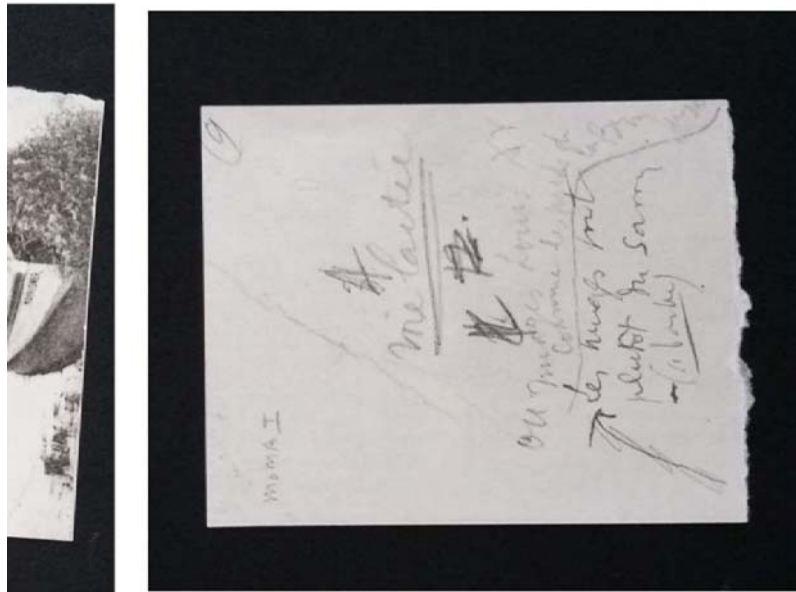


Fig. 74 "Milky Way," facsimiled note on verso with print advertisement for "chocolate town" (Hershey, Pennsylvania) on recto, from Marcel Duchamp, *A L'infinitif* (The White Box) (Cordier & Ekstrom, 1966). Museum of Modern Art, New York. Image:

Philadelphia Museum of Art. Image: Philadelphia Museum of Art.



Fig. 69 (left) Fernand Léger, Study for poster in (41 x 31 cm), private collection on view at (right) Abel Gance, The Wheel (1922), sil

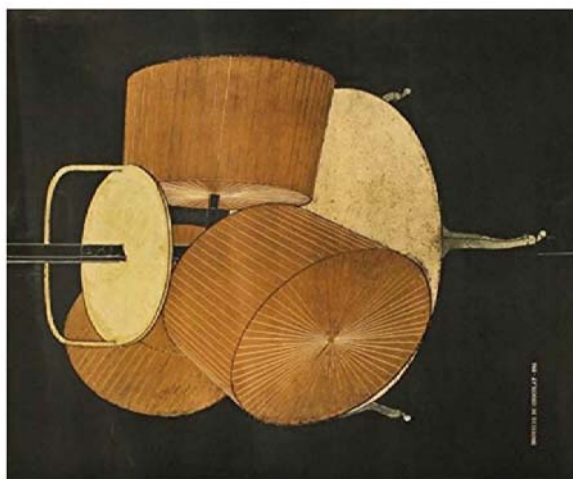


Fig. 75 Marcel Duchamp, Chocolate Grinder, No. 2 (1914), oil, graphite, and thread on canvas, 25 3/4 x 21 3/8 inches (65.4 x 54.3 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art.

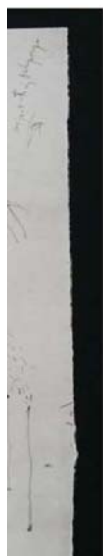


screenprint (Cordier & e: Author's

rk. York.



2 x a



71. The 'Pharmacy' sketch, facsimiled note from Marcel Duchamp, infinitif (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.



Fig. 76 "Lead embossed, hammered or 'tufted' is less dense," facsimiled note on verso with photograph on recto, from Marcel Duchamp, A L'infinitif (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

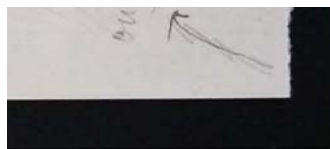


Fig. 74 "Milky" print advertiser Pennsylvania) L'infinitif (The 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

image photo of the author with the permission of the



Fig. 71. T
A L'infinif
Modern Ai
of the Mus

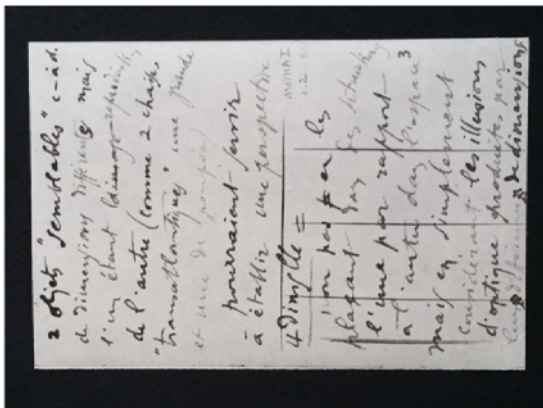


Fig. 72. "2 'similar' objects, i.e., of different dimensions but one being the replica of the other," facsimiled note on verso with watercolor on recto, from Marcel Duchamp, A L'infinif (The White Box) (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.

e h l r l e v

York.

Fig. 72. "2 'similar' objects, i.e., of different dimensions but one being the replica of the other;" facsimiled note on verso with watercolor on recto, from Marcel Duchamp, *A L'infinif (The White Box)* (Cordier & Ekstrom, 1966), Museum of Modern Art, New York. Image: photo by the author with the permission of the Museum of Modern Art, New York.



Fig. 77 (left) Man Ray, *Cadeau* (1963 replica of lost 1921 original), cast iron and brass tacks, 6 1/4 x 3 5/8 x 4 1/2 inches (15.9 x 9.2 x 11.4 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art; (right) Sherrie Levine, *Cadeau* (c. 2005), edition of 12, polished bronze in 2 parts (flat iron: 5 3/4 x 4 1/2 x 3 1/2 in "14.6 x 11.4 x 8.9 cm"; dog: 5 1/2 x 4 1/2 x 2 1/2 in (14 x 11.4 x 6.4 cm), Jablonka Galerie. Image: Jablonka Galerie.



MoMA
seum

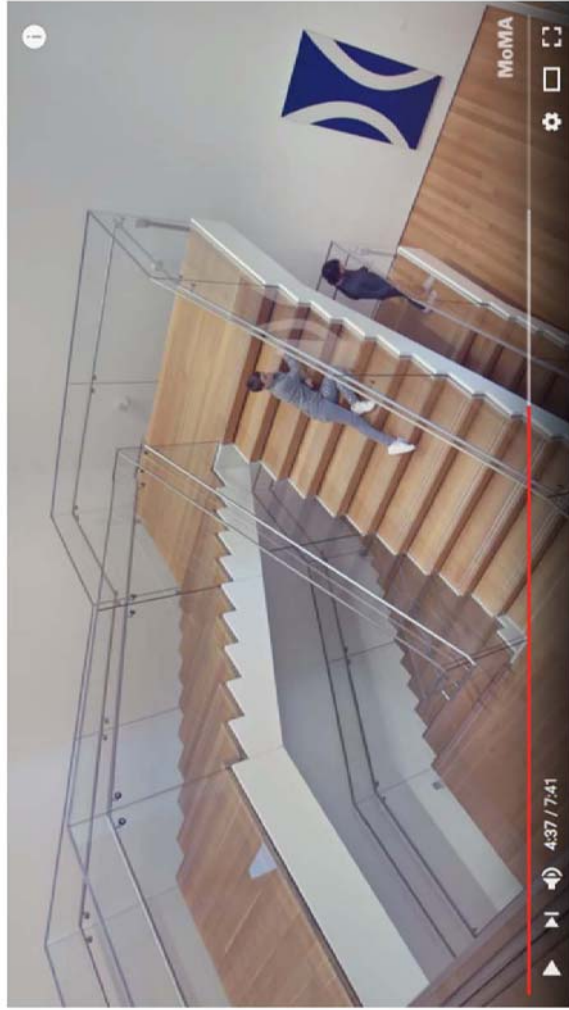


Fig. 62 Maria Hassabi, *PLASTIC* (2016), live installation, Museum of Modern Art, New York (MoMA), stairwell between the fourth and fifth-floor Painting and Sculpture Galleries. Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York.

772 III (14 X 11.4 X 0.4 ס"מ), שחור, אוטומט, מודרני, אוטומט, מודרני.

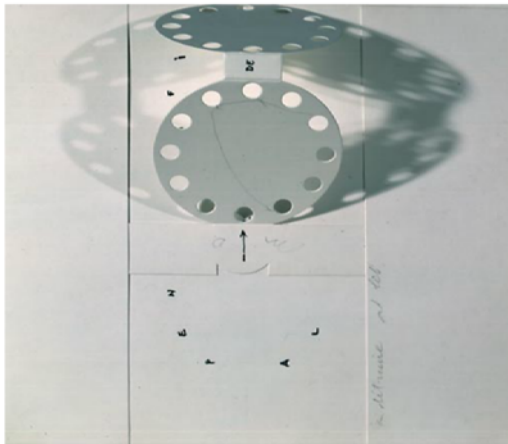
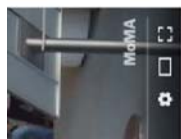
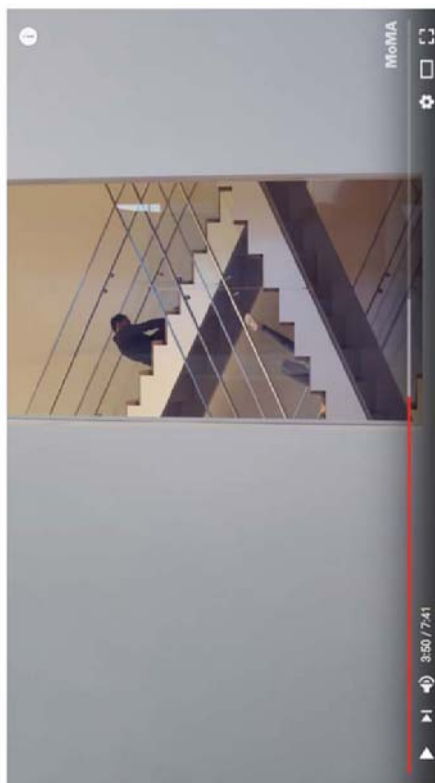
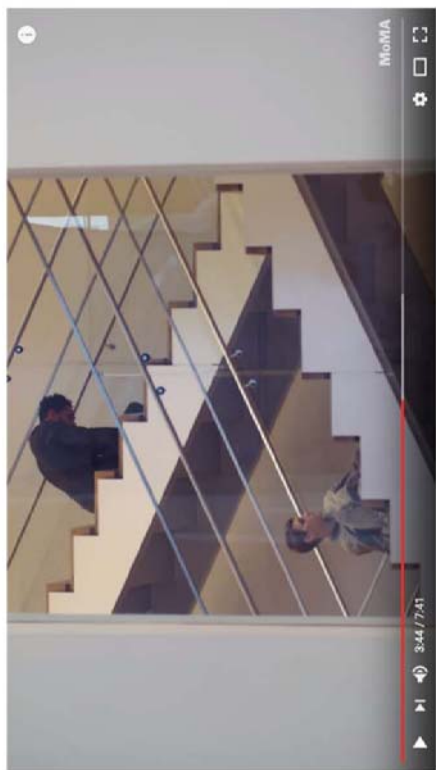
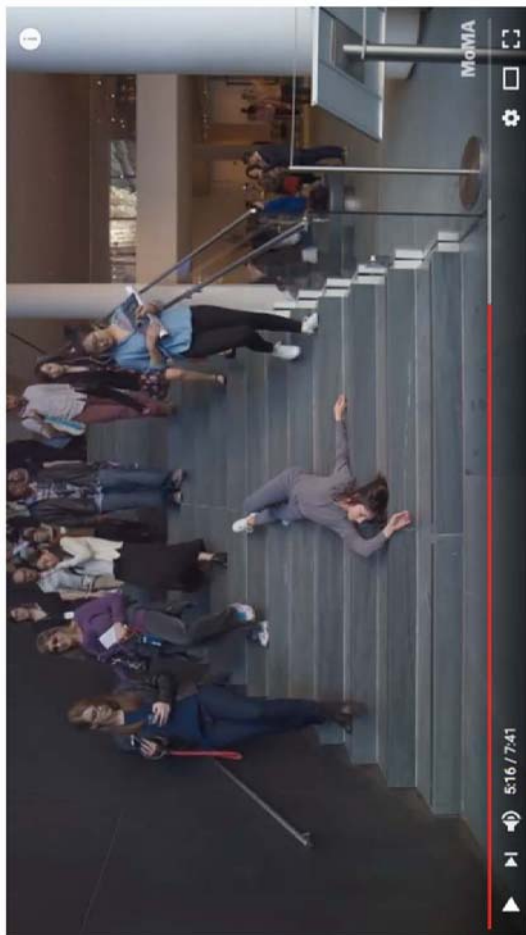


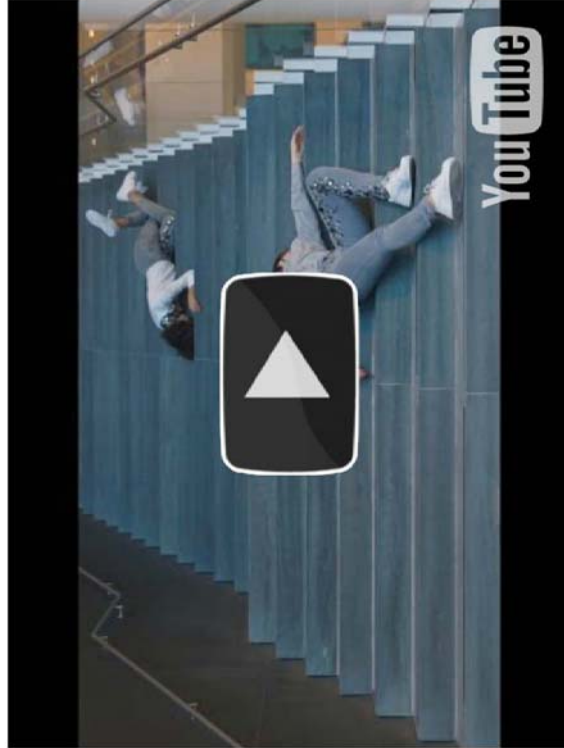
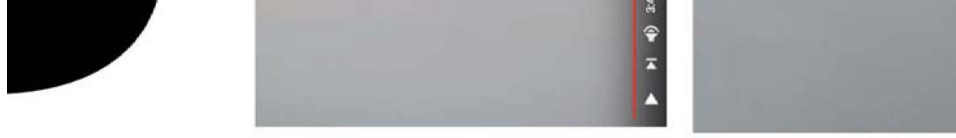
Fig. 78 Marcel Duchamp, The Clock in Profile (1964, multiple), white cardboard pliage, 11.02 x 8.66 in (28 x 22 cm), private collections; (left) two editions of The Clock in Profile mounted in a perspex box. One pliage is open (left), the other is folded (right). Image: Christie's; (right) detail of a folded pliage. Image: Toutfait.

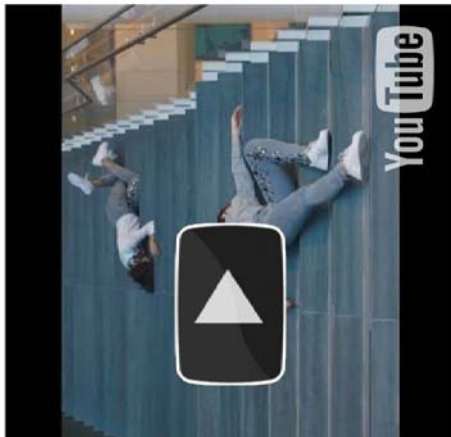


Modern Art, New
o documentation
m) MoMA video
. Video: Museum









PLASTIC (2016), live installation, Museum of Modern Art, New York; (top) MoMA video documentation; (bottom) MoMA video excerpt. Video: Museum of Modern Art

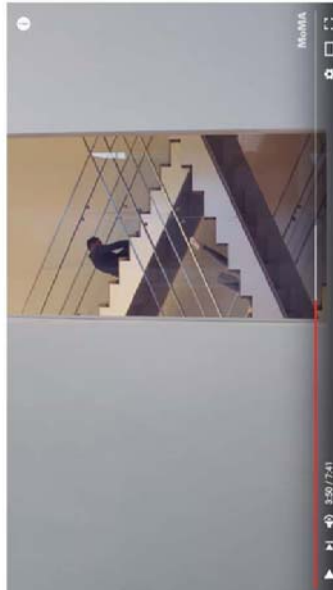




Fig. 79 Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), Marron Atrium (under the window that looks into the stairwell between the 4th and 5th floor. Painting and Sculpture Galleries). Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York.

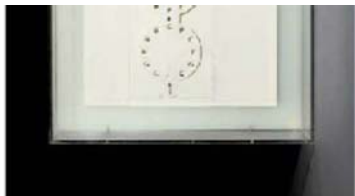


Fig. 78 Marcel Duchamp private collections; (left) other is folded (right). In





Fig. 79 Maria Hussabi, **PLASTIC** (2016), live installation, Museum of Modern Art, New York (MoMA), Midtown Atrium (4th and 5th floor, Painting and Sculpture Galleries). Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York.

Fig. 78 **PLASTIC** (2016), live installation, Museum of Modern Art, New York (MoMA), Midtown Atrium (4th and 5th floor, Painting and Sculpture Galleries). Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York.

7



Fig. 78 Morris, **The Clock in Profile** (1938), white cast aluminum, private collection. Image: Christie's.

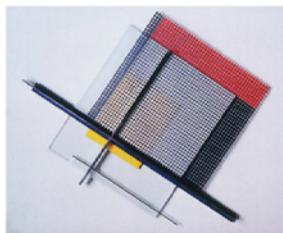


Fig. 81 Cesar Domela, **Construction** (1929), painted glass, brass, metal and wood, 35 3/8 x 19 5/8 x 1 3/4 in (89.85 x 49.85 x 4.45 cm), private collection. Image Artists Rights Society (ARS), New York/ADAGP, Paris.

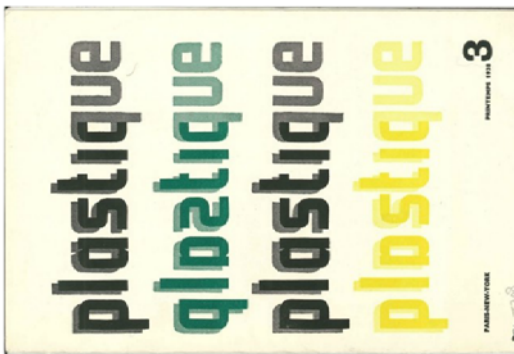


Fig. 80 Cover from issue number 3 of the modernist magazine **PLASTIQUE** (1938). Stedelijk Museum. Image: Stedelijk Museum.



fig. 85



under the window that looks into the stairwell between the 4th and 5th floor Painting and Sculpture Galleries). Screenshots from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York.



K. Morris, 24 1/8 x 18 3/4 cm), Yale Art Gallery. Image: Yale Art Gallery.

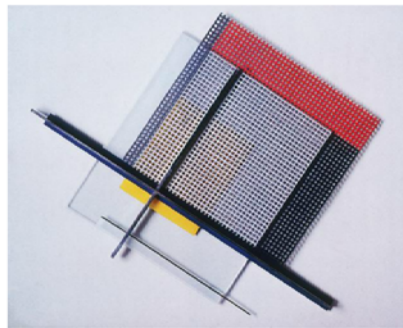


Fig. 81 Cesar Domela, Construction (1929), painted glass, brass, metal and wood, 35 3/8 x 19 5/8 x 1 3/4 in (89.85 x 49.85 x 4.45 cm), private collection. Image Artists Rights Society (ARS), New York/ADAGP, Paris.

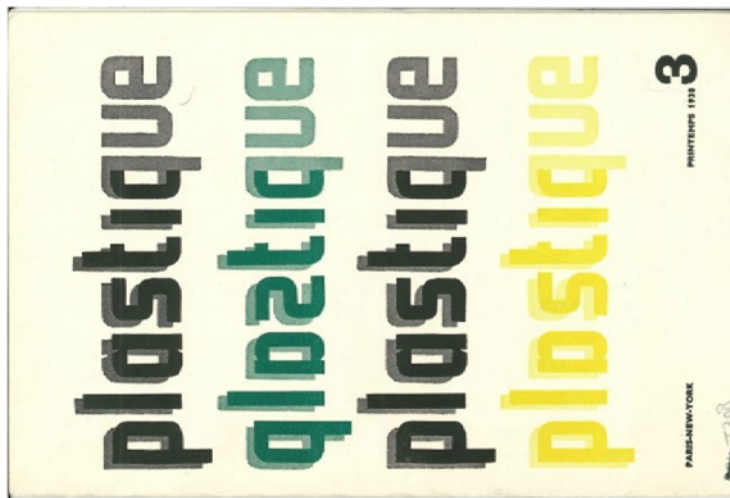


Fig. 80 Cover from issue number 3 of the modernist magazine PLASTIQUE (1938), Stedelijk Museum. Image: Stedelijk Museum

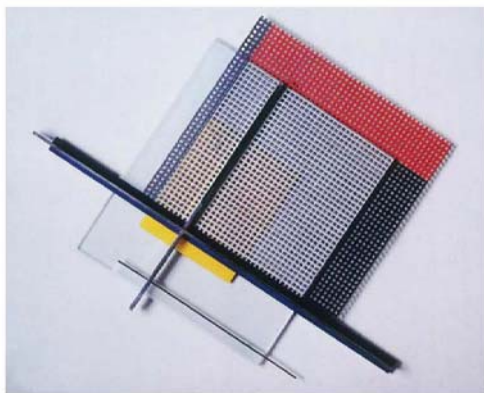
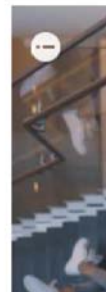


Fig. 81 Cesar Domela, Construction (1929), painted glass, brass, metal and wood, 35 3/8 x 19 5/8 x 1 3/4 in (89.85 x 49.85 x 4.45 cm), private collection. Image Artists Rights Society (ARS), New York/ADAGR, Paris.



Fig. 82 George L. K. Morris, Composition (1938), 24 1/8 x 18 1/8 in (61.3 x 46 cm), Yale University Art Gallery. Image: Yale University Art Gallery.





Issue number 3 of the modernist magazine 'stique' (1938), Stedelijk Museum.

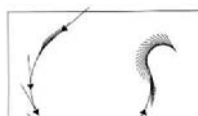


Diagram illustrating the concept of 'stique' (left) and 'plastique' (right) Raoul Hausmann, Untitled (1921).

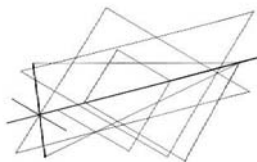


Fig. 83. Jean Hellon is known for having reversed the developmental path of Piet Mondrian's "new classicism" (top, left). Piet Mondrian's "Lighthouse at Westkapelle (1909-1910)" oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags; (top, right) Piet Mondrian, "Composition in Yellow, Blue, and White, I (1937)," oil on canvas, 22 1/2 x 21 3/4 in (57.1 x 55.2 cm), Museum of Modern Art, New York (MoMA). Image: MoMA; (bottom, left) Jean Hellon, "Figure of Space (1937)," oil on canvas, 52 x 38 in (132.08 x 96.52 cm), San Francisco Museum of Modern Art (SFMOMA). Image: SFMOMA; Jean Hellon, "Nude and Flower Pots (1947)," oil on canvas, 25.6 x 19.69 in (65 x 50 cm), Centre Georges Pompidou. Image: Jean Hellon Estate.



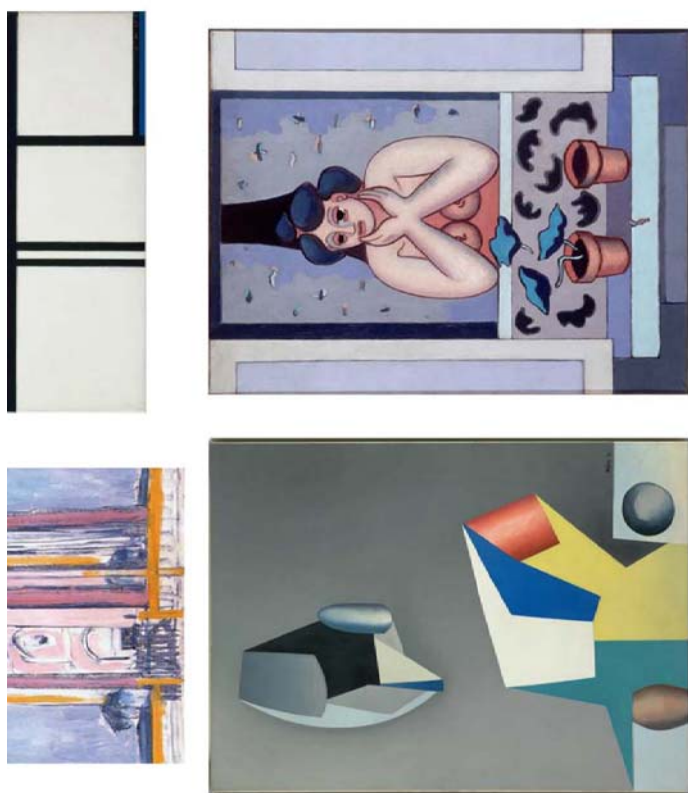


Fig. 83 Jean Helion is known for having reversed the developmental paradigm of Piet Mondrian's "new plastic": (top, left) Piet Mondrian, Lighthouse at Westkapelle (1909-1910), oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague, Haags. Image: Gemeentemuseum, The Hague, Haags; (top, right) Piet Mondrian, Composition in Yellow, Blue, and White, I (1937), oil on canvas, 22 1/2 x 21 3/4 in (57.1 x 55.2 cm), Museum of Modern Art, New York (MoMA). Image: MoMA; (bottom, left) Jean Helion, Figure of Space (1937), oil on canvas, 52 x 38 in (132.08 x 96.52 cm). San Francisco Museum of Modern Art (SFMOMA). Image: SFMOMA. Jean Helion, Nude and Flower

Ernst

rsity Art Gallery. Image:
University Art Gallery.

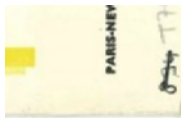


Image Artists Rights Society (ARS), New
York/ADAGP, Paris.

Fig. 80 C
magazine
Image: St

fig. 85

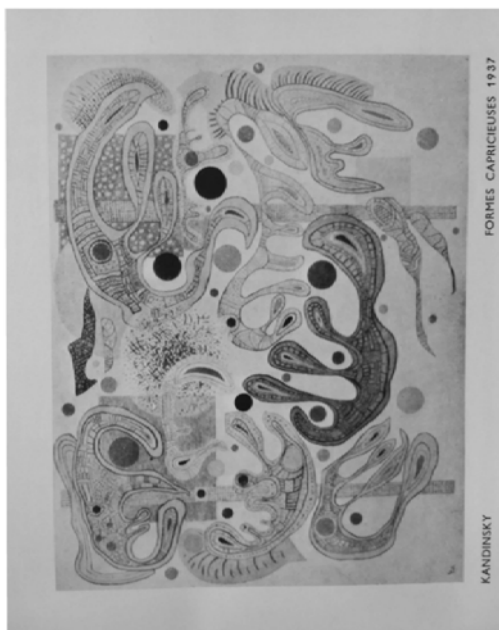
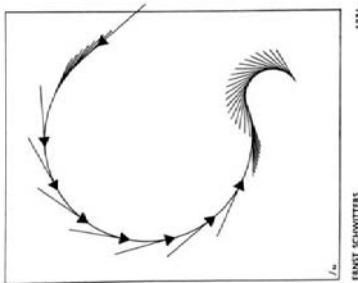




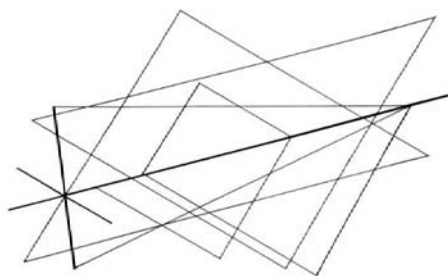
Fig. 80 Cover from issue number 3 of the modernist magazine PLASTIQUE (1938), Stedelijk Museum. Image: Stedelijk Museum.

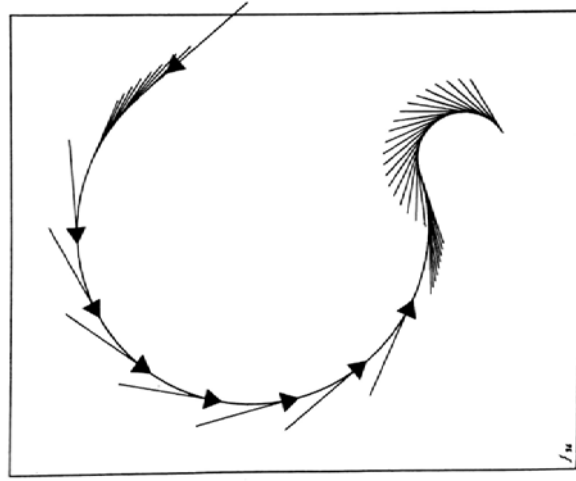


. 84 (left) Wassily Kandinsky, Capricious Forms (1937) as reprinted in PLASTIQUE, No. 4 (1939); (left) Ernst witters, Untitled (1936) as reprinted in PLASTIQUE, No. 4 (1939) and (right) Raoul Hausmann, Untitled (1921), reprinted in PLASTIQUE, No. 4 (1939)



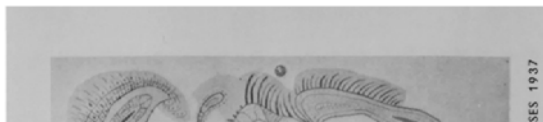
MAUL HAUSHANN 1921



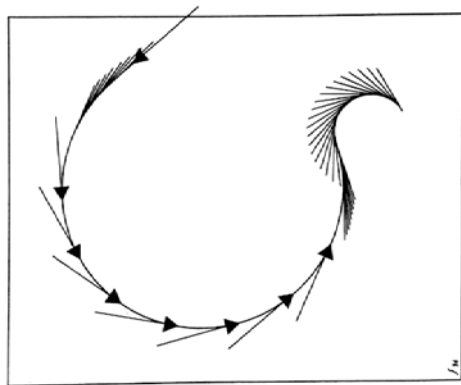


t) Wassily Kandinsky, Capricious Forms (1937) as reprinted in PLASTIQUE, No. 4 (1939) and (right) Reprinted in PLASTIQUE, No. 4 (1939) and (right) Reprinted in PLASTIQUE, No. 4 (1939)

magazine PLASTIQUE (1938), Stedelijk Museum.
Image: Stedelijk Museum.

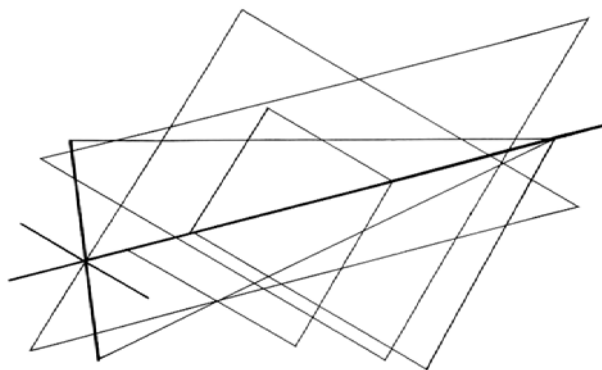


SES 1937



ERNST SCHWITTERS

1936



RAOUL HAUSHANN

1931

icious Forms (1937) as reprinted in PLASTIQUE, No. 4 (1939); (left) Ernst
ed in PLASTIQUE, No. 4 (1939) and (right) Raoul Hausmann, Untitled (1921),
9)

F F L C C C Z I C N F F

1934
 RAUL HAUSMANN
 1
 1939
 eprinted in PLASTIQUE, No. 4 (1939); (left) Ernst
 1939) and (right) Raoul Hausmann, Untitled (1921),

Image: MoMA; (bottom, left) Jean Helion, *Figur*
 canvas, 52 x 38 in (132.08 x 96.52 cm). *Sa*
 Modern Art (SFMOMA). Image: SFMOMA; Jean
 Pots (1947), oil on canvas, 25.6 x 19.69 in (65
 Pompidou. Image: Jean Helion Estate.



Fig. 85 Joaquín Torres García, *Plastic Object. Shape 140*
 (1929), assemblage of wood, nails and oil paint, 11.3 x
 18.7 x 3.66 in (28.7 x 47.5 x 9.3 cm), Museo Nacional
 Centro de Arte Reina Sofía, Madrid. Image: Sucesión
 Joaquín Torres García, Montevideo.



ligned, oscillating,
x 28.85 in (99.8 x
seum Basel; (right)
flying (1932), oil on
collection, Basel.

Fig. 84 (left) Wassily Kandinsky, Capricious Forms (1937) as reprinted in PLASTIQUE, No. 4 (1939); (left) Schwitters, Untitled (1936) as reprinted in PLASTIQUE, No. 4 (1939) and (right) Raoul Hausmann, Untitled as reprinted in PLASTIQUE, No. 4 (1939)



Fig. 85 Joaquin Torres
(1929), assemblage of
18.7 x 3.66 in (28.7 x
Centro de Arte Reina
Joaquin Torres García,



Fig. 86 Sophie Taeuber-Arp, Turned Wood
Object (1937), lathe-turned wood, 15 5/16 in
(38.9 cm), Yale University Art Gallery. Image:
Yale University Art Gallery.



IC (2016), live installation, Museum of Modern Art, New York. Screenshot from MoMA video documentation posted on YouTube. (top) MoMA video of Modern Art, New York; (bottom) MoMA video of PLASTIC (2016), performance excerpts. Video: Museum of Modern Art

Fig. 84



Fig. 84 (left) Wassily Kandinsky, Capricious Forms (1937) as reprinted in Irwin Schwitters, Untitled (1936) as reprinted in PLASTIQUE, No. 4 (1939) and (right) as reprinted in PLASTIQUE, No. 4 (1939)

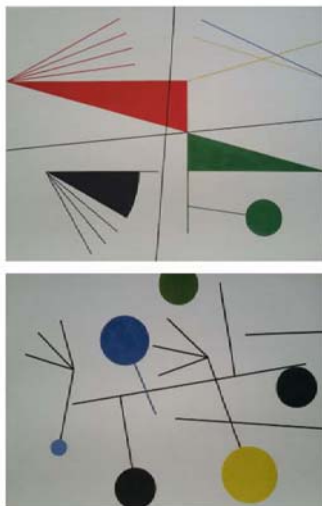


Fig. 87 (left) Sophie Taeuber-Arp, Floating, aligned, oscillating, parting, supporting (1934), oil on canvas, 33.29 x 28.85 in (99.8 x 73.3 cm), Kunstmuseum Basel, Image: Kunstmuseum Basel; (right) Sophie Taeuber-Arp, Emerging, falling, adhering, flying (1932), oil on canvas, 31.89 x 25.5 in (81 x 65 cm), private collection, Basel, Image: Peter Schälchli, Zurich.



Fig. 86 Sophie Taeuber-Arp, Turned Wood Object (1937), lath-turned wood, 15 5/16 in (38.9 cm), Yale University Art Gallery, Image: Yale University Art Gallery.

Fig. 85
Ivan Vaslav
Margaret
Vol. II





Fig. 84 (left)
Schwitters
as reprint

sabi, PLASTIC (2016), live installation, Museum of Modern Art, New
Lobby Staircase. Screenshot from MoMA video documentation posted
to: Museum of Modern Art, New York; (bottom) MoMA video
aria Hassabi PLASTIC (2016), performance excerpts. Video: Museum
York.



photograph from Vaslav
Nijinsky (1912) from Margaret
Mather & Dance, Vol. II,

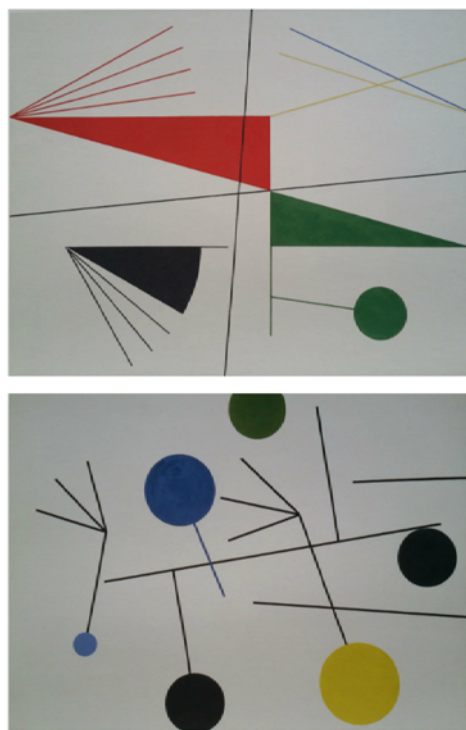
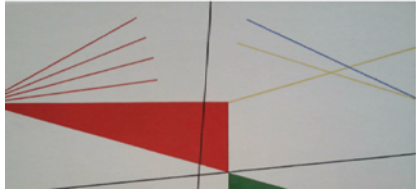


Fig. 87 (left) Sophie Taeuber-Arp, Floating, aligned, oscillating,
parting, supporting (1934), oil on canvas, 33.29 x 28.85 in (99.8 x
73.3. cm), Kunstmuseum Basel. Image: Kunstmuseum Basel; (right)
Sophie Taeuber-Arp, Emerging, falling, adhering, flying (1932), oil on
canvas, 31.89 x 25.5 in (81 x 65 cm), private collection, Basel.
Image: Peter Schälchli, Zurich.





igned, oscillating,
: 28.85 in (99.8 x
eum Basel; (right)
ying (1932), oil on
collection, Basel.

Schwitters, Untitled (1936) as reprinted in *PLASTIQUE*, No. 4 (1939) and (right) Raoul Hausmann
as reprinted in *PLASTIQUE*, No. 4 (1939)



Fig. 85 Joac
(1929), asser
18.7 x 3.66
Centro de /
Joaquin Torr



Fig. 86 Sophie Taeuber-Arp, Turned Wood
Object (1937), lathe-turned wood, 15 5/16 in
(38.9 cm), Yale University Art Gallery. Image:
Yale University Art Gallery.



llating,
.99.8 x
(right)
oil on
Basel.

as reprinted in *PLASTIQUE*, No. 4 (1939)

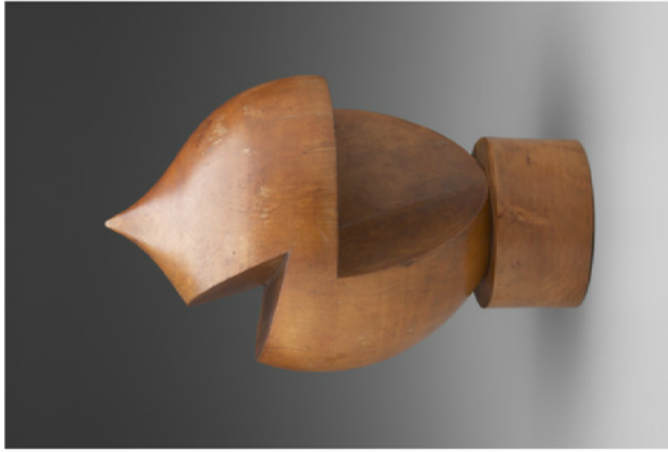


Fig. 86 Sophie Taeuber-Arp, Turned Wood Object (1937), lathe-turned wood, 15 5/16 in (38.9 cm), Yale University Art Gallery. Image: Yale University Art Gallery

Fig
(19
18:
Ce
Jo:

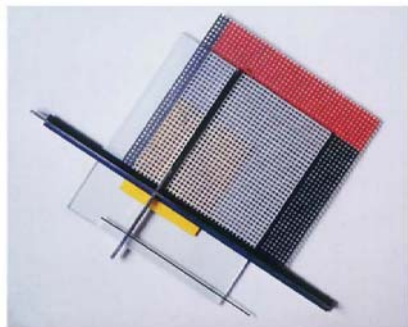


Fig. 81 Cesar Domela, *Construction* (1929), painted glass, brass, metal and wood, 35 3/8 x 19 5/8 x 1 3/4 in (89.85 x 49.85 x 4.45 cm), private collection. Image Artists Rights Society (ARS), New York/ADAGP, Paris.

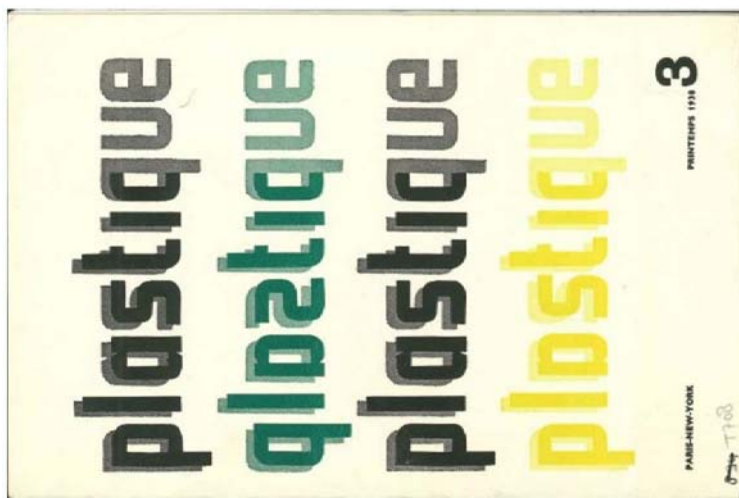


Fig. 80 Cover from issue number 3 of the modernist magazine *PLASTIQUE* (1938), Stedelijk Museum. Image: Stedelijk Museum.





Fig. 83 Jean Hellon is known for having reversed the developmental process of abstraction. (top, right) Piet Mondrian, *Lighthouse at Westkapelle* (1902-1910), oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague; (top, left) Piet Mondrian, *Composition in Yellow, Blue, and White, I* (1937), oil on canvas, 22 1/2 x 21 3/4 in (57.1 x 55.2 cm), Museum of Modern Art, New York (MoMA). Image: MoMA; (bottom, left) Jean Hellon, *Figure of Space* (1937), oil on canvas, 52 x 38 in (132.08 x 96.52 cm), San Francisco Museum of Modern Art (SFMOMA). Image: SFMOMA; Jean Hellon, *Nude and Flower Pots* (1947), oil on canvas, 25.6 x 19.69 in (65 x 50 cm), Centre Georges Pompidou. Image: Jean Hellon Estate.

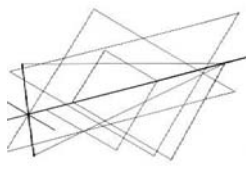


Fig. 84 (left) Wassily Kandinsky, *Capricious Forms* (1937) as reprinted in *PLASTIQUE*, No. 4 (1939); (left) Ernst Schwitters, *Untitled* (1936) as reprinted in *PLASTIQUE*, No. 4 (1939) and (right) Raoul Hausmann, *Untitled* (1927), as reprinted in *PLASTIQUE*, No. 4 (1939)

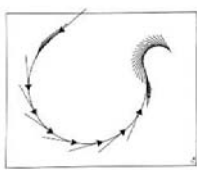


Fig. 84 (left) Wassily Kandinsky, *Capricious Forms* (1937) as reprinted in *PLASTIQUE*, No. 4 (1939); (left) Ernst Schwitters, *Untitled* (1936) as reprinted in *PLASTIQUE*, No. 4 (1939) and (right) Raoul Hausmann, *Untitled* (1927), as reprinted in *PLASTIQUE*, No. 4 (1939)



Fig. 85 Joaquin Torres Garcia, *Plastic Object, Shape 140* (1929), assemblage of wood, nails and oil paint, 11.3 x 18.7 x 3.66 in (28.7 x 47.5 x 9.3 cm), Museo Nacional Centro de Arte Reina Sofia, Madrid. Image: Sucesión Joaquin Torres Garcia, Montevideo.



Fig. 86 Sophie Taeuber-Arp, *Turned Wood Object* (1937), lathe-turned wood, 15 5/16 in (38.9 cm), Yale University Art Gallery. Image: Yale University Art Gallery.

magazine PLASTIQUE (1937)
Image: Stedelijk Museum.

fig. 85

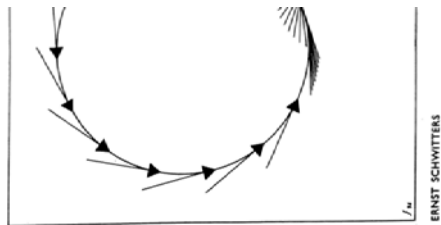
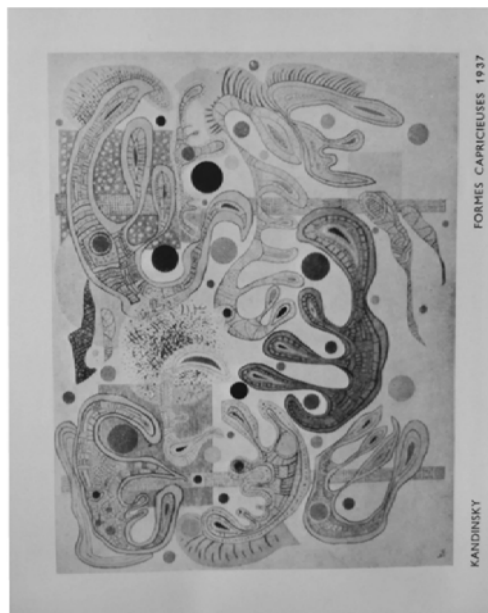
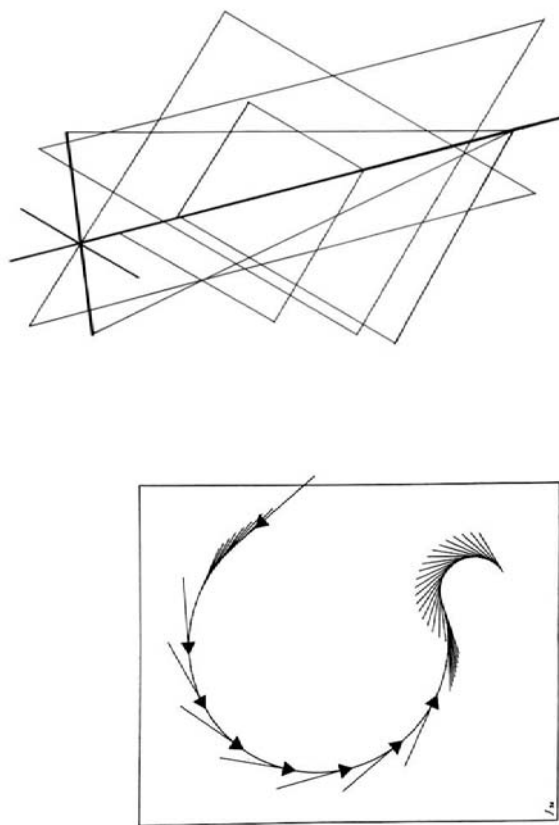


Fig. 84 (left) Wassily Kandinsky, Capricious Forms (1937) as reprint; Schwitters, Untitled (1936) as reprint in PLASTIQUE, No. 4 (1939) ; as reprint in PLASTIQUE, No. 4 (1939)

Fig. 80 Cover from issue number 3 of the modernist magazine PLASTIQUE (1938), Stedelijk Museum. Image: Stedelijk Museum.



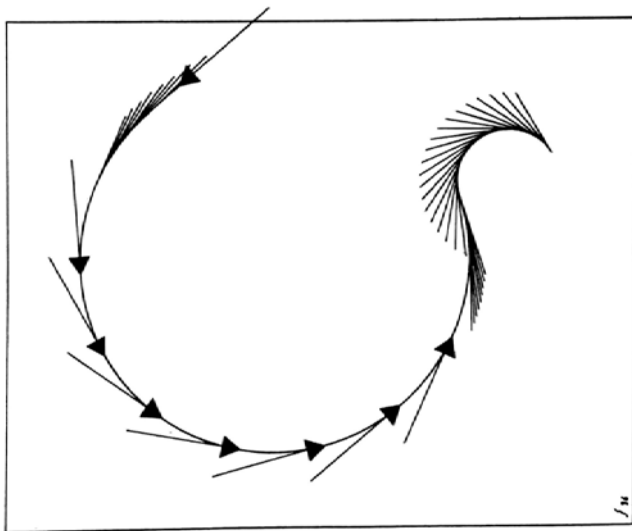
Fig. 83 ~ paradigm Lighthouse (135 x Gemeent Compositi 21 3/4 ir Image: M canvas, Modern / Pots (194 Pompido



ERNEST SCHWITTERS 1936 RAOUL HAUSMANN 1921 cious Forms (1937) as reprinted in PLASTIQUE, No. 4 (1939); (left) Ernst d in PLASTIQUE, No. 4 (1939) and (right) Raoul Hausmann, Untitled (1921), 3)



JSES 1937

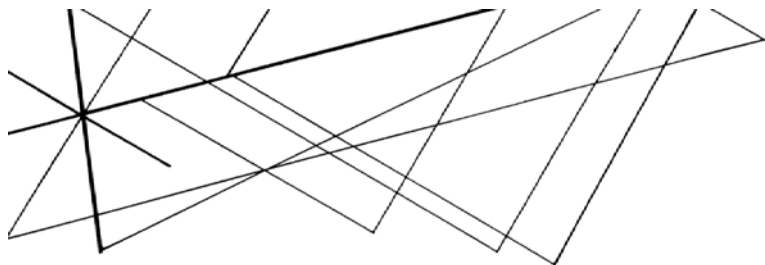


/M

ERNST SCHWITTERS

1936

RAOUL HAUSMANN



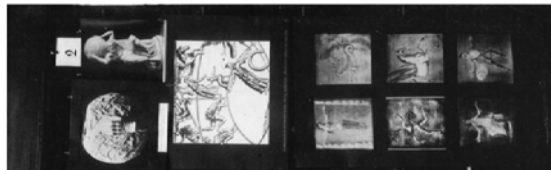
ricious Forms (1937) as reprinted in PLASTIQUE, No. 4 (1939);
ed in PLASTIQUE, No. 4 (1939) and (right) Raoul Hausmann, Un

s reprinted in PLASTIQUE, No. 4 (1939); (left) Ernst
4 (1939) and (right) Raul Hausmann, Untitled (1921),

canvas, 52 x 38 in (132.08 x 96.52 cm). Sa
Modern Art (SFMOMA). Image: SFMOMA; Jean
Pots (1947), oil on canvas, 25.6 x 19.69 in (65 x
Pompidou. Image: Jean Helion Estate.



Fig. 85 Joaquín Torres García, Plastic Object. Shape 140
(1929), assemblage of wood, nails and oil paint, 11.3 x
18.7 x 3.66 in (28.7 x 47.5 x 9.3 cm), Museo Nacional
Centro de Arte Reina Sofía, Madrid. Image: Sucesión
Joaquín Torres García, Montevideo.



Productions on Warburg's stages of Mnemosyne Warburg Institute, London.



Fig. 94 Image of Angelus coffee service with hour of Pharisae from Salvador Dalí's Le mythe



Fig. 90 Salvador Dalí. Le mythe tragique de Millet, interprétation paranoïaque-critique. (Paris, 1963), artist book, Museum of Modern Art, New York. Image: Author's photograph with Museum of Modern Art permission.



Fig. 91 Jean-François Millet. The Angelus (1857-1859), oil on canvas, 21.85 x 25.98 in (55 x 66 cm), Musée d'Orsay. Image: Musée d'Orsay.



Fig. 92 Performance photographs from Salvador Dalí's Le mythe tragique de l'Angelus de Millet, interprétation paranoïaque-critique. (Paris, 1963), artist book, Museum of Modern Art, New York. (left) Salvador Dalí as himself photographing the artist book as Angelus (undated) and Salvador Dalí in full action, disguised as Angelus (undated). Image: Author's photograph with Museum of Modern Art permission.

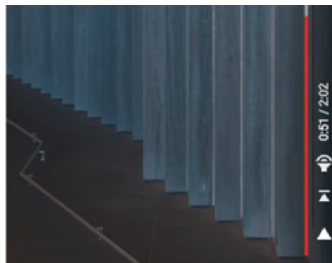


Fig. 89 Maria Hassabi. PLASTIC (2010), GUND LOBBY Staircase, SoHo, New York. Video: Museum of Modern Art, New York.





for Dalí's *Le mythe tragique de l'Angélus* (Pauvert, 1963), artist book, Museum of Modern Art, New York. Video: Museum of Modern Art, New York; (bottom) MoMA video documentation of Maria Hassabi *PLASTIC* (2016), performance excerpts. Video: Museum of Modern Art, New York.



Fig. 88 Photograph from Vasilav Nijinsky's *Fau* (1912) from Margaret Marshall, *Theater & Dance*, Vol. II, Image 1-23.

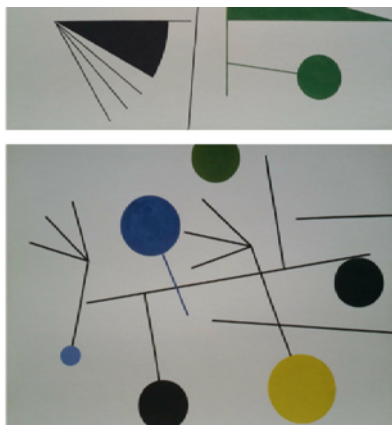
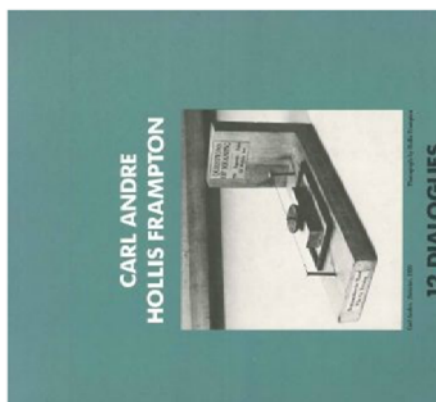


Fig. 87 (left) Sophie Taeuber-Arp, *Floating, parting*, supporting (1934), oil on canvas, 33.29 x 73.3 cm, Kunstmuseum Basel. Image: Kunstmuseum Basel; (right) Sophie Taeuber-Arp, *Emerging, falling, adhering*, canvas, 31.89 x 25.5 in (81 x 65 cm), private collection. Image: Peter Schälchli, Zurich.



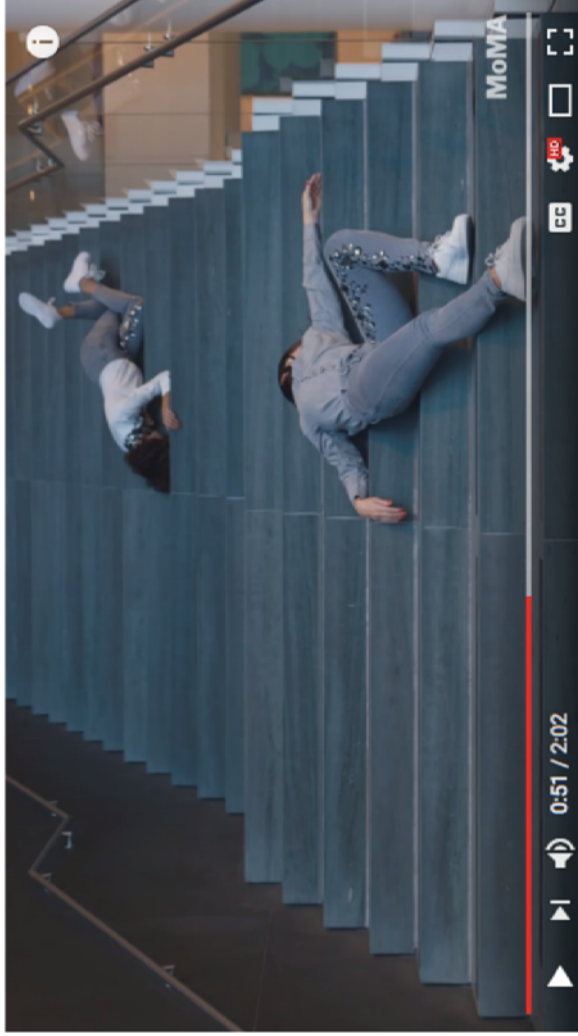


Fig. 89 Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), Gund Lobby Staircase. Screenshot from MoMA video documentation posted to Youtube. Video: Museum of Modern Art, New York; (bottom) MoMA video documentation of Maria Hassabi PLASTIC (2016), performance excerpts. Video: Museum of Modern Art, New York.

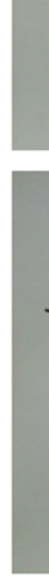
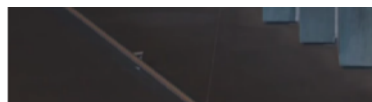




Fig. 90 Salvador Dali, Le mythe tragique de l'Angélus de Millet: interprétation "paranoïaque-critique," (Pauvert, 1963), artist book, Museum of Modern Art, New York. Image: Author's photograph with Museum of Modern Art permission.



Fig. 91 Jean-François Millet, The Angelus (1857-1859), oil on canvas, 21.85 x 25.98 in (55 x 66 cm), Musée d'Orsay. Image: Musée d'Orsay.



Downloaded from https://www.cambridge.org/core. University of Cambridge, on 02 Jun 2020 at 10:00:00, subject to the Cambridge Core terms of use, available at https://www.cambridge.org/core/terms. https://doi.org/10.1017/9781009050000.005



ador Dali, Le mythe tragique
 s de Millet; interprétation
 e-critique," (Pauvert, 1963),
 Museum of Modern Art, New
 York. : Author's photograph with
 permission.



Fig. 91. Jean-François Millet, The Angelus (1857-1859), oil on
 canvas, 21.85 x 25.98 in (55 x 66 cm), Musée d'Orsay.
 Image: Musée d'Orsay.



paranoïaque-critique, (Pauvert, 1963),
artist book, Museum of Modern Art, New
York. Image: Author's photograph with
Museum of Modern Art permission.



Fig. 91 Jean-François Millet, The Angelus (1857-
canvas, 21.85 x 25.98 in (55 x 66 cm), Musée d'O
Image: Musée d'Orsay.

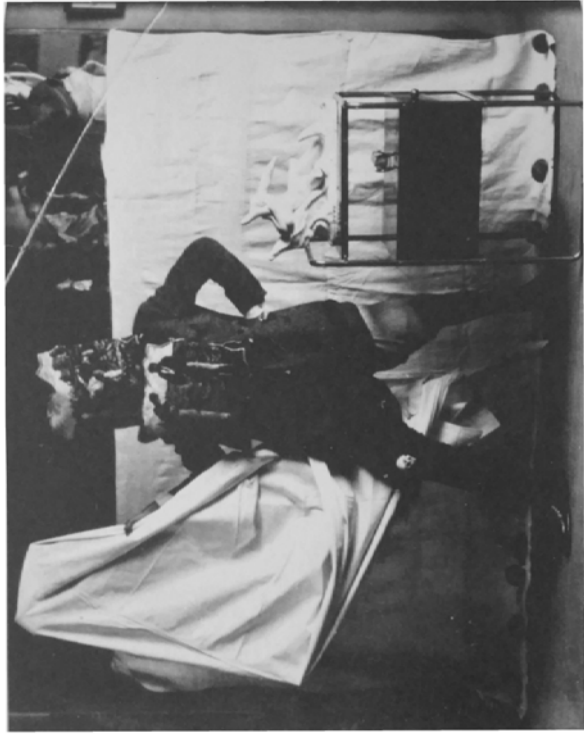
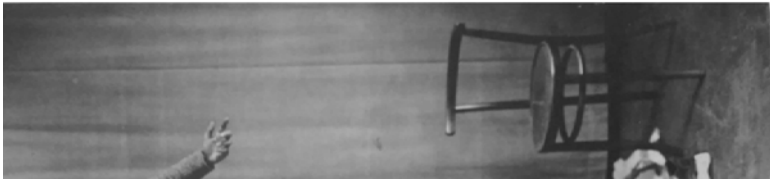


Fig. 92 Performance photographs from Salvador Dali's Le mythe tragique de l'Angélus
de Millet; interprétation "paranoïaque-critique." (Pauvert, 1963), artist book, Museum o
Modern Art, New York: (left) Salvador Dali, The beginning of Dali's erection as he is
having himself photographed as Angelus (undated) and Salvador Dali, Dali, in ful
action, disguised as Angelus (undated). Image: Author's photograph with Museum o
Modern Art permission



coffee service with

Image: Musée d'Orsay.



Photographs from Salvador Dalí's "Le mythe tragique de l'Angélu" (Pauvert, 1963), artist book, Museum of (left) Salvador Dalí, "The beginning of Dalí's erection as he is photographed as Angelus (undated)" and Salvador Dalí, Dalí, in full

tragique de l'Angélus de Millet; interprétation "paranoïaque-critique," (Pauvert, 1963), artist book, Museum of Modern Art, New York:



Fig. 93 Salvador Dalí, *Visage paranoïaque* (c. 1935), oil on panel, 7.28 x 8.86 in (18.5 x 22.5 cm), Fundació Gala-Salvador Dalí, . Image: Fundació Gala-Salvador Dalí, Figueres.



Parsons
Parsons Institute, London.

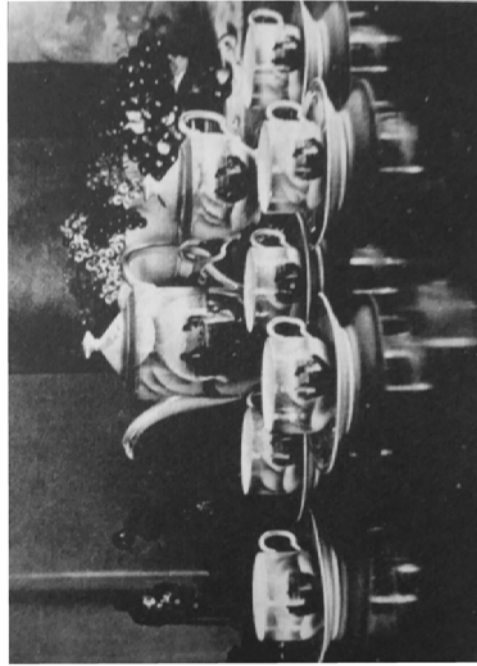


Fig. 94 Image of Angelus coffee service with bowl of cherries from Salvador Dali's *Le mythe tragique de l'Angélus de Millet*; interpretation "paranoïaque-critique," (Pauvert, 1963), artist book, Museum of Modern Art, New York:



Fig. 92 *Perf* de Millet; introduction to *Modern Art*, having him as action, *disgu* *Modern Art* p



Fig. 93 Salvador Dali, *Visage paranoïaque* (c. 1935), oil on panel, 7.28 x 8.86 in (18.5 x 22.5 cm). Fundació Gala-Salvador Dali, . Image: Fundació Gala-Salvador Dali, Figueres.



Carl Andre (undated). Image: Contemporary Art Museum, Buffalo.

8

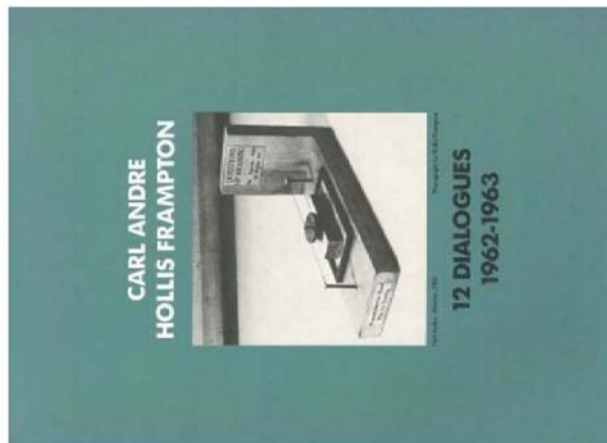


Fig. 95 Carl Andre and Hollis Frampton, *12 Dialogues 1962-1963* (1980, edited by Benjamin Buchloh), The Press of the Nova Scotia College of Art and Design. Image: photograph of author's copy.



Fig. 96 Carl Andre, *pyra* (1962). Image: photograph of author's copy.



Fig. 99 Carl Andre, 20 Rubber Slither (2000), rubber truncated pyramids, 1 x 12 x 5.7 in 2.5 x 30.4 x 14.6 cm), private collectic Image: Artnet.



Fig. 100 Rosemarie Castoro, Interferer Broadway 1602, New York, 2016): (left masonite, gesso, graphite and mode (91.44 x 457.2 cm). Image: Broadway (right) Orange Ochre Purple Yellow Y (83.5 x 83 in (212.09 x 210.82 cm), Gallery, New York.

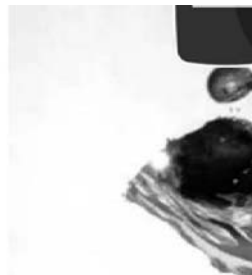
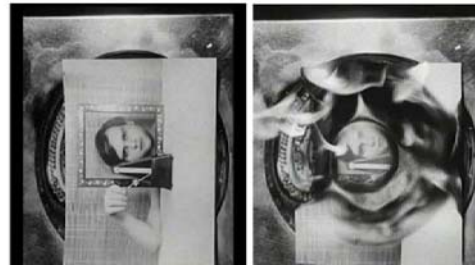


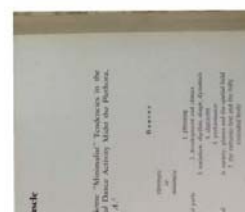
Fig. 95 Carl Andre and Hollis Frampton, 12 Dialogues 1962-1963 (1980, edited by Benjamin Buchloh), The Press of the Nova Scotia College of Art and Design. Image: photograph of author's copy.



Fig. 96 Carl Andre, Pyramid (Square Plan) (1959, destroyed), fir wood, 74-unit stack of 2 x 4 in planks, 18 tiers of 4 interlocking units each, converging on 1 tier of 2 interlocking units, 68 7/8 x 31 x 31 in overall. Sculpture as photographed by Hollis Frampton. Image: Andre and Frampton, 12 Dialogues, 114.



Stills from Hollis Frampton's film (1971). The burning photograph in the i portrait of Carl Andre. Image: The Collection.





1). Image: Contemporary



Fig. 95 Carl Andre and Hollis Frampton, 12 1962-1963 (1980, edited by Benjamin Buc Press of the Nova Scotia College of Art a Image: photograph of author's copy.

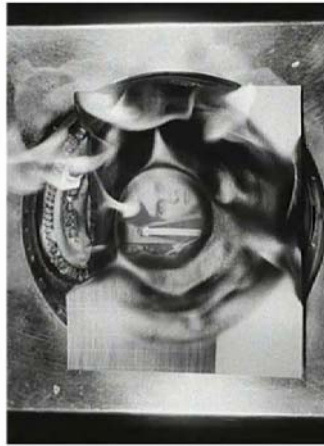


Fig. 97 Stills from Hollis Frampton's film Nostalgia (1971). The burning photograph in the still is a portrait of Carl Andre. Image: The Criterion Collection.

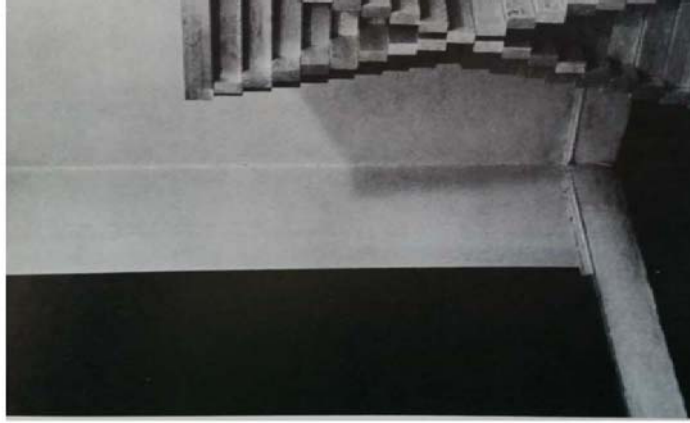




Fig. 93 Salvador Dalí, *Visage paranoïaque* (c. 1935), oil on panel, 7.28 x 8.86 in (18.5 x 22.5 cm), Fundació Gala-Salvador Dalí, . Image: Fundació Gala-Salvador Dalí, Figueres.

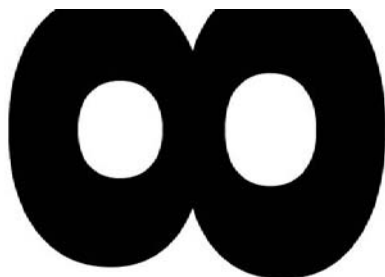
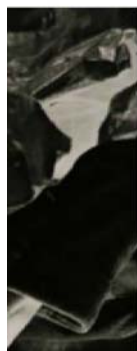


Fig. 98 Photograph of Hollis Frampton (undated). Image: Contemporary Photography & Visual Arts Center, Buffalo.





ated). Image: Contemporary



Fig. 95 Carl Andre and Ho
1962-1963 (1980, edited b
Press of the Nova Scotia
Image: photograph of auth





Fig. 99 Carl Andre, 20 Rubber Slither (2000), rubber truncated pyramids, 1 x 12 x 5.7 in 2.5 x 30.4 x 14.6 cm), private collection. Image: Artnet.

s
a
l.





Dialogues
loh), The
Design.

Fig. 99 Carl Andre, 20 Rubber Slither (2000), rubber truncated pyramids, 1 x 12 x 5.7 in 2.5 x 30.4 x 14.6 cm), private collection. Image: Artnet.



Fig. 100 Rosemarie Castoro, Interference/Infinity (exhibition at Broadway 1602, New York, 2016): (left) Guinness Martin (1972), masonite, gesso, graphite and modeling paste, 36 x 180 in (91.44 x 457.2 cm). Image: Broadway 1602 Gallery, New York; (right) Orange Ochre Purple Yellow Y (1965), acrylic on canvas, 83.5 x 83 in (212.09 x 210.82 cm). Image: Broadway 1602 Gallery, New York.



Fig. 98 Photograph of Hollis Frampt
Photography & Visual Arts Center, Bu



Photo: M. O'Brien

How to make an atoll out of Manhattan Island:
April 19/69

1. Place underfoot the sheet of a 4" wide aluminum tape.
2. Invert to out-stretched arms
3. Lift knee
4. Extend foot to touch outer face of tape.
5. Fall forward keeping foot in contact with tape
6. Invert enough to the block to allow it to fall on face depending upon what is under what level.

R. Castoro



Fig. 101 Documentation of 'Crackings' series by Rosemarie Castoro: (top left) Face Cracking (1969), self-timed polaroid (self-portrait of the artist), 3 x 4 in (7.62 x 10.16 cm). Image: Broadway 1602 Gallery, New York; (bottom right) Crackings: Streetworks II (1969), offset print documenting project on city block around 13, 14th Street, 5th & 6th Avenues, 5 to 6 pm. Image: Broadway 1602 Gallery, New York.



beard (1943), drawing
ate of Arshile Gorky.
orky, The Liver is the



Fig. 102 Mark Rothko, Slow Swirl at the Edge of the Sea (1944),
oil on canvas, 6 ft 3 3/8 in x 7 ft 3/4 in (191.4 x 215.2 cm),
Museum of Modern Art, New York. Image: Museum of Modern Art,
New York.





Fig. 102 Mark Rothko, Slow Swirl at the Edge of the Sea (194), oil on canvas, 6 ft 3 3/8 in x 7 ft 3/4 in (191.4 x 215.2 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York.



Fig. 103 Arshile Gorky, Anatomical Blackbeard (1943), drawing on paper, dimensions not specified, Estate of Arshile Gorky. Image: Estate of Arshile Gorky; Arshile Gorky, The Liver is the Cock's Comb (1944), oil on canvas, 73 x 98 in (185.42 x 248.92 cm), Albright/Knox Art Gallery, The Carnegie Arts of the United States Collection. Image: Estate of Arshile Gorky.





tainless
Image:



Fig. 104 Mark Rothko's suicide in 1970 occurred a year before the completion of the Rothko Chapel, Houston, in 1971. The Chapel was a 1964 commission by John and Dominique de Menil. Image: Rothko Chapel, Houston.





Fig. 104 Mark Rothko's suicide in 1970 occurred a year before the completion of the Rothko Chapel, Houston, in 1971. The Chapel was a 1964 commission by John and Dominique de Menil. Image: Rothko Chapel, Houston.

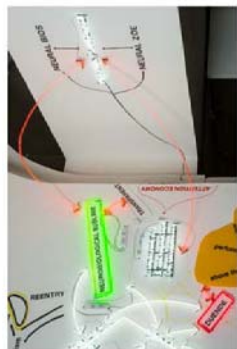
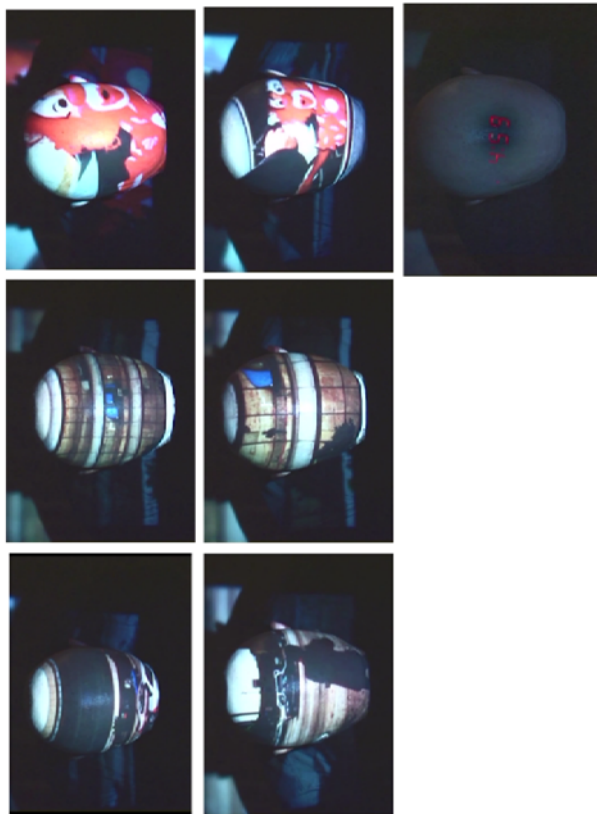


Fig. 105 (left) Cover of Warren Neidich's 2003 book Blow-Up: Photography, Cinema and the Brain. Image: photograph of author's copy; (middle and right; below) Warren Neidich, The Duende Diagram (2014) from the exhibition Connecting Sound Etc., MuseumsQuartier Wien, Vienna. Image: Warren Neidich.



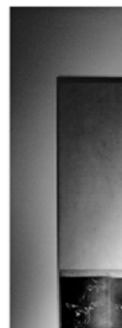
Fig. 107 Warren Neidich, Remapping, rotating panels made of steel pane, Storefront for Art and Architecture (2002), New Storefront for Art and Architecture, New York.



BLUFF
 PHOTOGR
 CINEMA
 AND T
 BRA

Fig. 105 (left) Cover right; below) Warren Neidich.

Fig. 106 (left to right) Stills from Warren Neidich's video Blind Man's Bluff (2002), single channel video, 1 min 58 seconds. Image: Warren Neidich.





E. discovered
RMN / Heine
1-century CE),
vatori, Rome.



Fig. 107 Warren Neidich, Remapping, rotating panels made from stainless steel pane, Storefront for Art and Architecture (2002), New York. Image: Storefront for Art and Architecture, New York.



Fig. 104 Mark Rothko's suicide
Rothko Chapel Houston in



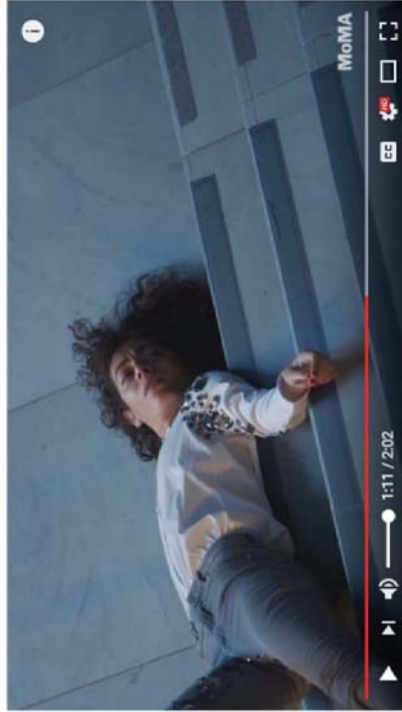


Fig. 108 Maria Hassabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA). Gund Lobby Staircase. Stills from MoMA video documentation posted on Youtube. Video: Museum of Modern Art, New York.





Dialogues
loh), The
Design.

Fig. 99 Carl Andre, 20 Rubber Slither (2000), rubber truncated pyramids, 1 x 12 x 5.7 in 2.5 x 30.4 x 14.6 cm), private collection. Image: Artnet.

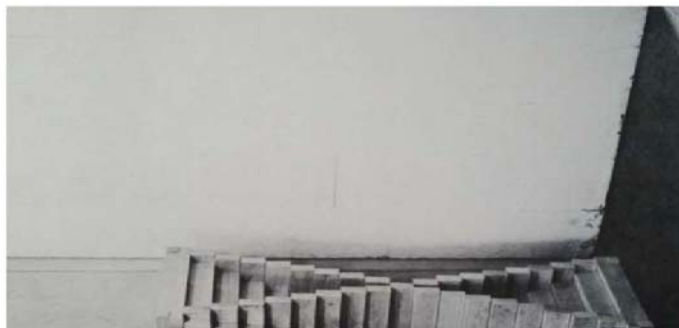
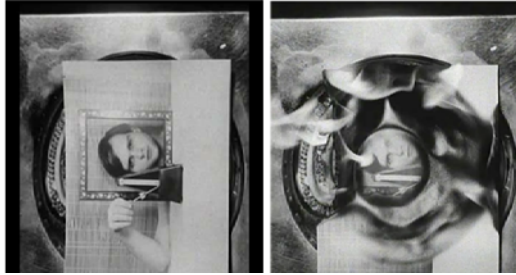


Fig. 100 Rosemarie Castoro, Interference/Infinity (exhibition at Broadway 1602, New York, 2016): (left) Guinness Martin (1972), masonite, gesso, graphite and modeling paste, 36 x 180 in (91.44 x 457.2 cm). Image: Broadway 1602 Gallery, New York; (right) Orange Ochre Purple Yellow Y (1965), acrylic on canvas, 83.5 x 83 in (212.09 x 210.82 cm). Image: Broadway 1602 Gallery, New York.



1962-1963 (1960), edited by Benjamin Sachs, Inc Press of the Nova Scotia College of Art and Design. Image: photograph of author's copy.



Stills from Hollis Frampton's film (1977). The burning photograph in the portrait of Carl Andre. Image: The collection.

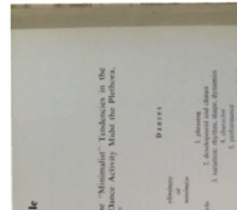


Fig. 96 Carl Andre, Pyramid (Square Plan) (1959, destroyed), fir wood, 74-unit stack of 2 x 4 in planks, 18 tiers of 4 interlocking units each, converging on 1 tier of 2 interlocking units, 68 7/8 x 31 x 31 in overall. Sculpture as photographed by Hollis Frampton. Image: Andre and Frampton, 12 Dialogues, 114.



Fig. 100 Rosemarie Castor Broadway 1602, New York, masonite, gesso, graphite (91.44 x 457.2 cm). Image: (right) Orange Ochre Purple 83.5 x 83 in (212.09 x 212.09 cm). Image: New York, New York.



Fig. 108. *Yvonne Rainer, Trio A (The Mind is a Muscle, Part I) (1966)*, film documentation of dance. Video: Getty Research Institute; (right) Yvonne Rainer's 1966 essay, *The Mind is a Muscle (A Quasi Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Midst the Plethora, or an Analysis of Trio A, as Published in Yvonne Rainer, Work, 1961-1973 (The Press of the Nova Scotia College of Art and Design, 1974))*.

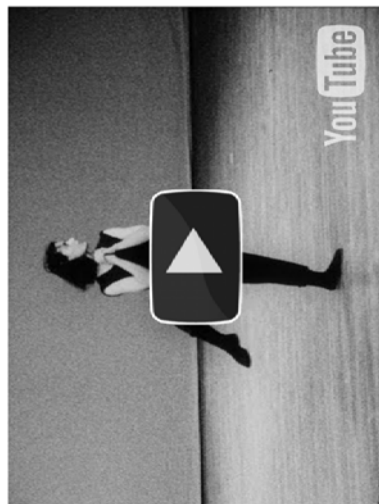


Fig. 97. Stills from Hollis Frampton's film *Nostalgia* (1971). The burning photograph in the still is a portrait of Carl Andre. Image: The Criterion Collection.

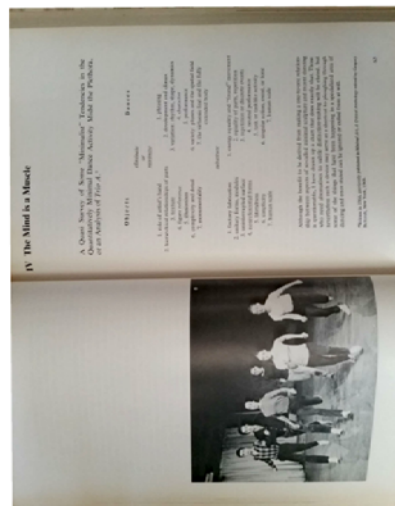


Fig. 109 (left) Yvonne Rainer, *Trio A (The Mind is a Muscle, Part I) (1966)*, film documentation of dance. Video: Getty Research Institute; (right) Yvonne Rainer's 1966 essay, *The Mind is a Muscle (A Quasi Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Midst the Plethora, or an Analysis of Trio A, as Published in Yvonne Rainer, Work, 1961-1973 (The Press of the Nova Scotia College of Art and Design, 1974))*.

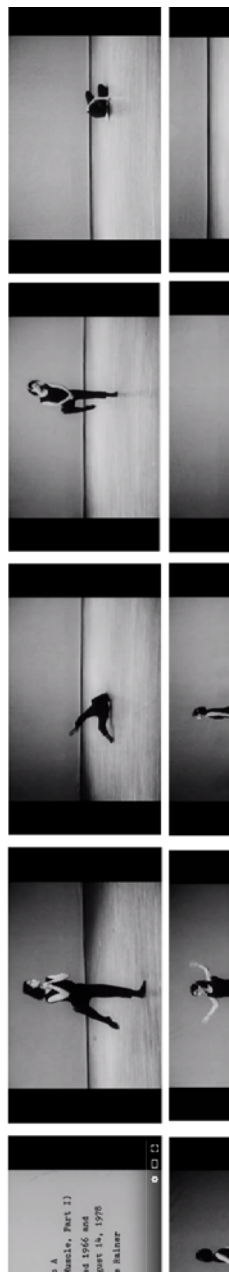




Fig. 109 (left) Yvonne Rainer, Trio A (The Mind is a Muscle, Part I) (1966), film documentation of dance. Video; Getty Research Institute; (right) Yvonne Rainer's 1966 essay, The Mind is a Muscle (A Quasi-Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Midst the Plethora, or an Analysis of Trio A, as published in Yvonne Rainer, Work, 1961-1973 (The Press of the Nova Scotia College of Art and Design, 1974).



Fig. 110 Richard Serra, Gutter C (SENOMA), lead, scaled to the r SF/MOMA.

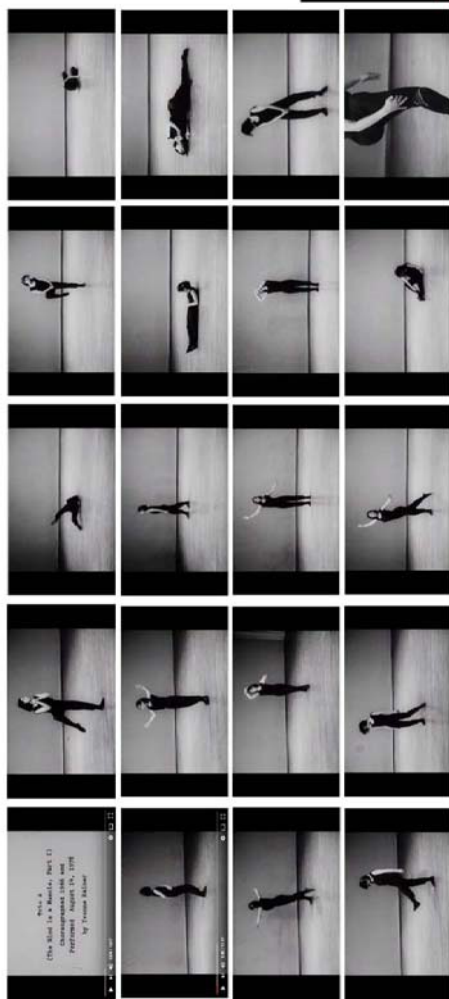


Fig. 111 Stills from Yvonne Rainer, Trio A (The Mind is a Muscle, Part I) (1966), film documentation of dance. Video; Getty Research Institute





96 Carl Andre, Pyramid (Square plan) (1959, destroyed), fir wood, 74-t stack of 2 x 4 in planks, 18 tiers of 4 interlocking units each, tapering on 1 tier of 2 interlocking units, 68 7/8 x 31 x 31 in overall. Image as photographed by Hollis Frampton. Image: Andre and Frampton, 12 Dialogues, 114.

(left) Orange Ochre Purple Yellow Y (1965), acrylic on canvas, 82.5 x 83 in (212.09 x 210.82 cm). Image: Broadway '602 Gallery, New York.
(right) Orange Ochre Purple Yellow Y (1965), acrylic on canvas, 82.5 x 83 in (212.09 x 210.82 cm). Image: Broadway '602 Gallery, New York.



Fig. 110 Richard Serra, Gutter Corner Splash: Night Shift (top left: 1969 at Leo Castelli Gallery / bottom, left to right: 1995 at San Francisco Museum of Modern Art [SFMOMA]), lead, scaled to the room where the splashes are made, SFMOMA: 19 x 108 x 179 in (48.26 x 274.32 x 456.66 cm). Images: Richard Serra and SFMOMA.





Fig. 96 Carl Andre, Pyramid (Square Park) (1967). The sculpture is made of 100 concrete blocks arranged on a 10 x 10 grid. The sculpture is photographed by Hollis Frampton, © Dabergum, 114.



Fig. 97 1978, from Hollis Frampton's film *Autograph* (1977). The Burning Photograph in the sculpture as photographed by Hollis Frampton, © Dabergum, 114.



Fig. 109 (left) Yvonne Rainer, *Trio A* (The Mind is a Muscle, Part 1) (1966), film documentation of dance. Video: Getty Research Institute; (right) Yvonne Rainer's 1966 essay, *The Mind is a Muscle* (A Quasi-Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance), published in *Yvonne Rainer, Work, 1961-1975* (The Press of Bar Nova School College of Art and Design, 1974).



Fig. 103 Reinterpretation of "Crackles" series by Rosemary Crake, (left) Rose Cracking (1960), self-sound polaroid (left-ports of the artist), 3 x 4 in (7.62 x 10.16 cm); image: Breakway 8622 Gallery, New York; (bottom right) Crackles, Rose Crake, (1960), self-sound polaroid (left-ports of the artist), 3 x 4 in (7.62 x 10.16 cm); image: Breakway 8622 Gallery, New York; (right) Rose Cracking (1960), self-sound polaroid (left-ports of the artist), 3 x 4 in (7.62 x 10.16 cm); image: Breakway 8622 Gallery, New York.



Museum of Modern Art, New York. Contemporary period on YouTube, Video.



Fig. 110 Richard Serra, *G* (SF/MOMA), (left, scaled) SF/MOMA.

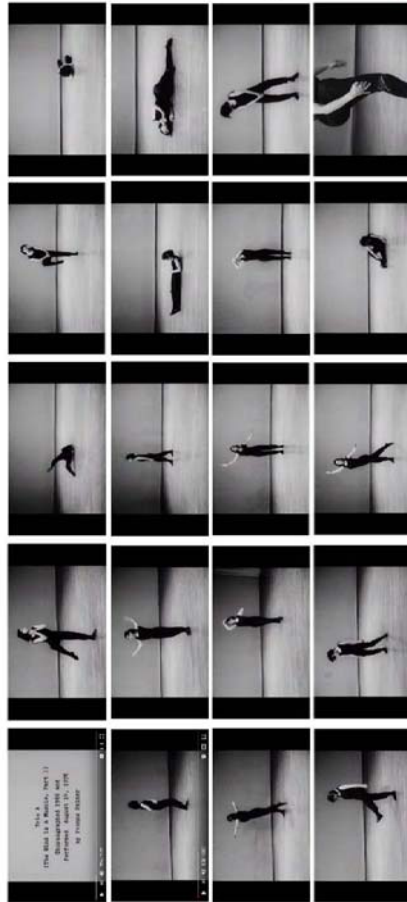


Fig. 111 Still from Yvonne Rainer, *Trio A* (The Mind is a Muscle, Part 1) (1966), film documentation of dance. Video: Getty Research Institute

SFMOMA.

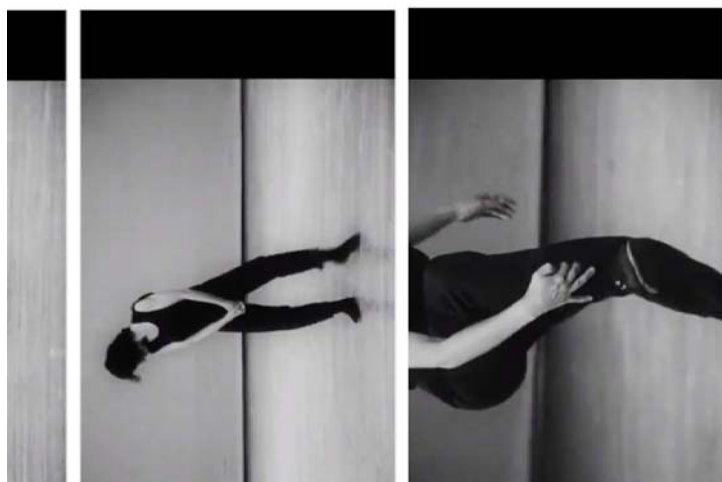




Fig. 109 (left) Yvonne Rainer, *Trio A (The Mind is a Muscle, Part I)* (1966), film documentation of dance. Video: Getty Research Institute; (right) Yvonne Rainer's 1966 essay, *The Mind is a Muscle (A Quasi-Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Amidst the Plethora, or an Analysis of Trio A, as published in Yvonne Rainer, *Work*, 1961-1973 (The Press of the Nova Scotia College of Art and Design, 1974).*

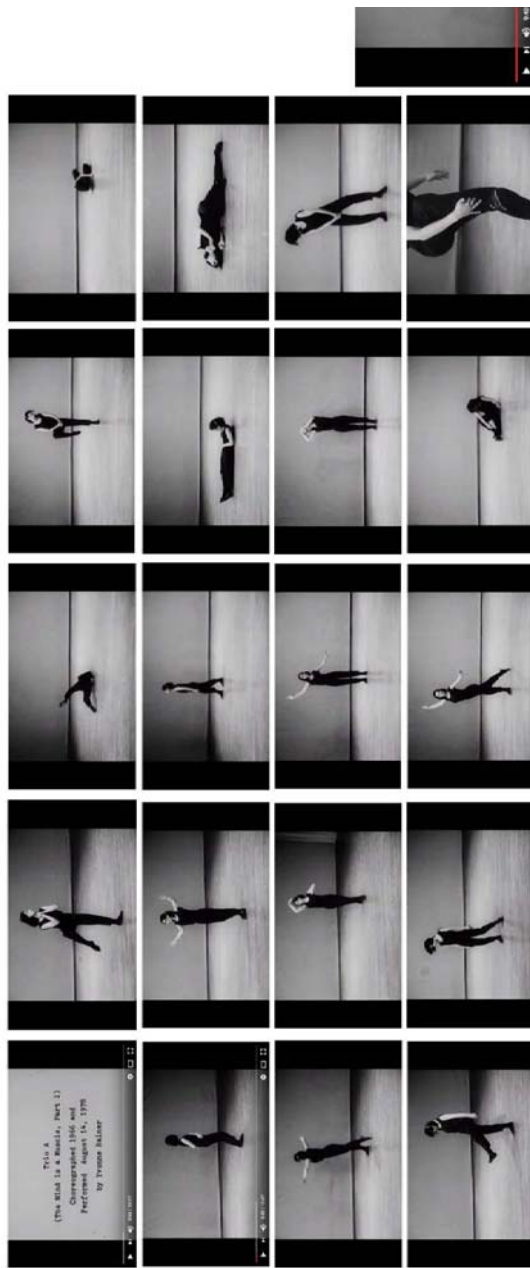


Fig. 111 Stills from Yvonne Rainer, *Trio A (The Mind is a Muscle, Part I)* (1966), film documentation of dance. Video: Getty Research Institute

PHOTOGRAPH BY ROBERTO PELLERINI, NEW YORK



Fig. 109 (left) Yvonne Rainer (right) Yvonne Rainer Dance Activity Mit Scotia College of /

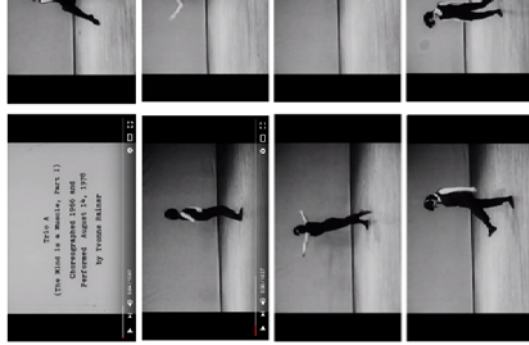
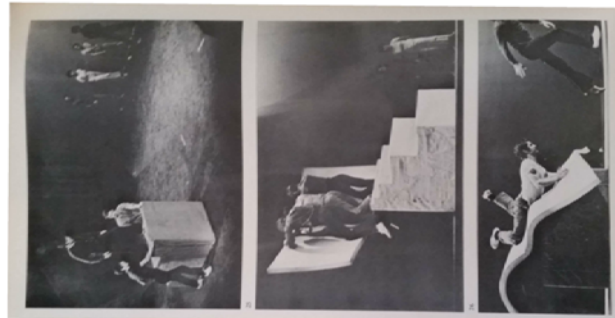


Fig. 111 Stills from Yvonne Rainer, Trio A (The Min

Fig. 112 Photographs of Yvonne Rainer's 'Stairs' adaptation of 'Trio' (1967) as published in Yvonne Rainer, Work, 1961-1973 (The Press of the Nova Scotia College of Art and Design, 1974).



© Estate of Rosemarie Cas
Cracking (1969), self-timed
polaroid (self-portrait of the
artist), image: Broadway 1602
Gallery, New York; (bottom right)
Cracking (1969), offset print
documenting project on city block
around 1 6th Avenues, 5 to 6 pm.

Fig. 101 Documentation of 'Crackings' series by Rosemarie Cas Cracking (1969), self-timed polaroid (self-portrait of the artist), image: Broadway 1602 Gallery, New York; (bottom right) Cracking (1969), offset print documenting project on city block around 1 6th Avenues, 5 to 6 pm. Image: Broadway 1602 Gallery, New York.

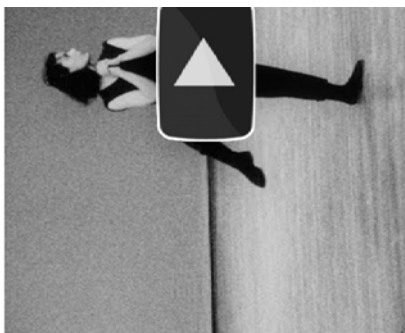


Fig. 109 (left) Yvonne Rainer, Trio A (The Dance Activity Midst the Plethora, or an Scotia College of Art and Design, 1974).

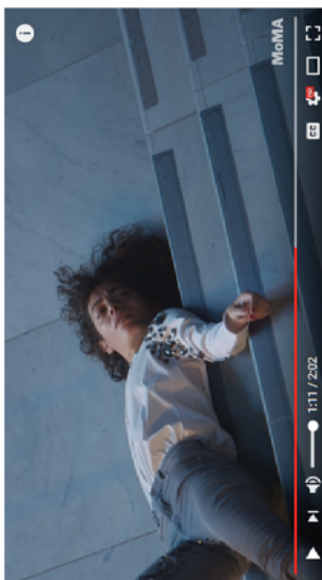


Fig. 108 Maria Hussabi, PLASTIC (2016), live installation, Museum of Modern Art, New York (MoMA), Gund Lobby Staircase. Still from MoMA video documentation posted on Youtube. Video: Museum of Modern Art, New York.



9

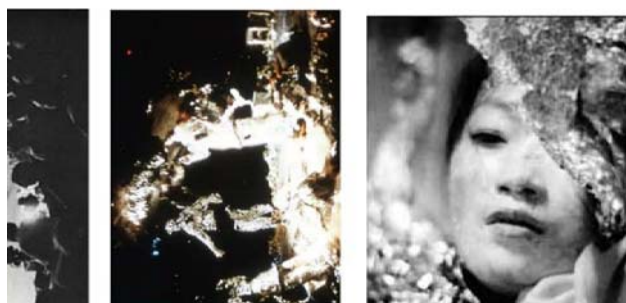


Involved
re (1986),
New York
164 1/8 in
y Warmot



Fig. 113 Photographs and film stills of Carolee Schneeman, *Snows* (1967), 16mm film (color and black-and-white) documentation of group performance and performance environment. Video: Electronic Arts Intermix.





16mm film (color and black-and-white): Electronic Arts Intermix.



Fig. 112 Photographs of Yvonne Rainer's 'Stairs' adaptation of 'Trio' (1967) as in Yvonne Rainer, *Work, 1961-1973* (The Press of the Nova Scotia College Design, 1974).

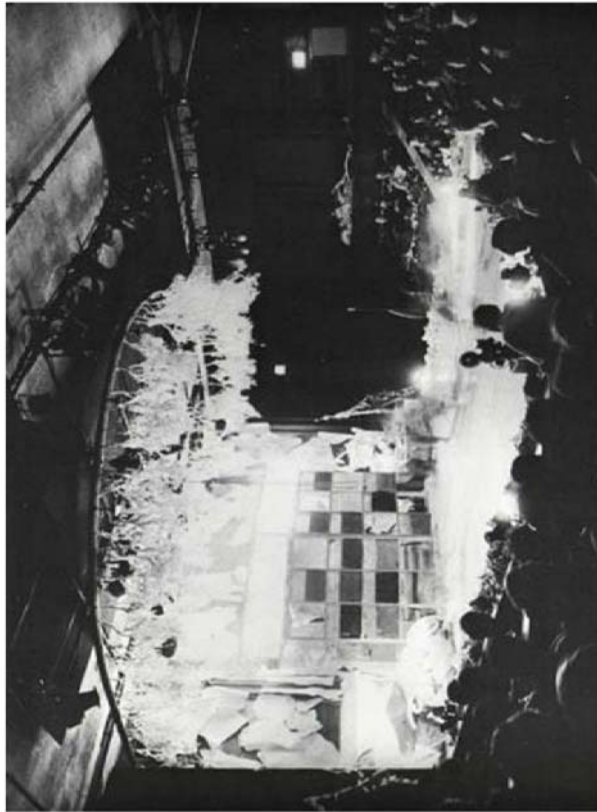




Fig. 113 Photographs and film stills of Carolee Schneeman, *Snows* (1967), 16mm film

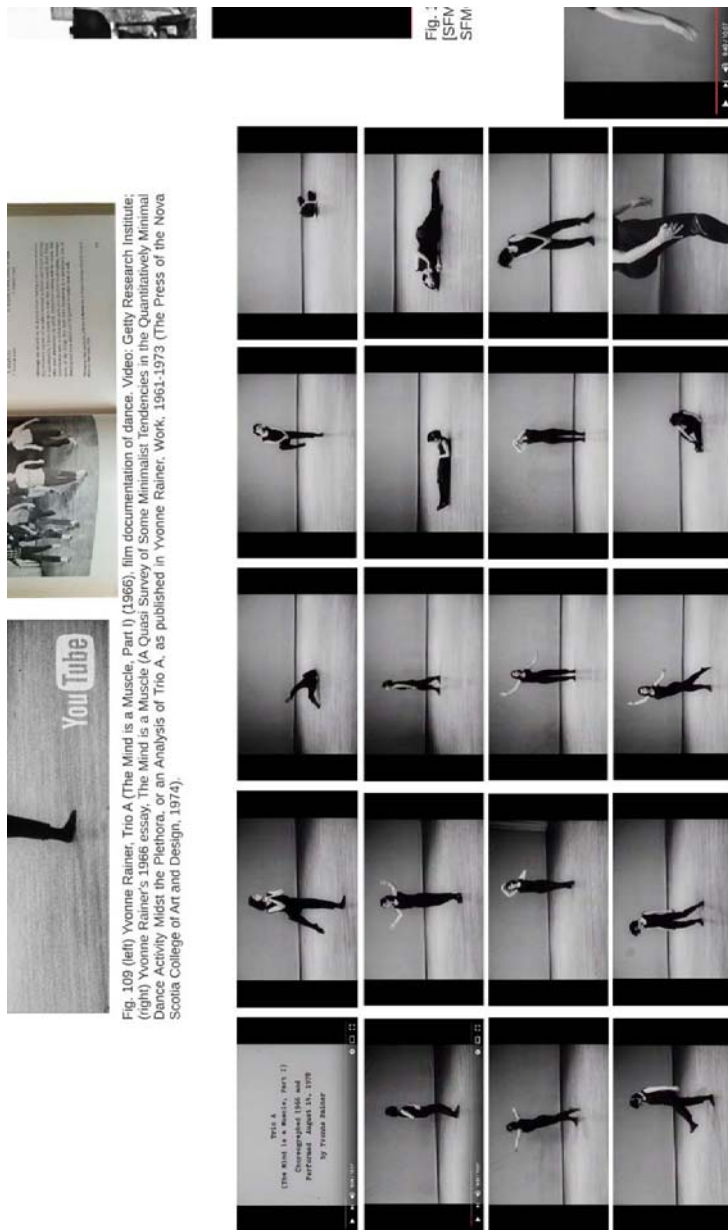


Fig. 109 (left) Yvonne Rainer, Trio A (The Mind is a Muscle, Part I) (1966), film documentation of dance. Video: Getty Research Institute; (right) Yvonne Rainer's 1966 essay, The Mind is a Muscle (A Quasi Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Middst the Plethora, or an Analysis of Trio A, as published in Yvonne Rainer, Work, 1961-1973 (The Press of the Nova Scotia College of Art and Design, 1974).

Fig. 111
ISFM
SFM

Fig. 111 Stills from Yvonne Rainer, Trio A (The Mind is a Muscle, Part I) (1966), film documentation of dance. Video: Getty Research Institute

9



Fig. 113 Photographs and film stills of Carolee Schneeman, *Snows* (1967). 16mm film (color and black-and-white) documentation of group performance and performance environment. Video: Electronic Arts Intermix.



Warhol. The trade would have involved... (left) Les Levine, *Star Machine* (1966),... *Man Meets Plastic Man*. In New York... on canvas, in two parts, 105 x 164 1/8 in... film and helium. Image: Andy Warhol



Plastic Man Meets Plastic Man
Leslie Arts
 By David Boardman

"Levine was furious. 'If Warhol just wanted to know where to buy cheap plastic,' he fumed, 'why didn't he look in the Yellow Pages?'"

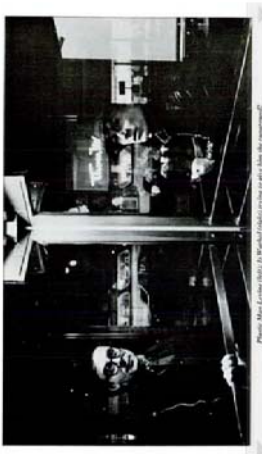
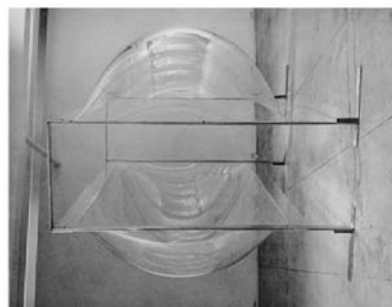


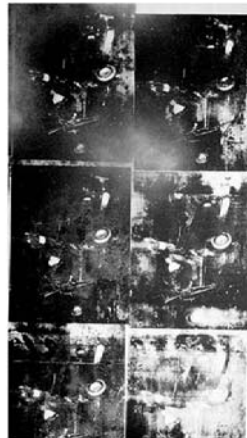
Photo: Alan Kravitz/Getty Images for the artist's estate.



14 Plastic Man meets Plastic Man: In 1969, New York Magazine attempted to set up a trade between artists Les Levine and Andy Warhol. The trade would have involved Les Levine's Star Machine (1966) and, either one of Andy Warhol's 'Crash' series (c. 1963), or a 'cloud' from Silver Clouds (c. 1963); (left) Les Levine, Star Machine (1966), ic, plastic and aluminum, (214.4 x 243.8 x 304.8 cm), National Gallery of Canada. Image: Les Levine; (middle) the article "Plastic Man Meets Plastic Man" in New York zine (1969). Image: New York Magazine; Andy Warhol, Silver Car Crash (Double Disaster) (1963), silkscreen ink and silver spray paint on canvas, in two parts, 105 x 164 1/8 in ul (267.4 x 417.1 cm), Private Collection. Image: Sotheby's; (below) Andy Warhol, Silver Clouds (c. 1966), metallized polyester film and helium. Image: Andy Warhol

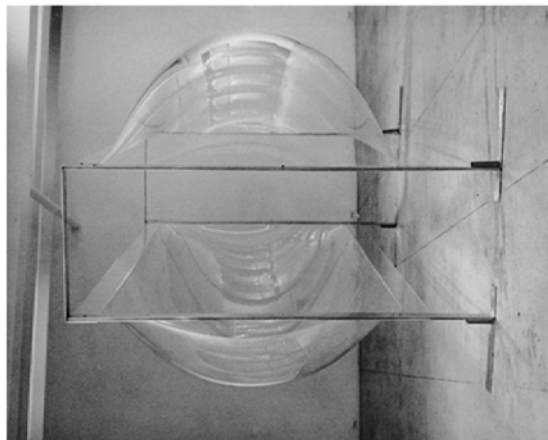


Fig. 106 (left to r video, 1 min 58 sec



By David Bourdon

"Levine was furious. 'If Warhol just wanted to know cheap plastic,' he fumed, 'why didn't he look in the'



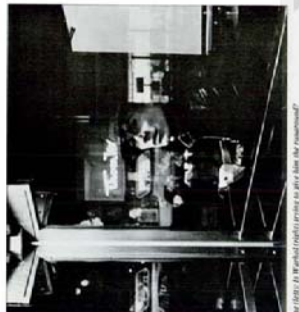
Plastic Man Levine (left); Andy Warhol (right) trying to give him the answer

Fig. 114 Plastic Man meets Plastic Man: in 1969, New York Magazine attempted to set up a tra (left) Les Levine's Star Machine (1966) and, either one of Andy Warhol's 'Crash' series (c. 1963) acrylic, plastic and aluminum, (214.4 x 243.8 x 304.8 cm), National Gallery of Canada. Image Magazine (1969). Image: New York Magazine; Andy Warhol, Silver Car Crash (Double Disaster) (19

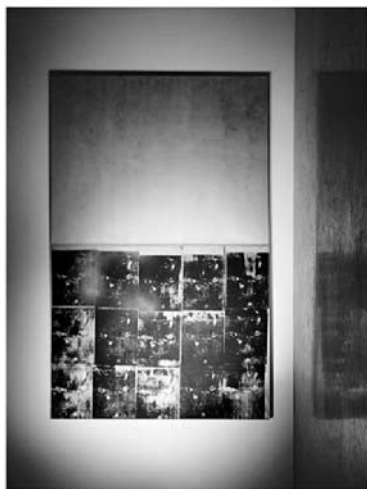
Lively Arts n Meets Plastic Man

By David Bourdon

Warhol just wanted to know where to buy 'why didn't he look in the Yellow Pages?'"



© 1967 by Warhol (right) trying to get the "crashmaker"



empted to set up a trade between artists Les Levine and Andy Warhol. The trade would have involved 'Crash' series (c. 1963), or a 'cloud' from Silver Clouds (c. 1966); (left) Les Levine, Star Machine (1966), lery of Canada. Image: Les Levine; (middle) the article "Plastic Man Meets Plastic Man" in New York h (Double Disaster) (1963), silkscreen ink and silver spray paint on canvas, in two parts, 105 x 164 1/8 in v) Andy Warhol, Silver Clouds (c. 1966), metallicized polyester film and helium. Image: Andy Warhol

Fig. 106 (left to right) Stills from Warren Neidich's video Blind Man's video, 1 min 58 seconds. Image: Warren Neidich.





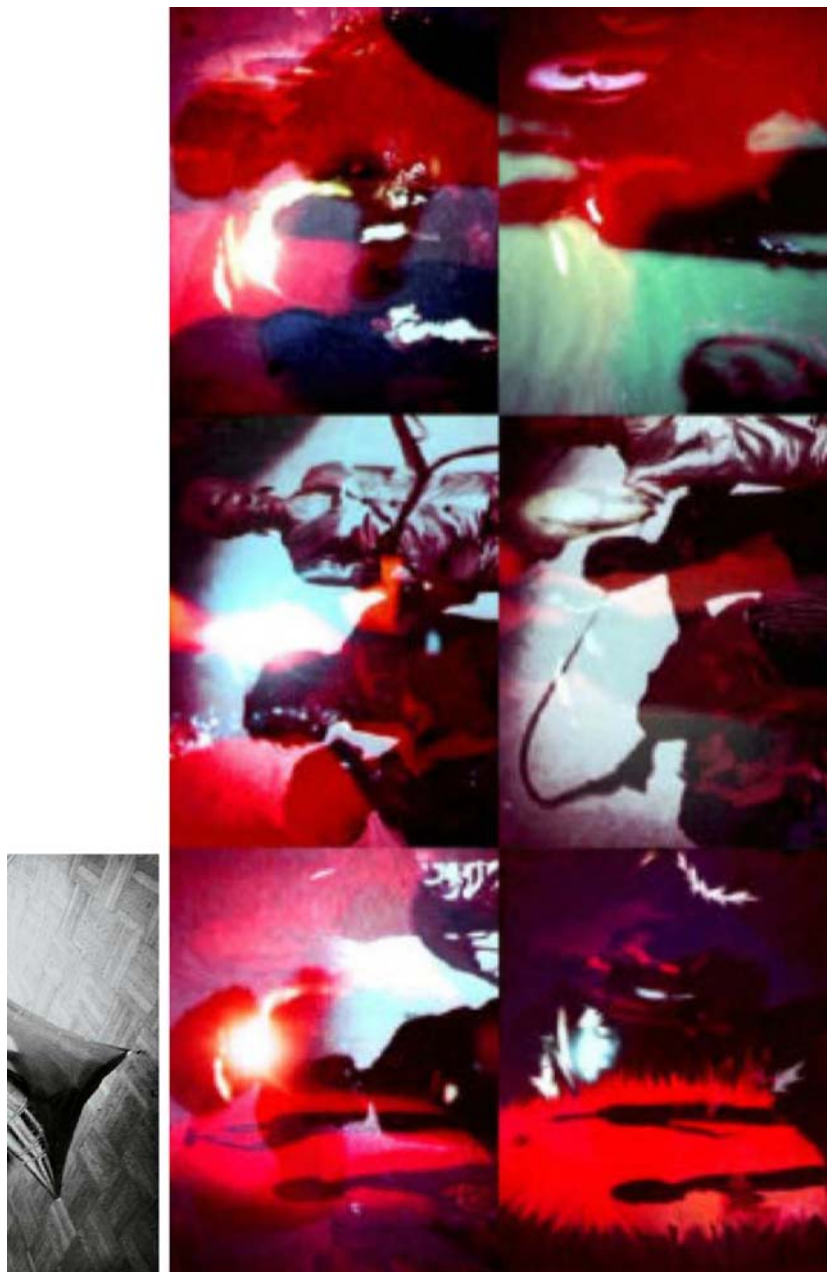


Fig. 115 Andy Warhol, Exploding Plastic Inevitable (EPI, 1966-1967), multimedia performance events initiated at the Dom Narodne, New York. Image: Ronald Nameth. (top left) Andy Warhol, Silver Clouds (c. 1966), multimedia performance events initiated at the Leo Castelli Gallery while EPI was at the 'Dorr Saint Mark's Place). Image: Andy Warhol Foundation.

magazine Valori Plastici
founded by painter



Fig. 35 Anne-Louis Girodet, Effet de Lune (Le Sommeil d'Encolpion) (oil on canvas, 130x76 in (330 x 193 cm), Louvre, Paris, France)

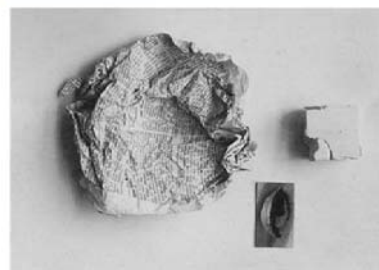


Fig. 116 (left) The avant-garde magazine VOU (1965-1978), cover by Kitasono Katue (no. 110). Image: Collection of John Solt; (center left) Kitasono Katue, Plastic Poem (Even from Trifling Objects) (1966), image: Jacket 2; (center right) Kitasono Katue, Forgotten Man (Plastic Poem) (1975). Image: Collection of John Solt; (left) Plastic Poem Homage to J.F. Bory (1967) on page 20 of the periodical VOU, no. 113, January 1968. Image: Collection of John Solt.

10



Fig.
whit



Fig. 115 Andy Warhol, Exploding Plastic Inevitable (EPI, 1966-1967), multimedia performance events, initially held at the Dom Narodne, New York. Image: Ronald Nameth. (top left) Andy Warhol, Silver Clouds (c. 1966), metallized polyester film and helium, (exhibited at the Leo Castelli Gallery while EPI was at the 'Dom' in Saint Mark's Place). Image: Andy Warhol Foundation.



Fig. 34. Mies van der Rohe, PLASTIC New York (MOMA) Grand Lobby 1 and on floors (model). See an YouTube Video: Youtube.com

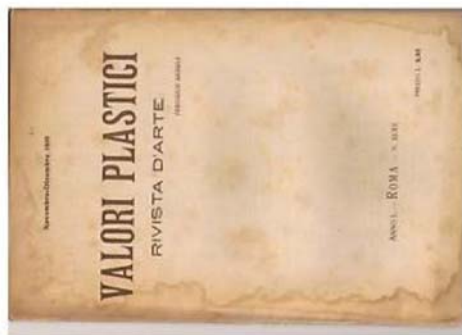


Fig. 117 The modernist magazine Valori Plastici (Plastic Values, 1918-1922) founded by painter Mario Broglio in Rome.





119 Hanne Darboven, Cultural History 1880-1983 (1980-1983), 590 framed works on paper and 19 optical objects, Dia Foundation, New York. Image: Dia Foundation, New York.



irico, The Song of Love (1914), oil on canvas, 28 3/4 x 23 3/8 in (73 x 59.1 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York.
 De Chico, The Faithful Servitor (1916-1917), oil on canvas, 15 1/8 x 13 5/8 in (38.2 x 34.5 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York.
 ELOW: (left) Alberto Savinio, Portable Island (c. 1930), oil on canvas, 28 3/4 x 23 3/8 in (73 x 59.1 cm), Galleria Civica d'Arte Moderna e Contemporanea; (middle) Untitled (1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm); (right) Alberto Savinio, Untitled (1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino. Image: Mazzoleni Art, Torino.





ABOVE: (left) Giorgio De Chirico, *The Song of Love* (1914), oil on canvas, 28 3/4 x 23 3/8 in (73 x 59.1 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (right) Giorgio De Chirico, *The Faithful Servitor* (1916-1917), oil on canvas, 15 1/8 x 13 5/8 in (38.2 x 34.5 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York. BELOW: (left) Alberto Savinio, *Portable Island* (c. 1930), oil on canvas, 28 3/4 x 23 3/8 in (73 x 59.1 cm), Galleria Civica d'Arte Moderna e Contemporanea. Image: Galleria Civica d'Arte Moderna e Contemporanea; (middle) *Untitled* (1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm); (right) Alberto Savinio, *The End of the World* (1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino. Image: Mazzoleni Art, Torino.





Fig. 118 ABOVE: (left) Giorgio de Chirico, *The Song of Luce* (1914), oil on canvas, 28.3/4 x 22.3/8 in (73 x 58.1 cm), Museum of Modern Art, New York. Image: Museum of Modern Art. (right) Alberto Savinio, *Portrait of Luce* (c. 1910), oil on canvas, 28.3/4 x 22.3/8 in (73 x 58.1 cm), Galleria Civica d'Arte Moderna e Contemporanea. Image: Galleria Civica d'Arte Moderna e Contemporanea. (middle) Umberto Boccioni, *Portrait of Luce* (1919), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), The Voyage to the End of the World (1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino. Image: Mazzoleni Art, Torino.

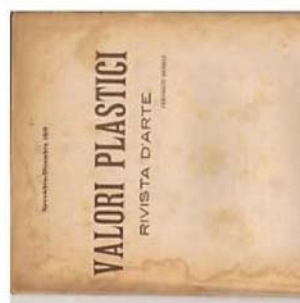




Fig. 119. Hamze Darbown, Cultural History 1880-1883 (1980-1983), 590 framed works on paper and 19 sculptural objects, Dia Foundation, New York. Image: Dia Foundation, New York.



Fig. 118. ABOVE: (left) Giorgio De Chirico, *The Song of Chico*, 1914, oil on canvas, 28 3/4 x 23 3/8 in (73 x 59.1 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (right) Giorgio De Chirico, *The Fabulous Survivor* (1916-1917), oil on canvas, 15 1/8 x 13 5/8 in (38.2 x 34.5 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York. BELOW: (left) Alberto Savinio, *Portable Island* (c. 1930), oil on canvas, 28 3/4 x 23 3/8 in (73 x 59.1 cm), Galleria Civica d'Arte Moderna e Contemporanea, image: Galleria Civica d'Arte Moderna e Contemporanea; (middle) Untitled (1929), oil on canvas, 28.64 x 23.42 in (72.5 x 59.5 cm); (right) Alberto Savinio, *The Voyage to the End of the World* (1929), oil on canvas, 28.64 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino. Image: Mazzoleni Art, Torino.





Fig. 119 Hanne Darboven, Cultural History 1880-1983 (1980-1983), 590 framed works on paper sculptural objects, Dia Foundation, New York. Image: Dia Foundation, New York.



Fig. 120 (bottom) Valori Plastici (left) and Der Spiegel (right) details from Hanne Darboven, Cultural History 1880-1983 (1980-1983), 1,590 framed works on paper and 19 sculptural objects, Dia Foundation, New York. Image: author's photographs with permission of Dia Foundation, New York. (top) Pair of Der Spiegel covers where the term 'plastic' appears: detail from Hanne Darboven, Cultural History 1880-1983 (1980-1983), 1,590 framed works on paper and 19 sculptural objects, Dia Foundation, New York.

Fi fr w In



Fig. 107 Warren Neidich, Remapping, rotating panels made from stainless steel pane, Storefront for Art and Architecture (2002), New York. Image: Storefront for Art and Architecture, New York.



Man's Bluff (2002), single channel

Fig. 104 Mark Rothko's suicide in 1970 occurred a year before the completion of the Rothko Chapel, Houston, in 1971. The Chapel was a 1964 commission by John and Dominique de Menil. Image: Rothko Chapel, Houston.



Fig. 105 (left) Cover of Warren Neidich's 2003 book Blow-Up: Photography, Cinema and the Brain. Image: photograph of author's copy right; below) Warren Neidich, The Buende Diagram (2014) from the exhibition Connecting Sound Etc., MuseumsQuartier Wien, Vienna. I



9

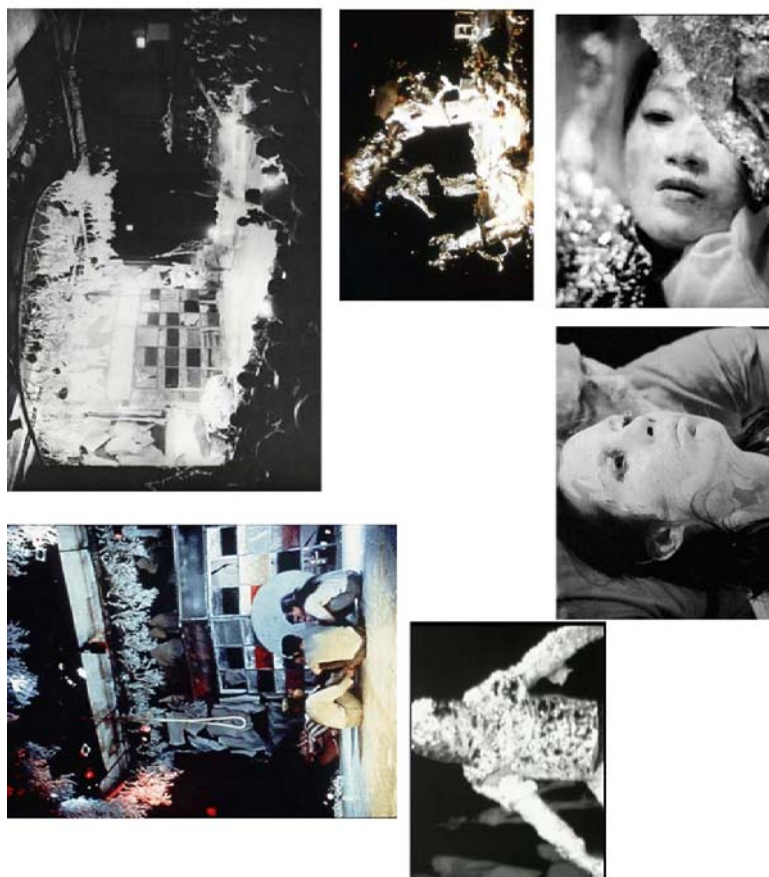


Fig. 113. Photographs and film stills of Carolee Schneeman, *Snows* (1967), 16mm film (color and black-and-white) documentation of group performance and performance environment. Video: Electronic Arts Intermix.



ve involved
line (1966).
1 New York
x 164 1/8 in
ndy Warhol





Fig. 121 (bottom left) "What is the difference between US + U.S.": detail from Hanne Darboven, Cultural History 1880-1983 (1980-1983), 1,590 framed works on paper and 19 sculptural objects, Dia Foundation, New York. Image: author's photographs with permission of Dia Foundation, New York.



Fig. 122 Details from Hanne Darboven, Cultural History 1880-1983 (1980-

fig. 123 (left) Two of the 19 objects (hospitality mannequins and African tourist art 'Rainmaker' sculpture) the 1980-1983), Dia Foundation, New York; (middle) the installation's objects were photographed on the occasion of the installation; (right) the installations objects photographed in storage at Darboven's family home, Am Burgberg, Harz, Germany



fig. 122 Details from Hanne Darboven, Cultural History 1880-1983 (1980-1983), 1,590 framed works on paper and 19 sculptural objects, Dia Foundation, New York. Image: author's photographs with permission of Dia Foundation, New York. (left) Darboven's characteristic 'checksums' or calculations.







Fig. 122 Details from Hanne Darboven, Cultural History 1880-1983 (1980-1983), 1,590 Framed, New York, image: author's photographs with permission of Dia Foundation



Fig. 121 (bottom left) "What is the difference between US + U.S.": detail from Hanne Darboven, Cultural History 1880-1983 (1980-1983), 1,590 Framed works on paper and 19 sculptural objects, Dia Foundation, New York, Image: author's photographs with permission of Dia Foundation, New York.





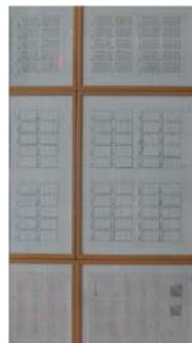
the concept of 'Mars' and 'detachment from the
afelA (Plate A) on the "different relationships in
mma / Warburg Institute, London

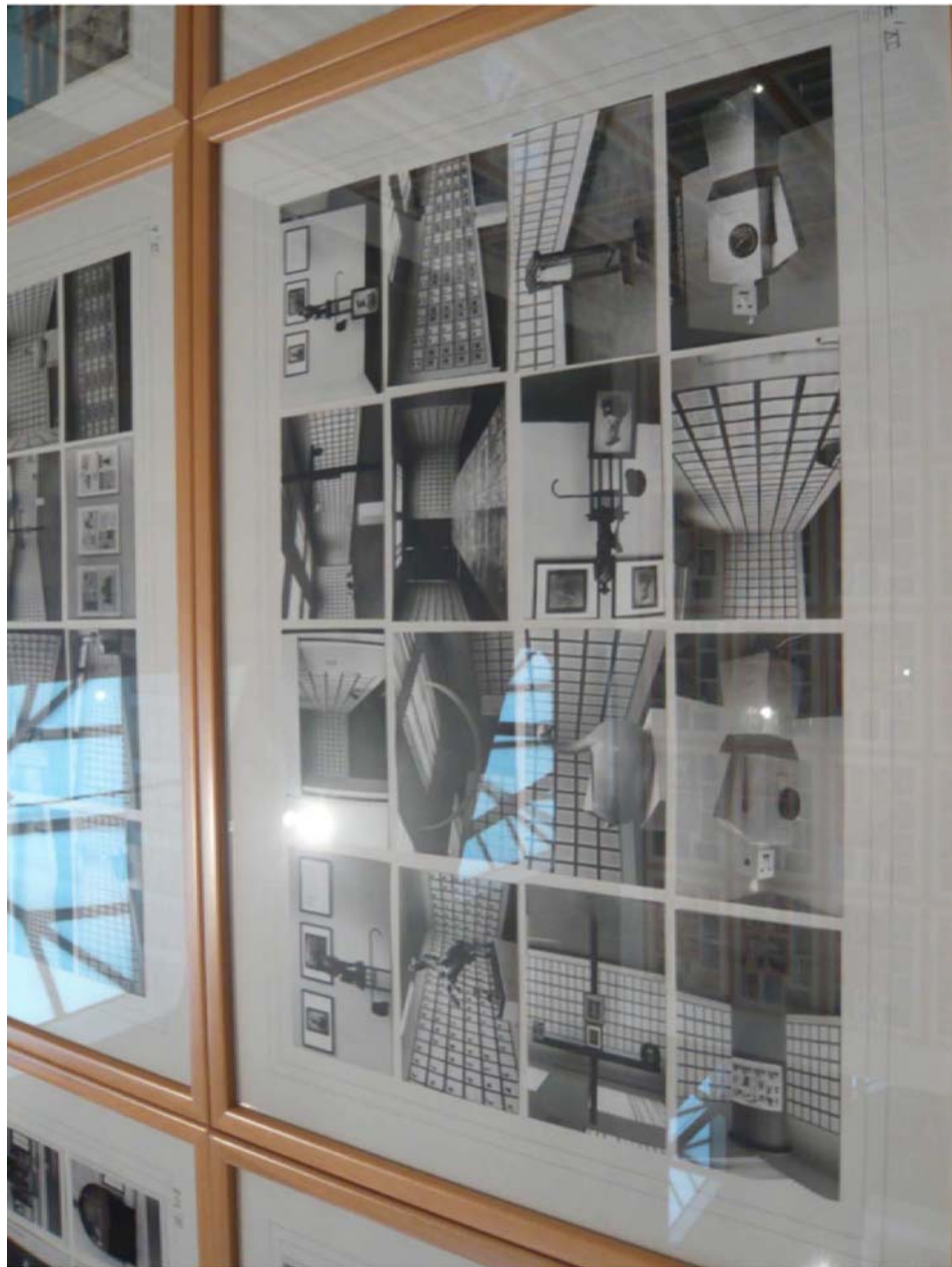


Fig. 124. The Peruvian Cyclosta builds spider-like
decoys in its web from dead insects and debris.
Image: Courtesy of Lary Reeves.



Fig. 123. (left) Two of the 19 objects (hospitality mannequins and African tourist art 'Rainmaker' sculpture) that are part of Hanne Darboven's Cultural History 1880-1983 (1980-1983), Dia Foundation, New York; (middle) the installation's objects were photographed on the occasion of an exhibition and then included in one of the installation's 1,590 panels; (right) the installations objects photographed in storage at Darboven's family home, Am Burgberg, Hamburg. Images: author's photographs with permission of Dia Foundation, New York









cept of Mars" and "detachment from the late A) on the "different relationships in Varburg Institute, London



Fig. 125 Panels with postcards (left) showing play with orientation (detail, landscape format postcards vertically) from Hanne Darboven's Cultural History 1880-1983 (1980-1983), 1590 framed works on 1 sculptural objects, Dia Foundation, New York. Image: author's photographs with permission of Dia Foundation, New York.



Fig. 124. The Peruvian Cyclosa builds spider-like decoys in its web from dead insects and debris. Image: Courtesy of Lary Reeves.



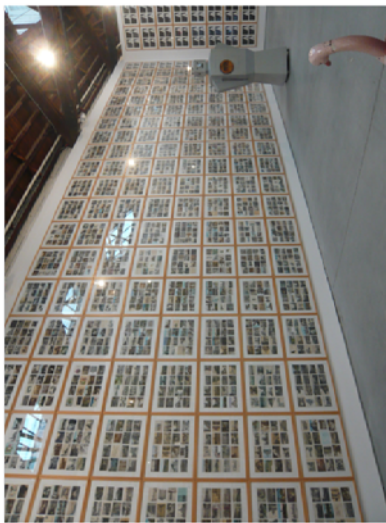


Fig. 125. Panels with postcards (left) showing play with orientation (detail, landscape format postcards are arranged vertically) from Hanne Darboven's Cultural History 1880-1983 (1980-1983), 1,590 framed works on paper and 19 sculptural objects, Dia Foundation, New York. Image: author's photographs with permission of Dia Foundation, New York.





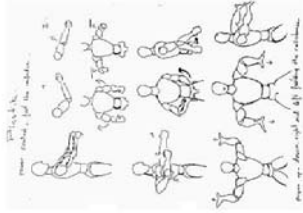
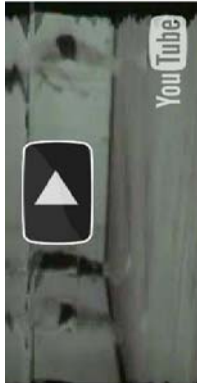


Fig. 126 (adjacent left) Ryszard Cieslak from Jerzy Grotowski's Laboratory Theatre on the Plastiques from a television special called The Body Speaks (Creative Arts Television, Columbia Broadcasting System, 1975); (above left) Maja Komorowska undertaking training exercises (1965). Photograph by Zygmunt Samosiuk, courtesy of the Grotowski Institute; (above right) drawings of 'exercises plastiques' from Grotowski's Laboratory Theatre (taught by Jolanta Cynkulis), created by Angel Rodrigo Molina (2011) for his Performance Journal. In a collaborative production directed by Jonathan Grieve (who studied under Cynkulis). Image: Jonathan Grieve and Angel Rodrigo Molina.

11



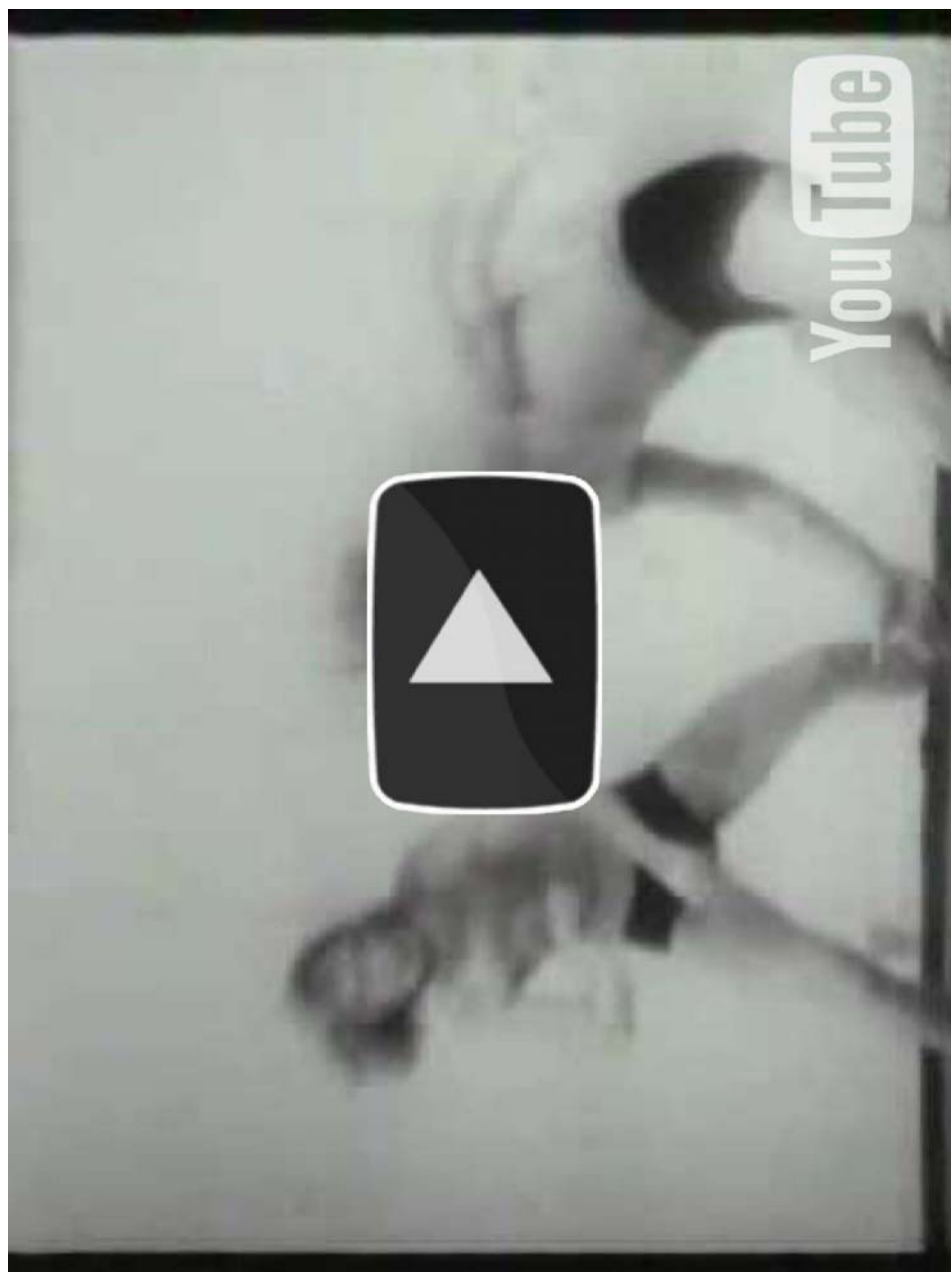
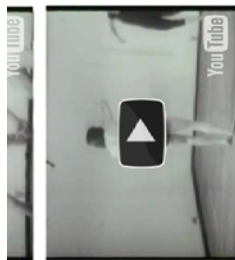




Fig. 129 'PICO DELLA MIRANDOLA' BY AN UNKNOWN THIRTEENTH-CENTURY ARTIST. The man is now known as Ptolemy of a Man with a Medal of Honor. The portrait is a copy of a drawing by the artist, published in the *Annuario*, experimental artist magazine. The artist's name is unknown. Image: Internet Archive.



Rodrigo Molina (2011) for his Performance Jonathan Greve (who studied under Cynkui)

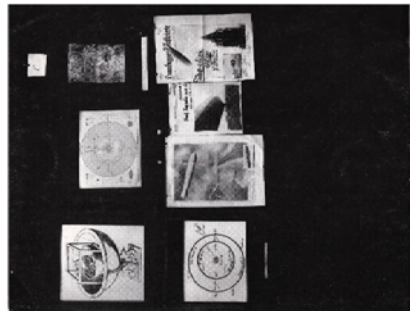
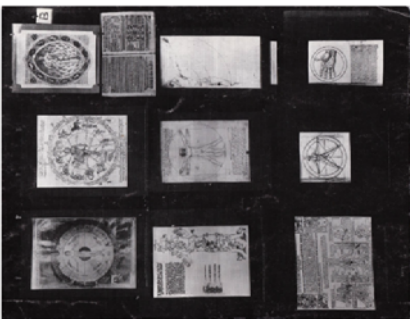
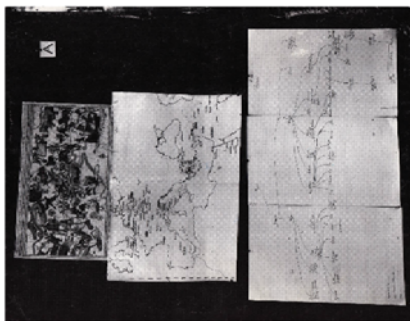


Fig. 134. Por vertically fr sculptural o York.

Fig. 127 (right) Tablet A, B, and C (Plates A, B, and C), the protopus plates of the Vitruvius Manuscript Atlas (1929) (right) Tablet C (Plate C) on the 'sociology of the sciences of Man' and 'detachment from the which man is integrated-cosmic, earthy and genealogical', and ways of navigating these relationships '1) orientation, 2) exchange, 3) social order.' Images: Ego gamma / Werburg Institute, London



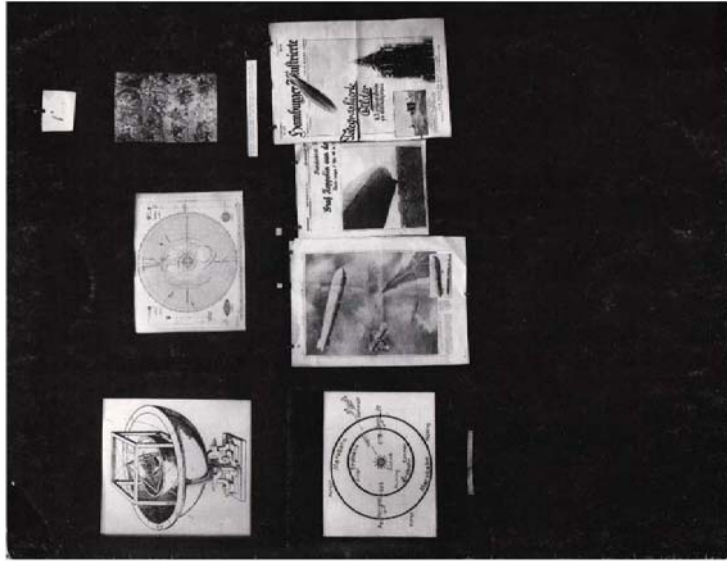


Fig. 125 Panels with postcard (vertically) from Hanne Darb sculptural objects, Dia Fount York.



(right) Tafel C (Plate C) on the "evolution of the concept of Mars" and "detachment from the influence of the cosmic system on man"; (left) Tafel A (Plate A) on the "different relationships in

—

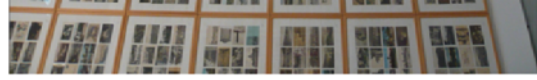
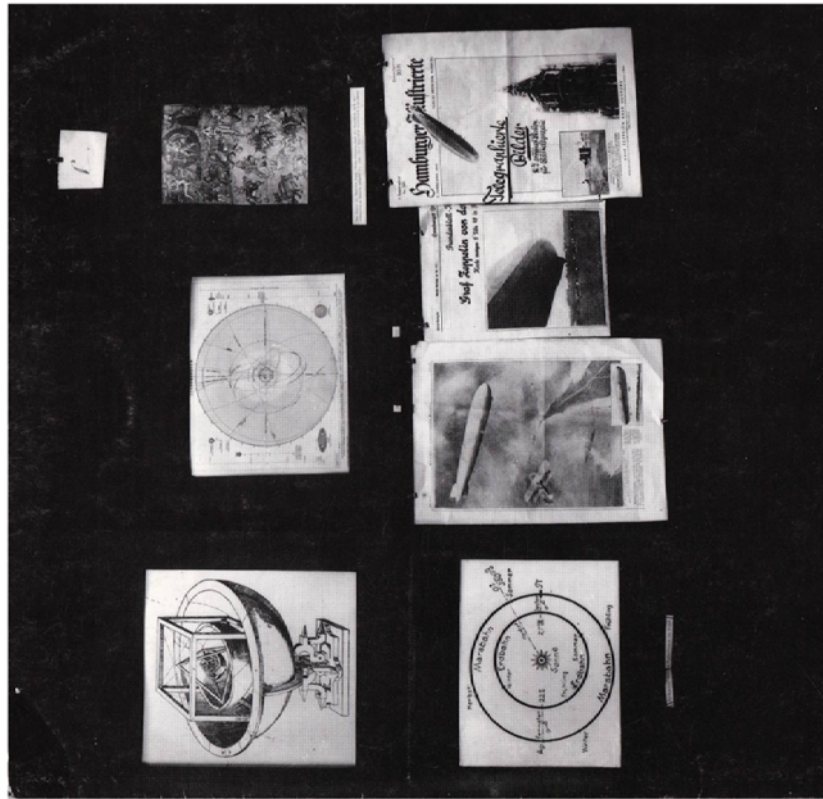
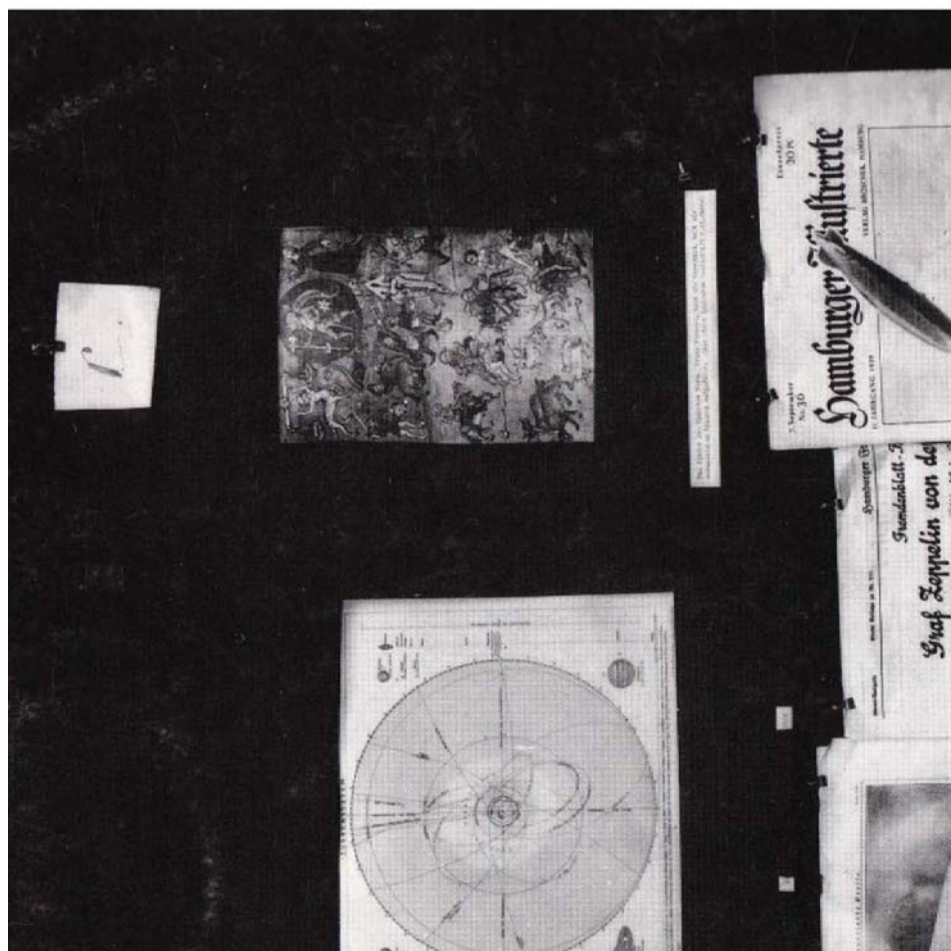
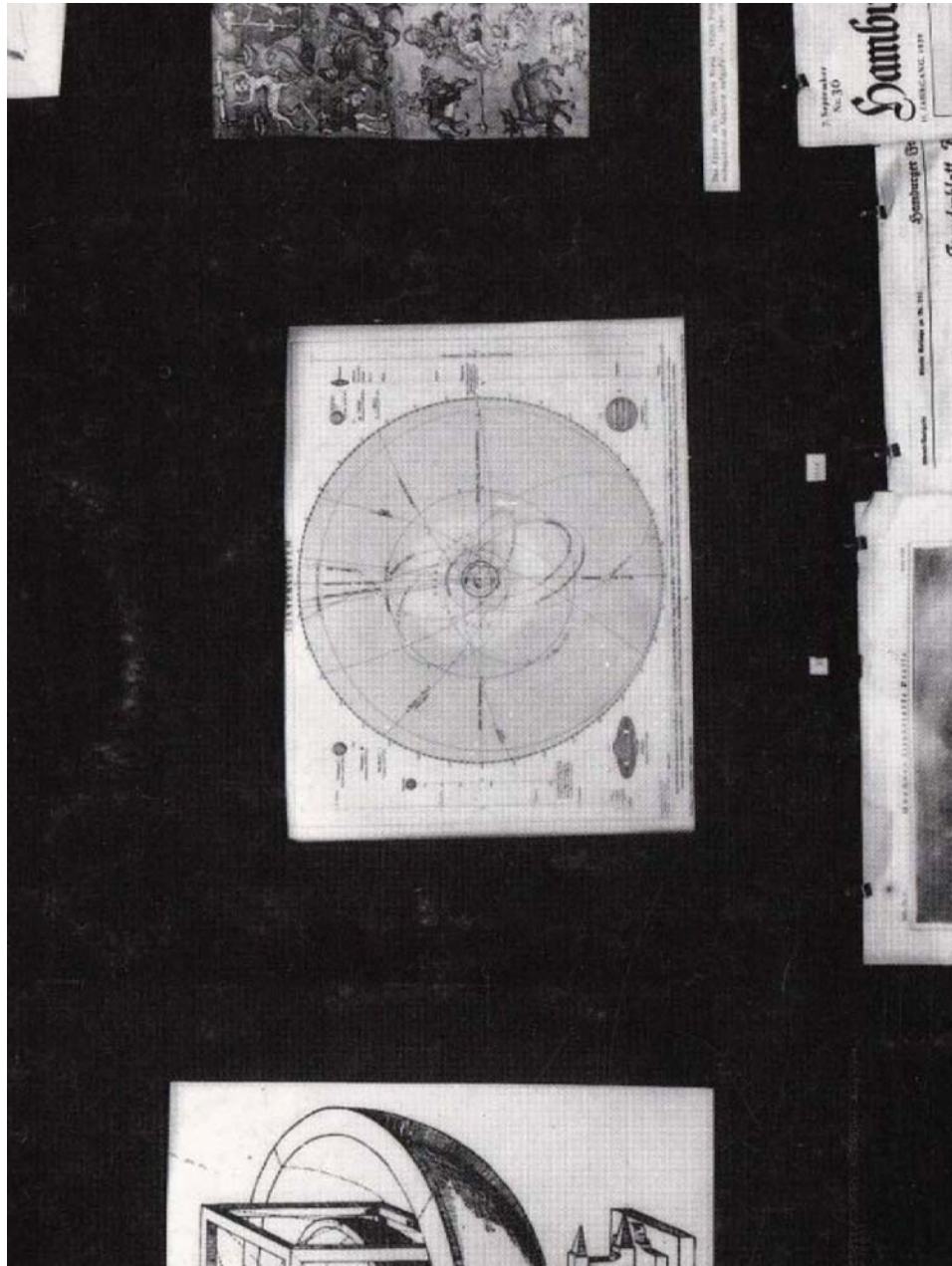


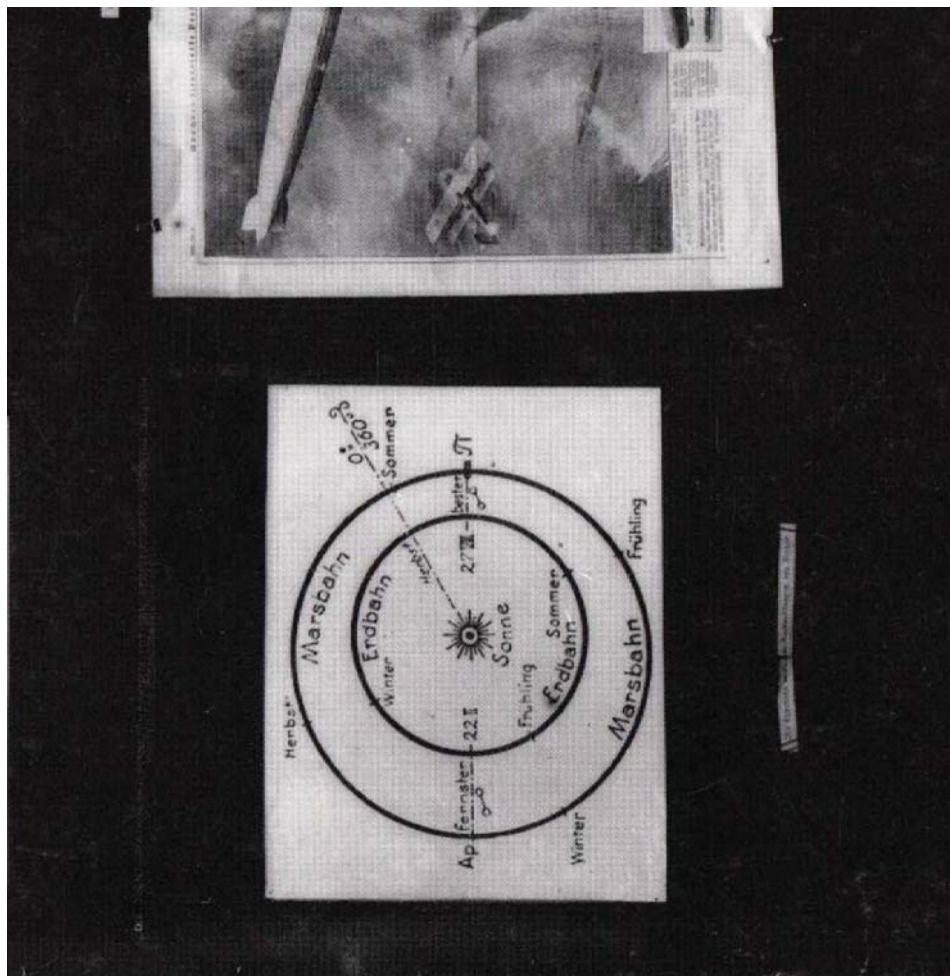
Fig. 12
vertic:
sculpt
York.

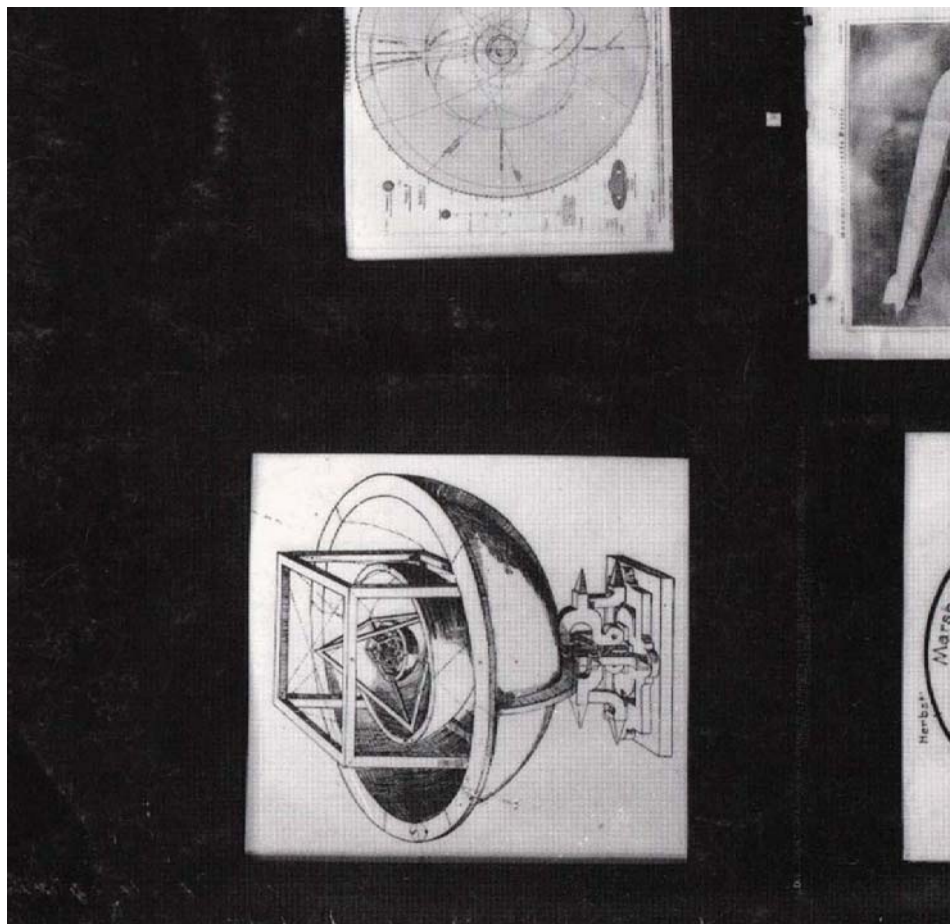














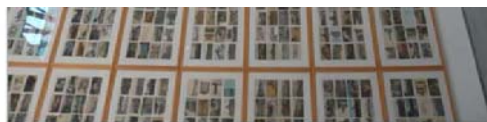
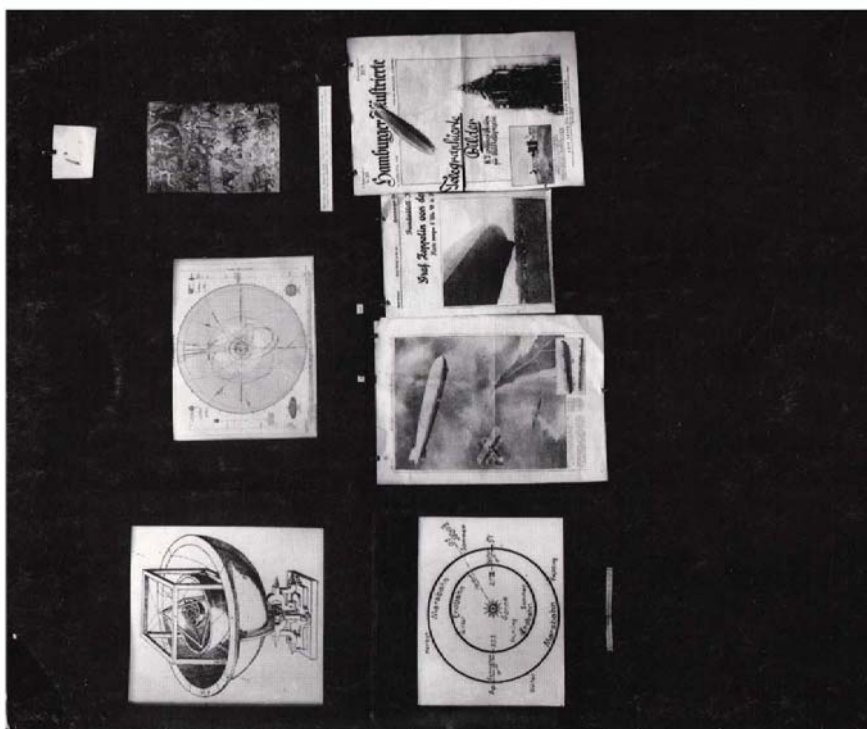
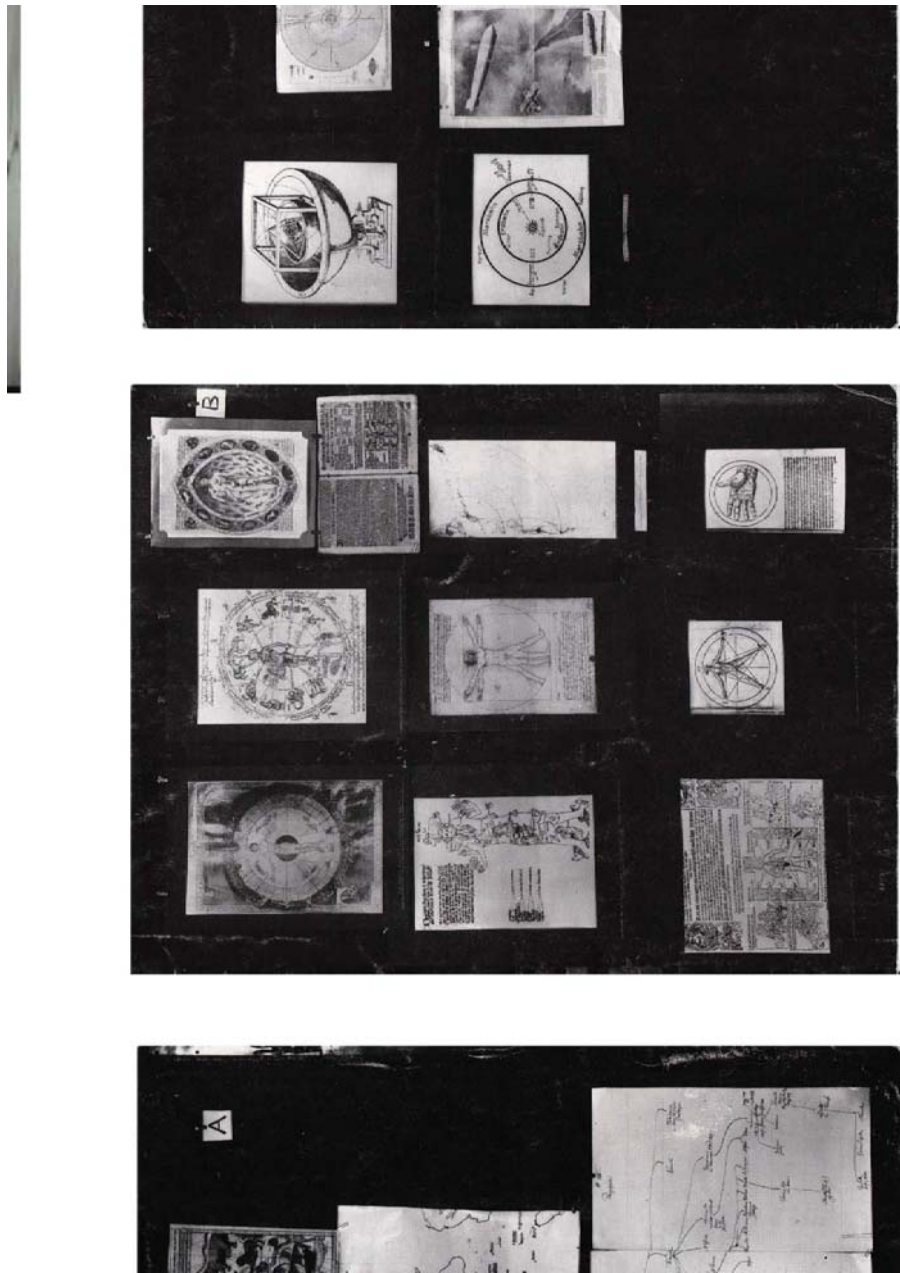
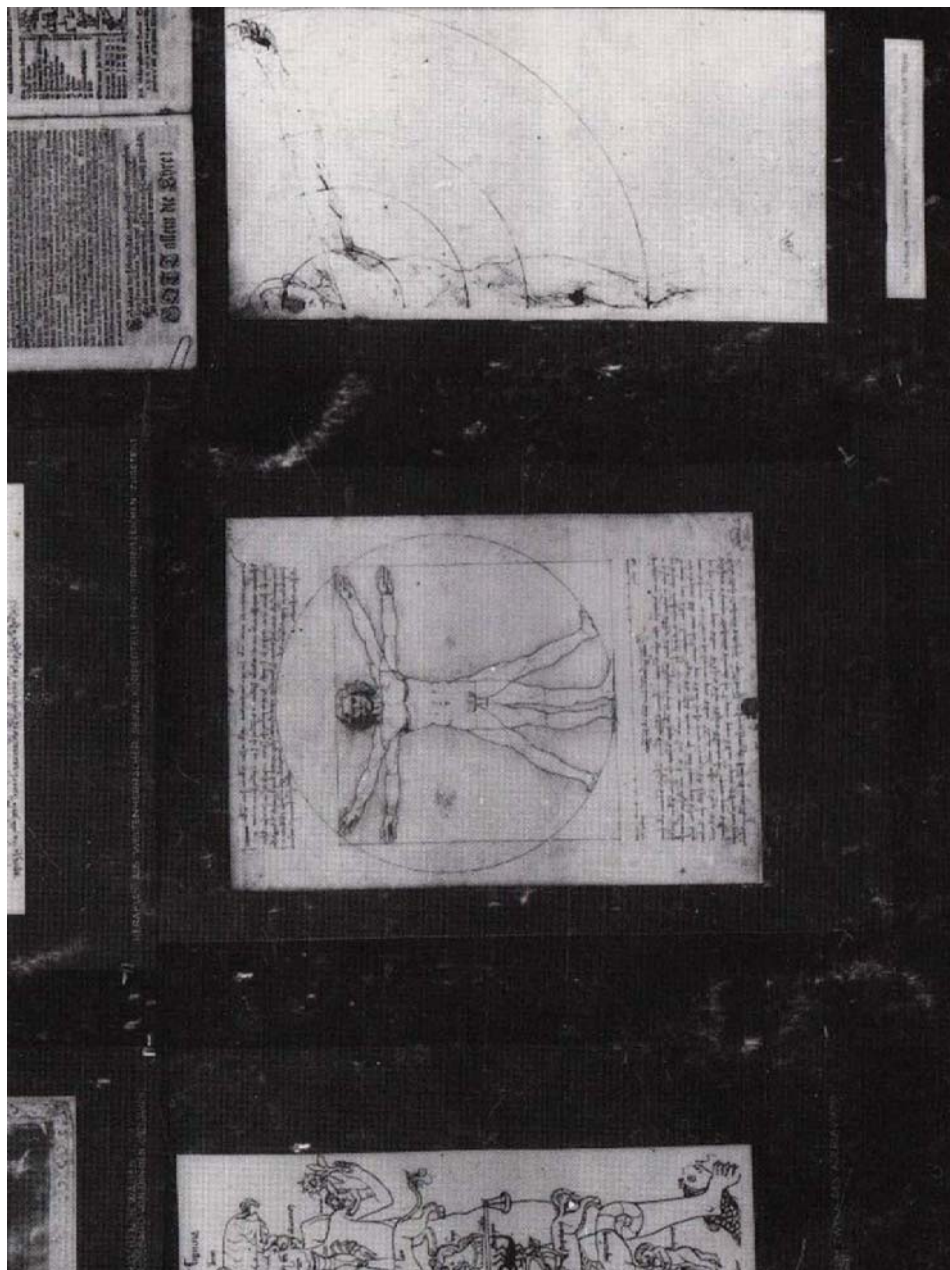


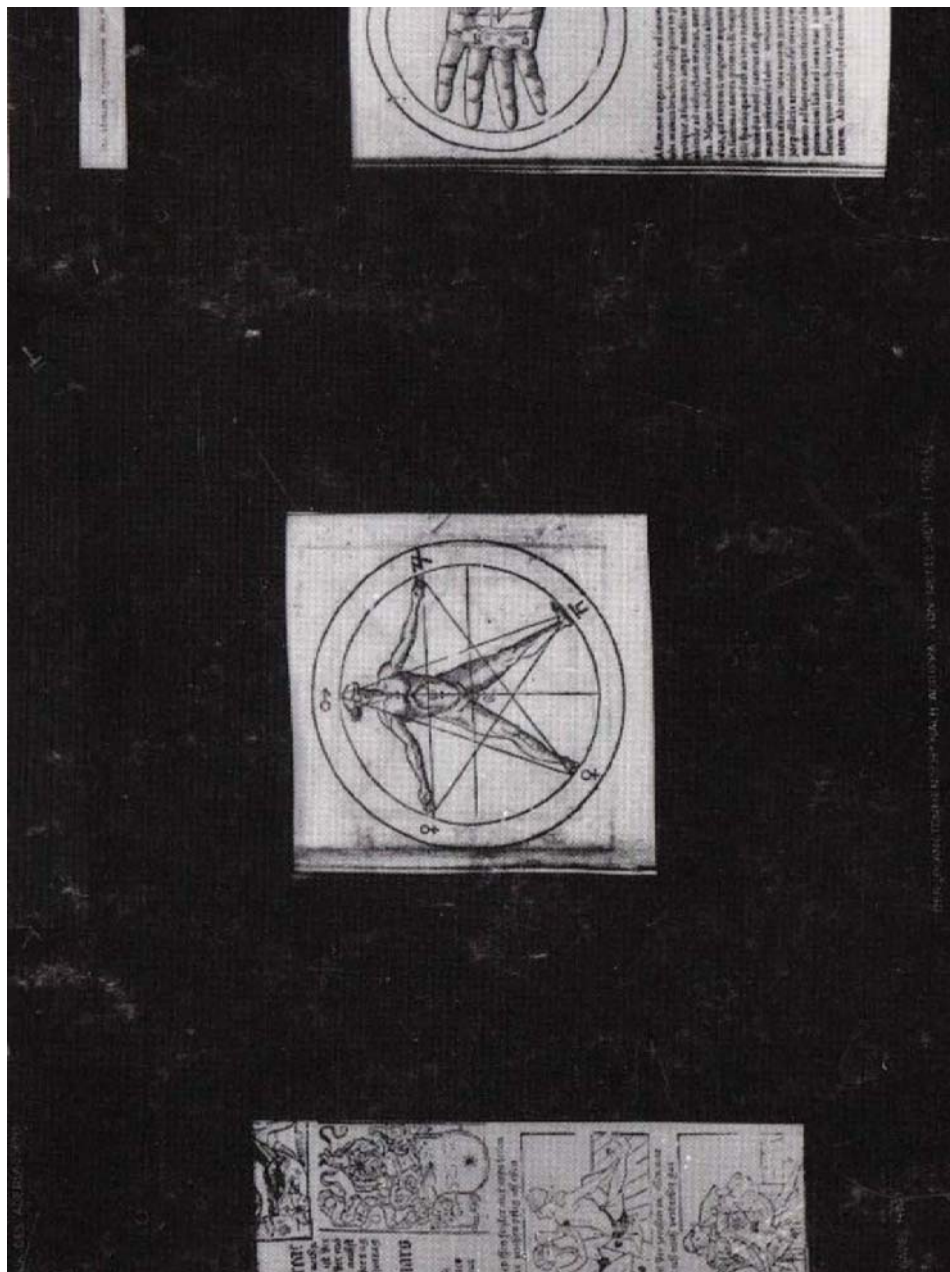
Fig. 125 F
vertically
sculptural
York.

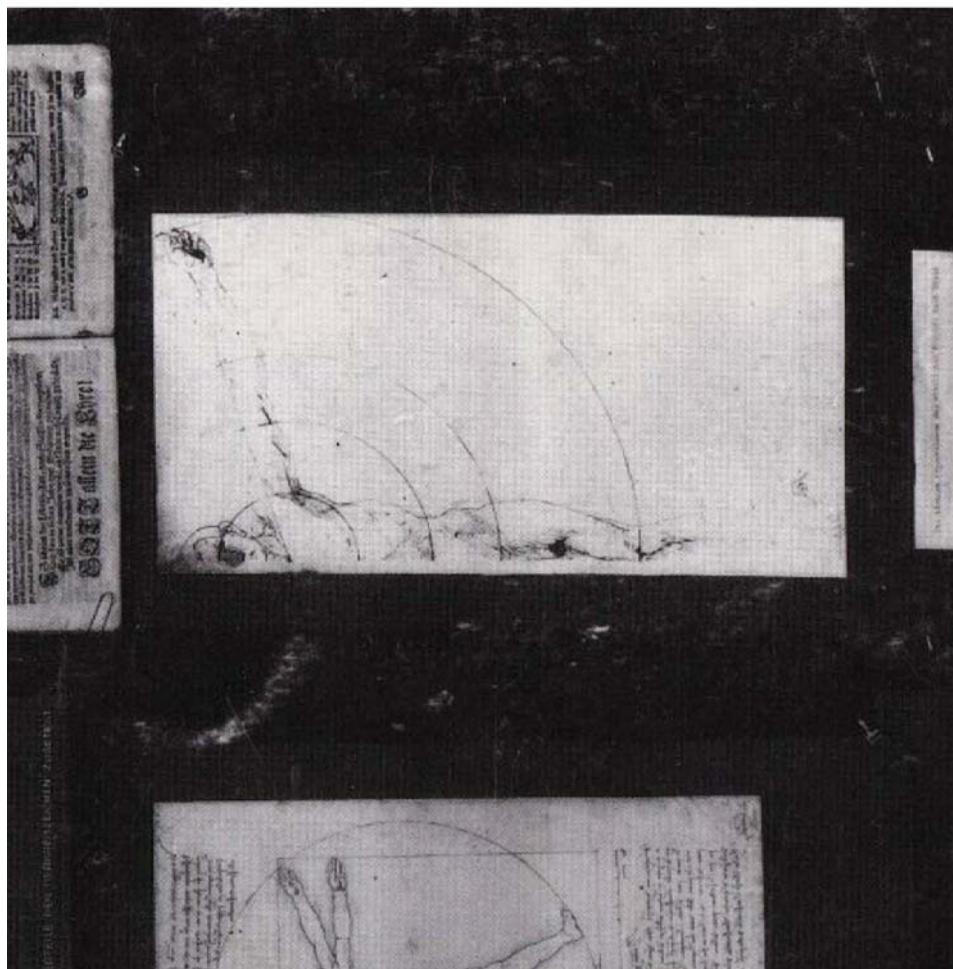


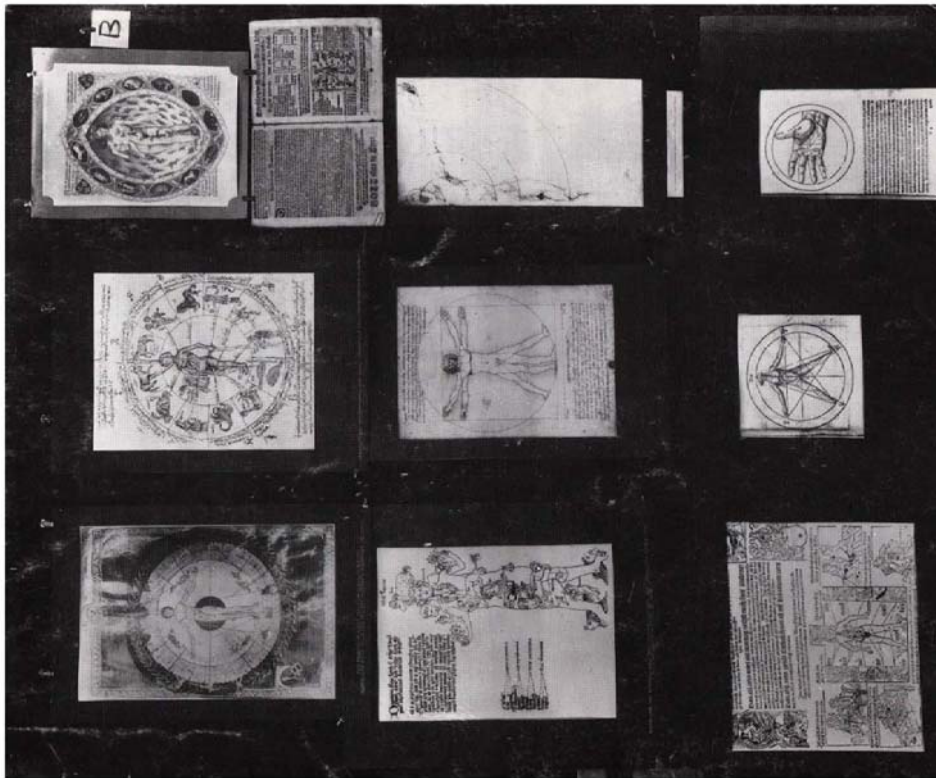
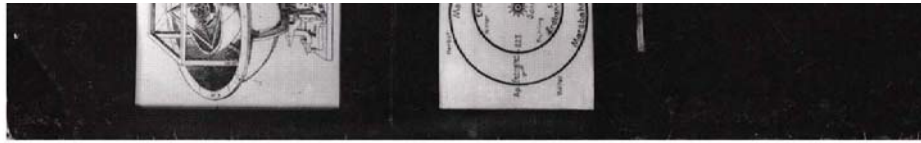


A, B, and C), the prologue plates of Aby Warburg's Mnemosyne Atlas (1929); (right) Tafel C (Plate C) on the "evolution of the concept of Mars"; (middle) Tafel B (Plate B) on "affluent diagrams of influence of influence of man"; (left) Tafel A (Plate A) on the

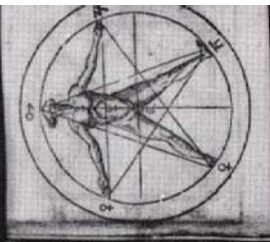
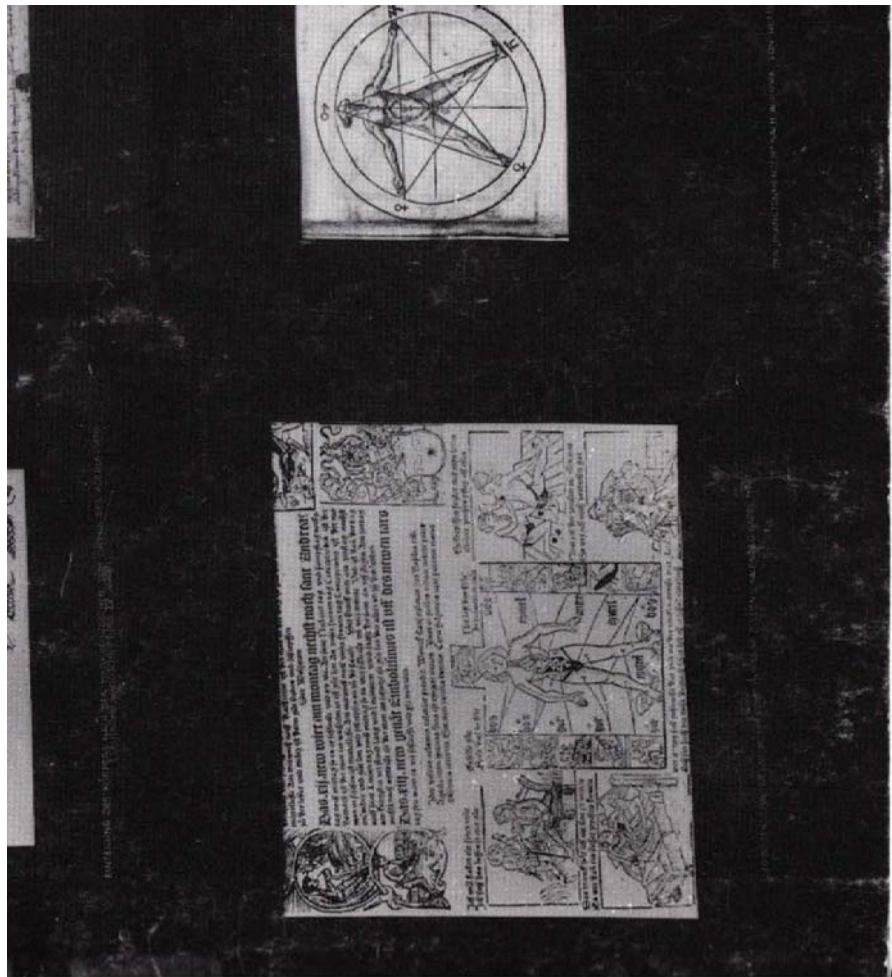




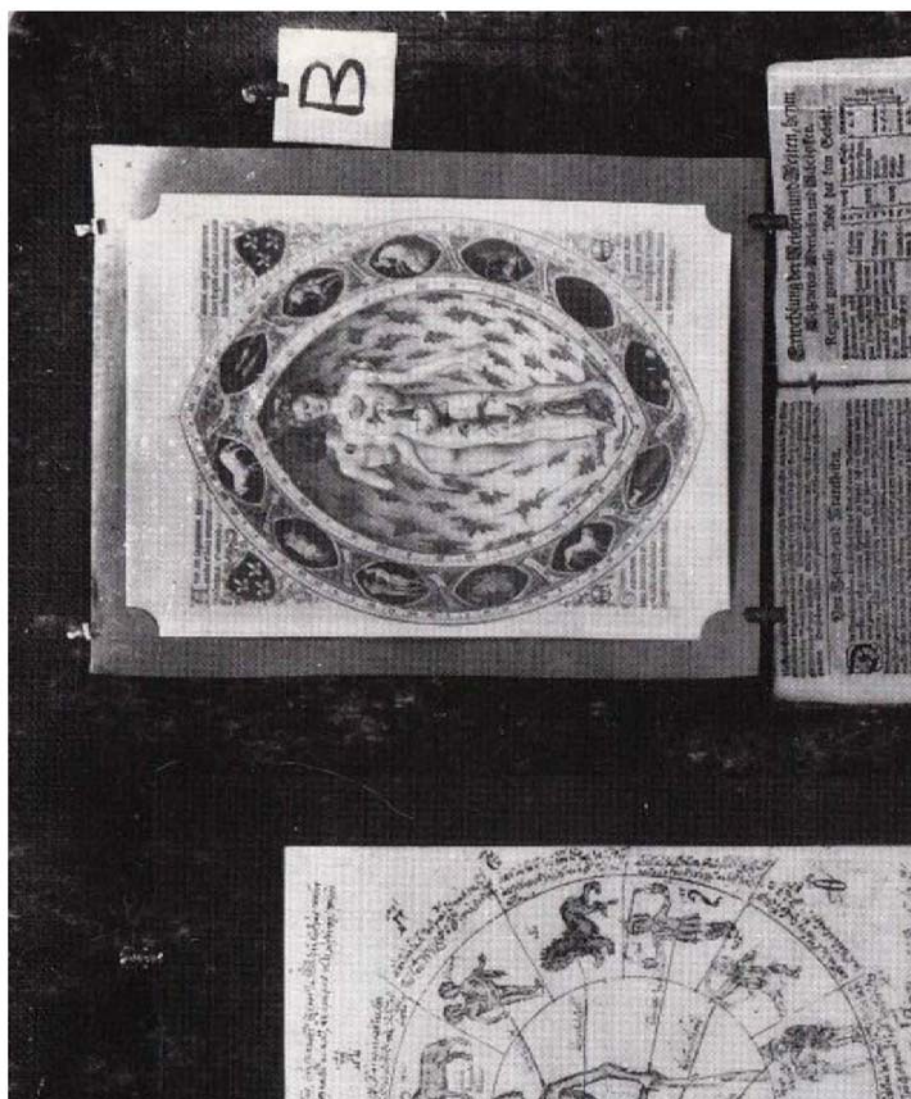






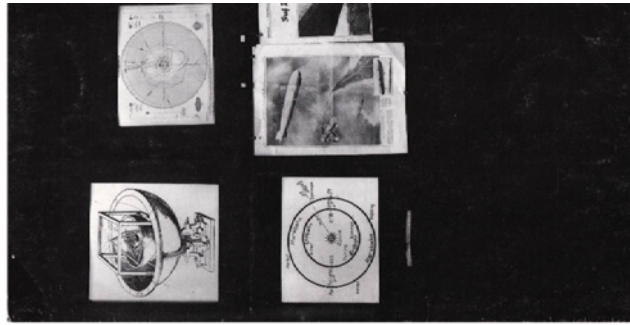
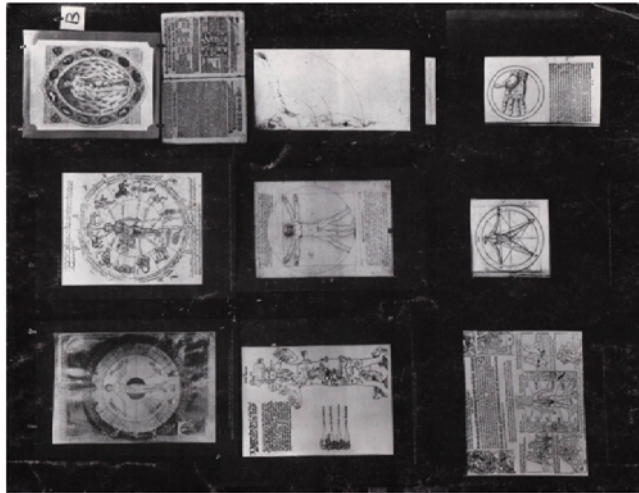








magazine The Lark in 1895. The Lark was one of Aby Warburg's favorite artist magazines. Image: Internet Archive.



in A, B, and C (Plates A, B, and C), the prologue plates of Aby Warburg's Mnemosyne Atlas (1929); (right) Tafel C (Plate C) on the "evolution of the concept of Mars" and "de orphism"; "-image - harmonis system - sign"; (middle) Tafel B (Plate B) on "different degrees of influence of the cosmic system on man"; (left) Tafel A (Plate A) on the "differ ted-cosmic, earthly and genealogical," and ways of navigating these relationships "1) orientation, 2) exchange, 3) social order." Images: Engramma / Warburg Institute, Lor

magazine The Lark in 1895. The Lark was one of Aby Warburg's favorite artist magazines. Image: Internet Archive.

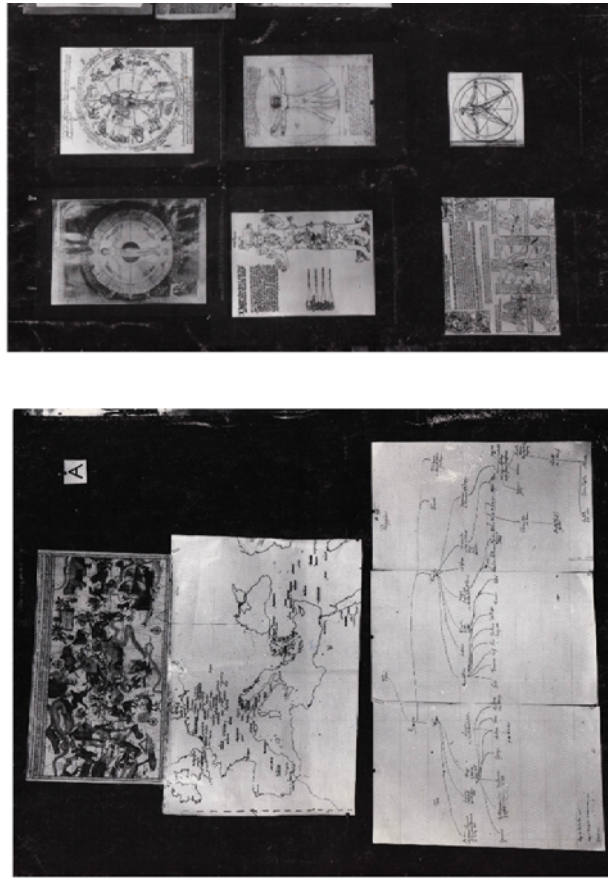
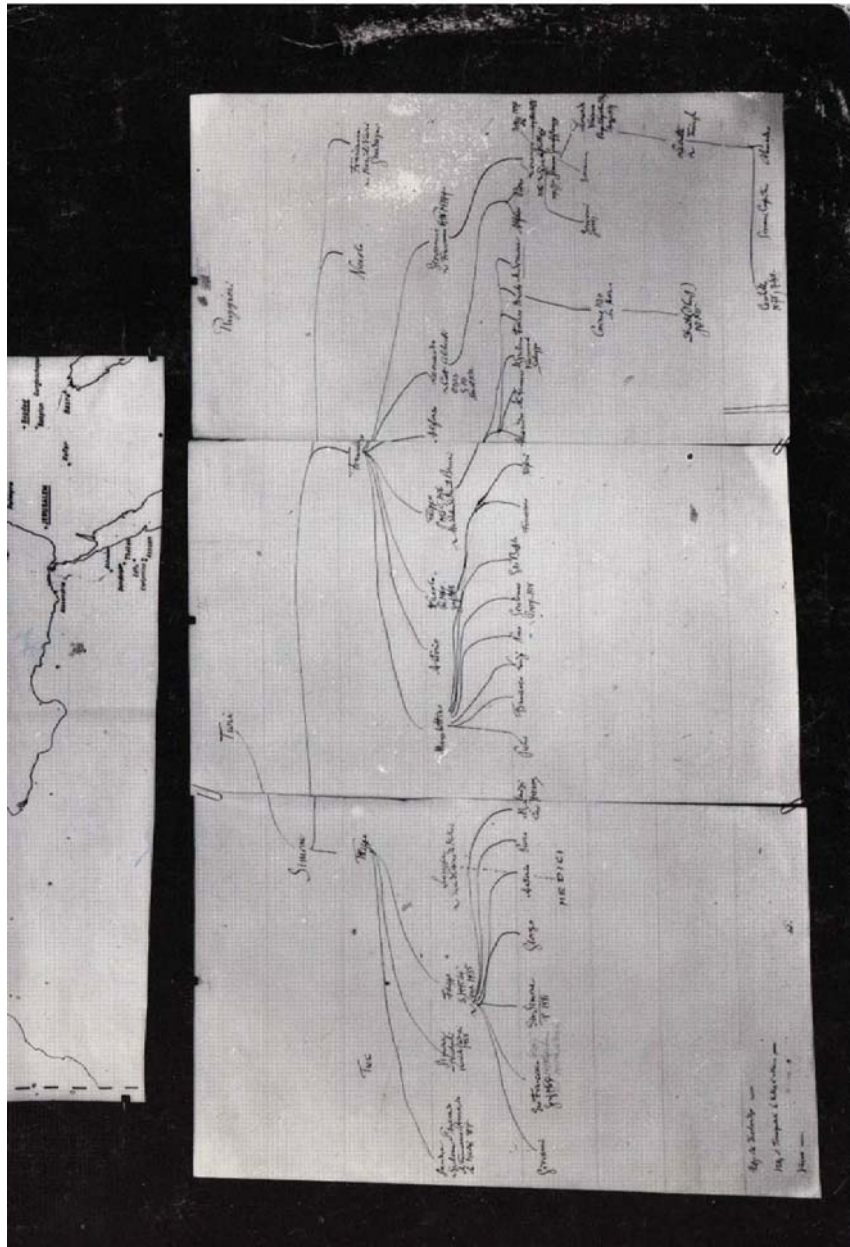


Fig. 127 (right) Tafeln A, B, and C (Plates A, B, and C), the prologue plates of Aby Warburg's Mnemosyne Atlas (1929); (right) notion of anthropomorphism"; "image - harmonis system - sign"; (middle) Tafel B (Plate B) on "different degrees of influence (which man is integrated--cosmic, earthy and genealogical," and ways of navigating these relationships "1) orientation, 2) ext



g. 127 (right) Tafeln A, B, and C (Plates A, B, and C), the prologue



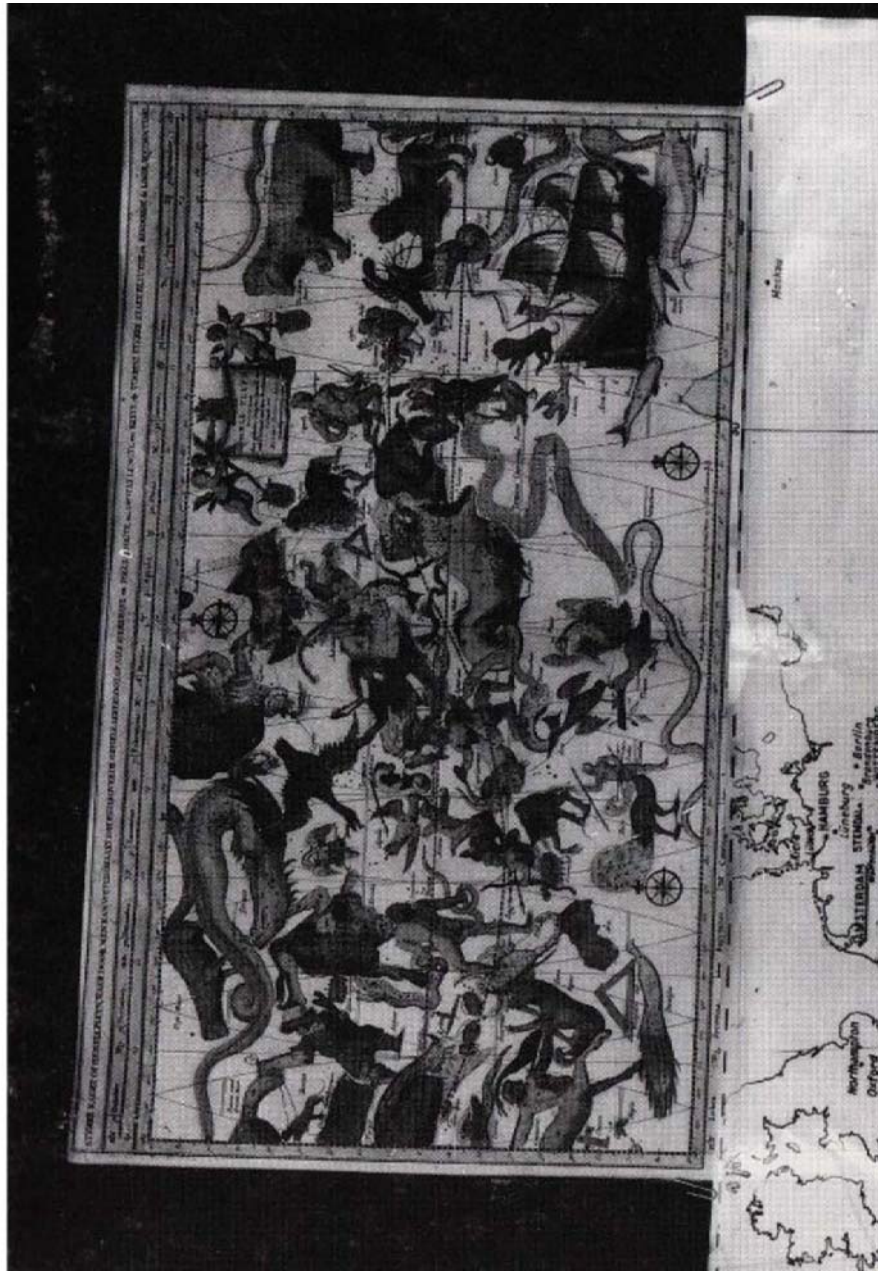




Fig. 130 (left) Hans Hofmann, *Spring* (1944-1945, dated on reverse, 1940), oil and enamel on wood, 11 1/2 in (28.5 x 35.7 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (right) J Pollock, *Gothic* (1944), oil on canvas, 7 ft 5/8 x 56 in (215.5 x 142.1 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (adjacent right) Pollock painting on glass for the film portrait, Jackson Pollock (1951) by Hans Namuth. Image: Hans Namuth.



Fig. 128 Covers of the magazine 'View' from 1944: (left) Georgia O'Keefe; (middle) Fernand Léger; (right) Esleeban Frances. Images: Private Collection





· PICO DELLA MIRANDOLA ·
· BY · AN · UNKNOWN · TUSCAN · MASTER ·

Fig. 129 A print reproduction of the painting that is now known as Portrait of a Man with a Medal of Cosimo the Elder (also known as Portrait of a Youth with a Medal, 1475). This reproduction was published in the American experimental artist magazine *The Lark* in 1895. The Lark was one of Aby Warburg's favorite artist magazines. Image: InternetArchive.





Fig. 130 (left) Hans Hofmann, *Spring* (1944-1945, dated on reverse 1940), oil and enamel on wood, 11 1/4 x 14 1/8 in (28.5 x 35.7 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (right) Jackson Pollock, *Gothic* (1944), oil on canvas, 7 ft 5/8 x 56 in (215.5 x 142.1 cm), Museum of Modern Art, New York. Image: Museum of Modern Art, New York; (adjacent right) Pollock painting on glass for the film portrait, Jackson Pollock 51 (1951) by Hans Namuth. Image: Hans Namuth.





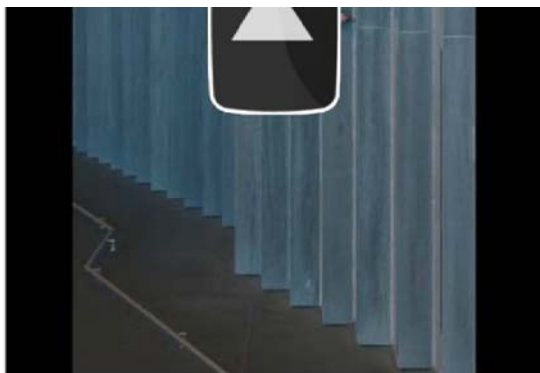


Fig. 132 Maria Hassabi, PLASTIC (2016), ivi (MoMA) Gundi Lobby Staircase. Screenshots from Video: Museum of Modern Art, New York.



Fig. 131 Documentation of performances organized by Ralph Lemon for Some Sweet Day (2012), a three-week dance project in the Museum of Modern Art, New York's Marron Atrium. Images: Museum of Modern Art, New York.





TICO DELLA RIANZAZZOLA
 BY COSIMO DE' MEDICI, TUSCAN MASTER
 Fig. 129. A first reproduction of the painting that is the subject of the video. The artist is Cosimo de' Medici (also known as Parent of a Youth with a Medal, 1473). This reproduction was published in the magazine *The Look* in 1996. The Look was one of Aby Warburg's favorite artist magazines. Image: Internet Archive.

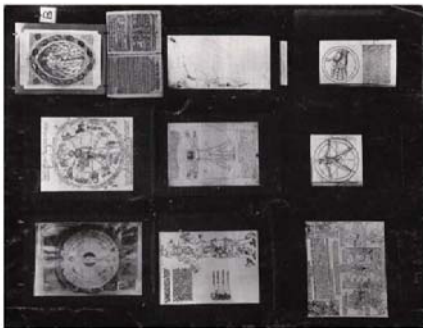
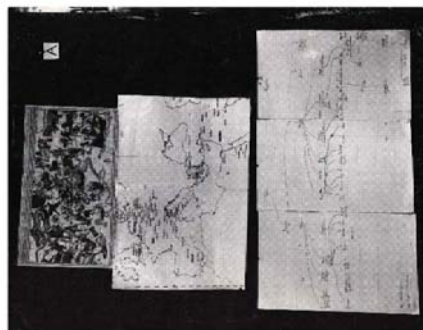


Fig. 127 (right) Tablets A, B, and C (Plates A, B, and C), the prologue plates of Aby Warburg's *Mnemosyne Atlas* (1929); (right) Tablet C (Plate C) on the "evolution of the concept of Mars" and "detachment from the notion of anthropomorphism"; "image - harmonious system - sign"; (middle) Tablet B (Plate B) on "different degrees of influence of the cosmic system on man"; (left) Tablet A (Plate A) on the "different relationships in which man is integrated - cosmic, earthly and genealogical," and ways of navigating these relationships "1) orientation, 2) exchange, 3) social order." Images: Engramma / Warburg Institute, London

Fig. 135. P. Warburg's sculptural work.



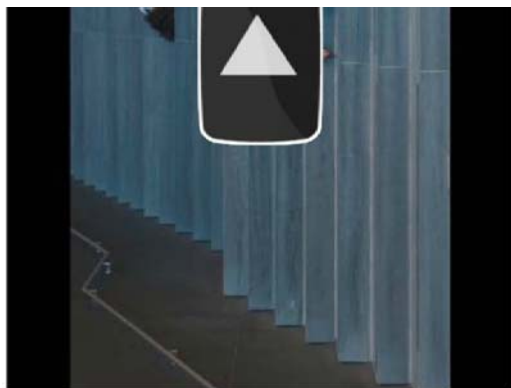


Fig. 132 Maria Hassabi, PLASTIC (2016), live ins (MoMA) Gund Lobby Staircase. Screenshots from MoMA Video: Museum of Modern Art, New York.



Fig. 131 Documentation of performances organized by Ralph Lemon for Some Sweet Day (2012), a three-week dance project in the Museum of Modern Art, New York's Marron Atrium. Images: Museum of Modern Art, New York.





is organized by
?), a three-week
Art, New York's
odern Art, New

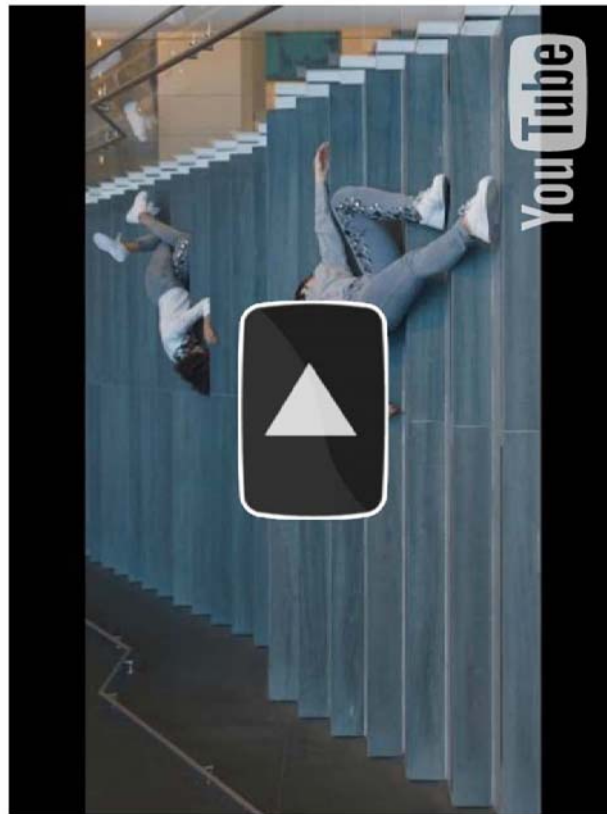


Fig. 132 Maria Hassabi, PLASTIC (2016), live installation. Museum of Modern Art, New York (MoMA) Gund Lobby Staircase. Screenshots from MoMA video documentation posted on Youtube. Video: Museum of Modern Art, New York.

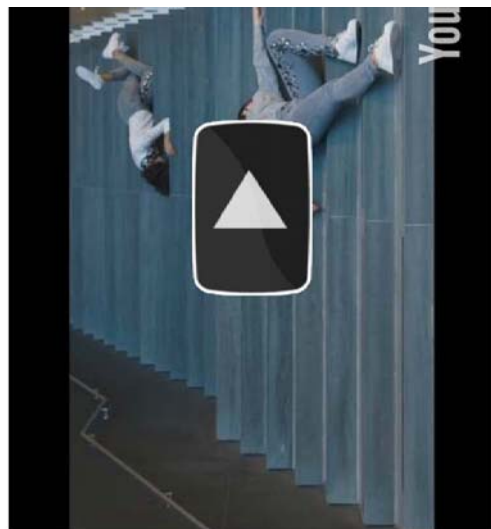
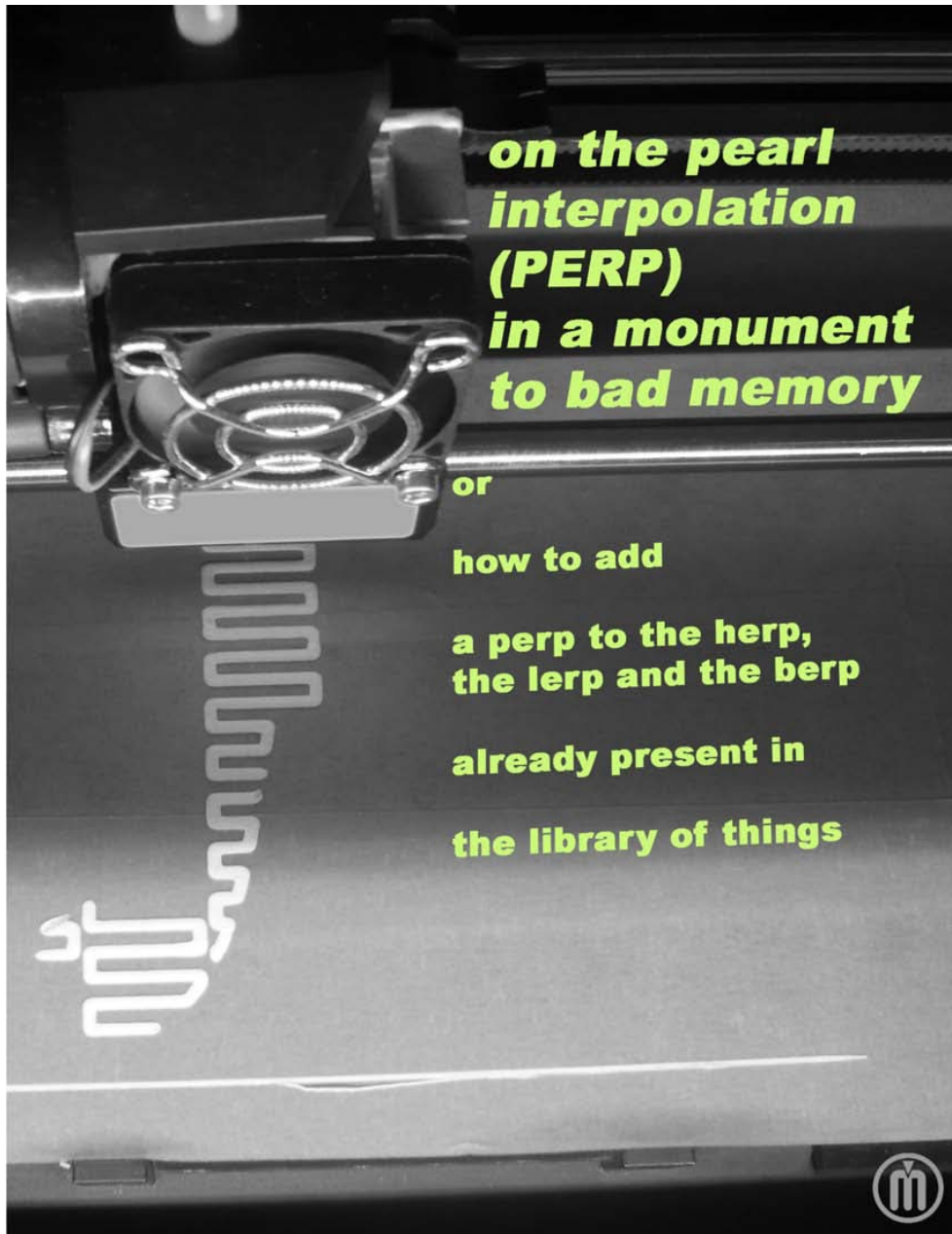


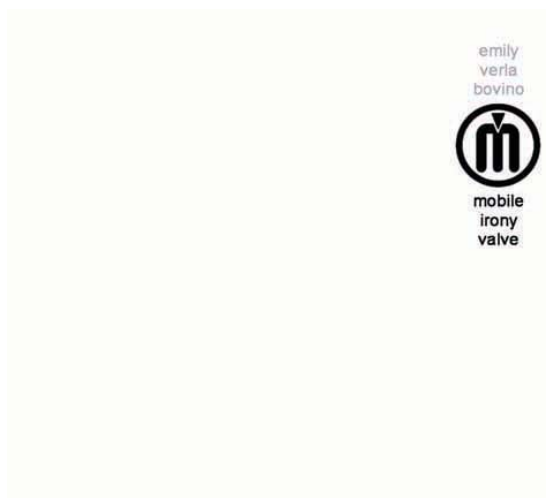
Fig. 132 Maria Hassabi, PLASTIC (2016), live installation. Museum of Modern Art, New York. Screenshots from MoMA video documentary



Fig. 131 Documentation of performances organized by Ralph Lemon for Some Sweet Day (2012), a three-week dance project in the Museum of Modern Art, New York's Marron Atrium. Images: Museum of Modern Art, New York.







emily
verla
bovino



mobile
irony
valve

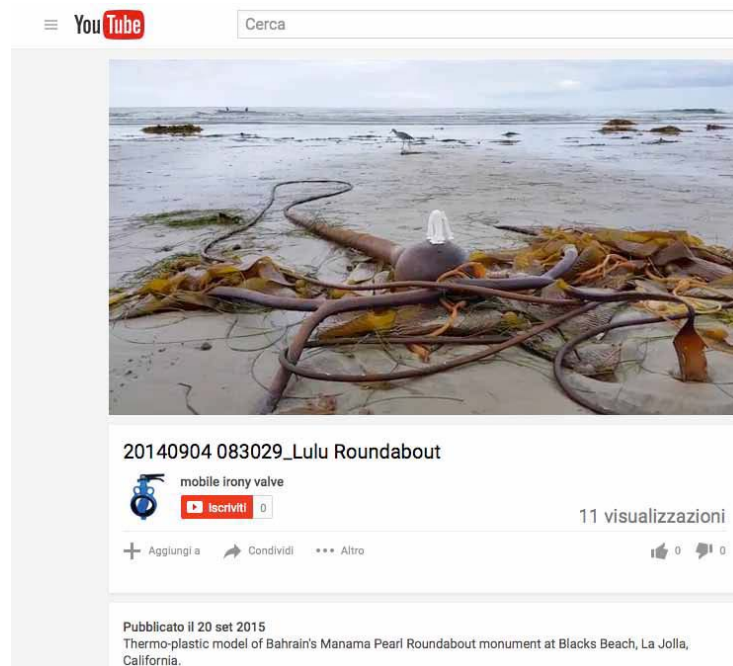


Fig. 1 Screenshot of performance-documentation posted on Youtube: thermo-plastic model of Bahrain's Manama Pearl Roundabout monument left on the bloated bulb of *nereocystis luetkeana* kelp (mermaid's bladder or bullwhip kelp) at Blacks Beach in La Jolla, California. A marbled godwit crosses the frame in the background. To watch video, visit: <https://www.youtube.com/watch?v=AnSMFKjwLx0>

The *PERP* tutorial was originally circulated on March 28, 2014 by the Gulf Labor Coalition.

"On the Pearl Interpolation (PERP) in a Monument to Bad Memory" was Week 33 contribution of MOBILE IRONY VALVE (Emily Verla Bovino) to the Gulf Labor Artist Coalition's "Who's Building the Guggenheim Abu Dhabi?"

Cited in *The Gulf: High Culture, Hard Labor*, edited by Andrew Ross. (New York: OR Books, 2015); Book Launch at the Venice Biennale, July 29, 2015 on the dock outside the Peggy Guggenheim Collection in Venice, Italy.

First edition published 2014.

Second edition published 2015. Editorial assistants: Jane Kang and Harold dela Cruz.

Third edition published 2016. Editorial assistants: Codie Vierra and Genesis Hill.

ON THE PEARL INTERPOLATION (PERP) IN A MONUMENT TO BAD MEMORY

For accompanying video, visit: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

PERP is a speculative design exercise for the creation of a complex of towers to house a fictional migrant worker cooperative on Manama harbor in Bahrain. The design exercise is part of Gulf Labor Coalition actions against the exploitation of migrant labor in Persian Gulf mega-cities. It was inspired by the resemblance between Manama's fallen Pearl (Lulu) Roundabout monument after its destruction and deconstructivist architect Frank Gehry's designs for the Guggenheim Museum, across the Gulf from Manama, in the United Arab Emirates (UAE) city of Abu Dhabi.



Fig. 2 (top; from left to right) Satellite images of protest encampments occupying the Pearl Roundabout in Manama, Bahrain; the razing of the monument; a plastic model made from pausing a computer-animated re-enactment of the monument's collapse at the moment it may have killed Riaz Ahmed, a Pakistani migrant worker who operated one of the demolition cranes; (bottom, from right to left) construction at the Guggenheim Museum site on Saadiyat Island in Abu Dhabi is delayed while Gulf Labor coalition artists protest the complicity of cultural institutions with exploitative labor practices; (bottom; far left) deconstructivist architect Frank Gehry's design for the Guggenheim.

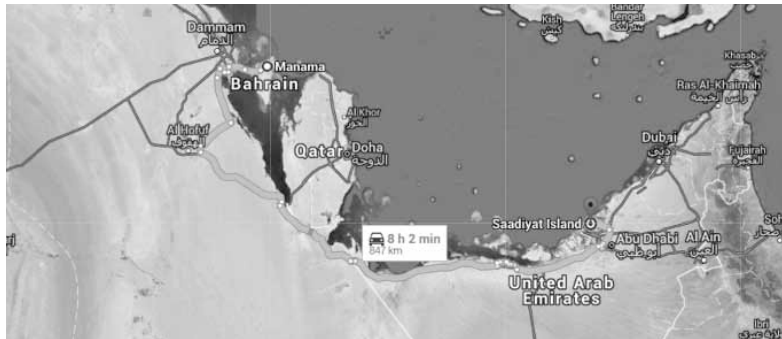


Fig. 3 Manama, Bahrain (left) and Saadiyat Island in Abu Dhabi (UAE) (right) facing each other across the Persian Gulf. Manama is the site of the Pearl Roundabout monument; Abu Dhabi is the site of the Guggenheim Museum mega-project.

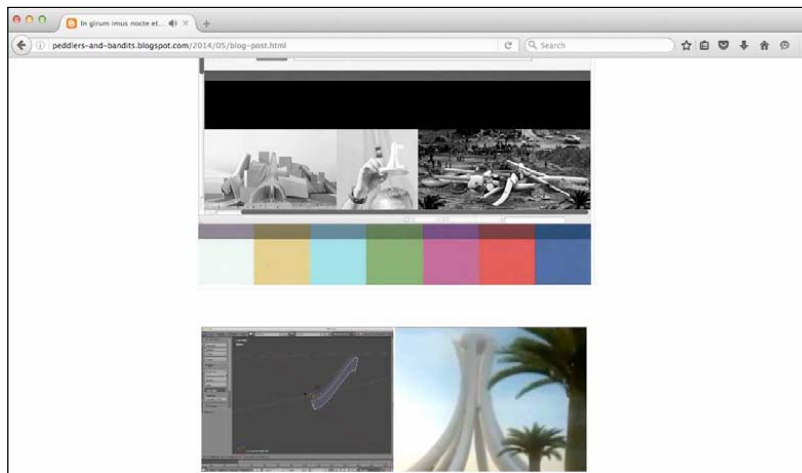


Fig. 4 Screenshot of a two-channel video edited from (bottom right) Pearl Roundabout monument footage gathered from Youtube and (bottom left) performance-documentation of the *PERP* tutorial in the open-source animation software *Blender*. The videos were circulated as 'Week 33' in the Gulf Labor Coalition initiative, *52 Weeks*. 'Week 33' circulated the *PERP* tutorial online among an international network of Gulf Labor Coalition supporters. 'Week 33' was also published in *The Gulf: High Culture/Hard Labor* edited by Andrew Ross (OR Books, 2015). In this screenshot, edited Pearl Roundabout monument footage gathered from Internet ethnography (bottom right) includes a clip of the 're-animated' monument from a 3D simulation created by a Youtube user. Meanwhile, performance-documentation of the *PERP* tutorial (bottom left) shows the hermite slide that will be used to recreate one of the lower support 'sails' in the *PERP* Pearl Monument design. (To watch, visit: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>).

THE ROUNDABOUT & THE MUSEUM: A TALE OF TWO GULF URBANISMS
 BETWEEN MANAMA, BAHRAIN & ABU DHABI, UNITED ARAB EMIRATES (UAE)

pre-oil	fishing and boat-building determine the urban structure of manama. <i>abu dhabi is a bedouin sheikhdom of clustered fishing and pearl settlements.</i>
oil-era	oil represents 65% of the government income in manama after 1937. <i>abu dhabi's first oil exports in 1962 drive its dramatic urbanization.</i>
auto-era (1960s)	the number of cars in manama increase from 395 (1944) to 18,372 (1970); a system of traffic roundabouts is adopted for manama to improve circulation. <i>abu dhabi is called an 'instant city' with "boulevards of parisian scope."</i>
post-colony	bahrain transitions from british colony to independent nation. <i>the united arab emirates (UAE) emerge as a political entity and abu dhabi joins.</i>
post-oil	tourism and finance are supposed to replace oil in the new bahrain. <i>master plans of abu dhabi ensure that expatriate labor will not put down roots.</i>
network	new highways and causeways emphasize manama's primacy in bahrain. <i>conservative abu dhabi uses the cosmopolitan model of dubai to develop.</i>
gulf-era (1982)	the pearl roundabout monument is built to honor a meeting of gulf states in manama; the monument's large cement sphere memorializes the pearl industry of pre-oil bahrain; its six white 'sails' represent: bahrain, kuwait, oman, qatar, saudia arabia, UAE.
mega-cities (2004)	manama develops the bahrain financial harbor and world trade center. <i>abu dhabi includes a guggenheim museum in its designs for saadiyat island.</i>
tower-up (2008)	luxury residential high rises are built near the lulu roundabout in 2008. <i>researchers investigate exploitation of migrant workers in abu dhabi.</i>
lulu-era (2011)	anti-government protestors occupy the pearl roundabout with encampments; in four days of battles over the contested space, seven civilians die. <i>in abu dhabi, bangladeshi workers are deported for labor protests; gulf labor coalition artists visit labor camps at the guggenheim museum site; architect frank gehry discusses his plans for the museum at abu dhabi art fair.</i>
post-lulu	the pearl roundabout is called "monument to bad memory" by a government minister; martial law is declared and the roundabout is razed by four machines; the pearl monument's collapse crushes riaz ahmed, a pakistani crane operator. <i>gulf labor coalition artists demand the guggenheim ensurse migrant labor rights; guggenheim abu dhabi is in suspension, said slotted for completion in 2017.</i>

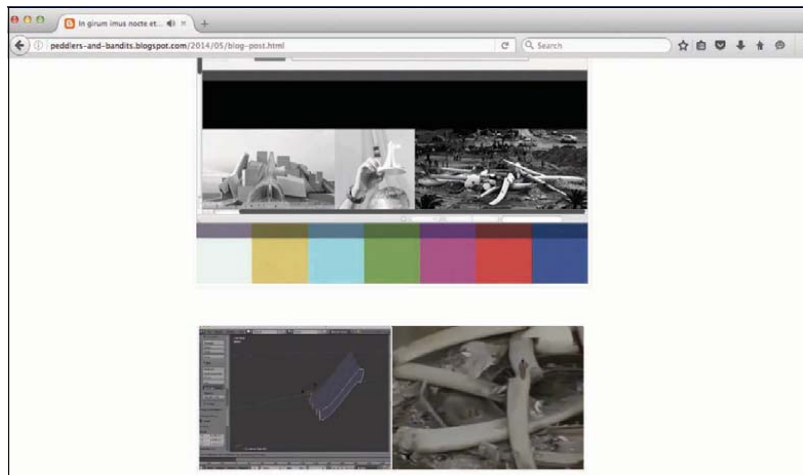


Fig. 5 Screenshot of a two-channel video edited from (bottom right) Pearl Roundabout monument footage gathered from Youtube and (bottom left) performance-documentation of the *PERP* tutorial in the open-source animation software *Blender*. The videos were circulated as 'Week 33' in the Gulf Labor Coalition initiative, *52 Weeks*. 'Week 33' circulated the *PERP* tutorial online among an international network of Gulf Labor Coalition supporters. 'Week 33' was also published in *The Gulf: High Culture/Hard Labor* edited by Andrew Ross (OR Books, 2015). In this screenshot, edited Pearl Roundabout monument footage gathered from Internet ethnography (bottom right) includes documentary footage of the monument's destruction. The video still included herein shows a person walking down one of the monument's former 'sails,' a rib-like structure that previously supported the sculpture's central 'pearl,' a concrete sphere. Meanwhile, performance-documentation of the *PERP* tutorial shows four of the hermite slides used to recreate these support 'sails' in the *PERP* Pearl Monument design.

TUTORIAL: BUILD, ANIMATE AND PRINT PERP WITH BLENDER AND MAKERBOT**STEP ONE: Open Source Animation Suite is Downloaded and Installed**

URL: <http://www.blender.org/download/>

- select appropriate package for operating system
- download *Blender 2.76-rc2*
- install *Blender 2.76-rc2*

STEP TWO: Free Software for Desktop 3D Printer is Downloaded and Installed

URL: <http://www.makerbot.com/desktop>

- select appropriate package for operating system
- click *Download*
- download *Makerware 3.8.1*
- install *Makerware 3.8.1* (Makerbot Desktop)

STEP THREE: Things to Become PERP Objects are Found and Downloaded

URL: <http://www.thingiverse.com>

- in Search field, type "hermite"
- select *OpenScad Surface Solids...*, dated Jun 17, 2011
- click *download this thing!*
- save file: *hermite_slide.stl* in default download folder

STEP FOUR: Blender is Opened and Pop-Up Window for Animation Suite Appears

Open *Blender 2.76-rc2*

- Click off pop-up screen anywhere in *Blender 2.76* interface window
- Blender 2.76* pop-up screen disappears

STEP FIVE: Cube is Deleted from Main User Window in Animation Suite

in *Outliner* window (top right of main user window)

- click left button in tool bar strip (left of *View*) and select *Outliner*
- in *Scene* drop-down: select *Cube*
- go to *Tools* tab (left of main user window): under *Edit*; click *Delete*
- (OR with *Cube* selected in *Outliner* window, right click and select *Delete* from drop-down menu)

STEP SIX: Things to Become PERP Objects are Scaled and Duplicated

1. click *File* (on left side of *Blender* interface main tool bar): select *Import*; in drop-down menu, click *Stl (.stl)*
 - under *System Bookmarks* (left side of import pop-up menu): find default download folder / search for downloaded file: *hermite_slide.stl*
 - select *hermite_slide.stl* / hit Enter (or click *Import STL* on right of file bar)
2. to learn to zoom in and out on object; click anywhere in main user window
 - to zoom out from object: hit *-* button on keyboard;
 - to zoom in on object: hit *+* button on keyboard;
 - (OR with mouse, to zoom in and out: hold left click and scroll on wheel or touch pad)

3. in *Outliner* window (top right of main user window)
 - select *Hermite Slide* (object has orange outline)
 - troubleshoot*: do not expand *Hermite Slide*; if *Hermite Slide* has been expanded, two *Hermite Slide* options will appear in the pop-up window; if this happens, select the *Hermite Slide* on top (the first) not the one on the bottom
4. in *Properties* window (right of main user window, under *Outliner*)
 - click *Scene* button (third button from left in button-tool bar);
 - select *Units* (second option under *Scene* in drop-down window);
 - click *Metric* button (second button from left in button-tool bar);
 - in *Metric* drop-down menu, enter value: Scale: 0.002
5. move cursor into main user window; click once and hit *N* button on keyboard
 - pop-up window appears on right of main user window;
 - in pop-up window: select *Transform*; find *Dimensions* and enter values:

X:	1.8 mm
Y:	5 cm
Z:	4.5 cm
6. in *Outliner* window, *Hermite Slide* object must be selected (object has orange outline);
 - go to *Tools* tab (left of main user window); under *Edit*, click *Duplicate*;
 - any move of mouse will move object; to position duplicated *Hermite Slide* (named *Hermite Slide.001*), move mouse or touch pad, and left click or hit Enter on keyboard;
7. in *Outliner* window, select *Hermite Slide.001* (object has orange outline);
 - go to *Tools* tab (left of main user window); under *Edit*, click *Duplicate*;
 - any move of mouse will move object, to position duplicated *Hermite Slide* (named *Hermite Slide.002*), move mouse or touch pad, and left click or hit Enter on keyboard;
8. in *Outliner* window, select *Hermite Slide.002* (object has orange outline);
 - go to *Tools* tab (left of main user window); under *Edit*, click *Duplicate*;
 - any move of mouse will move object, to position duplicated *Hermite Slide* (named *Hermite Slide.003*), move mouse or touch pad, and left click or hit Enter on keyboard;
9. in *Outliner* window, select *Hermite Slide.003* (object has orange outline);
 - go to *Tools* tab (left of main user window); under *Edit*, click *Duplicate*;
 - any move of mouse will move object, to position duplicated *Hermite Slide* (named *Hermite Slide.004*), move mouse or touch pad, and left click or hit Enter on keyboard;
10. go to *Create* tab (left of main user window, under *Tools* tab)
 - under *Add Primitive*, click *UV Sphere* mesh;
 - the *Add UV Sphere* pop-up menu appears (left of main user window);
 - Under *Add UV Sphere*, enter values:

Segments:	100
Rings:	40
11. there are now five objects – *Hermite Slides* – in the main user window
12. go to *Dimensions* in *Transform* pop-up menu (right of main user window)
 - under *Dimensions*, enter values

X:	2 cm (type 'cm' for proper unit of measurement)
Y:	2 cm (type 'cm' for proper unit of measurement)
Z:	2 cm (type 'cm' for proper unit of measurement)

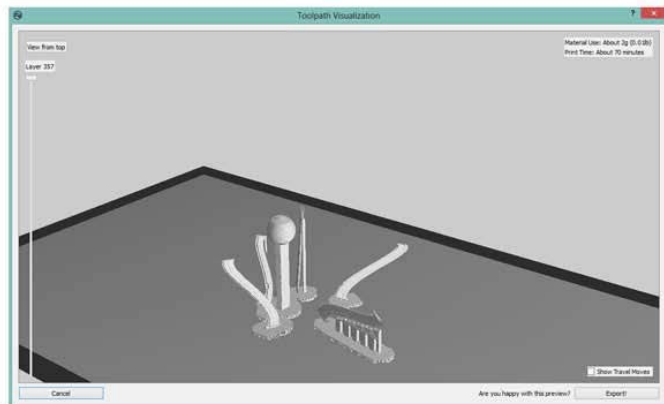


Fig. 6 Screenshots from Blender and MakerBot Desktop: building, animating & printing PERP, the Pearl Interpolation in a Monument to Bad Memory (mage: 2014).

STEP SEVEN: Five Hermite Slides and a UV Sphere are Rotated and Moved into Position with Programmed Coordinates (or see *Manual Option* below)**

1. in *Outliner* window (top right of main user window), select *Hermite Slide*;
 - go to *Transform* pop-up window (left of *Outliner* window; right of main user window);
 - (IF pop-up window is hidden, move cursor into main user window, click once and hit *N* button on keyboard);
 - under *Location*, enter values:
 - X: -2.97973cm
 - Y: -5.70065cm
 - Z: -5.2873mm
 - under *Rotation*, enter values:
 - X: 37°
 - Y: 0°
 - Z: 0°
2. return to *Outliner* window; select *Hermite Slide.001*;
 - go to *Transform* pop-up window;
 - under *Location*, enter values:
 - X: -1.41613cm
 - Y: 1.32991mm
 - Z: -2.6245mm
 - under *Rotation*, enter values:
 - X: 38°
 - Y: 0°
 - Z: 157°
3. return to *Outliner* window; select *Hermite Slide.002*;
 - go to *Transform* pop-up window;
 - under *Location*, enter values:
 - X: -5.1404cm
 - Y: -1.69929mm
 - Z: -4.73544mm
 - under *Rotation*, enter values:
 - X: 36°
 - Y: 0°
 - Z: -138°
4. return to *Outliner* window; select *Hermite Slide.003*;
 - go to *Transform* pop-up window;
 - under *Location*, enter values:
 - X: -5.06875cm
 - Y: -3.28023cm
 - Z: -8.05279mm
 - under *Rotation*, enter values:
 - X: 70°
 - Y: 12°
 - Z: 12°

5. return to *Outliner* window; select *Hermite Slide.004*;
 - go to *Transform* pop-up window;
 - under *Location*, enter values:
 - X: -7.29429mm
 - Y: -2.94362cm
 - Z: -6.19965mm
 - under *Rotation*, enter values:
 - X: 46°
 - Y: 0°
 - Z: 80°
6. return to *Outliner* window; select *Sphere*;
 - go to *Transform* pop-up window;
 - under *Location*, enter values:
 - X: -2.8864cm
 - Y: -2.5994cm
 - Z: 5.16997cm
 - under *Rotation*, enter values:
 - X: 0°
 - Y: 0°
 - Z: 0°
7. *troubleshoot*: if there is a slide that appears to be in the wrong place, re-enter the location data even if it seems correct; also, check that measurement units are correct (i.e. cm or mm)
8. go to *File* / select *Save As* / name file: *PERP.blend* / click *Save As Blender File*

STEP EIGHT: Roundabout Object Cylinder is Added to Slides and Sphere

- / go to *Create* tab (left of main user window, under *Tools* tab) /
- under *Add Primitives*, select *Cylinder*;
 - Add Cylinder* pop-up window appears;
 - Under *Add Cylinder*, change values to:
 - Vertices: 100
 - to scale and position *Cylinder* object with programmed coordinates:
 - go to *Transform* pop-up window (if hidden, move cursor into main user window, click once and hit *N* button on keyboard);
 - under *Dimensions*, enter values:
 - X: 10 cm
 - Y: 10 cm
 - Z: 1 mm
 - under *Location*, enter values:
 - X: -2.92204 cm
 - Y: -2.72976 cm
 - Z: -1.42643 cm
 - (OR, to position *Cylinder* manually, click blue Z-axis arrow in main user window and move *Cylinder* object to desired location under standing slides and sphere)

STEP NINE: To Animate Collapse, Plane Mesh is Added to Slides and Sphere

go to *Create* tab (left of main user window, under *Tools* tab)

- under *Add Primitives*, select *Plane*;
- to position *Plane* object with programmed coordinates:
- go to *Transform* pop-up window (if hidden, move cursor into main user window, click once and hit *N* button on keyboard);
- under *Location*, enter values:

X: 0 m
Y: 0 m
Z: -1.54914cm

- (OR, to position *Plane* manually, click blue Z-axis arrow in main user window and move *Plane* object to desired location under standing slides and sphere)

STEP TEN: Correspondences Among Slides and Sphere are Coordinated for Animating

1. in *Outliner* window / select *Plane*;
 - in *Properties* window (under *Outliner* window): click *Physics* button (bouncing ping-pong ball icon: first button on the right of *Properties* toolbar);
 - under *Enable physics for*: click *Rigid Body*
 - in *Rigid Body* pop-up window, change *Type* to *Passive*
2. in *Outliner* window / select *Hermite Slide*
 - in *Properties* window: click *Physics* button
 - under *Enable physics for*: click *Rigid Body*
 - in *Rigid Body* pop-up window, *Type* remains *Active*;
 - check box for *Dynamic*;
 - in *Mass*, enter value:110g
 - under *Rigid Body Collisions*: *Shape* remains *Convex Hull*
3. repeat above procedure for all *Hermite Slide* duplicates (*Hermite Slide.001*, *Hermite Slide.002*, *Hermite Slide.003*, *Hermite Slide.004*)
4. in *Outliner* window / select *Sphere*
 - in *Properties* window: click *Physics* button
 - under *Enable physics for*: click *Rigid Body*
 - in *Rigid Body* pop-up window, *Type* remains *Active*;
 - check box for *Dynamic*;
 - in *Mass*, enter value: 80g
 - under *Rigid Body Collisions*: *Shape* remains *Convex Hull*

STEP ELEVEN: Correspondences Among Slides and Sphere are Animated

to play animation:

- keyboard shortcut: Alt A
- (or go to *Timeline* strip under main user window and hit play button)

STEP TWELVE: Collapse is Paused Along Animation Timeline and Exported

1. to play animation and pause at selected point of collapse:
 - keyboard shortcut to play and pause: Alt A

- (or go to Timeline strip under main user window and hit play/pause button)
- 2. to print selected point of collapse:
 - in *Outliner* window: select *Plane*; right click and select *Delete*;
 - move cursor into main user window;
 - hold 'B' letter key down on keyboard, then drag mouse to create a rectangular outline over sphere and slides in main user window
- 3. go to *File* / select *Export* / click *Stl (.stl)* / click *Export STL* / name: *PERP01.stl*

STEP THIRTEEN: Free Software Makerbot Desktop for 3D Printing is Opened

find downloaded *MakerBot* in *Applications* folder

- open *MakerBot*: select *Prepare* in top black toolbar

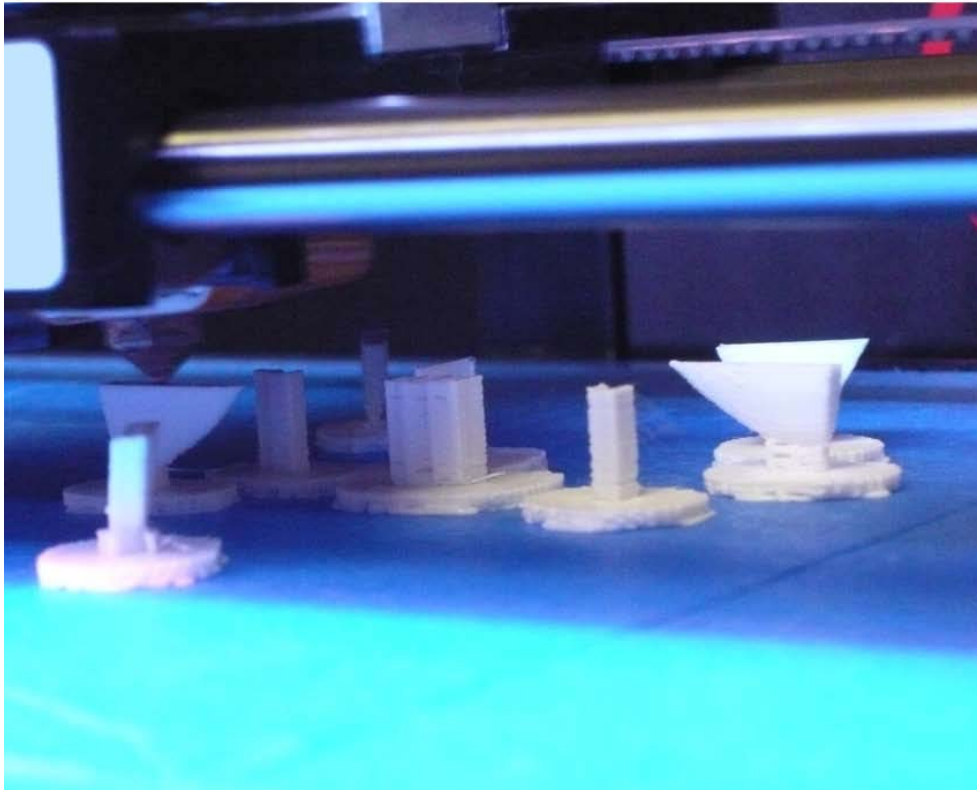
STEP FOURTEEN: Monument to Bad Memory is Supported, Rafted, Previewed and Printed

1. go to *File* / select *Add* / find *PERP01.stl*
2. click on 'axis' button (*Position*) under 'eye' button (*View*) on left side of window
 - click *On Platform*
 - click *Center*
 - troubleshoot: if neither of these options appear, click on the object; if the object is correctly aligned already, it will not move
3. click on 'arrows' button (*Rotate*) under 'axis' button (*Position*)
 - click *Lay Flat*
 - troubleshoot: if this option does not appear, click on the object; if the object is correctly aligned already, it will not move
4. click *Settings* on left under *Prepare* in top black toolbar
 - click *Custom* button on upper right
 - select *Raft*; *Raft* box should be checked
 - select *Supports and Bridging*: check *Support* and *Extra Support*
 - under *Extra support*:
 - change *Support Density* to: .60
 - change *Support Margin* to: 0.1 mm
 - change *Support to Model Spacing* to: 0.1mm
 - change *Support Angle* to: 85
 - under *Bridging*: check *Support Bridges*
5. Select *Preview* in top black toolbar
 - view model in print preview
 - rotate, zoom and explore layers: take screenshots of different views
 - troubleshoot: to zoom without a computer mouse: use two fingers on the track pad
 - click *Show Travel Moves*; rotate, zoom and explore layers; take screenshots

Fig. 7 In video documentation of the destruction of the Pearl Roundabout monument that was circulated online, a lone figure was captured walking down one of the former monument's six 'sails.' The 'sails' -- said to represent the six member nations (Bahrain, Kuwait, Oman, Qatar, Saudi Arabia and the UAE) whose leaders had convened at the Gulf Cooperation Council summit in Manama in 1982 -- had previously served as structural support for the monument's concrete 'pearl'. The fallen 'sails' looked like gigantic human ribs and now served as slides, fallen among ruins of a razed roundabout. The form that resulted from destruction was named PERP or the Pearl Interpolation in a Monument to Bad Memory. (Image: digital photograph of various PERP thermo-plastic models, 2014).



Fig. 8 In the spring of 2011, newspaper reports from the region known as "the Gulf" recorded that a monument to "bad memory" at a traffic roundabout named "Lulu" (Pearl) had been razed. In the process, Riaz Ahmed, a Pakistani migrant worker who operated one of the demolition cranes, had been killed. The collapse of the monument occurred four hundred and fifty kilometers away from the building site of a mega-project called "the biggest Guggenheim ever" (Image: digital photograph of thermo-plastic model printing in Replicator Makerbot, 2014).



**EPI-LOG ETHNO-FICTION:
TRANS-FINITE INTERPOLATIONS IN A MODEL OF BAD MEMORY**

For the *PERP* to be added to the *herp*, the *lerp* and the *berp* (three interpolations already present in the Internet library of things) a user named William had to have sat at his kitchen table in front of his laptop. It must have been the month of June. The humidity levels had to drive temperatures to 86 degrees, and the user named William had to have begun modeling a waterslide tube in an open-source design software he called "OpenScad". The user named William had to have identified himself as "a dabbler": he had to have said he worked on software for a large company at a location he called the "Pacific Northwest".

The user named William had to have developed his waterslide using a hermite curve. He had to have described the hermite curve as a curve defined by two endpoints with tangents vectoring to those endpoints. In a *herp*, or hermite interpolation, *splines* or sections of a curve, can be adjusted independently: each section can be made to move in response to its endpoint-constraint. The method of manipulation in which one spline is adjusted independently is sometimes called *trans-finite interpolation*. Trans-finite interpolation is frequently used in the computer-aided design of forms that fly or glide.

While the user named William was sitting at his kitchen table and preparing his waterslide model for a file-sharing site, another user named Haroon was creating a map on a free mapping service. The map made by the user named Haroon featured a series of eight markers: all of the markers were blue and all were linked to videos. The map that the user named Haroon made was labeled "Bahrain protests 16/17 June 2011: Protests purported to have been held overnight on 16 and 17 June 2011."

The map made by the user named Haroon had to have been viewed five thousand five hundred and fifty-three times. The hermite slide made by the user named William had to have been downloaded three hundred and twelve times. The locations cited on the map made by the user named Haroon had to be: Shahrakkan, Sinabis, Sitra, Ma'ameer, Barbar and Bani Jamra. Karzakkan had to appear twice and several of the map's video links had to eventually list as no longer existent. Meanwhile, the hermite slide made by the user named William had to undergo various iterations. In comments associated with the hermite slide, another user reminded the user named William that in colloquial North American English *herp derp* was an expression used to make fun of conversations that sounded like nonsense.

It was at this point that the architect who had designed the model for a mega-project monument called "the biggest Guggenheim yet" would have expected that his model would already have become a building. In a column commissioned for a newspaper, the architect had imagined the "particular issues" that building in the location he called "the Gulf" could, as he described it, "throw up": these issues regarded what he called the "display of art." He noted that a journalist had once called one of his designs "crude curlicues," and he warned that in the monument called "the biggest Guggenheim yet," there might even be "curlicues, too."

In the spring of 2011, newspapers reported a "monument to bad memory" at the Bahrain roundabout called "Pearl" (or "Lulu"): the monument was a sculpture that had 'curled' on 'cue' to collapse. The collapse had occurred four hundred and fifty kilometers across from the mega-project architect's building site. Completion of the architect's monument, the "biggest Guggenheim yet," was delayed while the "monument to bad memory" fell: a bulldozer had deliberately dislocated one of the six 'sails' in the sculpture that held up the monument's central sphere. The sculpture's collapse resulted in a proliferation of miniatures: models of the standing "Pearl" (or "Lulu") were erected at various locations to memorialize the roundabout's erasure. Video of the monument's collapse was circulated on video-sharing sites. In one video, a lone human figure was captured walking down one of the monument's fallen 'sails' which now took the form of what looked like a gigantic human rib. The sail became a rib was now a slide among the ruins of a roundabout monument—ruins called *PERP*, the Pearl Interpolation in a Monument to Bad Memory.

Bibliography: "Epi-log Ethno-fiction: Trans-finite Interpolations in a Model of Bad Memory."

Bronner, Ethan. "Bahrain Tears Down Pearl Monument as Protestors Seethe." *The New York Times*. March 18, 2011.

Gehry, Frank. "My Abu Dhabi adventure." *The Guardian. Art & Design Blog*. March, 5, 2007.

Bibliography: "The Roundabout & The Museum: A Tale of Two Gulf Urbanisms"

Ben Hamouche, Mustapha. "Manama: The Metamorphosis of a Gulf City." *The Evolving Arab City: Tradition, Modernity and Urban Development*. Ed. Yasser Elsheshtawy. New York: Routledge, 2008.

Elsheshtawy, Yasser. "Cities of Sand and Fog: Abu Dhabi's Arrival on the Global Scene." *The Evolving Arab City: Tradition, Modernity and Urban Development*. Ed. Yasser Elsheshtawy. New York: Routledge, 2008.

Khalaf, Amal. "The Many Afterlives of Lulu: The Story of Bahrain's Pearl Roundabout." *IBRAAZ*. Feb. 2013.

"Who's Building the Guggenheim Abu Dhabi?" *Gulf Labor Blog*. last updated 2013.
URL: <https://gulflabor.wordpress.com/timeline/>

MOBILE

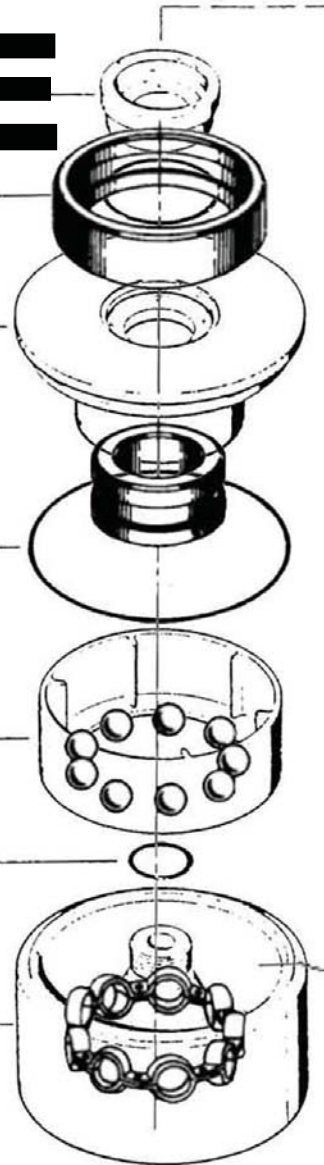
IRONY

VALVE

*ANAGRAMMED PRODUCTIONS OF
EMILY VERLA BOVINO*

PORT-

FOLIO





RK-LOG is an epic art historical ethno-fiction that follows near-future incidents in the afterlife of a fictional biological specimen labeled 'RK'. The remains of RK manifest as different parts of the body depending on the qualities of the landscape where episode research is based, and on the art and architecture at the center of RK-LOG fieldwork. RK-LOG fieldwork always takes place in territories experienced as plastic thresholds. Plastic thresholds are explosive, transformational territories that change the bodies of crossers by being changed by bodies in crossings.

Ethno-fiction uses ethnographic fieldwork methods, informant interviews, and performance improvisation to cooperatively script fiction with people, objects, and landscapes. Participant-performers and participant-objects contribute to shaping their own fictional personas so they can play the part of ethnographic informants and material evidence in RK-LOG episodes.

This website is a platform that provides access to the various RK-LOG episodes.

● click on gray dots in diagram for RK-LOG episodes

RK-LOG ARTIST-NOVEL DESCRIPTION AND WEB PLATFORM INTRODUCTION AND WEBSITE FOR RK-LOG

RK-LOG is an epic artist-novel that follows episodes in the afterlife of a fictional biological specimen labeled 'RK.'
For further description, read the above introduction and see relevant portfolio images.

For the artist-novel website, visit: <http://rklog.net>

**RAD BARR
IAN RIE
T R
+
PLA THR
STI ESH
C OLD**

mobile irony valve productions / emily verla bovino
structural and materials engineering (sme) gallery and auditorium, UCSD
gallery open: may 15 to may 28, 2017 / auditorium event: may 25 and 26, 2017

UCSD VIS ARTS UCIRA FISP Fieldwork marfa

RK-LOG / EPISODE 2

RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Poster with exhibition information; the stripes on the poster are a neon-green that must be individually mixed and can only be printed in off-set.

RAD BAR
IAN RIE
T R
+
PLA THR
STI ESH
C OLD

What kind of shape can life on the border take when recorded 'live' for three months; life recorded 'live' on the border between desert and river, between voice and vision, between body and specimen, between life and death, between West Texas and Northern Mexico?

Spontaneous, staged, and overheard conversations, music from gas station bathrooms and concerts in small town bars, docent tours through art installations, and objects encountered in desert treks: this exhibition brings together an ethno-fiction audio-drama created from three months of continuous recording, with the objects that influenced its scenario. Ethno-fiction uses ethnographic fieldwork methods, informant interviews, and performance improvisation to cooperatively script fiction with people, objects, and landscapes. Participant performers, objects, and geographies contribute to shaping their own fictional personas so that they can play the part of ethnographic informants, material evidence, and research-territories in RK-LOG episodes.

Better to Lose Your Head than Use It is Episode Two of RK-LOG, an epic artist novel that follows near-future incidents in the afterlife of the fictional biological specimen labeled 'RK'. The remains of RK manifest as different parts of the body depending on both the qualities of the landscape where episode research is based, and on the art and architecture at the center of RK-LOG fieldwork. RK-LOG fieldwork always takes place in territories experienced as plastic thresholds. Plastic thresholds are explosive, transformational territories that change the bodies of crossers by being changed by bodies-in-crossings.

A para-euchronic world—a world turning alongside, but out-of-sync with our own—took form over the course of five years of RK-LOG fieldwork in the Presidio-Chihuahua borderlands where minimalist Donald Judd's artist museum, *The Chinati Foundation/La Fundación Chinati* was built in the 1980s. Judd retrofitted structures from a World War II era prisoner-of-war-camp for a complex he called his "platinum-iridium meter" of the contemporary. In the para-euchrony of RK-LOG, Box 63 from Judd's *100 Works in Mill Aluminum* (1981-1986) meets R.L. Chacon's Spanish Civil War account (1938) of anarchist and artist Alphonse Laurencic's designs for a torture cell based on modernist art theory. The resulting object, known to investigators as the *Radiant Barrier*, is a sensory deprivation chamber used by the fictional 'RK' during mid-twenty-first century borderlands experiments on hyperthymestic superior rememberers. Experiments on superior rememberers were taking place in mobile laboratories called land-yachts. These land-yachts were docked in the desert an hour from *Chinati*, a forgotten monument of late twentieth-century art that had come to be called *Chiniliti*. Superior rememberers used *Chiniliti* installations in rites of forgetting called *Fuch 4 Chiniliti*.

Special Event: Thursday May 25th 4PM – 10PM
Durational Sculpture and Audio-Drama Screening
Structural and Materials Engineering (SME) Building, SME 142 and SME 149 (Gallery & Auditorium)
Food and Refreshments will be served

For appointments to experience RK-LOG Episode One Car-Cinema in Sorrento Valley, San Diego,
e-mail Emily Verla Bovino at: ebovino@ucsd.edu

RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO, 2017

Flyer with exhibition text and RAD BAR PLA THR graphic.



The Significance of a Posthumous Gesture is Episode One of RK-LOG in the San Diego-Tijuana borderlands between Southern California and Northern Mexico. In Episode One, the specimen 'RK' manifests as a preserved brain in the process of being sliced on a microtome for conservation by a neuroanatomist in a Sorrento Valley brain archive. The audio-drama is designed for a car-cinema itinerary.

If, as has been asserted, the brain of the famous amnesiac Henry Molaison (HM) was the emblematic brain of the modern era, the superior autobiographical memory of specimen RK made this brain the most representative case study of the early twenty-first century. Unlike brain archives, the brain 'observatory' where the brain of RK was sliced, was not just a research facility for the study of pathological cases. Its objective was to preserve and maintain brains for both the aesthetic purposes of contemporary mortuary ritual, and the interest of scientific study. A brain in the observatory was preserved alongside a life-log of stories, objects and images.

Stored in a file system of life-logs and cadavre scans, the 'observed' brain is no brain-in-a-vat, but a series of microtomal slices mounted on glass, then digitized and scanned into a three-dimensional model uploaded online in an immortalizing gesture. The first object catalogued in the 'LOG' of 'RK' is the last artefact RK produced the day before death in a post-modern architectural complex in Biotech Beach, San Diego.

● click on yellow dot in diagram for RK-LOG episode

<< return to main menu

THE SIGNIFICANCE OF A POSTHUMOUS GESTURE // RK-LOG EPISODE ONE DESCRIPTION AND WEB PLATFORM INTRODUCTION AND WEBSITE FOR *THE SIGNIFICANCE OF A POSTHUMOUS GESTURE*

RK-LOG Episode One, *The Significance of a Posthumous Gesture*, features an audio-drama (approx. 1 hour duration) created using performance improvisation. For further description, read the above introduction and see relevant portfolio images.

For the episode website, visit: <http://aposthumousgesture-rklog.net>



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

A small auditorium (foreground) adjacent to the main exhibition space (background, right) was adapted to feature a large hanging projection screen and a mixed-media sculpture. A large garage door behind the hanging projection screen was opened so that digital video was projected over an open outdoor plaza space. Satellite-flight videos for the eleven audio-drama installments of RK-LOG Episode Two, *Better to Lose Your Head Than Use It*, were projected to accompany the 6 1/2 hour audio-drama screening at an exhibition special event.

The sculpture that was installed in the auditorium (foreground center) is a 42-inch circle of tempered glass over a wooden triangular base. The glass circle is supported by three steel pipes held together by a ratchet strap. The sculpture is surrounded by ten black strips of thermoplastic elastomer.



RK-LOG / EPISODE 2



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Details of auditorium installation with hanging projection screen and sculpture. The main exhibition space adjoining the auditorium can be seen through the door behind the sliding wall (top center and bottom left). For description of the projection in the auditorium installation, see previous portfolio page.

The sculpture is a 42-inch circle of tempered glass over a wooden triangular base. The glass circle is supported by three steel pipes held together by a ratchet strap. The sculpture is surrounded by ten black mats of thermoplastic elastomer.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

A small auditorium (foreground) adjacent to the main exhibition space (background, right) was adapted to feature a large hanging projection screen and a mixed-media sculpture. A large garage door behind the hanging projection screen was opened so that digital video was projected over an open outdoor plaza space. Satellite-flight videos for the eleven audio-drama installments of RK-LOG Episode Two, *Better to Lose Your Head Than Use It*, were projected to accompany the 6 1/2 hour audio-drama screening at an exhibition special event.

The sculpture that was installed in the auditorium (foreground center) is a 42-inch circle of tempered glass over a wooden triangular base. The glass circle is supported by three steel pipes held together by a ratchet strap. The sculpture is surrounded by ten black strips of thermoplastic elastomer.



RK-LOG / EPISODE 2



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

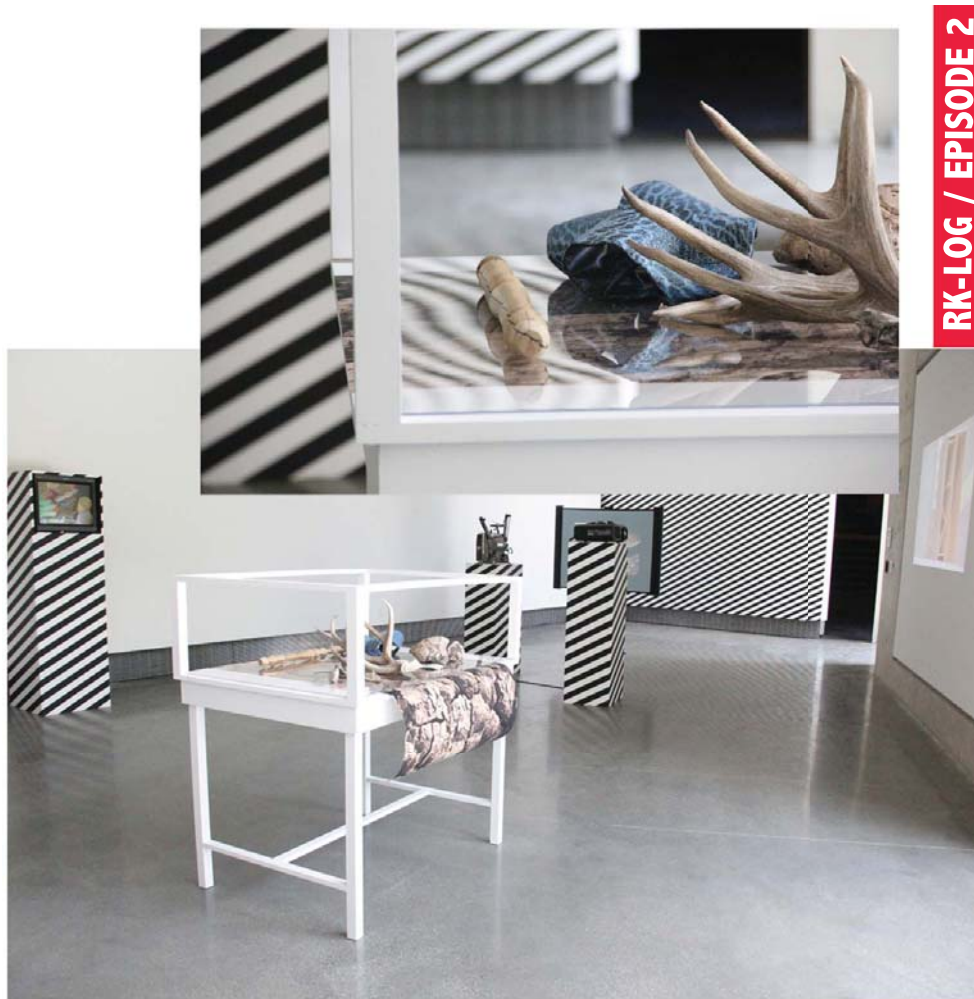
Details of auditorium installation with hanging projection screen and sculpture. The main exhibition space adjoining the auditorium can be seen through the door behind the sliding wall (top center and bottom left). For description of the projection in the auditorium installation, see previous portfolio page.

The sculpture is a 42-inch circle of tempered glass over a wooden triangular base. The glass circle is supported by three steel pipes held together by a ratchet strap. The sculpture is surrounded by ten black mats of thermoplastic elastomer.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

The sliding wall (top) between the auditorium and the main exhibition space was painted with black-and-white stripes and opened for the exhibition special event. The main exhibition space featured a series of objects including the 16mm film (6 minutes) shown in projection here. The 6 minute film was mounted to play continuously on a projection looper (center). The film was developed after completion of RK-LOG Episode One based in San Diego. It features original footage of microtome-slicing of a dolphin brain at a university-affiliated brain archive located in Sorrento Valley, San Diego. The dolphin brain plays the part of the fictional biological specimen, RK, in Episode One. The film was produced during preparation stages of research for RK-LOG Episode Two, *Better to Lose Your Head Than Use It*, based in the U.S.-Mexico borderlands between West Texas and Northern Mexico.



RK-LOG / EPISODE 2

RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

In addition to the 16mm projection (background center) described on the previous portfolio page, the main exhibition space featured two additional moving images (far left and far right) and a series of objects, including the central sculpture shown here (foreground left; detail in top image). A 34-minute video documenting the creation of a silicone sculpture played on a box monitor (left), while a 16-minute digital video of a specially-built movement research environment played on a large cinema projector (right). The central sculpture features a collection of found and fabricated objects arranged in an open display case atop a plexiglas-protected inkjet print. The objects (top, detail) were all found and fabricated during the process of research, editing, and post-production of RK-LOG Episode Two, *Better to Lose Your Head Than Use It*.



RK-LOG / EPISODE 2

RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Detail of central sculpture (top and bottom) and two moving images (bottom) in the main exhibition space. The found and fabricated objects arranged in the open display case of the central sculpture were collected during the process of research, editing and post-production of RK-LOG Episode Two, *Better to Lose Your Head Than Use It*. The two moving image projections shown in detail here are an original 16mm film and a digital video of a performance in a specially-designed movement-research environment. See previous portfolio images for further description.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

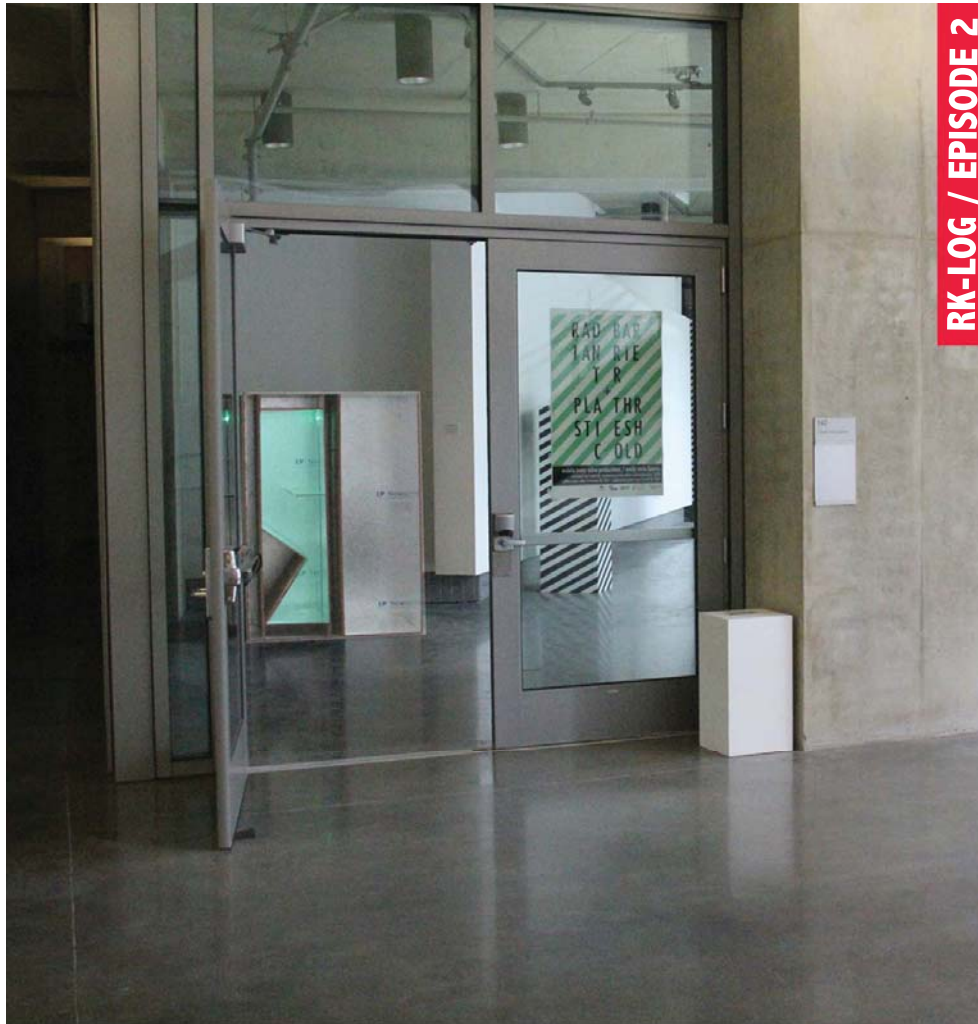
Detail of two moving images (top) and central sculpture (top and bottom) in the main exhibition space. The two moving image projections shown in detail are an original 16mm film and a digital video of a specially-designed movement-research environment (see previous portfolio images for further description). The found and fabricated objects arranged in the open display case of the central sculpture (lower top and bottom detail) were collected during the process of research, editing and post-production of RK-LOG Episode Two, *Better to Lose Your Head than Use It*. Foreground detail (bottom) shows part of an ebony sculpture fabricated on a lathe. Another fabricated object, a sewn textile sculpture, can be seen in the background (left) along with a pair of antlers, the petrified rubber sole of a shoe, and a large volcanic rock found in the desert (back, left to right).



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION

EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Detail of oriented strand board (OSB) sculpture, *Radiant Barrier (Box 63)* (left) and central sculpture (*Plastic Threshold*, center). The striped pedestal in the background supports one of the three moving images shown in the main exhibition space: a digital video played on a box monitor. The digital video shows the creation of a silicone mold from an assemblage made by piercing an heirloom tomato with a wooden lathe-turned spindle. All three objects (the two sculptures and the digital video) were part of the process of producing RK-LOG Episode Two, *Better to Lose Your Head than Use It*.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Front entrance to the main exhibition space, featuring a view of the oriented strand board (OSB) sculpture, *Radiant Barrier (Box 63)* (left, through doorway) and the exhibition poster (*RAD BAR PLA THR*, right, on the door).

The poster is printed with diagonal stripes in a neon green that can only be reproduced in off-set printing. The OSB sculpture is lined with aluminum foil to reflect green light from a prismatic lightbulb rotating on a motor.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION

EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

View of the main exhibition space from the front entrance. The painted sliding door in the background is opened for access to the adjoining auditorium for the exhibition special event. Two striped pedestals (left) supported a cinema projector and a 16mm projector, and an open display case (center) featured as the exhibition's central sculpture. A computer (right) provides visitors access to the online platform for RK-LOG Episode Two, *Better to Lose Your Head Than Use It*. The online platform features the eleven installment audio-drama, road-trip itineraries for driving with the audio-drama, satellite-flight videos that map the drive, digital paintings (still lifes), and video clips. Postcards of three digital paintings (bottom left) were printed as postcards to publicize the launching of the online platform. A display case (right) features found objects related to the design of the OSB sculpture, *Radiant Barrier*.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Detail of MP3 player and headphones (bottom) provided for visitors to walk through the exhibition listening to the RK-LOG Episode Two audio-drama. The same MP3 player package is provided to users in Marfa, Texas who can borrow the set at the independent bookstore, Marfa Book Company, and listen to the audio-drama while following a mapped road-trip itinerary. A computer installed for the exhibition (right) provides visitors access to the online platform for the episode where all the installments of the audio-drama and the road-trip itineraries can be downloaded by users. The online platform also includes other features (see previous portfolio page for further description).



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURALAND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

The display case features two books used in the design of the OSB sculpture *Radiant Barrier*. The book *Por qué hice las chekas de Barcelona: Laurencic ante el Consejo de guerra* (*Why I made the Barcelona installations: Laurencic before the War Council, 1938*) by Francisco Franco loyalist R.L. Chacon. Chacon's book is in the a Spanish Civil War Collection of the Special Collections & Archives of the University of California, San Diego's Geisel Library. The second book, from the artist's own collection, is the catalogue *Chinati: the Vision of Donald Judd* (2010), the official monograph of minimalist Donald Judd's *The Chinati Foundation/La Fundacion Chinati* in Marfa, Texas.



RK-LOG / EPISODE 2

RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION

EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Details from the two books used in the design of the OSB sculpture *Radiant Barrier*. The book *Por qué hice las chekas de Barcelona* (1938) was displayed open to a page of plans for a torture cell inspired by modernist art theory. The plan was allegedly created by artist and anarchist Alphonse Laurencic during the Spanish Civil War. It was designed to torture Francisco Franco supporters, monarchists, and right-wing counter-revolutionaries.

The cover of the *Chinati* monograph on display is a photograph of minimalist Donald Judd's *100 Untitled Works in Mill Aluminum*, a work installed at Judd's artist museum, *The Chinati Foundation*. The monograph was displayed open to a page of Judd's writings, specifically a section that discusses a World War II era German sign that Judd chose to leave inside the artillery shed he retrofitted for *100 Untitled Works in Mill Aluminum*. The sign reads "Better to Use Your Head than Lose It" in German. Judd created *Chinati* on the grounds of a former World War II prisoner-of-war camp.



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

A computer installed in the main exhibition space (top) provides visitors with access to the online platform for RK-LOG Episode Two, *Better to Lose Your Head than Use It*. The online platform features the eleven installment audio-drama, road-trip itineraries for driving with the audio-drama, satellite-flight videos that map the drive (right), digital paintings (still lifes), and video clips.



RK-LOG / EPISODE 2

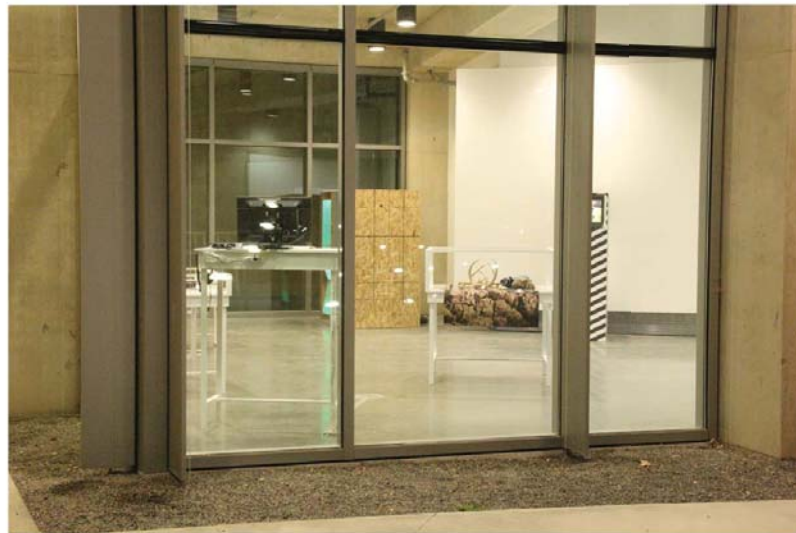


RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Nighttime view of the auditorium adjoining the main exhibition space during the exhibition special event. A Tricaster System in the auditorium projection booth (top) ran and recorded the exhibition special event. The event featured the ratchet strap glass-and-wood circle-triangle sculpture, and the RK-LOG Episode Two audio-drama screening with satellite-flight videos (below). See first portfolio pages for further description.



RK-LOG / EPISODE 2

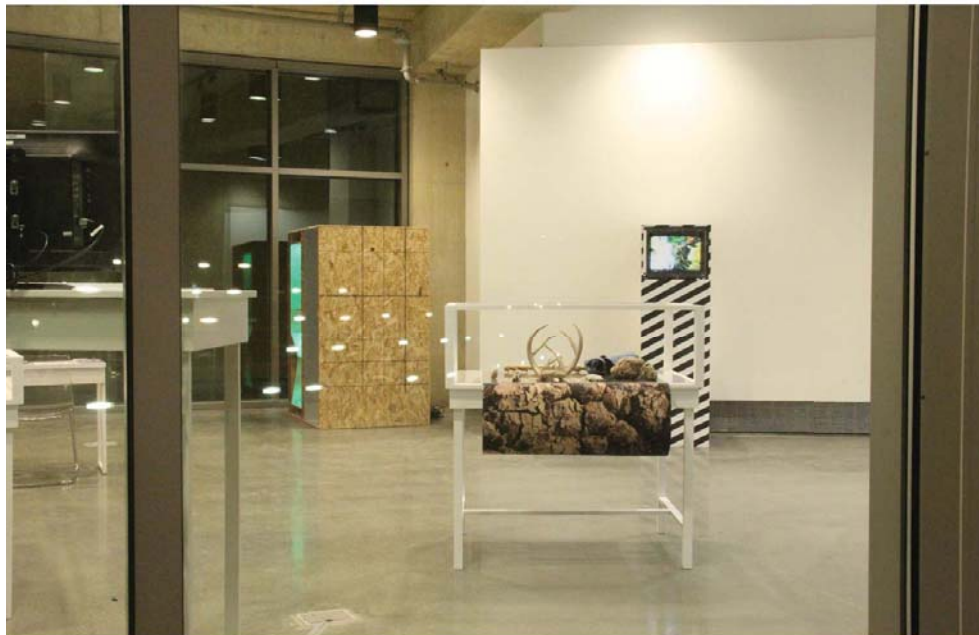


RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Nighttime view of the main exhibition space from outside the Structural and Materials Engineering Building (SME)
 at the University of California, San Diego.



RK-LOG / EPISODE 2

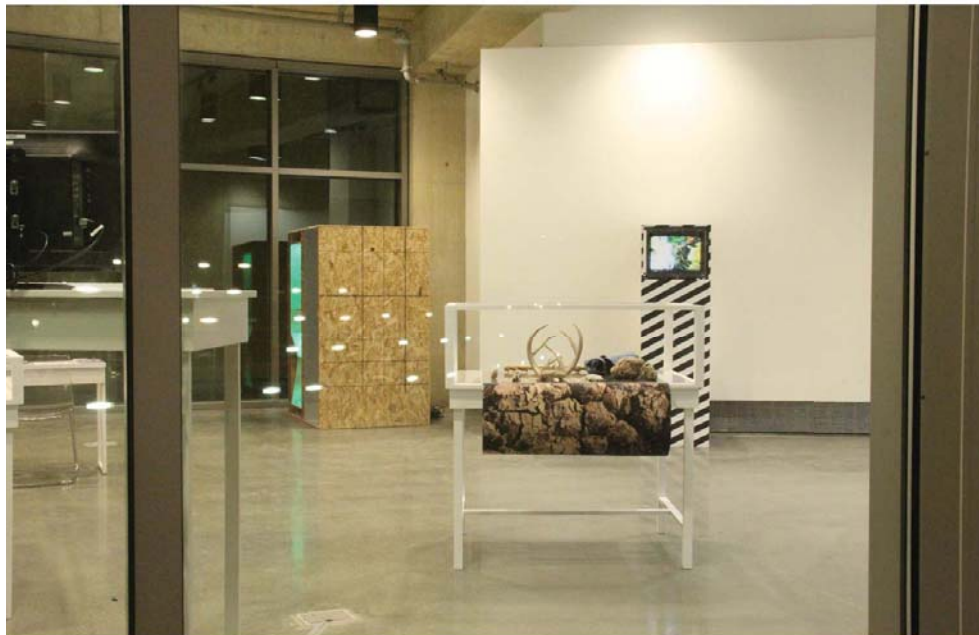


RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

Nighttime view of the main exhibition space from outside the Structural and Materials Engineering Building (SME) at the University of California, San Diego. The exhibition was designed in such a way as to allow visitors to use the amphitheatre-like structure in the open plaza behind the hanging projection screen (top) to listen to the audio-drama installments of RK-LOG Episode Two on provided MP3 players. The two principle sculptures in the main exhibition space (*Radiant Barrier*, left; *Plastic Threshold*, right) were visible from the plaza.

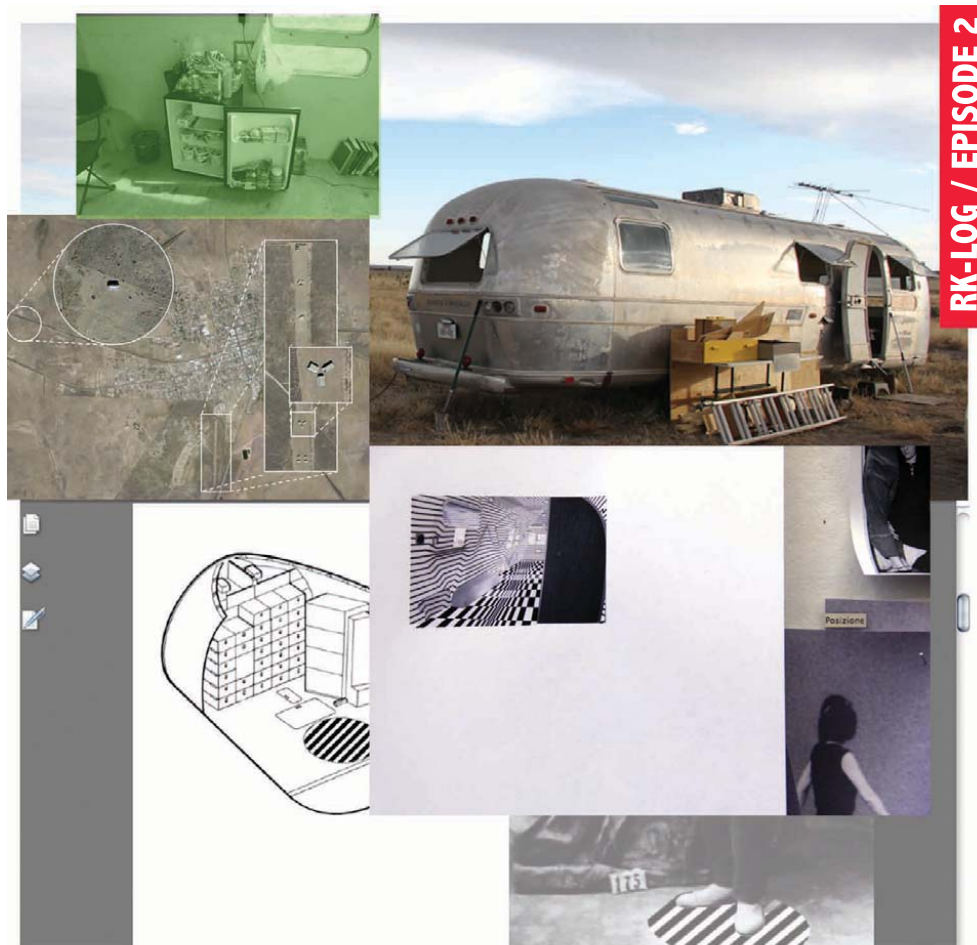


RK-LOG / EPISODE 2



RADIANT BARRIER + PLASTIC THRESHOLD // RK-LOG EPISODE TWO PRESENTATION
 EXHIBITION AND *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA SCREENING
 STRUCTURAL AND MATERIALS ENGINEERING BUILDING (SME), UNIVERSITY OF CALIFORNIA, SAN DIEGO

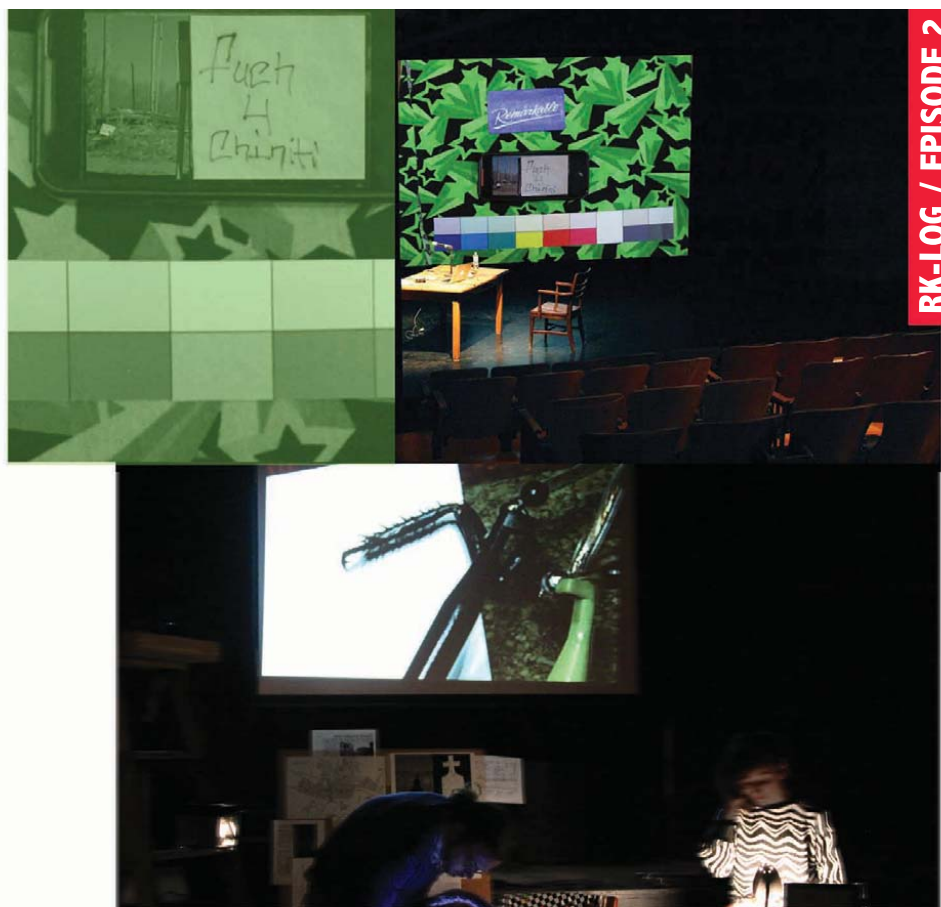
Nighttime view of the main exhibition space from outside the Structural and Materials Engineering Building (SME) at the University of California, San Diego. The exhibition was designed in such a way as to allow visitors to use the amphitheatre-like structure in the open plaza behind the hanging projection screen (top) to listen to the audio-drama installments of RK-LOG Episode Two on provided MP3 players. The two principle sculptures in the main exhibition space (*Radiant Barrier*, left; *Plastic Threshold*, right) were visible from the plaza.



**SOVEREIGN LAND YACHT IN PRESIDIO-CHIHUAHUA BORDERLANDS //
 RK-LOG EPISODE TWO RESEARCH, EDITING AND POST-PRODUCTION**
 PERFORMANCE PRACTICE AND RESEARCH FOR *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA
 UNIVERSITY OF CALIFORNIA INSTITUTE FOR RESEARCH IN THE ARTS AND FIELDWORK: MARFA, TEXAS, 2012 -2017

31-foot 'Sovereign' Model 'Land Yacht' (aluminum Airstream Brand trailer, 1973 gutted and retrofitted for RK-LOG ethno-fiction research in the Presidio-Chihuahua borderlands of West Texas and Northern Mexico. The location of the 'land yacht' in relation to Donald Judd's *The Chinati Foundation* (Marfa, Texas) is indicated in the satellite image collage above (top left): the 'land yacht' is shown docked in the upper left zoom-circle in the collage and a detail of *Chinati* installations is shown in the square on the collage's bottom right.

For work-in-progress travelogue, visit URL:<http://sovereign-land-yacht.blogspot.com/>
 For more information on the *SOVEREIGN* land yacht, download the PDF "What is *SOVEREIGN*?"
 at URL: http://moquetes.net/pdf/EVB_What%20is%20Sovereign%20and%20Why%20You%20Should%20Care_WEB_2013.pdf

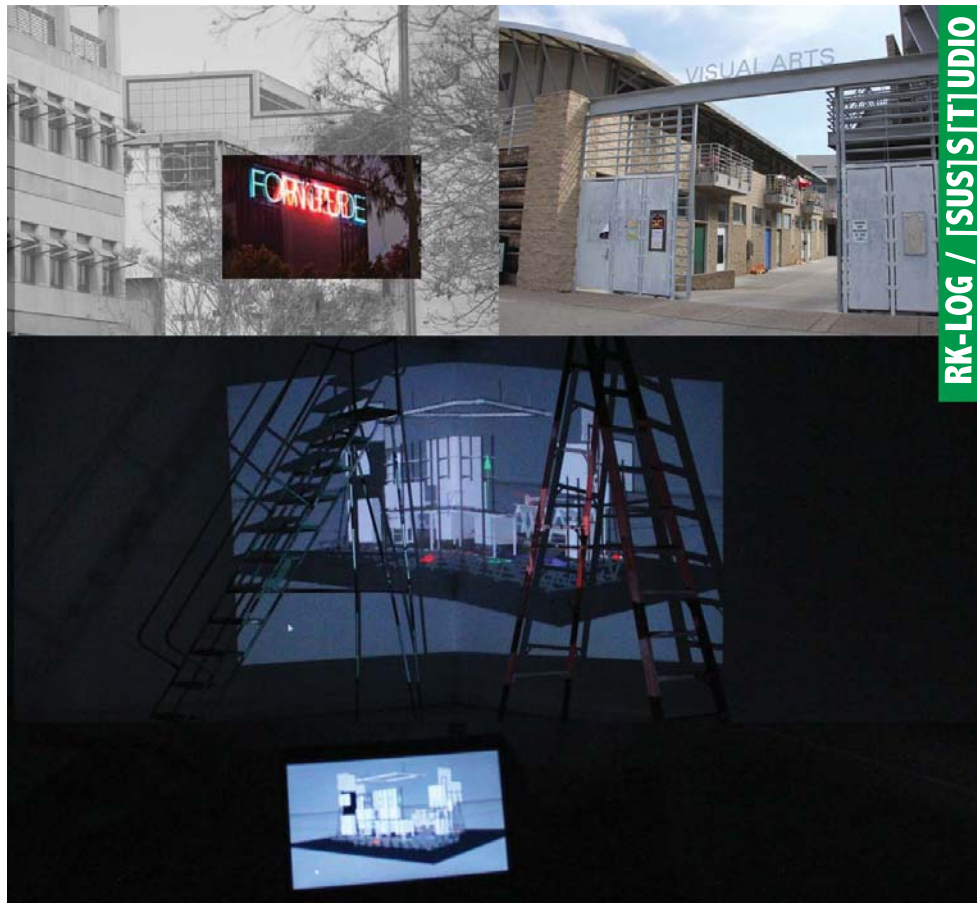


RK-LOG / EPISODE 2

THE SPECTER AND THE BLATTELID // RK-LOG EPISODE TWO SCENARIO READING
 PERFORMANCE PRACTICE AND RESEARCH FOR *BETTER TO LOSE YOUR HEAD THAN USE IT* AUDIO-DRAMA
 FIELDWORK: MARFA, MARFA, TEXAS, 2012

(TOP) "FUCH 4 CHINITI": ON 'INTENTIONAL MISRECOGNITION' IN ETHNO-FICTION FIELDWORK, Crowley Theater, Marfa
 Exploring issues of racialization and gentrification in art tourist-town Marfa, Texas through the ethno-fiction method of 'intentional misrecognition': the example presented was a controversial graffiti known to Marfa inhabitants as "Fuck You Chinati" (referring to minimalist Donald Judd's *Chinati Foundation*, 1981 - 1986), but which literally reads "Fuch 4 Chiniti". Ethno-fiction research used *Youtube* ethnography to work with other meanings of the phrase in informant interviews: *Youtube* videos revealed that "Fuch" has been used as an onomatopoeia for pushing an arm through a tube, while "Chiniti" is associated with the popular 1940s song "Chinito Chinito" (Chinaman, Chinaman) by *pachuco* icon Don Tosti.

(BOTTOM) RK-LOG EPISODE TWO, SCENARIO READING, Padres, Marfa
 Presentation of the scenario for Episode Two of RK-LOG (*Better to Lose Your Head Than Use It*) at a former funeral-home-turned-bar in Marfa, Texas. Performance with cockroaches in collaboration with neurophysiologist and *Spikerbox* creator Tim Marzullo. The disembodied legs of cockroaches were stimulated to move using the artist's voice. Free food menu prepared by the artist: red wine and pinto bean soup with polenta squares and optional spicy salami



RK-LOG / [SUS]S[T]UDIO

(SUS]S[T]UDIO // RK-LOG EPISODES ONE AND TWO STUDIO EXPERIMENT
 DURATIONAL EXPERIMENTS WITH OBJECTS FABRICATED AND FOUND DURING WORK ON RK-LOG
 ACCUMULATION, ACCRETION, RUPTURE, TRANSLOCATION AND RAFTING
 VISUALARTS FACILITY (VAF) STUDIO #237 AND VISUALARTS FACILITY (VAF) GALLERY, UNIVERSITY OF CALIFORNIA, SAN DIEGO

The durational studio experiment involved five years of collecting found and fabricated objects. The objects and the studio experiment were used to develop Episode One and Two of the epic artist-novel RK-LOG. The experiment is named for pop singer Phil Collins song *Sussudio* (1986). The song's refrain, "su-su-sudio," is often misheard as either "stu-stu-studio" or understood to be "sue-sue-sue-dio" (the latter associated with the popular female name 'Sue.') After five years of accumulation, the studio environment was moved from VAF Studio #237 to the VAF Gallery. The move covered 82 feet between the two spaces, both within the same complex (VAF) in the lower campus canyons of UCSD. Before moving the objects, a virtual three-dimensional model of the studio was made in Cinema4D. A wooden rafting structure was designed to hold selected elements of the studio object-aggregation in its new environment (the VAF Gallery). Before objects were moved, the 3D simulation was projected in the gallery environment over a ladder and a set of wheeled stairs, instruments used in the move. VAF (top right) was designed by Southern Californian architect Rebecca Binder for UCSD in 1993. It is located within view of Bruce Nauman's *Vices and Virtues* (1988) (top left) at the Powell Structural Systems Laboratory (1986). Powell Lab tests the structural integrity of prefabricated sections for bridges and roads. In orientation tours, incoming students are told that the first



(SUS)S[T]UDIO // RK-LOG EPISODES ONE AND TWO STUDIO EXPERIMENT
 DURATIONAL EXPERIMENTS WITH OBJECTS FABRICATED AND FOUND DURING WORK ON RK-LOG
 ACCUMULATION, ACCRETION, RUPTURE, TRANSLOCATION AND RAFTING
 VISUALARTS FACILITY (VAF) STUDIO #237 AND VISUALARTS FACILITY (VAF) GALLERY, UNIVERSITY OF CALIFORNIA, SAN DIEGO

(upper left) *Radiant Barrier (Box 63)* installed in studio #237 at the Visual Arts Facility (VAF), University of California, San Diego (upper left).
 (upper right) *Radiant Barrier (Box 63)* positioned on a rafting structure designed to hold the studio environment in the VAF Gallery;
 (bottom left) detail from environment: bottom right) aluminum model of
 minimalist Donald Judd's Box 63 from *100 Untitled Works in Mill Aluminum* (1981 - 1985), which was the base-model for *Radiant Barrier*.



RK-LOG / [(SUS)S[T]UDIO

[(SUS)S[T]UDIO // RK-LOG EPISODES ONE AND TWO STUDIO EXPERIMENT
 DURATIONAL EXPERIMENTS WITH OBJECTS FABRICATED AND FOUND DURING WORK ON RK-LOG
 ACCUMULATION, ACCRETION, RUPTURE, TRANSLOCATION AND RAFTING
 VISUALARTS FACILITY (VAF) STUDIO #237 AND VISUALARTS FACILITY (VAF) GALLERY, UNIVERSITY OF CALIFORNIA, SAN DIEGO

Studio #237 environment with objects before move to support raft in VAF Gallery. View of environment through a high window from a stairway landing above the studio (top left), and from inside the studio itself (top right, bottom left, bottom right)..
 Objects in the nvironment are found and fabricated or found-fabricated hybrids, including collage and assemblage.
 For further description, see previous portfolio pages.



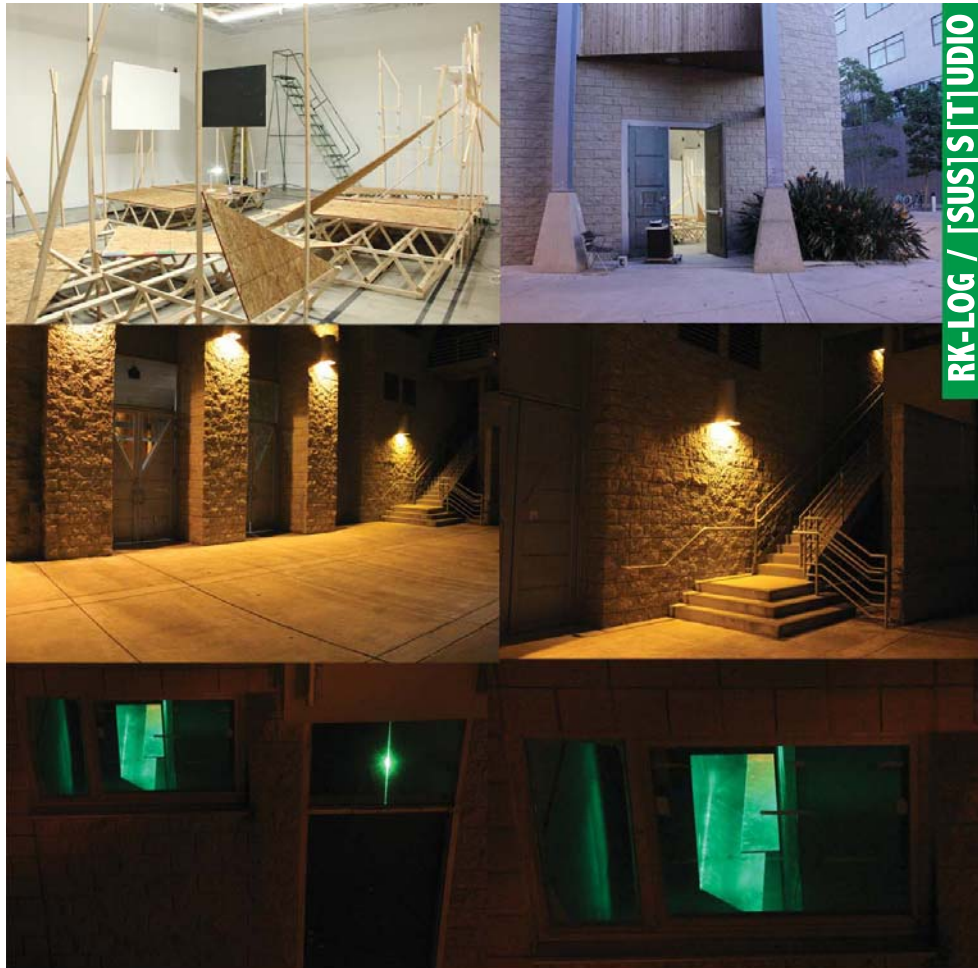
RK-LOG / [SUS]S[T]UDIO

(SUS)S[T]UDIO // RK-LOG EPISODES ONE AND TWO STUDIO EXPERIMENT
 DURATIONAL EXPERIMENTS WITH OBJECTS FABRICATED AND FOUND DURING WORK ON RK-LOG
 ACCUMULATION, ACCRETION, RUPTURE, TRANSLOCATION AND RAFTING
 VISUALARTS FACILITY (VAF) STUDIO #237 AND VISUALARTS FACILITY (VAF) GALLERY, UNIVERSITY OF CALIFORNIA, SAN DIEGO

Studio environment after the move from VAF studio #237 to VAF Gallery. Several installation views shown here (upper left, middle right, bottom left) are from a set of wheeled stairs that simulate the perspective of the high window in VAF Studio#237 (see previous portfolio page).

Objects in the studio environment are found and fabricated, or found-fabricated hybrids, including collage and assemblage.

For further description, see previous portfolio pages.



RK-LOG / [SUS]S[T]UDIO

(SUS)S[T]UDIO // RK-LOG EPISODES ONE AND TWO STUDIO EXPERIMENT
 DURATIONAL EXPERIMENTS WITH OBJECTS FABRICATED AND FOUND DURING WORK ON RK-LOG
 ACCUMULATION, ACCRETION, RUPTURE, TRANSLOCATION AND RAFTING
 VISUAL ARTS FACILITY (VAF) STUDIO #237 AND VISUALARTS FACILITY (VAF) GALLERY, UNIVERSITY OF CALIFORNIA, SAN DIEGO

Radiant Barrier (Box 63) photographed as it was visible to viewers who happened to pass through the Visual Arts Facility (VAF) at night during the ten-day durational studio experiment. *Radiant Barrier (Box 63)* could be seen from a landing across the VAF courtyard (middle right) and was visible through the high windows of VAF Studio #237 (bottom left). Studio contents had been moved 82 feet across the courtyard for rafting in the VAF Gallery (top right). At this point of the durational studio experiment, all objects were removed from the raft (top left) and stored in boxes on wheeled platforms positioned around the VAF courtyard. The rafting structure remained as an autonomous sculpture in the VAF Gallery space (upper left).



(SUS)S[T]UDIO // RK-LOG EPISODES ONE AND TWO STUDIO EXPERIMENT
 DURATIONAL EXPERIMENTS WITH OBJECTS FABRICATED AND FOUND DURING WORK ON RK-LOG
 ACCUMULATION, ACCRETION, RUPTURE, TRANSLOCATION AND RAFTING
 VISUALARTS FACILITY (VAF) STUDIO #237 AND VISUALARTS FACILITY (VAF) GALLERY, UNIVERSITY OF CALIFORNIA, SAN DIEGO

Movement research (bottom rows) used to close rafting support (upper left) of durational sculpture into the skeleton of an autonomous object (upper right)
 To see video documentation, visit: <https://vimeo.com/207037959>



Better to Lose Your Head Than Use It is Episode Two of RK-LOG based in the Presidio-Chihuahua borderlands between West Texas and Northern Mexico. In Episode Two, the specimen 'RK' manifests as the back half of a cryogenically conserved head used for experiments in the distant future. The main feature of the episode is a multi-installment audio-drama.

Mid-twenty-first century borderlands experiments on hyperthymic superior rememterers are taking place in mobile laboratories near a forgotten monument of late twentieth century art: minimalist Donald Judds artist museum, *The Chinati Foundation*. *Chinati* was developed in the remote town of Marfa on the grounds of a former World War Two prisoner-of-war camp that held German prisoners-of-war captured in the African Campaigns.

Donald Judd is recalled by most as 'Jonald Dudd', the venerated creator of installations that aid individuals afflicted with superior remembering; *Chinati* has become *Chinita*, the ceremonial core of a virtual border wall. Legislation on human experimentation has been 'flexibilized' in the borderlands and the fictional RK arrives in the area for brain sampling and invasive stimulation. Meanwhile, in the dried-up bend of a river-with-two-names remote-patrolled as a dividing line with insect-embedded sensors and unmanned border checkpoints—a proxy war is being fought between genetically-modified salt cedar beetles and remote-controlled cockroaches. In a cemetery on a hillock overlooking one site in the proxy-war, RK finds the grave of Ramon Karam, an 'Assyrian peddler' murdered on the border in 1918.

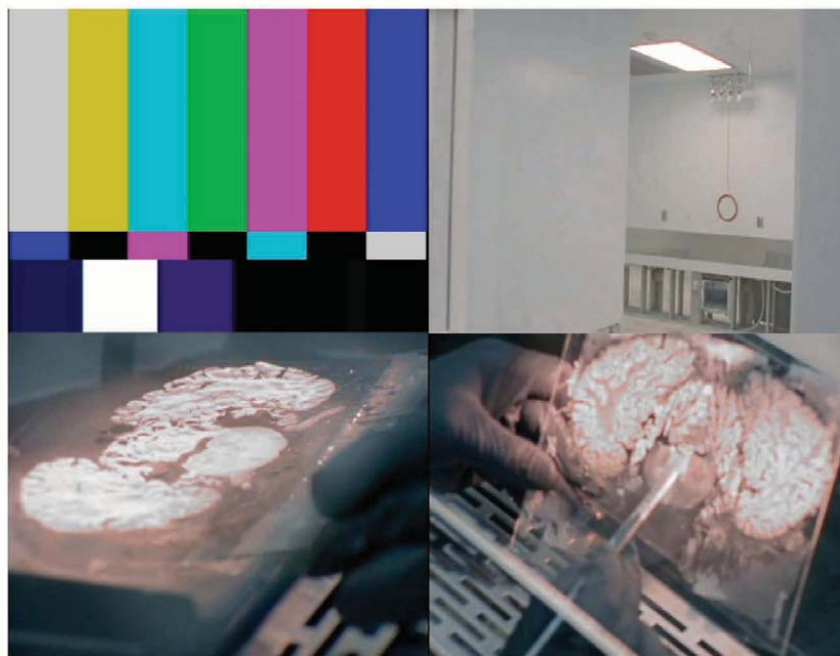
● click on yellow dot in diagram for RK-LOG episode

<< return to main menu

BETTER TO LOSE YOUR HEAD THAN USE IT // RK-LOG EPISODE TWO DESCRIPTION AND WEB PLATFORM INTRODUCTION AND WEBSITE FOR *BETTER TO LOSE YOUR HEAD THAN USE IT*

RK-LOG Episode Two, *Better to Lose Your Head Than Use it*, features an eleven installment audio drama (approx. 6 1/2 hour total duration) created using object research, the construction of ephemeral environments and performance improvisation.
.For further description, read the above introduction and see relevant portfolio images.

For the episode website, visit: <http://bettertoloseyourhead-rklog.net>.



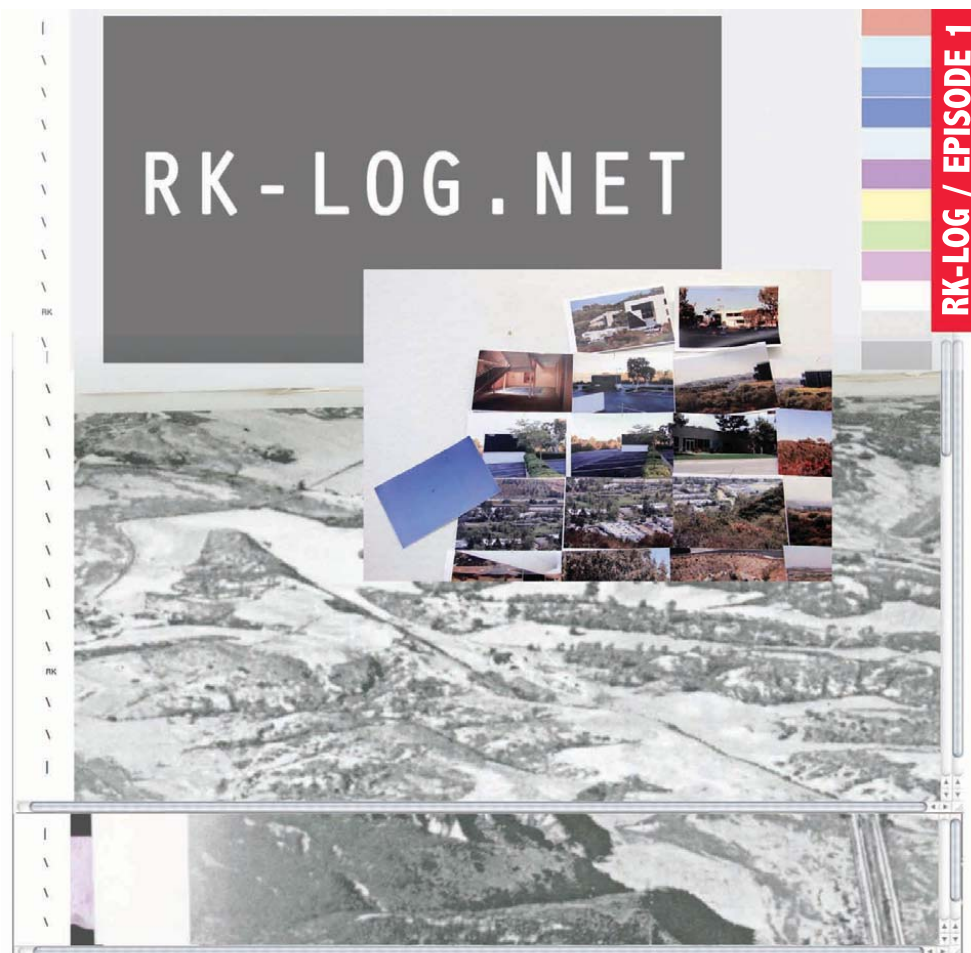
ON THE SIGNIFICANCE OF A POSTHUMOUS GESTURE //
RK-LOG EPISODE ONE TRAILER

16MM FILM SHOT IN SORRENTO VALLEY, SAN DIEGO, 2010-2011
 SOMMERAKADEMIE, ZENTRUM PAUL KLEE, BERN, SWITZERLAND 2012 AND ETC GALERIE, PRAGUE, CZECH REPUBLIC, 2011

Four stills from the 6-minute 16mm film trailer of RK-LOG Episode One presented at the SommerAkademie, Zentrum Paul Klee, Bern, Switzerland. The film was shot in a brain archive in Sorrento Valley, San Diego. Film footage includes images of a dolphin brain being sliced on a microtome, with slices then mounted on slides. The footage of slicing and mounting is edited with images of various interiors from flex-space architecture of biotechnology start-ups leased by large real estate trusts.

To view the digitized 16mm film, visit: <https://vimeo.com/183332491>.

For images from an exhibition of a print of the film, see portfolio page for *Radiant Barrier + Plastic Threshold*, RK-LOG Episode Two presentation.



ON THE SIGNIFICANCE OF A POSTHUMOUS GESTURE //
RK-LOG EPISODE ONE AUDIO-DRAMA AND CAR CINEMA STORYBOARD

*PRESENTATION OF RK-LOG EPISODE ONE AUDIO-DRAMA AND CAR CINEMA
 & NOW FESTIVAL OF NEW WRITING, TOMORROWLAND FOREVER, SAN DIEGO, CALIFORNIA, 2011*

To listen to the audio-drama, visit URL: <http://www.mobile-irony-valve.net/index.php/project/rk/>
 sound designed for headphones or car environment; duration approx. 1 hour 30 minutes.

To skip through the audio-drama, double click along the green play strip in the upper left corner of the page.

The audio-drama was designed to play to a choreographed car ride through Torrey Pines and Sorrento Valley biotechnology hubs. The audio-drama features a nonagenarian brain donor, a real-estate agent, an animal-graveyard caretaker, a neuropsychologist, a neuroanatomist, and guards from a nuclear fusion facility playing themselves. In addition, a poet plays a phone operator, a student neurotechnologist plays the user, and an actor playing a Text-to-speech voice is coached to read both GPS directions and entries from the log of the fictional biological specimen, RK.



ON PROMISSORY FUTURES AND SPECULATIVE PASTS //
RK-LOG EPISODE ONE EXHIBITION SCENOGRAPHY
 EXCERPTS FROM THE AUDIO-DRAMA *THE SIGNIFICANCE OF A POSTHUMOUS GESTURE*,
 SAN DIEGO-BAJA CALIFORNIA BORDERLANDS, 2010-2011
 VIAFARINI, FABBRICA DEL VAPORE, MILAN, ITALY, 2010

For video documentation of the exhibition, visit URL: <http://www.mobile-irony-valve.net/index.php/project/-/>
 The page will immediately play documentation at 8 minutes 30 seconds; to skip backward and forward, use video player controls

Solo exhibition at Viarini (Milan, Italy) of extended excerpts from RK-LOG, Episode One, set in San Diego-Baja California Borderlands. Projection of digital video: postmodern architect Michael Graves' *Aventine* hotel complex, La Jolla (1990) shot following a storyboard of stills from Alexander Kluge's *Brutality in Stone* (1960). Scenography of sculptures includes: wenge turned-wood sculpture with stained plywood and steel base; framed image atlas table; office ferns; still life with air plant (*tillandsia*); large format inkjet prints; wet collodion photograph on glass; and five plinths with headphones to listen to five segments of audio drama featuring scenes with a neuroanatomist playing himself in an encounter with the fictional biological specimen, RK. In this episode, RK manifests as a whole brain being sliced on a microtome.



To *Smoke Up New Genies* is the prologue to RK-LOG. It is a play written for fifteen 3D-printed thermoplastic objects made from 'object decision' silhouettes in a neuropsychological test called the Visual Object and Space Perception test battery (VOSP).

In the play, the objects extruded from the neuropsychological-task silhouettes contemplate what it might be like to be a human brain specimen, an object treated like a human subject.

The VOSP objects are played by text-to-speech voices manipulated in tone, quality and personality by the strategic placement of punctuation marks in various online text-to-speech readers.

● click on yellow dot in diagram for RK-LOG episode

<< return to main menu

TO SMOKE UP NEW GENIES //
RK-LOG PROLOGUE DESCRIPTION AND WEB PLATFORM
 INTRODUCTION AND WEBSITE FOR *TO SMOKE UP NEW GENIES (ON A TABLE SPUN TO MUTINY)*

The RK-LOG prologue, *To Smoke Up New Genies (On a Table Spun to Mutiny)* features fifteen nonsense objects from a neuropsychological test debating what it means to be a subject; parts in the episode are played by programmed text-to-speech voices. For further description, read introduction in image above.

For the trailer, visit: <http://www.mobile-irony-valve.net/index.php/project-/>

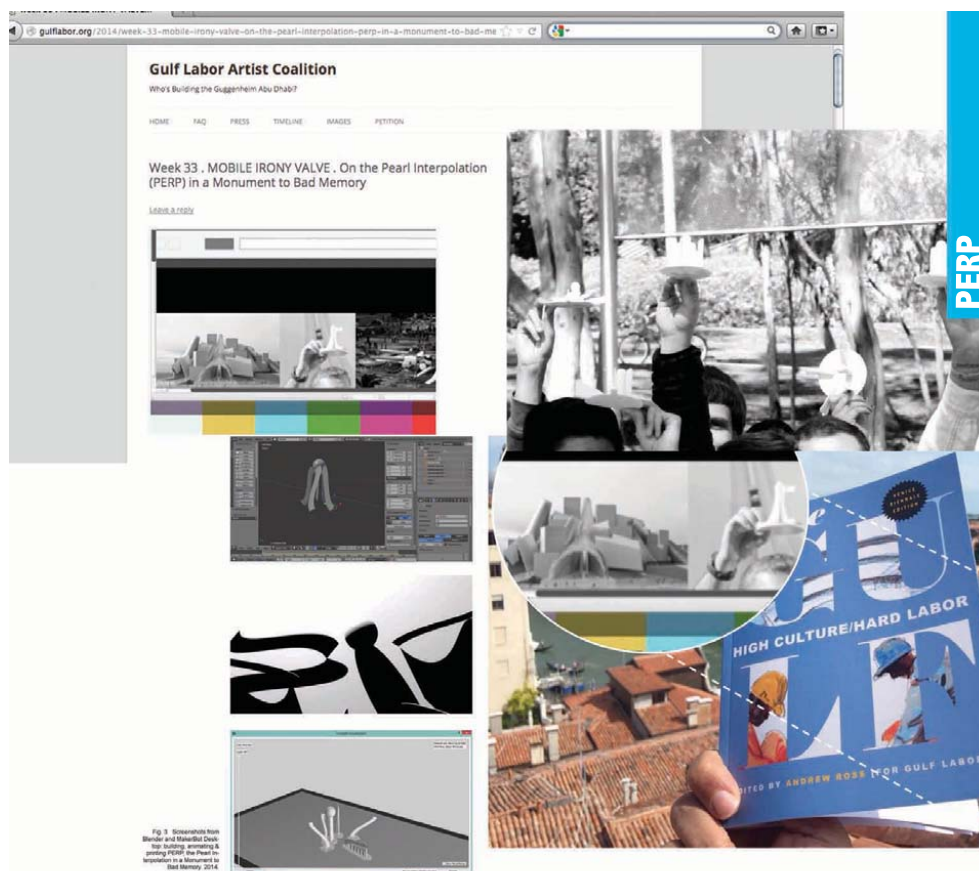


TO SMOKE UP NEW GENIES // RK-LOG PROLOGUE STAGING
 LIVE PERFORMANCE OF AUDIO-DRAMA *TO SMOKE UP NEW GENIES (ON A TABLE SPUN TO MUTINY)*
 VISUAL ARTS FACILITY PERFORMANCE SPACE, UNIVERSITY OF CALIFORNIA, SAN DIEGO, 2010

Staging featured projections, lighting, sculpture, glass vessels, boitryodal hematite, drawing, corporate mini-palm, synthetic fur and video overhead projector

The RK-LOG prologue, *To Smoke Up New Genies (On a Table Spun to Mutiny)* features fifteen nonsense objects from a neuropsychological test debating what it means to be a subject; parts in the episode are played by programmed text-to-speech voices

For the trailer, visit: <http://www.mobile-irony-valve.net/index.php/project/>



ON THE PEARL INTERPOLATION (PERP) IN A MONUMENT TO BAD MEMORY // PERP
 TACTICAL URBANISM AND SPECULATIVE DESIGN PROJECT, 2014 - 2016
 GULF LABOR COALITION (GLC), 52 WEEKS, 2014 AND FEATURED IN
 THE GULF: HIGH CULTURE, HARD LABOR (OR BOOKS; 2015) LAUNCHED AT THE 56TH VENICE BIENNALE

The *PERP* tutorial in the open-source animation software *Blender* is designed to guide users through generating miniature thermo-plastic models of the Pearl Roundabout monument (Manama, Bahrain) in various moments of its collapse. The Pearl Roundabout was destroyed by Bahraini authorities following Arab Spring protest encampments at the site in 2011. A demolition crane operator, Pakistani migrant worker Riaz Ahmed, was killed by a falling fragment of the monument during its dismantling. The tutorial uses the deconstructionist approach Frank Gehry employed in his design of the Guggenheim in Abu Dhabi (across the gulf from Bahrain) because the collapsed Pearl Monument actually resembles Gehry's Guggenheim design.

Users of the tutorial complete the exercise generating models of high-rise complexes for a speculative migrant worker cooperative city with architecture based on various iterations of the Pearl Roundabout monument in collapse.

Visit: <http://gulflabor.org/2014/week-33-mobile-irony-valve-on-the-pearl-interpolation-perp-in-a-monument-to-bad-memory/>
 To download the *PERP* tutorial, visit: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

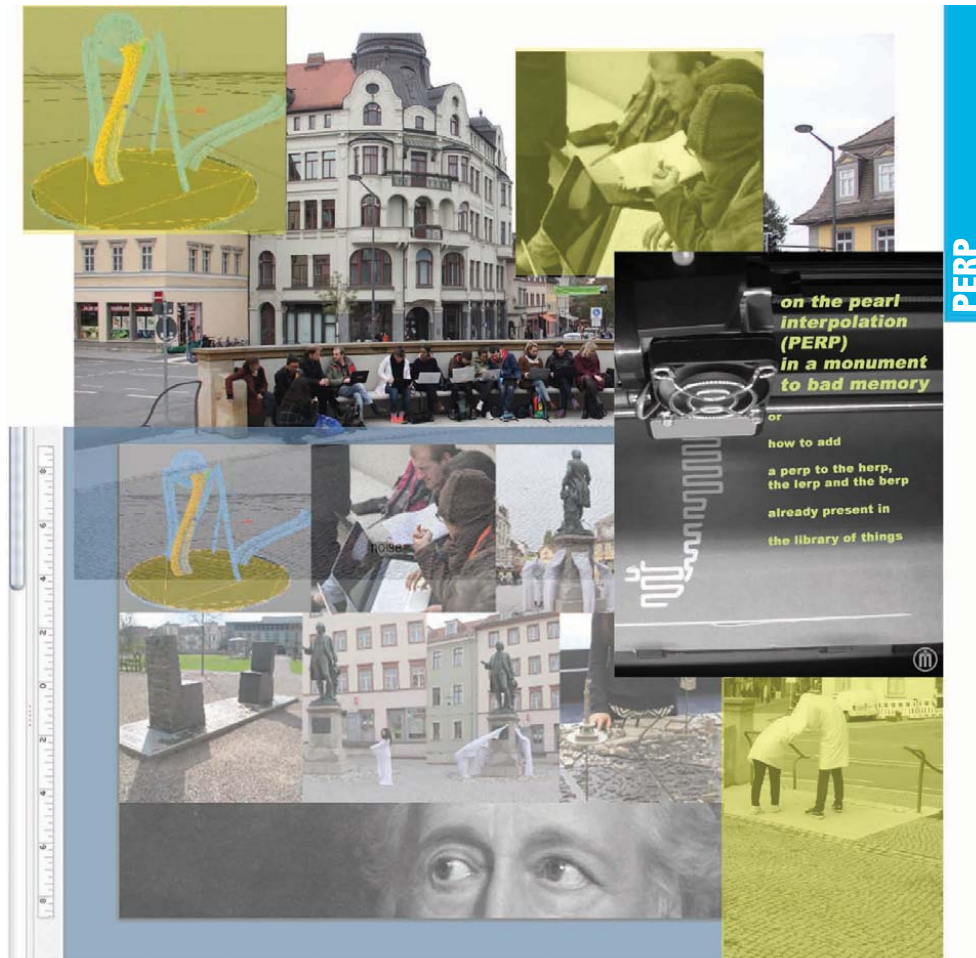


PERP

A ROUND ABOUT A ROUNDABOUT // PERP MOVEMENT-RESEARCH PERFORMANCE
 TACTICAL URBANISM AND SPECULATIVE DESIGN PROJECT, 2014 - 2016
 WIELANDPLAZ, WEIMAR, GERMANY, 2015

To download PERP tutorial, visit: URL: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

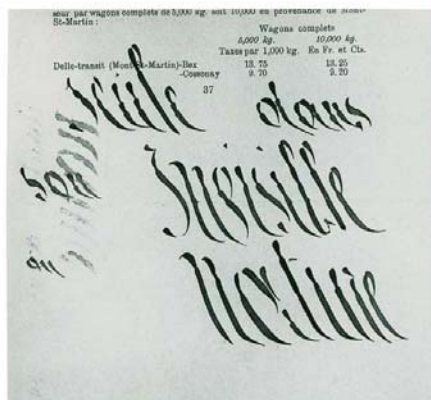
The *PERP* tutorial was adapted for use in a workshop on cultural memory with graduate students from the Bauhaus Universität-Weimar. The *PERP* movement-research exercise was performed to create an ephemeral monument that would contrast with the Hafez-Goethe Monument (top left, in yellow) in Weimar. In the latter monument, two granite blocks carved in the form of chairs face each other; the monument is publicized by the city's tourism bureau as "symbolis[ing] cultural tolerance" between East and West. During the *PERP* performance BBC news reported on 'asylum controversy and intolerance towards non-European Union migrants in East Germany (top right). Performance-participants generated a *PERP* migrant-worker monument in response to different improvisational prompts including, the *PERP* tutorial and roundabout movement exercises. Performance-participants brought laptop computers to the site and did the *PERP* tutorial *en plein air*; after doing the tutorial, they were given spandex tubes and roundabout navigation rules and spontaneously created form-dance movements (bottom far left and far right).



A ROUND ABOUT A ROUNDABOUT // PERP MOVEMENT-RESEARCH PERFORMANCE
 TACTICAL URBANISM AND SPECULATIVE DESIGN PROJECT, 2014 - 2016
 WIELANDPLATZ, WEIMAR, GERMANY, 2015

To download PERP tutorial, visit: URL: <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>

The Wielandplatz location in Weimar was selected for the exercise because it had become a contested space that various social groups were attempting to claim. The images above include: performance-participants doing the *PERP* tutorial (top); a screen-shot from the tutorial (top left); the cover of the tutorial booklet (center right); form-dance movements created by performance-participants after doing the tutorial (bottom right, in yellow); a powerpoint slide (bottom left) used in a reflection session with performance-participants after the *PERP* movement-research experiment.



MAKROGRAMME

son MOT MORT
or *Micro and Macro Scripts for Militant Withdrawal*
Drawings by Constance Schwartzlin-Berberat (1884 - 1911) and Robert Walser (1878 - 1956)

What is militant withdrawal? Is it simply a reactionary fatalism: the retreat of the maladjusted into willed social exclusion? Or is militant withdrawal deliberate play with the tactics of refusal? How has this ambiguity generated approaches to life and art that evade the pervasive rituals of commodification; of social, cultural and human capital? Militant withdrawal is a commitment to rites of invisibility. But, how can a commitment to erase all traces be historicized when its very intent is to resist the industries of heritage? Militant withdrawal is a struggle for the value of solitary life, for solidarity in the multitude amidst an authoritarian culture of entrepreneurialist cohorts and collaboratives.

The exhibition *son MOT MORT* or *Micro and Macro Scripts for Militant Withdrawal* is the result of participant-observation in the Zentrum Paul Klee SommerAkademie 2012. It has been organized by Fellow Emily Verla Bovino as part of her contribution to the 2012 SommerAkademie publication, a recipe book curated by Guest Curator Marta Kuzma. The exhibition links the experience of SommerAkademie 2012 – an experiment that showcased the limits of identity politics and contrived sociability – with the theme of Guest Curator Sue Williamson's SommerAkademie 2013 – the nomadic existence of the contemporary artist today. The objective of the exhibition is to contribute to continuity among the SommerAkademien, and to report back to the public with insight from participant-observation in the 2012 Akademie.

In his anthropological-clinical study of the diagnosed anorexic Ellen West (c. 1890 – 1924), Swiss-German existential psychiatrist Ludwig Binswanger argued that suicide among certain subjects had the potential to be a rare authentic act of existence. Meanwhile, suicide attempts by anarchists Simone Larcher (1924) and Germaine Berton (1924) were debated among activists as legitimate forms of political action in France; Berton and Larcher were apotheosized by some, but denounced by most others. In 1929, the Swiss-German writer Robert Walser admitted himself to the Waldau psychiatric clinic in Bern. He was then transferred to Herisau in 1933, where he is said to have voluntarily stopped writing. The exhibition *son MOT MORT* presents the recipes and journals of Walser's fellow Waldau resident Constance Schwartzlin-Berberat, looking back through the interwar decade that followed her death.

The exhibition uses the theatrical device of *mise-en-abyme* as a curatorial mode. The *mise-en-abyme* is a reflexive process in scenography, film, literature and painting. In this process, an embedded or framed object and its embedding or framing support take on the symbiotic life of bodies and organs: by way of doubling and mirroring, the embedded and the embedding, the framed and the framing, lose their likeness to the platitude of container and contained. In the exhibition *son MOT MORT*, the *mise-en-abyme* is triadic; the calligraphic drawings on view are visual, verbal and aural. At the Robert Walser-Zentrum, a vitrine has been specially designed to "embed" the recipe books and journals – the *makrogramme* or "macroscripts" of Constance Schwartzlin-Berberat – within a small exhibition of what Walser scholars refer to as his *mikrogramme* or "microscripts". In *son MOT MORT*, the gestures of exhibition-making

– framing, selection, display – are used to produce the effect of a conical mirror, an anamorphic technology of looking, through which Walser's microscripts appear to "reflect" the macroscripts of Schwartzlin-Berberat, and vice versa. In this dialogic exchange, call-and-response between the calligraphic drawings of Schwartzlin-Berberat and Walser encourages visitors of the exhibition to consider the contradictions of art and the psychiatric clinic: one example of early twentieth century militant withdrawal.

At the start of the twenty-first century, shelters for asylum-seekers called exclusion centers are an example of how the heritage of political neutrality has been institutionalized by new liberal regimes. The macroscripts of Schwartzlin-Berberat and the microscripts of Walser foreground surreptitious speech, dialogues with the dead and suicidal ideation as methodologies for militant withdrawal: object lessons for a new underground in the margins.

Text by Emily Verla Bovino
www.mobile-irony-valve.net

Special thanks to Andreas Altorfer, Jacqueline Burckhardt, Susan Bernofsky, Jeroen Dewulf, Lucas Marco Gisi, Jörg Kreienbrock, Winifred Kudzusz, Euan Macdonald, Uwe Peters, Reto Sorg and the fellows of SommerAkademie 2012

The exhibition was organized with the support of Robert Walser-Zentrum, Zentrum Paul Klee, Psychiatrie-Museum Berne and University of California Institute for Research in the Arts



MAKROGRAMME / SON MOT MORT: THE WALDAU CLINIC JOURNALS AND RECIPE BOOKS OF CONSTANCE SCHWARTZLIN-BERBERAT (1884-1911)
PERFORMATIVE LECTURE AND MISE-EN-ABIME EXHIBITION, 2013
ROBERT WALSER-ZENTRUM, BERN, SWITZERLAND, 2013

Flyer with exhibition text. See previous portfolio page for further description.



MAKROGRAMME

MAKROGRAMME / SON MOT MORT: THE WALDAU CLINIC JOURNALS AND RECIPE BOOKS OF CONSTANCE SCHWARTZLIN-BERBERAT (1884-1911)

PERFORMATIVE LECTURE AND MISE-EN-ABIME EXHIBITION, 2013

ROBERT WALSER-ZENTRUM, BERN, SWITZERLAND, 2013

The images above show Waldau Clinic journals and recipe books of Constance Schwartzlin-Berberat (1884-1911) curated in collaboration with the Morgenthaler Collection, Psychiatrie-Museum Bern and the Robert Walser-Zentrum, Bern. The journals were presented to the public with a performative lecture and accompanying slide-show of original diagrams and images. The exhibition used the theatrical device of *mise-en-abime* as a curatorial mode, embedding the Schwartzlin-Berberat's 'makroskripts' (*makrogramme*, or large 'calligraphic drawings') within an exhibition of the microscripts of Swiss-german writer Robert Walser. The performative lecture discussed the formal qualities of 'militant with drawal' in the artistic practices of two writers, Schwartzlin-Berberat and Walser, both patients of the Waldau Clinic in the early 20th century.



RAPT YOUR

IF I IN THE SICKNESS RAPT YOUR DEATH UNTO ITS METHOUGHT / RAPT YOUR
 A REINTERPRETATION OF BERNINI'S *ECSTASY* IN SANTA MARIA DELLA VITTORIA, ROME, 2007 - 2009
 GALLERIA CESARE MANZO, ROME, ITALY; IN THE COLLECTION OF FONDAZIONE GIULIANI, ROME, ITALY, 2009

Durational sculpture installed in Rome's Vicolo del Governo Vecchio: a contemporary reinterpretation of Gian Lorenzo Bernini's *Ecstasy of Saint Teresa* in nearby Santa Maria della Vittoria (1647-1652). Sculpture includes video projection, wood, rope, felt, paper, dry wall and other architectural elements, semi-circular mounted mirror, formica-surfaced plywood, clay, a tiny sculpture of a fly made from steel wire, oil painting on paper, inkjet print on erased book paper, frame and lighting. A journalist from *Osservatore Romano*, the daily newspaper of the Vatican City State visited the exhibition and told the gallery assistant that though he enjoyed the exhibition, he would be unable to write a review because of the sculpture's "indecentcy."

To watch video work that was part of the exhibition, visit: <http://www.mobile-irony-valve.net/index.php/sceno/raptyour/>



RAPT YOUR

IF I IN THE SICKNESS RAPT YOUR DEATH UNTO ITS METHOUGHT / RAPT YOUR
 A REINTERPRETATION OF BERNINI'S *ECSTASY* IN SANTA MARIA DELLA VITTORIA, ROME, 2007 - 2009
 GALLERIA CESARE MANZO, ROME, ITALY; IN THE COLLECTION OF FONDAZIONE GIULIANI, ROME, ITALY, 2009

Durational sculpture installed in Rome's Vicolo del Governo Vecchio: a study of Saint Teresa of Avila's stages of prayer and Gian Lorenzo Bernini's *Ecstasy of Saint Teresa* in nearby Santa Maria della Vittoria (1647-1652). The sculpture includes video projection, wood, rope, felt, paper, dry wall and other architectural elements, semi-circular mounted mirror, formica-surfaced plywood, clay, a tiny sculpture of a fly made from steel wire, oil painting on paper, inkjet print on erased book paper, frame and lighting.

To watch video work that was part of the exhibition, visit: <http://www.mobile-irony-valve.net/index.php/sceno/raptyour/>



RAPT YOUR

IF I IN THE SICKNESS RAPT YOUR DEATH UNTO ITS METHOUGHT / RAPT YOUR
 A REINTERPRETATION OF BERNINI'S *ECSTASY* IN SANTA MARIA DELLA VITTORIA, ROME, 2007 - 2009
 GALLERIA CESARE MANZO, ROME, ITALY; IN THE COLLECTION OF FONDAZIONE GIULIANI, ROME, ITALY, 2009

Durational sculpture installed in Rome's Vicolo del Governo Vecchio: a study of Saint Teresa of Avila's stages of prayer and Gian Lorenzo Bernini's *Ecstasy of Saint Teresa* in nearby Santa Maria della Vittoria (1647-1652). The sculpture includes video projection, wood, rope, felt, paper, dry wall and other architectural elements, semi-circular mounted mirror, formica-surfaced plywood, clay, a tiny sculpture of a fly made from steel wire, oil painting on paper, inkjet print on erased book paper, frame and lighting.

To watch video work that was part of the exhibition, visit: <http://www.mobile-irony-valve.net/index.php/sceno/raptyour/>



ON DEATH STYLES

ON DEATH STYLES AS SUCH AND ON WAYS OF DEATH // ON DEATH STYLES
 EXHIBITION OF LITERARY SCENOGRAPHY PROJECT AND READING
 VIA FARINI, FABBRICA DEL VAPORE, MILAN, ITALY, 2010

to read script and watch video excerpt, visit: <http://www.mobile-irony-valve.net/index.php/sceno/tode/>

Scenography staged after reading Ingeborg Bachmann's *The Thirtieth Year* (1961) and visiting the burn unit in EUR, Rome, where Bachmann died.
 Scenography includes video projection, audio recording, wood, felt, paper, glass, dry-point etching, ink paintings, porcelain, glass, dust, taxidermied moth, acrylic painting on canvas, sculpture of cigarette papers and hand-bound book with short story; accompanied by a reading.



ON DEATH STYLES

ON DEATH STYLES AS SUCH AND ON WAYS OF DEATH // ON DEATH STYLES
 EXHIBITION OF LITERARY SCENOGRAPHY PROJECT AND READING
 VIA FARINI, FABBRICA DEL VAPORE, MILAN, ITALY, 2010

to read script and watch video excerpt, visit: <http://www.mobile-irony-valve.net/index.php/sceno/tode/>

Scenography staged after reading Ingeborg Bachmann's *The Thirtieth Year* (1961) and visiting the burn unit in EUR, Rome, where Bachmann died.
 Scenography includes video projection, audio recording, wood, felt, paper, glass, dry-point etching, ink paintings, porcelain, glass, dust, taxidermied moth, acrylic painting on canvas, sculpture of cigarette papers and hand-bound book with short story; accompanied by a reading.



FIERCE AS SILENT

IT WAS THE FIERCE AS SILENT AIR // FIERCE AS SILENT
 WORD AND OBJECT EXPERIMENTS, 2006-2008
 FONDAZIONE ANTONIO RATTI, COMO, ITALY, 2008

Drawing made by tracking differences between a single chapter in Ignazio Silone's *Bread and Wine* and *Wine and Bread*; printed on erased book pages; short story written in invented handwriting from the etymological difference of words changed between the two versions of Silone's book; sculpture includes display cases in stained wood and steel, paper, felt, formica-surfaced plywood, clay, a tiny sculpture of a fly made from steel wire



BAUEN BUAN BIN

BAUEN BUAN BIN (BUILDING, DWELLING, THINKING) // BAUEN BUAN BIN

WORD AND OBJECT EXPERIMENTS, 2008-2009

INDEPENDENT EXHIBITION IN A RENTED GARAGE ACROSS THE STREET FROM THE ROME GASOMETER
VIA DEL GASOMETRO, OSTIENSE QUARTER, ROME, ITALY, 2008

Durational sculpture built in a rented garage after reading Martin Heidegger's essay "Building, Dwelling, Thinking" (1951) and poet Amelia Rosselli's *October Elizabethans* (1956), and visiting the street under the apartment where the poet committed suicide by defenestration;
Materials include a homemade weather forecasting device (storm glass), a painted wood floor sculpture, painter's tape, wall paint, a light box with drawings on handmade linen rag paper in disappearing ink, an original vinyl record and florescent lighting wired to flash.

Click on images for accompanying sound on vinyl, or visit: <http://www.mobile-irony-valve.net/index.php/sceno/bauensound/>



GRAVITY AND GRACE

GRAVITY AND GRACE (A DANCE FOR SIMONE WEIL)

WORD AND OBJECT EXPERIMENTS, 2008-2009

CITÉ INTERNATIONALE DE PARIS, PARIS, FRANCE, 2009

Durational sculpture constructed using meditative passages from the mystical writings of philosopher Simone Weil; changable configurations of objects and support structures in porcelain, paper, plywood, clay, fiberglass, wood, paint, collage and graphite



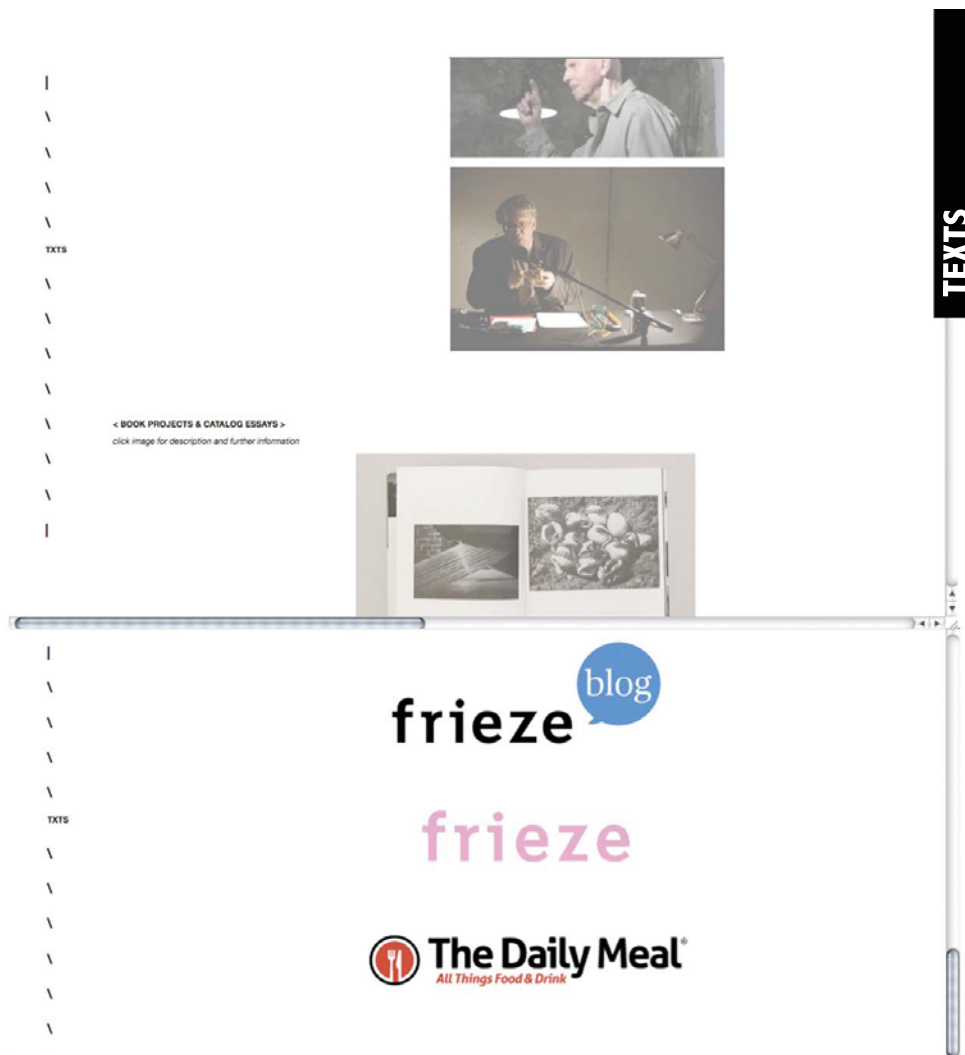
SHAKÉD THE STALK

AS ONCE SPAKE WE SHAKÉD THE STALK HER GLASS SQUARED ME TO SET // SHAKÉD THE STALK

*WORD AND OBJECT EXPERIMENTS, 2006-2007
FONDAZIONE SPINOLA BANNA, TURIN, ITALY AND MI-ART, MILAN ART FAIR, MILAN, ITALY, 2007*

Durational sculpture featuring a collage drawing in corn tassel fibers on handmade abaca paper, a vinyl record imprinted with an original recording, parts of disassembled chairs in plastic, wood and aluminum. The sculpture was staged in two versions; first, expanded, with accompanying video projection; then, contracted, with accompanying audio recording

For accompanying sound on vinyl, visit: <http://www.mobile-irony-valve.net/index.php/sceno/shakedsound/>



RADIO TRANSMISSIONS, CATALOG ESSAYS, REVIEWS AND OTHER WORDS
 VARIOUS TEXTS, 2007-ONGOING

For select broadcasts, publications and infiltrations, visit: <http://www.mobile-irony-valve.net/index.php/rk-log/txts/>

Screenshots from "TEXTS" tab of artist's website www.mobile-irony-valve.net, featuring original radio transmissions from National Public Radio (NPR) broadcasts, and short form and long form reviews published in international art magazines.

**[Icono-Plastic Reading] Lesson One:
The Difference Between Metonymy and Synecdoche**



Fig. 1 "Boots on the Ground"

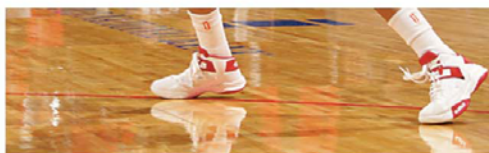


Fig. 2 "Fresh Legs Off the Bench"

5
an

2
TANG

Y T U Z L E
W K E I D H V I A
S L G C B A M F C
N O P Q R

18 gen
Mobile Irony Valve @NimbleLoveivory
They said the cause was cardiac and that she had become a recluse. Her most famous film, *Aandhi*, had been banned.
pic.twitter.com/Rr53PBH8Cd

13 gen
Mobile Irony Valve @NimbleLoveivory
His father may have found him hanging in front of a stock of varnish, wax and enamel. The letter explained his debts were insurmountable.

4 hr
V T
N K
L E
C O
I A B H
F G
W 3Es

**BLOG POSTS AND TWITTER FEEDS
THE BLOG AND THE TWITTER FEED AS WORKS OF ART**

(top, blog, B-LOG) Visit: <http://www.mobile-irony-valve.net/index.php/blog/blog/>;
(bottom, Twitter feed, #nimbleloveivory) Visit: <https://twitter.com/NimbleLoveivory>

B-LOG is an artist's blog maintained as an online notebook of lessons, recipes, exercises, suggestions, diatribes and collage in word and image.

#nimbleloveivory is an anagram of the author's name, composed to call attention to the penetrative quality of Twitter. Thanatographic Twitter novels are inspired by obituary writing and the three-line novels of Félix Fénéon published in the pages of the French newspaper *Le Matin*.

The Terlingua Chili Cookoff

An artist's take on a classic chili festival in far west Texas



Emily Bovino



December 1, 2011



By **Emily Bovino**
Special
Contributor

In far west Texas, the official culinary emblem of contemporary desert sprawl or ghosttown suburbanism, is a "bowl of red" – what Will Rogers used to call a "bowl of blessedness" – more commonly known to the rest of us as "chili." Texan connoisseurs of this cowboy

Trasferimento dati da pixel.rubiconproject.com...

Berlusconismo in the Lecture Performances of Chiara Fumai

DECEMBER 17, 2013 by *Emily Verla Bovino*



Left: Silvio Berlusconi's daughter, Barbara Berlusconi. Image credit: Kal.R. Center: Italian artist Chiara Fumai. Image credit: Emiliano Aversa. Right: Benito Mussolini's granddaughter, Alessandra Mussolini. Image credit: Affaritaliani.it

In anticipation of former Prime Minister Silvio Berlusconi's expulsion from the Italian parliament, talk show circuits in Italy buzzed with debates on the ventennial of Berlusconismo. Meanwhile, Milan-based artist Chiara Fumai was traveling to northern Spain for an exhibition on current European lecture performance, at the *MUSAC in León*. Though the particular blend of political and cultural nihilism called Berlusconismo is named after Berlusconi, he is not its inventor. The



LONG-FORM FEATURES AND OTHER WORDS

VARIOUS TEXTS, 2011 - ONGOING

(top, The Daily Meal) Visit: <http://http://www.thedailymeal.com/terlingua-chili-cookoff>

(bottom, Frieze blog) Visit: http://blog.frieze.com/berlusconismo-in-the-lecture-performances-of-chiara-fumai/#disqus_thread

(top) screenshot of "The Terlingua Chili Cookoff: An Artist's Take on a Classic Chili Festival in Far West Texas." *The Daily Meal*. December 2011

(bottom) screenshot of "Berlusconismo in the Lecture Performances of Chiara Fumai." *Frieze Blog*. December 2013

REFERENCES

- “100 Untitled Works in Mill Aluminum, 1982 – 1986,” *Chinati*. Last updated 2016. Accessed September 15, 2016. <https://www.chinati.org/collection/donaldjudd.php>
- 14FebTV, “Scenes never seen.” Online video clip. *Youtube*. July 16, 2011. Accessed August 30, 2011. <https://www.youtube.com/watch?v=jpzhH-Tcxaw>
- “15 Untitled Works in Concrete, 1980-1984,” *Chinati*. Last updated 2016. Accessed September 15, 2016. <https://www.chinati.org/collection/donaldjudd2.php>
- “2010 Census” as reported at *CensusViewer*. Accessed September 10, 2016, <http://censusviewer.com/city/TX/Marfa>
- 24x7 News, “Pearl Roundabout in Bahrain Demolished.” Online video clip. *Youtube*. March 18, 2011. Accessed April 4, 2011. <https://www.youtube.com/watch?v=ZjL7ssHx15M>.
- 4th-century B.C. Apulian red-figured vase decorated with Erinyes and the Three Furies*, dimensions not specified, Badische Landesmuseum, Karlsruhe.
- Aalinw, “1-6-2011 qawat almaratazaqa taqawwa bitakseer madjsam dawaar allu’lu’a alee [Mercenary Forces Break Down the Recreated Pearl Roundabout],” Online video clip. *Youtube*. June 1, 2011. Accessed January 20, 2017. https://www.youtube.com/watch?v=Fjsf6HuH91Q&list=PLTOgz3bT-TwV7tg-KYDDJFYFR1DkDmier&index=45&future=plpp_video
- AaliNews Bahrain, “The arrival of the mercenary regime: mercenaries remove pearl.” Online video clip, *Youtube*. November 21, 2011. Accessed January 20, 2017. <https://www.youtube.com/watch?v=FFdr04GD2BI>
- “Abtasten,” *Collins German-English Dictionary*. Published 2017. Accessed January 15, 2017. <https://www.collinsdictionary.com/dictionary/german-english/abtasten>
- abo22yousif, “1/6 karzkan sabaah [Karzahan Morning],” Online video clip. *Youtube*. May 31, 2011. Accessed January 20, 2017. <https://www.youtube.com/watch?v=6YB17ps9J9g&list=PL-TOgz3bT-TwV7tg-KYDDJFYFR1DkDmler>
- "Activism." *Merriam-Webster.com*. Merriam-Webster, n.d. Accessed October 2016. <https://www.merriam-webster.com/dictionary/activism>.
- “Activism.” Random House Dictionary. Published 2016. Accessed October 2016. <http://www.dictionary.com/browse/activism>.
- Adamowicz, Elza. *Surrealist Collage in Text and Images: Dissecting the Exquisite Corpse*. Cambridge, UK: Cambridge University Press, 1998.

- AdamC3046, "MADNESS on a roundabout – Drifting, burnouts, donuts, flames." Online video clip. *Youtube*. October 4, 2015. Accessed September 10, 2015. <https://www.youtube.com/watch?v=61QHnGRs3Wo>.
- Adams, Carol J. and Josephine Donovan, "Sexism/Specieism: Interlocking Oppressions," *Animals and Women: Theoretical Explorations*. Edited by Carol J. Adams and Josephine Donovan. Durham, NC: Duke University Press, 1995.
- Ader, Bas Jan. *On the Road to a New Neo-Plasticism*. Westkapelle, Holland, 1971, four C-type prints, 11 4/5 in x 11 4/5 in (30 x 30 cm), Bas Jan Ader Estate.
- Ader, Bas Jan. *Pitfall on the Way to a New Neo-Plasticism*. Westkapelle, Holland, 1971, chromogenic color print, 16 1/4 x 11 1/2" (41.3 x 29.2 cm). The Abramson Collection. Museum of Modern Art, New York. N.d. Accessed December 10, 2016. <https://www.moma.org/collection/works/192775?locale=fr>
- Adereth, Maxwel. *The French Communist Party: A Critical History (1920-1984)*. Manchester: Manchester University Press, 1984.
- Adler, Dan. *Hanne Darboven: Cultural History 1880-1983*. London, UK: Afterall Books, 2009.
- Adlington, Robert. *Composing Dissent: Avant-garde Music in 1960s Amsterdam*. New York, NY: Oxford University Press, 2013.
- "Aegineten-Diaghilev," *PrinzGholam*. N.d. Accessed January 12, 2016, <http://www.prinzgholam.com/aegineten-diaghilev/> Click on the screen to watch the video of the performance or go directly to "Prinz Gholam, FMCAEKD, 2008, video performance excerpt, 5" <http://www.prinzgholam.com/prinz-gholam-fmcaekd-2008-video-performance-excerpt-5/>
- "affect, v.2". OED Online. Oxford University Press. December 2016. Accessed December 28, 2016. <http://www.oed.com/view/Entry/3324?rskey=WE0gRm&result=4&isAdvanced=false>
- Afteratlas*, curated by Georges Didi-Huberman and designed by Arno Gisinger. January 23, 2014 – March 22, 2014. *Beirut Art Center*, Beirut, Lebanon.
- "Afteratlas," *Beirut Art Center*. Published 2014. Accessed February 2014. <http://www.beirutartcenter.org/en/single-event/afteratlas>. *Memory Burns*, curated by Georges Didi-Huberman. June 28 - October 11, 2015. *OCAT Institute*, Beijing, China. <http://www.e-flux.com/announcements/29427/memory-burns/>
- Aima, Rahel. "Amal Khalaf," *Brownbook: An Urban Guide to the Middle East*. Issue 48. November/December 2014. <http://brownbook.tv/amal-khalaf/>
- "Alberto Savinio, Lot #29," *Blouin Art Sales Index*. N.d. Accessed December 10, 2015. <http://artsalesindex.artinfo.com/auctions/Alberto-Savinio-5978720/Senza-Titolo-1929>

- Alcock, Susan E. "The Stratiagraphy of Serendipity," *Serendipity: Fortune and the Prepared Mind*. Edited by Mark de Rond and Iain Morley. Cambridge, UK: Cambridge University Press, 2010.
- Allen, Keith. "Cudworth on Mind, Body, and Plastic Nature," *Philosophy Compass* 8/4 (2013), 342-343.
- Allen, Michael J. B. "The Birth Day of Venus: Pico as Platonic Exegete in the *Commento* and the *Heptaplus*," *Pico della Mirandola: New Essays*. Edited by M. V. Dougherty. Cambridge, UK: Cambridge University Press, 2014.
- AlSayyad, Nezar. "Cairo's Roundabout Revolution." *The New York Times*. April 13, 2011. Accessed April 13, 2011. <http://www.nytimes.com/2011/04/14/opinion/14alsayyad.html>.
- Althusser, Louis. "Contradiction and Overdetermination," *For Marx, Part III: Notes for an Investigation*. Translated by Ben Brewster. Penguin Press, 1962. N.d. Accessed January 3, 2017. <https://www.marxists.org/reference/archive/althusser/1962/overdetermination.htm>
- American Educational Trust, "The ABCs of Gulf Security." *The Washington Report on Middle East Affairs (1982 – 1989)*. 1.2. April 19, 1982. Washington DC: American Educational Trust, 1982.
- Amor, Mónica. *Theories of the Nonobject: Argentina, Brazil, Venezuela, 1944 – 1969*. Oakland, CA: University of California Press, 2016.
- Anastas, Ayreen, Doris Bittar, Rene Gabri, Hans Haacke, Naeem Mohaiemen and Walid Raad, "Why Gulf Labor? Statements of Intent," *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- |
"Anatomical Blackbeard. Gorky, Arshile. 1943," *Artstor*. Published 2007. Accessed March 9, 2017. <http://library.artstor.org/library/iv2.html?parent=true>
- Andersen, Michael. "The 'Peanutabout' Concept Could be a Breakthrough for Diagonal Streets." December 1, 2016. Accessed December 30, 2016. <http://usa.streetsblog.org/2016/12/01/the-peanutabout-concept-could-be-a-breakthrough-for-diagonal-streets/>
- Anderson, Ewan. *Middle East: Geograpy and Geopolitics*. Oxon: Routledge, 2000.
- Anderson, Jack. "Edwin Denby, Dance Critic, Dies at 80," *The New York Times*. July 14, 1983. <http://www.nytimes.com/1983/07/14/obituaries/edwin-denby-dance-critic-dies-at-80.html>
"Edwin Denby," *The Poetry Foundation*. N.d. Accessed March 3, 2017. <https://www.poetryfoundation.org/poems-and-poets/poets/detail/edwin-denby>.
- Andre, Carl. *20 Rubber Slither* (2000), rubber truncated pyramids, 1 x 12 x 5.7 in (2.5 x 30.4 x 14.6 cm), private collection.

- Andre, Carl. "I want wood as wood and steel as steel... (1970)," *Cuts: Texts 1959-2004*. Edited by James Meyer. Cambridge, MA: MIT Press, 2005.
- Andre, Carl and Hollis Frampton, *12 Dialogues 1962-1963*. Edited by Benjamin H.D. Buchloh. Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981.
- Andys69za, "Photographic Merit? (166 Photographs): Oysters and Pearls" *SmugMug*, N.d. Accessed December 3, 2016. <https://andys69za.smugmug.com/Photography/Photographic-Merit/>. See also "Al-Ittihad Square Park," *Sharjah City Municipality*. N.d. Accessed December 3, 2016. "http://www.shjmun.gov.ae/v2/english/parks/myadeen/meedan_etehead.asp.
- "anima, n.". OED Online. Oxford University Press. December 2016. Accessed December 28, 2016. <http://www.oed.com/view/Entry/7734?redirectedFrom=anima>
- Animal Acts: Reconfiguring the Human in Western History*. Edited by Jennifer Ham and Matthew Senior. London, UK: Routledge, 1996.
- Animism*. Edited by Anselm Franke. Published on the occasion of the exhibition *Animism* at Extra City - Kunsthal Antwerpen, Antwerp, Netherlands, January 22 to May 2, 2010 and Kunsthalle Bern, Bern, Switzerland, May 15 to July 18, 2010. Berlin: Sternberg Press, 2010.
- Anonymous, "The Life and Death fo the Great UCSD Craft Center," *The Triton. Independent Student-Run News source for the University of California, San Diego*. December 1, 2015. Accessed December 10, 2016. <http://triton.news/2015/12/the-life-and-death-of-the-great-ucsd-craft-center-2/>
- Antin, David. "Warhol: The Silver Tenement," *Radical Coherency: Essays on Art and Literature, 1966 to 2005*. Chicago, IL: University of Chicago Press, 2012.
- Antonin Artaud: A Critical Reader*. Edited by Edward Scheer. London, UK: Routledge, 2004.
- Arp, Hans, Marcel Duchamp, Paul Eluard, Max Ernst, Georges Hugnet, Henri Pastoureau, Gisele Prassinou, etc. "L'Homme qui a perdu son squelette," *PLASTIQUE*, no. 4 (1939), 2, in *PLASTIQUE*. New York, NY: Arno Press, 1969.
- Arp on Arp: Poems, Essays, Memories*. New York, NY: Viking Press, 1972.
- "Artist: Sophie Taeuber-Arp, Swiss, 1889 – 1943), Turned Wood Sculpture," Yale University Art Gallery. Collection. Published 2016. Accessed March 3, 2017. <http://artgallery.yale.edu/collections/objects/47909>.
- Aschheim, Steven E. *The Nietzschean Legacy in Germany: 1890 – 1990*. Berkeley, CA: University of California Press, 1992.
- Atlas: How to Carry the World on One's Back*, curated by Georges Didi-Huberman November 26, 2010 – March 28, 2011. *Museo Nacional Centro de Arte Reina Sofia*, Madrid, Spain

(in collaboration with *Sammlung Falckenberg*, Hamburg, Germany and ZKM, *Museum für Neue Kunst*, Karlsruhe, Germany).

“Atlas: How to Carry the World on One’s Back,” *Museo Nacional Centro de Arte Reina Sofia*. Published 2010. Accessed September 2012. <http://www.museoreinasofia.es/en/exhibitions/atlas-how-carry-world-ones-back>.

Attributed to Johann Carl Loth, *Selene en Endymion* (1660-1680; acquired 1827), Rijksmuseum, Amsterdam, Netherlands.

“Auguste Bartholdi,” *Statue of Liberty. National Monument, New York. National Park Service*. N.d. Accessed December 6, 2016. <https://www.nps.gov/stli/learn/historyculture/auguste-bartholdi.htm>

“Ausdehnung,” *Collins German-English Dictionary*. Published 2017. Accessed January 15, 2017. <https://www.collinsdictionary.com/dictionary/german-english/ausdehnung>

“A year on, violence erupts again at Bahrain flashpoint.” *The Arab-American News*. (February 18, 2012).

Azmayesh, Mostafa. *New Researches on the Quran: Why and How Two Versions of Islam Entered the History of Mankind*. London, UK: Mehraby Publishing House, 2015.

B|

Bacon, Alex. “Rosemarie Castoro with Alex Bacon,” *The Brooklyn Rail*, October 5, 2015. Accessed January 10, 2017. <http://brooklynrail.org/2015/10/art/rosemarie-castoro-with-alex-bacon>

“Bahrain: Abuse of Migrant Workers Despite Reforms.” *Human Rights Watch*. September 30, 2012.

“Bahrain Crackdown Arrested 54 Undocumented Migrants.” *Migrant-Rights.org*. May 20, 2011. Accessed September 5, 2016. <https://www.migrant-rights.org/2011/05/bahrain-crackdown-arrested-54-undocumented-migrants/>

“Bahrain Further Restricts Migrant Rights While Publicly Expressing Concern for Migrants.” *Migrant-Rights.org*. June 29, 2011. Accessed September 5, 2016. <https://www.migrant-rights.org/2011/06/bahrain-further-restricts-migrant-rights-while-publicly-expressing-concern-for-migrants/>

“Bahrain: regime mercenaries scared of mini-pearl monument in Iskan AAli 15-8-2011.” *Youtube.com*. Online video clip. August 16, 2011. Accessed June 30, 2012. <https://www.youtube.com/watch?v=hnueBnoTlpE>

“Bahrain Tears Down Protest Symbol.” *Al-Jazeera*. March 18, 2011. Accessed June 1, 2011. URL: <http://www.aljazeera.com/news/middleeast/2011/03/201131823554586194.html>

Baker, Simon. *Surrealism, History and Revolution*. New York, NY: P. Lang, 2007.

- Bakhtin, Mikhail. "Author and Hero in Aesthetic Activity (ca. 1920-1923)," *Art and Answerability: Early Philosophical Essays by M. M. Bakhtin*. Edited by Michael Holquist and Vadim Liapunov. Translated by Vadim Liapunov. Austin, TX: University of Texas Press, 1990.
- Bakich, Michael E. *The Cambridge Guide to Constellations*. Cambridge, UK: Cambridge University Press, 1995.
- Bakunin, Mikhail. "The Reaction in Germany: From the Notebooks of a Frenchman (October 1842, signed Jules Elysard)" in *Bakunin on Anarchy*. Edited by and trans. Sam Dolgoff (New York, NY: A. A. Knopf, 1972) as transcribed for *marxists.org*. N.d. Accessed December 22, 2016. <https://www.marxists.org/reference/archive/bakunin/works/1842/reaction-germany.htm>
- Baldessari, John and Lawrence Weiner, *The Metaphor Problem: Again*. Köln : Distribution Verlag Walther König, 1999.
- Baldessari, John, Liam Gillick, Lawrence Weiner and Beatrix Ruf, *Again the Metaphor Problem and Other Engaged Critical Discourses*. Vienna, Austria: Springer, 2007.
- Balla, Giacomo and Fortunato Depero, "Futurist Reconstruction of the Universe (1915)," *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven: Yale University Press, 2009.
- Balla, Giacomo. *Complesso Plastico Colorato di Frastuono + Velocità* (Colored Plastic Complex with Din + Speed, 1914), paint, wood, cardboard and tin sheets, 20.47 x 23.62 x 2.76 in (52 x 60 x 7 cm), private collection;
- Balla, Giacomo. *Complesso Plastico Colorato de Linee-Forze* (Colored Plastic Complex with Force Lines, 1913), plastic and thread, 15.7 x 11.8 x 5.9 in (40 x 30 x 15 cm), private collector.
- Balla, Giacomo. *Numeri Inamorati* (Numbers in Love, 1923), 30.32 x 21.65 in (77 x 55 cm), Museo di Arte Moderna e Contemporanea di Trento e Rovereto (Mart), Rovereto.
- Balla, Giacomo. *S'è rotto l'incanto* (The Spell is Broken, 1922), oil on canvas, 17.5 x 12.8 in (44.5 x 32.5 cm), private collection
- Balodis, Martin. "Street Drifting uk BMW E36 328 Drifting Roundabout July 2012 3." Online video clip. *Youtube*. July 23, 2012. Accessed September 10, 2015. <https://www.youtube.com/watch?v=XT1SSBcOTow..>
- Barba, Eugenio. *La Canoa di Carta: Trattato di Antropologia Teatrale*. Bologna, Italia: Il Mulino, 2004.
- Barba, Eugenio. *On Directing and Dramaturgy: Burning the House*. New York, NY: Routledge, 2009.

- Barfucci, Enrico and Luisa Becherucci, *Lorenzo de' Medici e la società artistica del suo tempo*. Firenze, Italia: Gonnelli, 1964.
- Barthes, Roland. "Plastic," *Mythologies* (1957). Translated by Annette Lavers. New York, NY: Hill and Wang, 1972.
- basboos1001, "Bahrain Pearl is every where." Online video clip, *Youtube*. April 21, 2011. Accessed July 18, 2016. *Youtube*. <https://www.youtube.com/watch?v=1GrAhFWBI18>
- Bauhaus Universität-Weimar students. Conversation with Emily Verla Bovino. Weimar, Germany. October 2015.
- "BCHR Condemns Reported Hate Attacks on Migrant Workers in Bahrain." Bahrain Center for Human Rights. *Bahrainrights.org*. March 23, 2011. Accessed September 2012. www.bahrainrights.org/en/node/3827
- "Befühlen," *Collins German-English Dictionary*. Published 2017. Accessed February 2, 2017. <https://www.collinsdictionary.com/dictionary/german-english/bef%C3%BChlen>
- Beier, Lucia. "The Time Machine: A Bergsonian Approach to the 'Large Glass,'" as cited in Herbert Modlerings, *Duchamp and the Aesthetics of Chance: Art as Experiment*. New York, NY: Columbia University Press, 2010.
- Beinart, Julian. "Lecture 4: The City as Organism" in Theory of City Form. *MITopencourseware*. Spring 2013. Accessed August 7, 2015. <https://ocw.mit.edu/courses/architecture/4-241j-theory-of-city-form-spring-2013/lecture-notes/lec-4-normative-theory-iii-the-city-as-organism/>
- Belting, Hans. *An Anthropology of Images: Picture, Medium, Body*. Princeton, NJ: Princeton University Press, 2011.
- Belting, Hans. "Image, Medium, Body: A New Approach to Iconology." *Critical Inquiry* (Winter 2005).
- Ben Hamouche, Mustapha. "Manama: The Metamorphosis of an Arab Gulf City," *The Evolving Arab City: Tradition, Modernity and Urban Development*. Edited by Yasser Elsheshtawy. New York, NY: Routledge, 2008.
- Berardi, Franco "Bifo". "The Neuroplastic Dilemma: Consciousness and Evolution," *e-flux journal*, no. 60 (December 2014). Published 2014. Accessed December, 2014. <http://www.e-flux.com/journal/60/61034/the-neuroplastic-dilemma-consciousness-and-evolution/>
- Berardi, Franco "Bifo". *After the Future*. Edited by Gary Genosko and Nicholas Thoburn (Oakland, CA: AK Press, 2011).
- Berenson, Bernard. *The Florentine Painters of the Renaissance* (1896). New York, NY: G. P. Putnam's Sons, 1909.

- Bergdoll, Barry and John H. Beyer, *Marcel Breuer: Bauhaus Tradition, Brutalist Invention* (New York, NY: The Metropolitan Museum of Art, 2016), 7.
- Berger, Verena. *Hanne Darboven: Boundless*. Ostfilden, Germany: Hatje Cantz, 2015.
- Binswanger, Ludwig and Aby Warburg, *La Guarigione Infinita: Storia Clinica di Aby Warburg*. Translated by Chantal Marzia and Davide Stimilli. Edited by Davide Stimilli. Vicenza, Italia: Neri Pozza, 2005.
- Bishop, Claire. *Artificial Hells: Participatory Art and the Politics of Spectatorship*. New York, NY: Verso Books, 2012.
- Bittar, Doris. "Week 42" as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Bittar, Doris. "Week 42. Gulf Labor West," A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi*. July 29, 2014. Accessed August 2, 2014. <http://gulflabor.org/2014/week-42-gulf-labor-west/>
- Blashfield, Edwin Howard and Evangeline Wilbour Blashfield, *Italian Cities* (1900), Vol. 2. New York, NY: Scribner's 1903.
- "Blashfield Mosaic and Memorial Fountain," *Fieldguide to U.S. Public Monuments and Memorials*. American Markings, Inc. Published 2005. Accessed February 2, 2017. <http://www.monumentsandmemorials.com/report.php?id=1219>.
- Bloem, Marja. "Hanne Darboven," *Dictionary of Women Artists*. Vol. 1, A-I. edited by Delia Glaze. London: Fitzroy Dearborn Publishers, 1997.
- Blotkamp, Carol. *Mondrian: The Art of Destruction*. New York, NY: H.N. Abrams, 1995.
- Blurb for Eyal Weizman, *The Roundabout Revolutions*, Critical Spatial Practice 6. Edited by Nikolaus Hirsch and Markus Miessen, with Blake Fisher and Samaneh Moafi. July 2015. Accessed December 3, 2016. <http://www.sternberg-press.com/?pageId=1604>
- Boccioni, Umberto. *Dinamismo di un cavallo in corsa + case* (Dynamism of a Galloping Horse + Houses, 1915), gouache, wood, cardboard and painted copper and iron, 44.45 x 45.28 (112.9 x 115 cm), Peggy Guggenheim Collection, Venice.
- Boccioni, Umberto. "Futurist Painting: Technical Manifesto (1910)," *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven, CT: Yale University Press, 2009),
- Boccioni, Umberto. "The Plastic Foundations of Futurist Sculpture and Painting (1913)," *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven: Yale University Press, 2009.

- Boccioni, Umberto. *Unique Forms of Continuity in Space* (1913, cast 1931), bronze, 43 7/8 x 34 7/8 x 15 3/4 in (111.2 x 88.5 x 40 cm), Museum of Modern Art, New York.
- Bock-Weiss, Catherine C. "Valentine de Saint-Point's metachoric theatre: synesthesia/anesthesia," *Konsthistorisk tidskrift / Konsthistoriska Sällskapet*, Volume 73, Issue 2, (2004).
- Böhme, Hartmut. "Bildevidenz, Augentäuschung und Zeugenschaft in der Wissenschaft des Unsichtbaren im 17. Jahrhundert," in *Dissimulazione Onesta, oder, Die ehrliche Verstellung: von der Weisheit der versteckten Beunruhigung in Wort, Bild und Tat : Martin Warnke zu Ehren, ein Symposium* (2003) edited by Martin Warnke, Horst Bredekamp, Michael Diers, et. al. Hamburg, Germany: Philo, 2007.
- Boime, Albert. *Art and the French Commune: Imagining Paris after War and Revolution*. Princeton: Princeton University Press, 1997.
- Bouguereau, William-Adolphe. *The Remorse of Orestes*, 1862, oil on canvas, 91 x 109 5/8 in. (231.1 x 278.4 cm), Chrysler Museum of Art, Norfolk, Virginia.
- Bourdon, David. "Plastic Man Meets Plastic Man," *New York Magazine*. Vol. 2, No. 6. February 10, 1969.
- Bovino, Emily Verla. *A Round About Roundabouts* (2015), Bauhaus Universität-Weimar, October 2015.
- Bovino, Emily Verla. "Fieldwork as Methodology." *Fieldwork:Marfa Symposium*. Crowley Theater, Marfa, Texas. March 14 and 15, 2012.
- Bovino, Emily Verla (Associate Instructor), *Introduction to Urban Planning* (USP100), University of California, San Diego. Urban Studies and Planning. Winter 2016.
- Bovino, Emily Verla. "On Irons, Bones and Stones, or an Experiment in California-Italian Thinking on the 'Plastic' between Aby Warburg's *plastic art*, Gelett Burgess' *Goops* and Piet Mondrian's *Plasticism*." *California-Italian Studies*. Vol. 6, no. 1 (2016).
- Bovino, Emily Verla. "On the Pearl Interpolation (PERP) in a Monument to Bad Memory," N.d. Accessed December 27, 2016. <http://peddlers-and-bandits.blogspot.com/2014/05/blog-post.html>
- Bovino, Emily Verla. *On the Pearl Interpolation (PERP) in a Monument to Bad Memory, or how to add a perp to the herp, the lerp to the berp already present in the library of things* (2014). Third Edition. San Diego, CA: Mobile Irony Valve Press, 2016. For a print version of the chapbook, see the attached appendix. To view the video, visit: Mobile Irony Valve, "20140904_083029_Lulu Roundabout." Online video clip, *Youtube*. September 20, 2015. Accessed December 10, 2016. <https://www.youtube.com/watch?v=AnSMFKjwLx0>

- Bovino, Emily Verla. "Peddlers and Bandits in the Museum, or Remembering Ramon Karam: Memorializing Plastic Identity on the Texas-Mexico Border through Artist Donald Judd's Minimalist Museology." A paper presented as part of the panel, "Evidence of Remembrance: Identity, National Consciousness, and Museum Culture" organized by Bennetta Jules-Rosette and Erica L. Fontana. American Anthropological Association (AAA) 115th Annual Meeting, *Evidence, Accident, Discovery*. Minneapolis, MN, November 16-20, 2016.
- Bovino, Emily Verla. "Prinz Gholam at Galerie Jocelyn Wolff," *Artforum*, December 2008. Accessed February 26, 2017. <https://www.artforum.com/picks/id=21540>
- Bovino, Emily Verla. "The Nachleben of Mnemosyne: the Afterlife of the Bilderatlas," *Engramma*, Issue 119 (September 2014), http://www.engramma.it/eOS2/atlante/index.php?id_articolo=1618.
- Bovino, Emily Verla. "Week 33. MOBILE IRONY VALVE. On the Pearl Interpolation (PERP) in a Monument to Bad Memory." A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* May 18, 2014. Accessed May 18, 2014. <http://gulflabor.org/2014/week-33-mobile-irony-valve-on-the-pearl-interpolation-perp-in-a-monument-to-bad-memory/>
- Bovino, Emily Verla. "Week 33" in *52 Weeks* as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Bovino, Emily Verla. "On Irons, Bones and Stones, or an Experiment in California-Italian Thinking on the 'Plastic' between Aby Warburg's Plastic Art, Gelett Burgess' Goops and Piet Mondrian's Plasticism," *California-Italian Studies*, Volume 6, Issue 1 (2016).
- Bovino, Emily Verla. "Wanting to See Duse or Goshka Macuga's Preparatory Notes for a Chicago Comedy (2013-ongoing) inspired by Aby Warburg-as-Amateur-Playwright (1893-1897)," *Engramma*. No. 130. (October/November, 2015). Published 2015. Accessed November 2015. http://www.engramma.it/eOS2/index.php?id_articolo=2663
- Braga, Dominique. "Il Futurismo giudicato da una grande rivista francese," Roma. September 10 and 11, 1920, in the Beinecke Digital Collections, Yale University Library. N. d. Accessed January 19, 2017. <http://brbl-dl.library.yale.edu/vufind/Record/4147257>
- Brake, Alan G. "Abu Dhabi announces its own Gehry-designed Guggenheim." *Architectural Record* 194, Issue 10. (October 2006).
- Brancusi, Constantin. *Princess X* (1916), marble (base not included in dimensions), 22 x 11 x 9 in (55.88 x 27.94 x 22.86 cm), Sheldon Museum of Art, University of Nebraska-Lincoln.
- Brancusi, Constantin. *Princess X* (1915-1916), polished bronze with three-part base of limestone and plaster (not included in dimensions), 24.29 x 15.94 x 8.74 in (61.7 x 40.5 x 22.2 cm), Musée National d'Art Moderne, Centre Georges Pompidou, Paris, France.
- "Brancusi's Studio," *Collections. Centre Pompidou*. Accessed February 10, 2017. <https://www.centrepompidou.fr/en/Collections/Brancusi-s-Studio>

- Brandstetter, Gabriele. *Poetics of Dance: Body, Image, and Space in the Historical Avant-Gardes* (1995). Translated by Elena Polzer with Mark Franko. Oxford, UK: Oxford University Press, 2015.
- Brandt, Sabine. "Täglich Party: Weimar will für Ruhe sorgen am Wielandplatz," *Thüringische Landeszeitung*. July 2, 2015. Accessed October 5, 2015. <http://www.tlz.de/web/zgt/politik/detail/-/specific/Taeglich-Party-Weimar-will-fuer-Ruhe-sorgen-am-Wielandplatz-1096156013>
- Brazell, Karen. "Photo: The Pearl of Bahrain," *The Daily Need*. *PBS.org*. March 18, 2011. <http://www.pbs.org/wnet/need-to-know/uncategorized/photo-the-pearl-of-bahrain/8028/>.
- Bredenkamp, Horst. *Der Bildakt*. Berlin, Germany: Verlag Klaus Wagenbach, 2015.
- Bredenkamp, Horst. *La Fabbrica di San Pietro: Il Principio della Distruzione Produttiva* (2000). Translated by Elena Broseghini. Torino, Italia: Biblioteca Einaudi, 2005.
- Brenner, Neil. "Is 'Tactical Urbanism' an Alternative to Neoliberal Urbanism." In the series "Uneven Growth: Reflections on a Curatorial Process." *Post: Notes on Modern & Contemporary Art Around the Globe*. *Museum of Modern Art (MoMA)*. New York: MoMA, 2015. March 24, 2015. Accessed April 5, 2015. http://post.at.moma.org/content_items/587-is-tactical-urbanism-an-alternative-to-neoliberal-urbanism
- Breslin, James E. B. *Mark Rothko: A Biography*. Chicago, IL: University of Chicago Press, 1993.
- Breton, André. "The Lamp in the Clock (1948)," *Free Rein* (La Clé des Champs, 1953). Translated by Michel Parmentier and Jacqueline D'Amboise. Lincoln, NE: University of Nebraska Press, 1995.
- Brewer, Robert Lee. "New Poetic Form: The Roundabout." *Writer's Digest*. July 22, 2008. Accessed September 30, 2015. <http://www.writersdigest.com/editor-blogs/poetic-asides/poetry-craft-tips/new-poetic-form-the-roundabout>.
- "Britain's Scariest Roads Revealed," *BBC News*. November 27, 2009. Accessed September 10, 2014. http://news.bbc.co.uk/2/hi/uk_news/scotland/glasgow_and_west/8382506.stm
- Brody, Richard. "The Uses of Mythologies," *The New Yorker*, April 19, 2012. Accessed January 3, 2017. <http://www.newyorker.com/culture/richard-brody/the-uses-of-mythologies>
- "Broken Fall (Geometric), Bas Jan Ader, 16mm, 1 min 49 (1971)," Bas Jan Ader. *Basjanader.com*. N.d. Accessed January 7, 2017. <http://www.basjanader.com/works/brokenfall2.php>
- Bronchu-Ingram, Gordon Brent. "Building Queer Infrastructure: Trajectories and Organizational Development in Decolonizing Vancouver." *Queer Mobilizations: Social Movement*

Activism and Canadian Public Policy, edited by Manon Tremblay. Vancouver, Canada: UBC Press, 2015.

- Bronner, Ethan. "Bahrain Tears Down Pearl Monument," *The New York Times*. March 18, 2011. Accessed June 1, 2011. <http://www.nytimes.com/2011/03/19/world/middleeast/19bahrain.html>.
- Broué, Pierre. *The German Revolution, 1917 – 1923*. Translated by John Archer. Leiden, Netherlands: Brill, 2005.
- Brown, Bill. *Other Things*. Chicago, IL: University of Chicago Press, 2015.
- Brown, Kenneth. "Tunis," *Cities of the Middle East and North Africa: A Historical Encyclopedia*. Edited by Michael Dumper, Bruce E. Stanley. Santa Barbara, CA: ABC-CLIO, 2007.
- Buchloh, Benjamin H.D. "Conceptual art 1962 – 1969: from aesthetic of administration to the critique of institutions." *Conceptual Art: a Critical Anthology*. edited by Alexander Alberro and Blake Stimson. Cambridge, MA: MIT Press, 1999.
- Buchloh, Benjamin H.D. "Contents," *12 Dialogues 1962-1963*. Edited by Benjamin H.D. Buchloh (Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981), not paginated.
- Buchloh, Benjamin H.D. "Editor's Note," *12 Dialogues 1962-1963*. Edited by Benjamin H.D. Buchloh. Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981.
- Buchloh, Benjamin H.D. "Michael Asher and the Conclusion of Modernist Sculpture (1980)" in *Neo-Avantgarde and Culture Industry: Essays on European and American Art from 1955 to 1975*. Cambridge, MA: MIT Press, 2000.
- Buchloh, Benjamin H.D. "Process Sculpture and Film in Richard Serra's Work (1978)" in *Neo-Avantgarde and Culture Industry: Essays on European and American Art*. Cambridge, MA: MIT Press, 2000.
- Buchloh, Benjamin H.D. "The Politics of Representation." *The Photographic Paradigm*, Lier en Bood Series, Vol. 2. Edited by Annette W. Balkema and Henk Slager. Amsterdam: Editions Rodopi, 1997.
- Buder, Stanley. *Visionaries and Planners: The Garden City Movement and Modern Community*. Oxford, UK: Oxford University Press, 1990.
- Burri, Alberto. *James Johnson Sweeney's "Little Burri" Gallery (c. 1953)*, Solomon R. Guggenheim Museum, New York. Exhibited at *Alberto Burri: The Trauma of Painting*. Solomon R. Guggenheim Museum, New York. October 9, 2015 – January 6, 2016.
- Butcher, Sterry. "Fieldwork Marfa Launches International Research in Residence Program." *Big Bend Now*. Published October 6, 2011. Accessed September 10, 2016.

<http://bigbendnow.com/2011/10/fieldwork-marfa-launches-international-research-in-residence-program/>

- Bronson, AA. *Museums by Artists*. Edited by AA Bronson and Peggy Gale. Toronto, Canada: Art Metropole, 1983.
- Burke, Siobhan. "Review: Maria Hassabi's 'Plastic' Sends Dancers Crawling Through MoMA," *The New York Times*, February 23, 2016. Accessed March 3, 2016. <https://www.nytimes.com/2016/02/24/arts/dance/review-maria-hassabis-plastic-sends-dancers-crawling-through-moma.html>
- Burkhalter, Sarah. "Kachinas and Kinesthesia: Dance in the Art of Sophie Taeuber-Arp." *Sophie Taeuber-Arp: Today is Tomorrow*. Edited by Aargauer Kunsthau, Switzerland and Kunsthalle Bielefeld, Germany. Chicago, IL: University of Chicago Press, 2014.
- Burt, Ramsay. *Judson Dance Theater: Performative Traces*. London, UK: Routledge, 2006.
- Butler, Judith. *Antigone's Claim: Kinship Between Life and Death*. New York, NY: Columbia University Press, 2000.
- Butler, Judith and Catherine Malabou. "You Be My Body for Me: Body, Shape, and Plasticity in Hegel's Phenomenology of Spirit." *A Companion to Hegel*, First Edition. Edited by Stephen Houlgate and Michael Baur. West Sussex, UK: Blackwell Publishing, 2011.
- C|
- Cabanès, Auguste. *Pathological Studies of the Past. Curious Bypaths of History being Medical-Historical Studies and Observations*. Paris, France: Librairie des Bibliophiles, 1898.
- Calandra di Roccolino, Giacomo. "Aby Warburg architetto: Nota sui progetti per la Kulturwissenschaftliche Bibliothek Warburg ad Amburgo." *Engramma*. No. 116 (May 2014).
- Cano, Tony. *Bandido: The True Story of Chico Cano, the Last Western Bandit*. Canutillo, TX: Reata Publishing, 1997.
- Canova, Antonio. *The Sleeping Endymion* (189-1822), marble, 72.05 in long (183 cm long), Chatsworth, Derbyshire. "The Sleeping Endymion," *Chatsworth*. Published 2017. Accessed February 10, 2017. <https://www.chatsworth.org/art-archives/the-collection/sculpture/the-sleeping-endymion/>
- Cannon, Garland Hampton and Alan S. Kaye, *The Arabic Contributions to the English Language: An Historical Dictionary*. Wiesbaden: Harrassowitz Verlag, 1994.
- Canudo, Ricciotto. "Lettere d'arte. Il Trionfo del Cinematografo," *Il Nuovo giornale* (Florence) 25 Nov. (1908), reprinted in *Filmeritica*, no. 278 (November 1977).
- Canudo, Ricciotto. *L'Officina delle Immagini*. Roma, Italia: Bianco e Nero, 1966.

- Carl, Bettina. "Hard Work Looking Easy, the Ballerinas Always Smile: Notes on the Art of Hanne Darboven." *Afterthought: New Writing on Conceptual Art*. ed by Mike Sperlinger. London, UK: Rachmaninoff's, 2005.
- Carollo, Sabrina. *I Futuristi: La Storia, Gli Artisti, Le Opere*. Firenze-Milano, Italia: Giunti Editorie S.p.A, 2004.
- Carrington, Leonora. *The Seventh Horse and Other Tales*. New York, NY: E.P. Dutton, 1988.
- Cash, Stephanie. "Abu Dhabi & Guggenheim Agreement," *Art in America* (January 1, 2008).
- Cassel, Matthew. "Bahrain: Revolution on Walls," *matthewcassel.com*, December 8, 2011. Accessed January 10, 2012. <http://matthewcassel.com/tag/graffiti/>
- Cassin, Barbara. *L'effetto sofisticato. Per un'altra storia della filosofia*. Milano, Italia: Jaca Book, 2002.
- Castiglione, Vera. "A Futurist before Futurism: Emile Verhaeren and the Technological Epic," *Futurism and the Technological Imagination*. Edited by Gunter Berghaus. Amsterdam, Netherlands: Rodopi, 2009.
- Castoro, Rosemarie. *Crackings: Streetworks II* (1969), offset print documenting project on city block around 13th, 14th streets, 5th & 6th Avenues, 5 to 6 pm, Broadway 1602 Gallery, New York.
- Castoro, Rosemarie. *Face Cracking* (1969), self-timed polaroid (self-portrait of the artist) 3x4 in (7.62 x 10.16 cm), Broadway 1602 Gallery, New York.
- Castoro, Rosemarie. *Interference/Infinity* (exhibition at Broadway 1602, New York, 2016): *Guinness Martin* (1972), masonite, gesso, graphite and moeling paste 36 x 180 in (91.44 x 457.2 cm), Broadway 1602, New York.
- Castoro, Rosemarie. *Orange Ochre Purple Yellow Y* (1965), acrylic on canvas, 83.5 x 83 in (212.09 x 210.82 cm), Broadway 1602, New York.
- Caws, Mary Anne. "Robert Motherwell and the Modern Painter's World," *Artists and Intellectuals, and World War II: the Pontigny Encounters at Mount Holyoke College, 1942-1944*. Edited by Christopher E. G. Benfrey and Karen Remmler. Amherst, MA: University of Massachussetts Press, 2006.
- Caws, Mary Ann. *The Yale Anthology of Twentieth-Century French Poetry*. New Haven: Yale Unviersity Press, 2004.
- "Celestial Chart—Elwe, Jan Barend [...] designed by Remmet Theunisse Backer." *Sotheby's. Travel, Atlases, Maps & Natural History*, London. November 12, 2013. <http://www.sothebys.com/en/auctions/ecatalogue/2013/travel-atlases-maps-natural-history-113405/lot.123.html>
- Cendrars, Blaise. *Moravagine*. Paris: B. Grasset, 1926.

- Chakrabarty, Dipesh. *Provincializing Europe: Postcolonial Thought and Historical Difference*. Princeton, NJ: Princeton University Press, 2000.
- Changeux, Jean-Paul. *Neuronal Man: The Biology of Mind*. Translated by Laurence Garey. Princeton, NJ: Princeton University Press, 1997.
- Chave, Anna. *Constantin Brancusi: Shifting the Bases of Art*. New Haven: Yale University Press, 1993.
- Chernow, Ron. *The Warburgs*. New York, NY: Vintage, 1993.
- Chinati: The Vision of Donald Judd*. Edited by Marianne Stockebrand. New Haven, CT: Yale University Press, 2010.
- Chŏng-un Ch'oe, *The Gwangju Uprising: The Pivotal Democratic Movement that Changed the History of Modern Korea*. Paramus, NJ: Homa & Sekey Books, 2006.
- “Chronology: October 24 – November 11, 1944,” *Dedalus*. N.d. Accessed December 3, 2013. http://dedalusfoundation.org/motherwell/chronology/detail?field_chronology_period_tid=28&page=1.
- Chulov, Martin. “Bahrain Destroys Pearl Roundabout.” *The Guardian*. March 18, 2011. URL: <https://www.theguardian.com/world/2011/mar/18/bahrain-destroys-pearl-roundabout>
- Cieslak, Ryszard. *The Body Speaks*. New York, NY: Creative Arts Television, Columbia Broadcasting System, 1975.
- “City streets named for Martin Luther King Jr. struggle across the U.S.,” *The Associated Press*. January 20, 2014. Accessed June 4, 2015. http://www.nj.com/news/index.ssf/2014/01/city_streets_named_for_martin_luther_king_jr_struggle_across_us.html
- Comas, James N. *Between Politics and Ethics: Toward a Vocative History of English Studies*. Carbondale, IL: Southern Illinois University Press, 2006.
- Conklin, Ryan A. *The 18th New York Infantry in the Civil War: A History and Roster*. North Carolina: McFarland & Company Publishers, 2016.
- Connors, Joseph. “Ars Tormandi: Baroque Architecture and the Lathe,” *Journal of the Warburg and Courtauld Institutes*, Vol. 53 (1990).
- Conservation Intern at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September through December 2011.
- Cooper, Allison. “Gender, Identity, and the Return to Order in the Early Works of Paola Masino,” *Italian Modernism: Italian Culture between Decadentism and Avant-garde*. Edited by Luca Somigli and Mario Moroni. Toronto, Canada: University of Toronto Press, 2004.

- Copenhaver, Brian. "Giovanni Pico della Mirandola," *Stanford Encyclopedia of Philosophy*. August 3, 2016. Accessed November 30, 2016. <https://plato.stanford.edu/entries/pico-della-mirandola/#WorkRepu>
- Cornacchini, Agostino. *The Sleep of Endymion*, (1716), marble, 25 1/2 x 21 x 18 in, Cleveland Museum of Art, Ohio.
- Cramer, Charles A. *Abstraction and the Classical Ideal, 1760–1920*. Delaware: University of Delaware Press, 2006.
- "Crane driver died during demolition of monument." *Gulf Daily News*. N.d. Accessed August 20, 2014. <http://www.gulf-daily-news.com/Print.aspx?storyid=302514>.
- Crary, Jonathan. *Techniques of the Observer: On Vision and Modernity in the Nineteenth Century*. Cambridge, MA: MIT Press, 1992.
- Crimp, Douglas. "Our Kind of Movie": *The Films of Andy Warhol*. Cambridge, MA: MIT Press, 2012.
- Cryle, Peter, and Allison Moore, *Frigidity: An Intellectual History*. Basingstoke: Palgrave Macmillan, 2011.
- D|
- Dabashi, Hamid. *Corpus Anarchicum: Political Protest, Suicidal Violence and the Making of the Posthuman Body*. New York, NY: Palgrave Macmillan, 2012.
- Dabashi, Hamid. *Iran: The Rebirth of a Nation*. New York, NY: Palgrave Macmillan, 2016.
- Dabashi, Hamid. "Trauma, Memory and History," *Contemporary Art from the Middle East: Regional Interactions with Global Art Discourses*. Edited by Hamid Keshmirshakan. London, UK: I.B. Tauris, 2015.
- "Dada," *A Dictionary of Modern and Contemporary Art*. Edited by Ian Chilvers and John Graves-Smith. Oxford, UK: Oxford University Press, 2015.
- "Dali – Jigsaw Puzzle – The Disintegration of Persistence of Memory (1952-1954)," *Musart Boutique*. Published 2016. Accessed January 10, 2017. <https://musartboutique.com/shop/office/dali-jigsaw-puzzle-the-disintegration-of-persistence-of-memory-1952-54/>
- Dalí, Salvador. *Le Mythe Tragique de l'Angélu de Millet: interprétation "paranoïaque-critique"*. Paris, France: Pauvert, 1963, Museum of Modern Art, New York, Special Collections.
- Dalí, Salvador. *Le Mythe Tragique de l'Angélu de Millet: interprétation "paranoïaque-critique" (1963)*, Paris, France: Éditions Allia, 2011.

- Dali, Salvador. *Visage paranoïaque* (c. 1935), oil on panel, 7.28 x 8.86 in (18.5 x 22.5 cm), Gala-Salvador Dali Foundation, Figueres, Spain.
- Dalrymple Henderson, Linda. *The Fourth Dimension and Non-Euclidean Geometry in Modern Art* Princeton, NJ: Princeton University Press, 1983.
- Danto, Arthur. "Boccioni and Il Futurismo," *Encounters & Reflections: Art in the Historical Present*. Berkeley, CA: University of California Press, 1990.
- Danto, Arthur. *The Madonna of the Future*. New York: Farrar, Straus and Giroux, 2000.
- Danto, Arthur. "The 'Original Creative Principle': Motherwell and Psychic Automatism," *Philosophizing Art*. Berkeley, CA: University of California, Press, 1999.
- Darboven, Hanne. *Kulturgeschichte 1880-1983* (Cultural History 1880-1983, 1980-1983). 1,590 framed works on paper and 19 sculptural objects. The Dia Foundation, New York.
- Dash, Mike. "Uncovering the Truth Behind the Myth of Pancho Villa, Movie Star." *The Smithsonian Magazine*. November 6, 2012. Accessed November 10, 2012. <http://www.smithsonianmag.com/history/uncovering-the-truth-behind-the-myth-of-pancho-villa-movie-star-110349996/>.
- Davis, Karen. "Thinking like a Chicken: Farm Animals and the Feminine Connection," *Animals and Women: Theoretical Explorations*. Edited by Carol J. Adams and Josephine Donovan. Durham, NC: Duke University Press, 1995.
- Davis, Whitney. *Replications: Archaeology, Art History, Psychoanalysis*. University Park, PA: Pennsylvania State University Press, 1996.
- Day, Joe. *Corrections & Collections: Architectures for Art and Crime*. New York, NY: Taylor & Francis, 2013.
- "Deadly Crackdown on Bahrain Protesters" *The Arab-American News*. March 2011.
- Debord, Guy. "Report on Constructing Situations and on the International Situationist Tendency's Conditions of Organization and Action, in *Situationist International Anthology*. Trans. Ken Knabb. Berkeley, CA: Bureau of Public Secrets, 1981 as republished on *Bureau of Public Secrets*. *Bopsecrets.org*. N.d. Accessed September 2015. <http://www.bopsecrets.org/SI/report.htm>
- De Certeau, Michel. *The Practice of Everyday Life*, Vol. 1. Berkeley, CA: University of California Press, 1984.
- De Chazal, Malcolm. *Languste* (N.d.), gouache, 29.9 in x 21.9 in (76 cm x 55.5 cm), *Artnet Price Database*, [artnet.com](http://www.artnet.com), Artnet Worldwide Corporation, N.d. http://www.artnet.com/artists/malcolm-de-chazal/languste-5_J77wuGHruvjqPm0ad68Q2
- De Chazal, Malcolm. *Sens-Plastique*. Edited by and trans. Irving Weiss. New York, NY: SUN, 1979.

- De Chirico, Giorgio. *Ricordi di Roma* (Roma, Italia: Editrice Cultura Moderna, 1945).
- De Chirico, Giorgio. *The Song of Love* (1914), oil on canvas, 28 ¾ x 23 3/8 in (73 x 59.1 cm), Museum of Modern Art, New York.
- De Chirico, Giorgio. *The Faithful Servitor* (1916-1917), oil on canvas, 15 1/8 x 13 5/8 in (38.2 x 34.5 cm), Museum of Modern Art, New York.
- De Duve, Thierry. *Kant After Duchamp*. Cambridge, MA: MIT Press, 1996.
- de Landa, Manuel. "The Nonlinear Development of Cities." *Eco-Tec: Architecture of the In-Between*. Edited by Amerigo Marras. New York, NY: Princeton Architectural Press, 1999.
- della Mirandola, Giovanni Pico. *Oration on the Dignity of Man (1486): A New Translation and Commentary*. Edited by Francesco Borgeshi, Michael Paoio and Massimo Riva. New York, NY: Cambridge University Press, 2012.
- Denby, Edwin. "The Dance in Film (1943)," *Dance Writings & Poetry*. Edited by Robert Cornfield. New Haven, CT: Yale University Press, 1998.
- Depero, Fortunato. *Colori in Moto, esperimento plastico* (Colors in Motion, Plastic Experiment, 1914, destroyed), dimensions not specified.
- Depero, Fortunato. *Complesso motorumorista di equivalenti in moto* (Motonoisist Complex with Equivalentents in Motion, 1914-1915, destroyed), dimensions not specified
- Depero, Fortunato. *Fiera, complesso plastico motorumorista* (Fair, Motonoisist Plastic Complex, 1924, destroyed), dimensions not specified.
- Depero, Fortunato. *Panoramagico, complesso plastico motorumorista* (Panoramagic, Motonoisist Plastic Complex, N.d., destroyed).
- Derrida, Jacques. *Margins of Philosophy* (1972). Translated by Alan Bass. Chicago, IL: University of Chicago, 1982.
- De Saint-Point, Valentine. *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven, CT: Yale University Press, 2009.
- De Saint-Point, Valentine. "Figure idéiste des Pavots des Sang" (Ideist Figure of Blood Poppies) (1914), *Montjoie!* (1914), Jerome Robbins Dance Division, The New York Public Library for the Performing Arts, Astor, Lenox and Tilden Foundation.
- De Saint-Point, Valentine. "La Métachorie (1914)" in *Giovanni Lista, Futurisme: Manifestes, Proclamations, Documents*. Lausanne, Switzerland: L'Age d'Homme, 1973.
- Desk Set*, directed by Walter Lang. 1957; Beverly Hills, CA: Twentieth Century Fox Home Entertainment, 2010, DVD.

- “De Stijl,” *Encyclopedia of Twentieth Century Architecture*. Edited by Stephen Sennott. New York, NY: Fitzroy Dearborn, 2004.
- de Tarde, Gabriel. *Monadology and Sociology*. Edited by and trans. Theo Lorenc (Melbourne, Australia: re.press, 2012).
- Devillez, Virginie. “Abstract: To be in or behind the Museum? The Visual Arts in the post-68 years.” *Center for Historical Research and Documentation on War and Contemporary Society*. Published 2007. Accessed February 2016. www.cegesoma.be/docs/media/chtp_beg/chtp_18/chtp18_Resu_Angl_Devillez.pdf
- Devillez, Virginie. “To be in or behind the museum? Les Arts Visuels dans les années 68,” *Cahiers d’histoire du temps présent*, no. 18 (2007). Published 2007. Accessed February 2016. http://www.cegesoma.be/cms/cahiers18_en.php?go=y&truv=devillez
- Diaconu, Madalina. “Matter, Movement, Memory: Footnotes to an Urban Tactile Design,” in *Senses and the City: An Interdisciplinary Approach to Urban Sensecapes*. Wien, AU: Lit, 2011.
- Dick, Leslie. “The Skull of Charlotte Corday,” *The Politics of Everyday Fear*. Edited by Brian Massumi. Minneapolis: University of Minneapolis Press, 1993.
- Dicker, Barnaby. “André Breton, Rodolphe Topffer and the Automatic Message,” *Surrealism, Science Fiction and Comics*. Edited by Gavin Parkinson. Liverpool: Liverpool University Press, 2015.
- Dickerman, Leah and Matthew S. Witkovsky, *The Dada Seminar*. Washington, DC: Center for Advanced Study in the Visual Arts with Distributed Art Publishers, 2005.
- Didi-Huberman, Georges. *Atlas: How to Carry the World on One’s Back*. Madrid, Spain: Museo Nacional Centro de Arte Reina Sofia, 2010.
- Didi-Huberman, Georges. *L’Image Survivante: histoire de l’art et temps des fantômes selon Aby Warburg*. Paris, France: Minuit, 2002.
- Didi-Huberman, Georges. *The Surviving Image: Phantoms of Time and Time of Phantoms*, Aby Warburg’s History of Art. University Park, PA: Penn State University Press, 2016.
- Diller Scofidio + Renfro: Reimagining Lincoln Center and the High Line*, directed by Muffie Dunn and Tom Piper. 2012. New York, NY: Checkerboard Film Foundation, 2012, DVD.
- Dixson, Alan F. *Primate Sexuality: Comparative Studies of the Prosimians, Monkeys, Apes*. Oxford, UK: Oxford University Press, 2012.
- Docents and Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.

- Dolar, Mladen. *A Voice and Nothing More*. Cambridge, MA: MIT Press, 2006.
- Domela, Cesar. *Construction* (1929), painted glass, brass, metal and wood, 35 3/8 x 19 5/8 x 1 3/4 in (89.85 x 49.85 x 4.45 cm), private collection.
- Donatelli, Robert. *Sports-Specific Rehabilitation*. St. Louis, MO: Churchill Livingstone/Elsevier 2007.
- Dooley, Brendan Maurice. *A Companion to Astrology in the Renaissance*. Leiden, Netherlands: Brill, 2014.
- Dover, Caitlin. "How the Guggenheim Evoked a Groundbreaking 1917 Futurist Performance," *Guggenheim Blog. Checklist – Mondays in Motion*, May 5, 2014. Accessed July 10, 2014. <https://www.guggenheim.org/blogs/checklist/guggenheim-evoked-groundbreaking-1917-futurist-performance>
- Draitser, Eric. "Syria and the Left: Time to Break the Silence." *Counterpunch*. October 20, 2016. Accessed November 3, 2016. <http://www.counterpunch.org/2016/10/20/syria-and-the-left-time-to-break-the-silence/>. Nada Matta in conversation with Gilbert Achcar, "Five Years after the Arab Spring." *Socialist Worker*. January 7, 2016. Accessed January 11, 2016. <https://socialistworker.org/2016/01/07/five-years-after-the-arab-spring>
- Duchamp, Marcel. *À l'Infinitif*, in the original French with a pamphlet in translation. Translated by Cleve Gray (New York: Cordier & Ekstrom), 1966, box dimensions: 13 1/8 x 11 1/4 x 1 5/8 in (33.3 x 28.6 x 4.1 cm). Edition number 93 in limited edition of facsimile reproductions numbered 1/150. Museum of Modern Art, New York. Offsite Special Collections Flat. Consists of manuscript notes of Marcel Duchamp 1912-1920.
- Duchamp, Marcel. *Boîte-en-valise (de ou par Marcel Duchamp ou Rose Selavy)*, 1935 – 1941. Leather valise containing miniature replicas, photographs, and color reproductions of works by Duchamp, and one "original" (Large Glass, collotype on celluloid), (69 items) overall 16x15 x 4 inches. IX/XX from Deluxe Edition. The Museum of Modern Art, New York. James Thrall Soby Fund.
- Duchamp, Marcel. *Chocolate Grinder (No. 2)* (1914), oil, graphite, and thread on canvas, 25 3/4 x 21 3/8 in (65.4 x 54.3 cm), Philadelphia Museum of Art. "Chocolate Grinder (No. 2) (1914)," *Philadelphia Museum of Art*, Published 2017. Accessed December 3, 2016. www.philamuseum.org/collections/permanent/51530.html?mulR=1803493003|5
- Duchamp, Marcel. *Glider Containing a Water mill in Neighboring Metals* (1913-1915), oil and lead wire on glass, 59 3/8 x 32 15/16 in (150.8 x 83.7 cm), Philadelphia Museum of Art.
- Duchamp, Marcel. *Nude Descending a Staircase (No. 2)* (1912), oil on canvas, 57 7/8 x 35 1/8 in (147 x 89.2 cm), Philadelphia Museum of Art. "Nude Descending a Staircase (No. 2) (1912)," *Philadelphia Museum of Art*. Published 2017. Accessed March 3, 2017. <http://www.philamuseum.org/collections/permanent/51449.html>.

- Duchamp, Marcel. *The Bride Stripped Bare by Her Bachelors, Even (The Large Glass)* (1915-1923), oil, varnish, lead foil, lead wire, and dust on two glass panels, 9 ft 1 ¼ in x 70 in x 3 3/8 in (277.5 x 177.8 x 8.6 cm), Philadelphia Museum of Art.
- Duchamp, Marcel. *The Clock in Profile* (1964), relief print, 11.1 x 8.6 inches. For the flat version of the drawing, see “Marcel Duchamp, *The Clock in Profile*, 1964,” *Artnet*. Past Auctions. N.d. Accessed January 20, 2017. <http://www.artnet.com/artists/marcel-duchamp/the-clock-in-profile-jvxy8x9OKWUpvk-3umB9Yg2>
- Duchamp, Marcel. *The Writings of Marcel Duchamp* (1973). Edited by and trans. Michel Sanouillet and Elmer Petersen. New York, NY: Da Capo Press, 1989.
- “Duende Diagram (2014),” *Warrenneidich.com*. Artist website. N.d. Accessed March 3, 2017. <http://www.warrenneidich.com/duende-diagram-2/>
- Dumbadze, Alexander. *Bas Jan Ader: Death is Elsewhere*. Chicago, IL: University of Chicago Press, 2013.
- Dunne, J.W. *An Experiment with Time* (London: A. & C. Black, Ltd., 1929).
- Durant, Sam. “Week 4. Sam Durant. Guggenheim Abu Dhabi Labor Camp for Guest Workers,” A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who’s Building the Guggenheim Abu Dhabi?* November 7, 2013. Accessed November 12, 2013. <http://gulflabor.org/2013/week-4-sam-durant-guggenheim-abu-dhabi-labor-camp-for-guest-workers/>
- Dynes, Wayne R. “Activist Gay,” *The Encyclopedia of Homosexuality*. Abingdon, Oxon: Routledge, 1990.
- E|
- Eco, Umberto. *Come si fa una tesi di laurea: le materie umanistiche*. Milano: Bompiani, 1995.
- Editors’ Introduction to Andy Warhol, “from *A: A Novel*,” *Against Expression: An Anthology of Conceptual Writing*. Edited by Craig Dworkin and Kenneth Goldsmith. Evanston, IL: Northwestern University Press, 2011.
- Efal, Adi. *Figural Philology: Panofsky and the Science of Things*. London, UK: Bloomsbury Academic, 2016.
- Elderfield, John. “Space to Paint,” *De Kooning: A Retrospective*. Edited by David Frankel (New York, NY: Museum of Modern Art/Distributed Art Publishers, Inc., 2011),
- Elger, Dietmar. “Man Ray, Gift (1921/1940),” *Dadaism*. Edited by Uta Grosenick (Cologne, Germany: Taschen, 2004).
- Elliot, John E. “Marx and Schumpeter on Capitalism’s Creative Destruction: A Comparative Restatement,” *The Quarterly Journal of Economics*, Vol.95, No.1 (August 1980).

- Elmer, Nathaniel. "Alexander Ralston and the Plan for Indianapolis." *Moment of Indiana History. Indiana Public Media*. Indiana Public Broadcasting Stations (IPBS). January 4, 2010. Accessed September 6, 2015. <http://indianapublicmedia.org/momentofindianahistory/alexander-ralston-plan-indianapolis/>
- Elsheshtawy, Yasser. "Cities of Sand and Fog: Abu Dhabi's Global Ambitions," in *The Evolving Arab City: Tradition, Modernity and Urban Development*. Edited by Yasser Elsheshtawy. New York, NY: Routledge, 2008.
- Elsheshtawy, Yasser. "The Great Divide: Struggling and Emerging Cities in the Arab World," *The Evolving Arab City: Tradition, Modernity and Urban Development*. New York, NY: Routledge, 2008.
- Elsner, Jaś. "Iconoclasm and the Preservation of Memory," *Monuments and Memory, Made and Unmade*. Edited by Robert S. Nelson and Margaret Olin. Chicago: University of Chicago Press, 2003.
- "Encyclopaedia". Encyclopædia Britannica. 9 (11th ed.). edited by Hugh Chisolm. Cambridge, UK: Cambridge University Press, 1910.
- Endymion Asleep* (117-138 CE), marble, 61.81 x 40.55 in (157 x 103 cm), Musei Capitolini, Stanza dei Imperatori, Rome.
- "Endymion Asleep," Museum of Classical Archeology Databases. University of Cambridge, 2017. Accessed January 15, 2017.
- Engel, Manfred. "Variants of the Romantic "Bildungsroman" (with a short note on the "artist novel")," *Romantic Prose Fiction*. Edited by Gerald Gillespie, Manfred Engel and Bernard Dieterle. Amsterdam, Netherlands: John Benjamins Publishing Company, 2008.
- "Entwicklung," Collins German-English Dictionary. Published 2017. Accessed February 2, 2017. <https://www.collinsdictionary.com/dictionary/german-english/entwicklung>
- Enwezor, Okuwi. *Archive Fever: Uses of the Document in Contemporary Art*. International Center of Photography, New York, New York. January 18 to May 4, 2008. Exhibition Catalogue. Gottingen: Steidl Publishers, 2008.
- Enwezor, Okuwi. "The Postcolonial Constellation: Contemporary Art in a State of Permanent Transition," *Antinomies of Art and Culture: Modernity, Postmodernity, Contemporaneity*. Edited by Terry Smith, Okuwi Enwezor and Nancy Condee. Durham, NC: Duke University Press, 2008.
- EPA, "A pro-reform protester carries a miniature design of Lulu Roundabout, the former site of pro-reform protests, face incoming march during a rally along Budaiya Highway, north of the Bahraini capital Manama, 09 March 2012. Thousands of opposition supporters marched on the outskirts of the Bahraini capital Manama, demanding democratic reforms, in one of the largest rallies to be witnessed by the Gulf Island since last year's pro-reform protests. Bahraini opposition groups, including hardliners, had unified their

ranks and called on their supporters to take part in Friday's rally in ...," *alamy.com*. September 3, 2012. Accessed September 13, 2012. <http://c8.alamy.com/comp/FRJABK/epa03138666-a-pro-reform-protester-carries-a-miniature-design-of-lulu-FRJABK.jpg>

EPA/Mazen Mahdi, "A Bahraini protester raises a model of the Lulu Roundabout, which was demolished by the authorities during the March 2011 crack-down on pro-reform protesters, during an opposition march in Budiya north of the Bahraini capital Manama, 09 September 2011. Reports state that Tens of thousands of opposition supporters turned out at the 'no waiver' protest as the opposition reaffirmed its position for having a constitutional monarchy with a fully elected parliament and government being adopted as a system of governing the small Gulf island. The march came just a few hours after senior Shiite clergyman, Ayatollah Sheikh Isa Qassim, said during Friday prayer sermon that the crackdown has failed to silence the demands for reforms," *alamy.com*. N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/FT3E30/epa02906731-a-bahraini-protester-raises-a-model-of-the-lulu-roundabout-FT3E30.jpg>

EPA/Mazen Mahdi, "A Bahraini pro-reform protester seen wearing a hat symbolizing Lulu Roundabout, the former site of pro-reform protests, during a rally on the outskirts of the Bahraini capital Manama 25 November 2011. Thousands of pro-reform protesters marched on 25 November 2011 demanding the resignation of the government and demanding democratic reforms that ensure more political and rights freedoms. The march came on the heels of issuing a 500-page report by an independent human-rights commission setup by Bahrain king, sheikh Hamad bin Isa al-khalifa, to investigate violations carried out during a crack-down on pro-reform protesters. The report by the commission accused the security forces of systematic torture of pro-reform protesters and pointed out that there was no evidence of Iranian meddling in the pro-reform protests that broke-out in mid-February," *alamy.com*, N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/FRBACB/epa03015500-a-bahraini-pro-reform-protester-seen-wearing-a-hat-symbolizing-FRBACB.jpg>

EPA/Mazen Mahdi, "A masked youth protester holds a placard depicting the Lulu Roundabout monument, the former site of pro-reform protests, as he walks past a wall with anti-government graffiti painted on it, in Aali village, south of the Bahraini capital Manama, Bahrain, 18 November 2011. According to local sources, thousands of people took part in an opposition rally in Aali village where the key opposition groups reaffirmed that no solution can be reached to end the country's on-going crisis without introducing real political reforms which include a new constitution, a fully elected parliament and government among other democratic reforms. A fact finding commission setup by Bahrain king to investigate alleged human-right violations against pro-reform protesters in a crack-down that began in mid-February is expected to present its findings and recommendations on 23 November 2011," *alamy.com*. N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/FR9BG2/a-masked-youth-protester-holds-a-placard-depicting-the-lulu-roundabout-FR9BG2.jpg>

EPA/Mazen Mahdi, "A young Bahraini girl stands in front a mock Lulu Roundabout monument, the former site of pro-reform protests, in Aali village south of the Bahraini capital Manama, Bahrain, 18 November 2011. According to local sources, thousands of people took part in an opposition rally in Aali village where the key opposition groups

reaffirmed that no solution can be reach to end the country's on-going crisis with-out introducing real political reforms which include a new constitution, a fully elected parliament and government among other democratic reforms. A fact finding commission setup by Bahrain king to investigate alleged human-right violations against pro-reform protesters in a crack-down that began in mid-February is expected to present its findings and recommendations on 23 November 2011,” *alamy.com*, N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/C9C0FH/epa03008036-a-young-bahraini-girl-stands-in-front-a-mock-lulu-roundabout-C9C0FH.jpg>

EPA/Mazen Mahdi, “Bahraini protesters setup a mock Lulu Roundabout, the former site of pro-reform protests, in a roundabout inside Aali Village south of the Bahraini capital Manama, Bahrain 14 October 2011. According to local media sources clashes between pro-reform protesters and anti-riot police were reported across the small Gulf Island on 13 and 14 October 2011 as pro-reform protests that began on 14 February 2011 entered its 9 month anniversary,” *alamy.com*. N.d. Accessed December 10, 2011. <http://c8.alamy.com/comp/FT737J/bahraini-protesters-setup-a-mock-lulu-roundabout-the-former-site-of-FT737J.jpg>

EPA/Mazen Mahdi, “Bahraini women flash the 'V Sign' while seating in front a mock Lulu Roundabout monument, the former site of pro-reform protests, in Aali village south of the Bahraini capital Manama, Bahrain, 18 November 2011. According to local sources, thousands od people took part in an opposition rally in Aali village where the key opposition groups reaffirmed that no solution can be reach to end the country's on-going crisis with-out introducing real political reforms which include a new constitution, a fully elected parliament and government among other democratic reforms. A fact finding commission setup by Bahrain king to investigate alleged human-right violations against pro-reform protesters in a crack-down that began in mid-February is expected to present its findings and recommendations on 23 November 2011,” *alamy.com*. N.d. Accessed June 3, 2012. <http://c8.alamy.com/comp/C9C0FM/epa03008047-bahraini-women-flash-the-v-sign-while-seating-in-front-C9C0FM.jpg>;

EPA/Mazen Mahdi, “Masked pro-reform protesters carry a miniature design of Lulu Roundabout, the former site of pro-reform protests, during a march along Budaiya Highway, north of the Bahraini capital Manama, 09 March 2012. Thousands of opposition supporters marched on the outskirts of the Bahraini capital Manama, demanding democratic reforms, in one of the largest rallies to be witnessed by the Gulf island since last year’s pro-reform protests. Bahraini opposition groups, including hardliners, had unified their ranks and called on their supporters to take part in Friday's rally, in a push to reflect the continued wide-spread public support for calls of reform despite more then a year long crack-down,” *alamy.com*. N.d. Accessed September 13, 2012. <http://c8.alamy.com/comp/FRJABB/masked-pro-reform-protesters-carry-a-miniature-design-of-lulu-roundabout-FRJABB.jpg>

EPA/STR, “young pro-reform female protester holds a miniature Lulu Roundabout model, the landmark site of last year’s protests, during a rally near the Shakhura village, north of the Bahraini capital Manama, 08 June 2012. Heavy clashes broke-out between police and protesters across several villages and parts of the capital as they answered the call by Feb14 Coalition, an umbrella grouping for movements that spearheaded the 14 February 2011 pro-reform protests. The clashes lead to a yet unconfirmed number of injuries and

arrests. Meanwhile, thousands of pro-reform protesters answered a separate call by the leading opposition groupings to march near Shakhura village, north of the Bahraini capital Manama,” *alamy.com*. N.d. August 20, 2012. <http://c8.alamy.com/comp/FPN9HD/a-young-pro-reform-female-protester-holds-a-miniature-lulu-roundabout-FPN9HD.jpg>

Eschelbacher, Andrew. “Environment of Memory: Paris and Post-Commune Angst.” *Nineteenth Century Art Worldwide: A Journal of Nineteenth-Century Visual Culture*. Vol. 8, Iss. 2 (Autumn 2009), 7. Also available online at *Nineteenth Century Art Worldwide: A Journal of Nineteenth-Century Visual Culture*. Autumn 2009. Accessed September 10, 2016. <http://www.19thc-artworldwide.org/autumn09/environment-of-memory>

“Europe migrant crisis: Germany ‘will cope with surge.’” *BBC News*. August 19, 2015. Accessed August 20, 2015. <http://www.bbc.com/news/world-europe-33992563>

European Pressphoto Agency (epa) b.v. / Alamy Stock Photo, “A Young Bahraini Shiite Girl Walks by graffiti of the February 14 pro-reform movement and the Lulu roundabout, the former site of pro-reforms protests, Al-Maksha village north of the Bahraini capital Manama, 18 December 2011,” *alamy.com*. N.d. Accessed September 11, 2012. <http://www.alamy.com/stock-photo-a-young-bahraini-shiite-girl-walks-by-graffiti-of-the-february-14-100478616.html>

Exell, Karen. “Introduction: (De)constructing Arabian heritage debates” in *Cultural Heritage in the Arabian Peninsula: Debates, Discourses and Practices*. Edited by Karen Exell and Trinidad Rico. Farnham, UK: Ashgate, 2014.

Exell, Karen. *Modernity and the Museum in the Arabian Peninsula*. London, UK: Routledge, 2016.

Export, Valie. *Abrundung (Rounding Off, 1976)*, photograph by Hermann Hendrich from the series *Körperkonfigurationen* (Body Configurations), Generali Foundation, Vienna.

Export, Valie. “Body Configurations by Valie Export (1972 – 1976).” *Domus*. February 23, 2015.

Export, Valie. “Aspects of Feminist Actionism,” *New German Critique*. No. 47 (Spring-Summer 1989).

Export, Valie and Hermann Hendrich, *Stadt: Visuelle Strukturen*. Wien: Jugend& Volk, 1973.

F|

Fadely, James Philip. “The Veteran and the Memorial: George J. Gangsdale and the Soldiers and Sailors Monument”. *Traces of Indiana and Midwestern History*. Indiana Historical Society. Vol. 18, no.1, (Winter 2006).

“Fall II, Amsterdam, Bas Jan Ader, 16mm, 19 sec (1970),” Bas Jan Ader. *Basjanader.com*. N.d. Accessed January 10, 2017. <http://www.basjanader.com/works/fall2.php>

- Fanés, Felix. *Salvador Dali: The Construction of the Image, 1925 -1930*. New Haven, CT: Yale University Press, 2007.
- Farahat, Sarah and Aaron Hughes, "Week 34" as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Farahat, Sarah and Aaron Hughes, "Week 34. Labor of Art/Art of Labor: Organizing Tool Kit in Solidarity with Gulf Laborers," A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi*. June 5, 2014. Accessed June 5, 2014. <http://gulflabor.org/2014/week-34-labor-of-artart-of-labor-organizing-tool-kit-in-solidarity-with-gulf-laborers/>
- Farnese Atlas* (2nd-century CE), marble, approx. 7 ft (213.36 cm), Museo Archeologico Nazionale, Naples. "Atlante Farnese," *Museo Archeologico Nazionale di Napoli. Circuito Informativo Regionale della Campania per i Beni Culturali e Paesaggistici. Soprintendenza per i Beni Archeologici di Napoli*. N.d. Accessed January 5, 2017. <http://cir.campania.beniculturali.it/museoarcheologiconazionale/itinerari-tematici/galleria-di-immagini/RA104>
- Farocki, Harun. "The Road Not Taken: Films by Harun Farocki." *Harun Farocki: Working on the Sightlines*. Edited by Thomas Elsaesser. Amsterdam: Amsterdam University Press, 2004.
- "Faroq Junction, King Faisal Hwy, Manama, Bahrain" 26°13'58.54"N and 50°33'29.11"E. *Google Earth*. March 3, 2011. Last accessed December 22, 2016.
- "Faroq Junction," at 500 meter scale. *Google Maps*. N.d. Accessed December 16, 2016. <https://www.google.com/maps/place/Faroq+Junction,+King+Faisal+Hwy,+Manama,+Bahrain/@26.2267664,50.5814157,15z/data=!4m2!3m1!1s0x3e49a587607ea437:0xb0f543106602c79c>
- Federici, Silvia. *Revolution at Point Zero: Housework, reproduction and Feminist Struggle*. Oakland, CA: PM Press, 2012.
- Feld, Steven. "Editor's Introduction," Jean Rouch, *Ciné-Ethnography*. Edited by Steven Feld. Minneapolis, MN: University of Minnesota Press, 2003.
- "felicitous, adj." *Oxford English Dictionary Online*. March 2017. Accessed April 10, 2017. Oxford University Press. <http://www.oed.com/view/Entry/69056?redirectedFrom=felicitous>
- Felipe Alfonso Jazz, "King Oliver's Creole Jazz Band (Gennett, April 5-6, 1923 Session)." Online video clip. *Youtube*. August 23, 2013. Accessed March 3, 2017. <https://www.youtube.com/watch?v0kgija2k4Zlc>
- Felix, Zdenek. "Of the Duration of This World: Hanne Darboven and Her Objects" in *Hanne Darboven: Enlightenment – Time Histories, A Retrospective*. Edited by Okwui Enwezor and Rein Wolfs. Munich: Prestel, 2015.

- Ferando, Christina. "Antonio Canova," Metropolitan Museum of Art. Heilbrunn Timeline of Art History. *Metmuseum.org*. July 2016. Accessed February 18, 2017. http://www.metmuseum.org/toah/hd/nova/hd_nova.htm
- Ferrell, Jeff. "Foreword: Graffiti, Street Art and the Politics of Complexity," *Routledge Handbook of Graffiti and Street Art*. Edited by Jeffrey Ian Ross (Abingdon, Oxon: Routledge, 2016), xxx-xxxiii
- Figal, Gunter. *Aesthetics as Phenomenology: The Appearance of Things*. Bloomington: Indiana University Press, 2015.
- Figuring Animals: Essays on Animal Images in Art, Literature, Philosophy and Popular Culture*. Edited by Mary Sanders Pollock and Catherine Rainwater. New York, NY: Palgrave Macmillan, 2005.
- Fisk, Robert. "An Uprising on the Verge of Revolution." *The Arab American News*. (February 26 2011).
- Fitzpatrick, Tracy Schpero. "Willem de Kooning," *American National Biography Online*, January 2001. Accessed March 4, 2017. <http://www.anb.org/articles/17/17-01631.html>
- Folgore, Luciano. "PLASTICITÀ," *Valori Plastici*, Vol. 1, No. 1 (1919), 8-9. From Biblioteca di Archeologia e Storia dell'Arte (BiASA) Periodici Italiani Digitalizzati, N.d. Accessed May 2014. http://periodici.librari.beniculturali.it/PeriodicoScheda.aspx?id_testata=69
- Foresta, Merry A. "Lost in Translation: Man Ray and the Shifting Milieu of Modernism," *Alias Man Ray: The Art of Reinvention*. Edited by Mason Klein. New Haven, CT: Yale University Press, 2009.
- Former Craft Center Observations and Smartphone Video by Emily Verla Bovino. University of California, San Diego. San Diego, California.
- Forster, Michael. "Johann Gottfried von Herder," *Stanford Encyclopedia of Philosophy*. October 31, 2001; revised September 27, 2007. <https://plato.stanford.edu/entries/herder/>
- Forster, Kurt. "Introduction," in Aby Warburg, *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*. Translated by David Britt. Los Angeles, CA: Getty Research Institute, 1999.
- Foster, Hal. "Preposterous Timing." *London Review of Books*, 34, no. 21 (November 8, 2012).
- Foster, Hal. *Prosthetic Gods*. Cambridge: MIT Press, 2004.
- Foster, Hal. "The Artist as Ethnographer (1995)," *The Return of the Real: The Avant-garde at the End of the Century*. Cambridge, MA: MIT Press, 1996. 171 – 204.
- Foster, Susan Leigh. *Choreographing Empathy: Kinesthesia in Performance*. New York, NY: Routledge, 2011.

- Foucault, Michel. *Death and the Labyrinth: The World of Raymond Roussel*. Translated by Charles Ruas. London, UK: Continuum, 2004.
- Foucault, Michel. "Nietzsche, Genealogy, History (1971)" in *Language, Counter Memory, Practice: Selected Essays and Interviews*. Ithaca, NY: Cornell University Press, 1977.
- Foucault, Michel. «Nietzsche, la généalogie, l'histoire», *Hommage à Jean Hyppolite*. coll. Épiméthée (Paris, France: P.U.F., 1971), 145-172, as reprinted in *Dits Ecrits*, Vol. 2, Text no. 84, reprinted for *Nouveau millénaire, Défis libertaires*. Published 2001/2014. Accessed December 26, 2016. <http://libertaire.free.fr/MFoucault217.html>
- Foucault, Michel. *The Birth of Biopolitics: Lectures at the Collège de France, 1978-1979*. Edited by Michel Senellart. Translated by Graham Burchell. Basingstroke, England: Palgrave Macmillan, 2008, 63, 68, 296 and 313.
- Frampton, Hollis. "Preface by Hollis Frampton," *12 Dialogues 1962-1963*. Edited by Benjamin H.D. Buchloh. Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 1981.
- Frank, Adam. *Transferential Poetics, from Poe to Warhol*. New York, NY: Fordham University Press, 2015.
- Franko, Mark. *Dancing Modernism / Performing Politics*. Bloomington, IN: Indiana University Press, 1995.
- Freud, Sigmund. *The Interpretation of Dreams: The Complete and Definitive Text*. Translated by James Strachey. Philadelphia, PA: Basic Books, 2010.
- Fuccaro, Nelida. *Histories of City and State in the Persian Gulf: Manama since 1800*. New York, NY: Cambridge University Press, 2009.
- "furbish, v.". OED Online. Oxford University Press. December 2016. Accessed December 29, 2016. <http://www.oed.com/view/Entry/75611?rskey=0XV1Vk&result=1&isAdvanced=false>
- G|
- Gadano, Pedro. "Mirroring Uneven Growth: A Speculation on Tomorrow's Cities Today," *Uneven Growth: Tactical Urbanisms for Expanding Megacities*. Edited by Pedro Gadano. New York, NY: The Museum of Modern Art, New York, 2014.
- Gaines, "Reconsidering Metaphor/Metonymy: Art and the Suppression of Thought," *Art Lies* 64 (Winter 2009), 48–57.
- Gaines, Charles and Ashley Hunt, "Week 17" as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Gaines, Charles and Ashley Hunt, "Week 17. Charles Gaines and Ashley Hunt. Cultural (En)richment," A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf*

- Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* February 6, 2014. Accessed February 7, 2014. <http://gulflabor.org/2014/week-17-charles-gaines-and-ashley-hunt-cultural-enrichment/>
- Garcia, Joaquin Torres. *Objeto Plástico. Forma 140* (Plastic Object, Shape 140, 1929), assemblage of wood, nails and oil paint, 11.3 x 18.7 x 3.66 in (28.7 x 47.5 x 9.3 cm), Museo Nacional Centro de Arte Reina Sofía, Madrid.
- Garden Cities Institute, "Global Garden Cities," *Garden Cities Institute*. N.d. Accessed October 26, 2016. <http://www.gardencitiesinstitute.com/resources/garden-cities>
- Garrington, Abbie. *Haptic Modernism: Touch and the Tactile in Modernist Writing*. Edinburg, Edinburg University Press, 2013.
- Gatti, Hilary. *Giordano Bruno. Philosopher of the Renaissance* (Burlington, VT: Ashgate, 2002)
- Gehl, Jan. *The Life Between Buildings: Using Public Space* (1971). Translated by Jo Koch. New York, NY: Van Nostrand Reinhold Company, 1987.
- Gehry, Frank. "My Abu Dhabi Adventure," Art & Design Blog. *The Guardian*. March 5, 2007. <https://www.theguardian.com/artanddesign/artblog/2007/mar/05/myabudhabiadventure> (Accessed June 28, 2014).
- Gelvin, James. *The Arab Uprisings: What Everyone Needs to Know*. Oxford: Oxford University Press, 2015.
- Genet, Jean. "Dying under Giscard d'Estaing" in *The Declared Enemy: Texts and Interviews*. Stanford, CA: Stanford University Press, 2004.
- Gentileschi, Artemesia. *Giuditta che decapita Oloferne*, 1612-1613. Museo di Capodimonte, Naples.
- Gentileschi, Artemesia. *Giuditta che decapita Oloferne*, 1620-1621. Galleria degli Uffizi, Florence.
- Gerges, Fawaz A. "Contextualizing the Arab Spring Uprisings: Different Regimes, Different Revolutions, and Different Trajectories," *Contentious Politics in the Middle East: Popular Resistance and Marginalized Activism beyond the Arab Uprising*. Edited by Fawaz A. Gerges. New York, NY: Palgrave Macmillan, 2015.
- "Gestaltung (genitive), Gestaltungen (plural)," *Collins German-English Dictionary*. Published 2017. Accessed February 2, 2017. <https://www.collinsdictionary.com/dictionary/german-english/gestaltung>
- Ghani, Mariam with Haig Aivazian, "52 Weeks, and Engaging by Disengaging" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor), New York, NY: OR Books, 2015.

- Ghelardi, Maurizio. *Aby Warburg: La Lotta per lo Stile*. Torino, Italy: Nino Aragno Editore, 2012.
- Gill, Michael B. "Lord Shaftesbury (Anthony Ashley Cooper, 3rd Earl of Shaftesbury)," *Stanford Encyclopedia of Philosophy*. March 13, 2002; revised September 9, 2016. <https://plato.stanford.edu/entries/shaftesbury/>
- Girodet, Anne-Louis. *Effet de Lune. (Le Sommeil d'Endymion)* (1793), Musée du Louvre, Paris, France
- Global Ultra Luxury Faction – G.U.L.F., "On Direct Action: An Address to Cultural Workers" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Global Ultra Luxury Faction – G.U.L.F., "Six Occupations of a Museum (and an Alternative Plan)" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- "Glider Containing a Water Mill in Neighboring Metals, Marcel Duchamp, American (born France), 1887-1968 (1913 – 1915)," *Philadelphia Museum of Art*. Published 2017. Accessed January 20, 2017. <http://www.philamuseum.org/collections/permanent/51507.html>.
- Gombrich, Ernst. *Aby Warburg: An Intellectual Biography*. Chicago, IL: University of Chicago Press, 1986.
- Gomez, Alan. "Tensions rise over Syrians crossing southwest U.S. border," *USAToday*. November 19, 2015. Accessed November 19, 2015. <http://www.usatoday.com/story/news/2015/11/19/syrians-apprehended-southwest-border/76064112/>
- Gómez-Peña, Guillermo and Roberto Sifuentes, *Exercises for Rebel Artists: Radical Performance Pedagogy*. London, UK: Routledge, 2011
- Gorky, Arshile. *Anatomical Blackbeard* (1943), drawing on paper, dimensions not specified. Estate of Arshile Gorky.
- Gorky, Arshile. *The Liver is the Cock's Comb* (1944). Oil on canvas. 73 x 98 in (185.42 x 248.92 cm). Albright-Knox Art Gallery. The Carnegie Arts of the United States Collection.
- Gough, Maria. *The Artist as Producer: Russian Constructivism in Revolution*. Berkeley: University of California Press, 2005.
- Graham, Marty. "No round and round on I.B. roundabout test," *San Diego Reader*. March 27, 2015, <http://www.sandiegoreader.com/news/2015/mar/27/stringers-no-round-and-round-ib-roundabout-test/#>
- Greco, Matt and Greg Sholette, "Week 7" as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.

- Greco, Matt and Greg Sholette, "Week 7. Matt Greco & Greg Sholette. Saadiyat Island Workers Quarters Collectable, 2013," A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* November 28, 2013. Accessed November 30, 2013. <http://gulflabor.org/2013/week-7-matt-greco-greg-sholette-saadiyat-island-workers-quarters-collectable-2013/>
- Green, Christopher. *Art in France, 1900 – 1940*. New Haven, CT: Yale University Press, 2000.
- Greenhaigh, Paul. "Introduction," *Modernism in Design*. London, UK: Reaktion Books, 1990.
- Griffin, Tim. "Living Contradiction," *Museum of Modern Art, New York (MoMA) Documents*, (February 2015): 4. https://www.moma.org/docs/calendar/MariaHassabi_FINAL_V5.pdf
- Grosoli, Marco. "Le Pont du Nord (1981)" in *World Film Locations: Paris*. Edited by Marceline Block and Adrienne Angelo. Bristol, UK: Intellect Books, 2011.
- Grosz, Elizabeth. "Bodies-Cities," *Sexuality and Space*. Edited by Beatriz Colomina and Jennifer Bloomer. New York, NY: Princeton Architectural Press, 1992.
- Grosz, Elizabeth. "Bodies-Cities (1995)." *Feminist Theory and the Body*. edited by Janet Price and Margrit Shildrick. New York, NY: Routledge, 1999.
- Grotowski, Jerzy, Richard Schechner and Theodore Hoffman, "American Encounter: An Interview with Jerzy Grotowski by Richard Schechner and Theodore Hoffman," Jerzy Grotowski, *Towards a Poor Theatre*. Edited by Eugenio Barba. New York, NY: Routledge, 2002.
- Grotowski, Jerzy, Richard Schechner and Theodore Hoffman, "Interview with Grotowski," *The Grotowski Sourcebook*. Edited by Richard Schechner and Lisa Wolford Wylam. New York, NY: Routledge, 2001.
- Guards at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Personal Interviews. Marfa, Texas. September 2011 through April 2017.
- Gulf Labor Coalition, "'For Security Reasons' A Gulf Labor Report, (July 2015)" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Gulf Labor Coalition, "Observations and Recommendations After Visiting Saadiyat Island and Related Sites (March 14-21, 2014)" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- "Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?" *Gulf Labor*. N.d. Accessed December 20, 2016. <http://gulflabor.org/>

- H. A. "The Art of Woodturning [Die Kunst des Drechselns]." *Kunst und Handwerk* (G.F.R.). 23.9. Sept. 1979: 366 – 368.
- Hack, Brian Edward. "sculpture, public." *The Encyclopedia of New York State*. Edited by Peter R. Eisenstadt and Laura-Eve Moss. Syracuse, NY: Syracuse University Press, 2005.
- Haddad, Elie G. "Deconstruction: The Project of Radical Self-Criticism," *A Critical History of Architecture: 1960 – 2010*. Edited by Elie G. Haddad and David Rifkind. Surrey, UK: Ashgate, 2014.
- "Hafiz Goethe Memorial: About the location," *genus-loci-weimar*. N.d. Accessed July 2, 2016. <https://www.genius-loci-weimar.org/en/wettbewerbsgewinner-2016/hafiz-goethe-memorial/>
- Hagens, Bethe. "'Venuses,' Turtles and other Hand-Held Cosmic Models," *On Semiotic Modeling*. Edited by Myrdene Anderson and Floyd Merrell. Berlin, Germany: Mouton de Gruyter, 1991.
- Hall, Peter and Colin Ward, *Sociable Cities: The Legacy of Ebenezer Howard*. West Sussex, England: J. Wiley, 1998.
- Hamilton, Jon. "How a 'Sixth Sense' Helps Simone Biles Fly, And the Rest of Us Walk." *All Things Considered*. *National Public Radio*. September 21, 2016. Accessed September 25, 2016. <http://www.npr.org/sections/health-shots/2016/09/21/494887467/how-a-sixth-sense-helps-simone-biles-fly-and-the-rest-of-us-walk>
- Hanieh, Adam. *Capitalism and Class in the Gulf Arab States*. New York, NY: Palgrave Macmillan, 2011.
- Hanke, Bob. "McLuhan, Virilio and Electric Speed in the Age of Digital Reproduction," *Marshall McLuhan: Critical Evaluations in Cultural Theory*. Vol. 3, Renaissance for a Wired World. Edited by Gary Genosko. London, UK: Routledge, 2005.
- Hanne Darboven: Kulturgeschichte 1880 – 1983*. Dia: Beacon. Beacon, New York. May 3, 2003 to March 26, 2005.
- Hanne Darboven: Kulturgeschichte 1880 – 1983*. Dia: Chelsea. New York, New York. November 5, 2016 to July 29, 2017.
- Hanne Darboven-Schreibzeit*. Edited by Bernhard Jussen. Koln, Germany: Walther König, 2000.
- "Haptic visuality (embodied spectatorship)," *A Dictionary of Film Studies*. Edited by Annette Kuhn and Guy Westewell. Oxford, UK: Oxford University Press, 2012.
- Hard, Robin. *The Routledge Handbook of Greek Mythology: Based on H.J. Rose's Handbook of Greek Mythology*. London, UK: Routledge, 2004.
- Hardy, Dennis. "The Spring of Hope, the Winter of Despair: An unfinished narrative of Mediterranean cities." *Planning Perspectives*. Vol. 27, no. 3 (January 7, 2012).

- Harris, Shane and Nancy A. Youssef, "American Journalist Anna Therese Day Detained in Bahrain," *The Daily Beast*. February 14, 2016. Accessed December 3, 2016. <http://www.thedailybeast.com/articles/2016/02/15/american-journalist-anna-therese-day-detained-in-bahrain.html>
- Harrison, Ken. "Encinitas: Roundabout Capital of California," *San Diego Reader*. May 10, 2014. Accessed July 20, 2015. <http://www.sandiegoreader.com/news/2014/may/10/stringers-encinitas-roundabout-capital-california/>
- Harrison, Ken. "Oceanside's Unusual Side," *San Diego Reader*. August 24, 2014. Accessed July 20, 2015. <http://www.sandiegoreader.com/news/2014/aug/24/stringers-oceansides-unusual-side/>
- Harvey, David. "Social Processes and Spatial Form: An Analysis of the Conceptual Problems of Urban Planning." *Papers of the Regional Science Association* 25, Issue 1 (April 1970).
- Harvey, David. "The Urban Process under Capitalism: A Framework for Analysis," from *International Journal of Urban and Regional Research* (1978) in *The Urban Geography Reader*. London, UK: Routledge, 2005.
- Hassan, Monwara, Adrian Cristian and Teina Daley, "Geriatric Rehabilitation," *Medical Aspects of Disability, Fourth Edition: A Handbook for the Rehabilitation Professional*. Edited by Herbert H. Zaretsky, Steven R. Flanagan, Herbert H. Zaretsky and Alex Moroz. New York, NY: Springer Publishing Company, 2011.
- Hashwosh, "Another Stupid Hong Kong Driver." Online video clip. *Youtube*. November 19, 2011. Accessed November 19, 2011. <https://www.youtube.com/watch?v=3m4LGyUlwn8>.
- Hashwosh, "Hong Kong's Stupidest Driver #4 – roundabouts again." Online video clip. *Youtube*. December 3, 2011. Accessed September 10, 2015. <https://www.youtube.com/watch?v=aO5IWipRA8g>.
- Havemann, Joel. Former editor and National and European Economic Correspondent for the *Los Angeles Times*, in Joel Havemann, "The Great Recession of 2009 – 09: Year in Review 2009". *Encyclopaedia Britannica Online*. Published 2009. Accessed September 30, 2015. <http://www.britanica.com/topic/Great-Recession-of-2008-2009-The-1661642>.
- Hegel, G.W.F., *Einleitung in die Ästhetik*. Edited by Heinrich Gustav Hotho. München, Deutschland: Wilhelm Fink Verlag, 1967.
- Hegel, G.W.F. *Werke*. Zehnter Band. Erste Abtheilung G.W.F. Hegel's *Vorlesungen über die Aesthetik Erster Band*. Berlin, Germany: Duncker und Humblot, 1835.
- Hegel, G.W.F. *On Art, Religion, Philosophy: Introductory Lectures to the Realm of Absolute Spirit*. Edited by J. Glenn Gray. New York: Harper Torchbooks, 1970.

- Helion, Jean. *Figure d'Espace* (Figure of Space, 1937), oil on canvas, 52 x 38 in (132.08 x 96.52 cm), San Francisco Museum of Modern Art.
- Helion, Jean. *Nu et pots à fleurs* (Nude and Flower Pots, 1947), oil on canvas, 25.6 x 19.69 in (65 x 50 cm), Centre Georges Pompidou.
- Hermann, Ludimar. "Eine Erscheinung simultanen Contrastes." *Pflügers Archiv für die gesamte Physiologie*, 3 (1870).
- Herrera, Hayden. *Arshile Gorky: His Life and Work*. New York, NY: Farrar, Straus and Giroux, 2003.
- Herwitz, Daniel. "The Sell-By Date," *Action, Art, History: Engagements with Arthur C. Danto*. Edited by Daniel Herwitz and Michael Kelly. New York, NY: Columbia University Press, 2007.
- Hicks, Thomas. *Roundabout Design Guidelines*, (Hanover, MD: State of Maryland Department of Transportation State Highway Administration, 1995), 29, 32 – 37. N.d. Accessed October 2015. <http://www.fhwa.dot.gov/publications/research/safety/00067/000676.pdf>
- Hill, Dave. "Neo-Nazis in Hackney: a Nasty, Small and Pitiful Spectacle." *The Guardian*. April 19, 2015. Accessed May 20, 2015. <https://www.theguardian.com/uk-news/davehillblog/2015/apr/19/neo-nazis-in-hackney-a-small-sad-and-pitiful-spectacle>.
 "Update: Neo-Nazi rally 'peaceful' despite heated exchanges." *The State Journal*. April 22, 2012. Accessed May 20, 2015. <http://www.state-journal.com/2012/04/22/update-neo-nazi-rally-peaceful-despite-heated-exchanges/>
- Hirschhorn, Thomas. *Banners*, 2009. Photocopies and tape, 66.7 x 53.7 cm. Made at the occasion of the exhibition: *Contemplating the Void: Interventions in the Guggenheim Museum Rotunda*, Guggenheim Museum New York, 2010 (courtesy: the artist).
- Hirschhorn, Thomas. "52 Weeks_Gulf Labor_WEEK 2: Thomas Hirschhorn." E-mail sent by Walid Raad to a mailing-list of recipients, October 25, 2013.
- Hirschhorn, Thomas. "Week 2. Thomas Hirschhorn. My Guggenheim Dilemma." A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* October 25, 2013. Accessed October 25, 2013. <http://gulflabor.org/2013/week-2-thomas-hirschhorn-my-guggenheim-dilemma/>
- Hirschhorn, Thomas. "Week Two" in *52 Weeks* as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Hofmann, Hans. *Spring*, (1944-1945, dated on reverse 1940), oil and enamel on wood, 11 ¼ x 14 1/8 in (28.5 x 35.7 cm), Museum of Modern Art, New York.
- Huelsenbeck, Richard. "En Avant Dada: A History of Dadaism (1920)," *Modernism: An Anthology*. Edited by Lawrence Rainey. Malden, MA: Blackwell, 2005.

- Hutton, Sarah. "The Cambridge Platonists," *Stanford Encyclopedia of Philosophy*, October 3, 2001; revised November 11, 2013. Accessed March 3, 2017. <https://plato.stanford.edu/entries/cambridge-platonists/>
- Hockensmith, Amanda L. 'Richard Huelsenbeck', published in *Dada. Zurich, Berlin, Hannover, Cologne, New York, Paris*. Edited by Leah Dickerman. National Gallery of Art : Washington DC, 2005.
- Hopwood, Derek. *Habib Bourguiba of Tunisia: The Tragedy of Longevity*. New York, NY: St. Martin's Press, 1992.
- Houck, Kristina. "Del Mar roundabout on way, but not all residents happy about it," *Del Mar Times*. October 30, 2014. Accessed July 20, 2015. <http://www.delmartimes.net/news/local-news/del-mar/sddmt-del-mar-roundabout-unhappy-residents-2014oct30-story.html>
- Hovey, Bradshaw. "Making the Portland Way of Planning: Structural Power of Language." *Journal of Planning History* 2, no. 2 (2003).
- Howard, Ebenezer. *Garden Cities of Tomorrow (being the second edition of "To-morrow: a peaceful path to real reform."* London: S. Sonnenschein & Co., 1902.
- Howard, Ebenezer. *To-morrow: a peaceful path to real reform (1898)*. New York, NY: Routledge, 2003.
- I|
- Ideas City*, a major collaborative initiative founded in 2011, directed by Joseph Grima, New Museum, New York. <http://www.newmuseum.org/ideascity/about>.
- "In Southern California, Roundabouts Are the Designers Choice," *Design with Confidence*, July 18, 2013. Accessed August 10, 2015, <http://designwithconfidence.transoftsolutions.com/ahead-of-the-curve/2013/07/in-southern-california-roundabouts-are-the-designers-choice.html>
- Indiana, Gary. "Bulle Ogier, Phenomenon without a Pause," *Utopia's Debris: Selected Essays*. New York, NY: Basic Books, 2008.
- Indiana, Gary. "Valie Export," *Bomb - Artists in Conversation*. August 1981. Accessed August 7, 2016. <http://bombmagazine.org/article/79/>
- "Information." *Grand Theft Auto San Andreas at Rockstargames*, N.d. Accessed October 14 2016. URL: <http://www.rockstargames.com/sanandreas/>
- International Encyclopedia of Military History*. Edited by James C. Bradford. New York, NY: Routledge, 2006.
- "interpolation, n." OED Online. December 2016. Accessed December 29, 2016. Oxford University Press. <http://www.oed.com/view/Entry/98178?redirectedFrom=interpolation>

“Interview with Gayatri Chakravorty Spivak,” in *The Postcolonial Gramsci*. Edited by Neelam Francesca Rashmi Srivstava and Baidik Bhattacharya. New York, NY: Routledge, 2012.

Investigation of Mexican Affairs. Vol. 1. 66th Congress, 2nd Session. Document No. 285. Presiding Senator, Albert B. Fall. Preliminary Report and Hearings of the Committee on Foreign Relations, United States Senate. Pursuant to Senate Resolution 106, directing the Committee on Foreign Relations to Investigate the Matter of Outrages on Citizens of the United States in Mexico. Two Volumes. Washington: Government Printing Office, 1920.

Ismail, Raihan. *Saudi Clerics and Shi'a Islam*. New York, NY: Oxford University Press, 2016.

Italian Futurism, 1909-1944: Reconstructing the Universe, February 21 – August 31, 2014, Guggenheim Museum, New York.

Iversen, Margaret. *Alois Riegl: Art History and Theory*. Cambridge, MA: MIT Press, 1993.

J|

Jacobson, Matt and Soren C. Larsen, “Ethnographic Fiction for Writing and Research in Cultural Geography,” *Journal of Cultural Geography*. Vol. 21. Iss. 2. (May 2014), 181.

Jaeger, Susanne. “Interrupted Histories: Collective Memory and Architectural Heritage in Germany 1933-1945-1989.” *Heritage, Ideology and Identity in Central and Eastern Europe: Contested Pasts, Contested Presents*. Edited by Matthew Rampley. Woodbridge, UK: The Boydell Press, 2012.

Jaeggi, Annemarie. *Fagus: Industrial Culture from Werkbund to Bauhaus*. New York, NY: Princeton Architectural Press, 2000.

Jaguar directed by Jean Rouch. 1967; Brooklyn, NY: Icarus Films, 2010. DVD.

Jahrbuch fur Photographie, Kinematographie und Reproduktionsverfahren, Vol. 1 (1928).

James, William. “The Florentine Painters of the Renaissance, by Bernard Berenson (1896),” *Essays, Comments and Reviews*. Cambridge, MA: Harvard University Press, 1987.

James, Martin S. “Piet Mondrian: Art and Theory to 1917” in Piet Mondrian, *The New Art-The New Life: The Collected Writings of Piet Mondrian*. Edited by and trans. Harry Holtzman and Martin S. James. Boston, MA: G. K. Hall & Co., 1986.

Javers, Eamon. “‘A dangerous world’: What’s at stake when Syrian refugees are smuggled to U.S.” *CNBC*. June 7, 2016. Accessed June 30, 2016. <http://www.cnb.com/2016/06/06/a-dangerous-world-whats-at-stake-when-syrian-refugees-are-smuggled-to-us.html>

Jay, Martin. *Downcast Eyes: The Denigration of Vision in Twentieth-Century French Thought*. Berkeley: University of California Press, 1993.

- Jay, Martin. *Force Fields: Between Intellectual History and Cultural Critique*. New York, NY: Routledge, 1993.
- Jazairy, El Hadi. "Toward a Plastic Conception of Scale," *Scales of the Earth. New Geographies* 4. Cambridge, MA: Harvard University, 2011.
- "Jean-François Millet, The Angelus," *Musée d'Orsay*. Published 2006. Accessed February 10, 2017. [http://www.musee-orsay.fr/index.php?id=851&L=1&tx_commentaire_pi1\[showUid\]=339](http://www.musee-orsay.fr/index.php?id=851&L=1&tx_commentaire_pi1[showUid]=339)
- Jenkins, Eric. "Indianapolis: Monument Circle," *To Scale: One Hundred Urban Plans*. Abingdon, Oxon: Routledge, 2008.
- Jenkins, Eric. "Midan al-Tahrir." *To Scale: One Hundred Urban Plans*. Abingdon, Oxon: Routledge, 2008.
- Jenkins, Eric J. "Paris: Place Charles-de-Gaulle/Place de l'Étoile," *To Scale: One Hundred Urban Plans*. Abingdon, Oxon: Routledge, 2008.
- "Jerzy Grotowski," *Culture.pl. Artists in the Performance Category*. N.d. Accessed March 3, 2017. <http://culture.pl/en/artist/jerzy-grotowski>. The Editors of the Encyclopedia Britannica, "Jerzy Grotowski," *Encyclopedia Britannica*. September 4, 2015. Accessed March 3, 2017. <https://www.britannica.com/biography/Jerzy-Grotowski>
- Jewell, Kiala. *Art of Enigma: the De Chirico Brothers and the Politics of Modernism*. University Park, PA: Pennsylvania State University Press, 2004.
- Jewell, Kiala. "De Chirico's Heroes: The Victors of Modernity," *Italian Modernism: Italian Culture between Decadentism and Avant-garde*. Edited by Luca Somigli and Mario Moroni. Toronto, Canada: University of Toronto Press, 2004.
- Joselit, David. *Infinite Regress: Marcel Duchamp 1910-1941*. Cambridge, MA: MIT Press, 1998.
- Jouanny, Robert. "L'Amitié Magique de Paul Eluard et Max Ernst," *Motifs et Figures*. Paris, France: Publications de l'Université de Rouen, 1974.
- Judd, Donald. "Marfa, Texas (1985)" as reprinted in *Chinati: The Vision of Donald Judd*. Edited by Marianne Stockebrand. 277-280. New Haven, CT: Yale University Press, 2010.
- Judd, Donald. "Specific Objects," *Arts Yearbook* 8, 1965, as reprinted in Donald Judd, *Donald Judd: Complete Writings 1959 – 1975*. Edited by Donald Judd. 181-189. Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 2005.
- Judd, Donald. "The Chinati Foundation/La Fundacion Chinati (1987)" as reprinted in *Chinati: The Vision of Donald Judd*. Edited by Marianne Stockebrand. 280-282. New Haven, CT: Yale University Press, 2010.
- Judd, Donald. "Wayne Thiebaud," from "In the Galleries." *Arts Magazine* (September 1962) as reprinted in Donald Judd, *Donald Judd: Complete Writings 1959 – 1975*. Edited by

- Donald Judd. 60. Halifax, Canada: The Press of the Nova Scotia College of Art and Design, 2005.
- “Judd, Morris and Minimalism.” *Art Since 1900: Modernism, Antimodernism, Postmodernism*. Edited by Hal Foster, Rosalind Krauss, Yve-Alain Bois, Benjamin H.D. Buchloh and David Joselit. 492-495. New York: NY, Thames & Hudson, 2011.
- Judovitz, Dalia. *Unpacking Duchamp: Art in Transit* (Berkeley: University of California Press, 1998),
- Johnson, Christopher D. *Memory, Metaphor, and Aby Warburg's Atlas of Images*. Ithaca, NY: Cornell University Press, 2012.
- Jones, Amelia. “The Now and the Has Been: Paradoxes of Live Art in Art History.” *Perform, Repeat, Record: Live Art in Art History*. Edited by Amelia Jones and Adrian Heathfield. Chicago, IL: Intellect, 2012.
- Jones, Caroline A. *Machine in the Studio: Constructing the Postwar American Artist*. Chicago, IL: University of Chicago Press, 1996.
- Jones, Toby C. “Bahrain’s Revolutionaries Speak: An Exclusive Interview with Bahrain’s Coalition of February 14th Youth.” *Jadaliyya*. March 22, 2012. Accessed September 10, 2012. URL: www.jadaliyya.com/pages/4777/bahrain-revolutionaries-speak_an-exclusive-interview
- Jong, Louis. *The Collapse of a Colonial Society: The Dutch in Indonesia during the Second World War*. Leiden, Netherlands: KITLV Press, 2002.
- Jordan-Haladyn, Miriam. *Dialogic Materialism: Bakhtin, Embodiment and Moving Image Art*. Bern, Switzerland: Peter Lang, 2014.
- Joseph, Branden. “‘My Mind Split Open’: Andy Warhol’s Exploding Plastic Inevitable,” *Grey Room*, Vol. 8 (Summer 2002).
- Jussen, Bernhard. “Geschichte schreiben als Formproblem: Zur Edition der ‘Screibzeit’” in *Hanne Darboven: Schreibzeit*. Edited by Bernhard Jussen. Cologne, Germany: Walther König, 2000.
- jytsneb, teyeodg. “WRAP Landmark demolished in Pearl Square FM news conference 2011 News.” Online video clip. *Youtube*. November 4, 2013. Accessed December 2013. https://www.youtube.com/watch?v=ugQIn_0oSiQ.
- K|
- Kal, Hong. “Seoul Spectacle: The City Hall, The Plaza and the Public.” *City Halls and Civic Materialism: Towards a Global History of Urban Public Space*. New York, NY: Routledge, 2014.

- Kanna, Ahmed. "A Politics of Non-Recognition? Biopolitics of Arab Gulf worker protests in the year of uprisings," *Interface: A Journal for and about Social Movements*. Vol. 4, Issue 1 (May 2012).
- Karam, Raymond. Conversation with Emily Verla Bovino. Personal Interview. San Antonio, Texas. April 2012.
- Kareem Mona, "Graffiti from #Bahrain: we will return (to #Lulu roundabout) [...]," *Twitter.com*. July 28, 2012. Accessed December 10, 2016. <https://twitter.com/monakareem/status/229395750105268224>
- Kats, Anna. "Museum Design Now: The Possibilities of Contemporary Architecture: Frank Gehry, Renzo Piano, and Moshe Safdie." *Modern Painters* (November 2013).
- Katsiaficas, Georgy. "Remembering the Gwangju Uprising," *South Korean Democracy: Legacy of the Gwangju Uprising*. Edited by Georgy Katsiaficas and Na Kahn-cha. New York, NY: Routledge, 2006.
- Kazim, Butheina H. "Beyond the sleepy village," *Gulf News. Thinkers*. April 7, 2014. Accessed December 10, 2016. <http://gulfnews.com/opinion/thinkers/beyond-the-sleepy-village-1.1316235>
- Keller, Ulrich. "Visual Difference - Picture Atlases from Winckelmann to Warburg and the Rise of Art History." *Visual Resources*. Vol. 17 (2001).
- Kelley, Mike. "Aesthetics of Ufology," *Mike Kelley: Minor Histories—Statements, Conversations, Proposals*, edited by John C. Welchman. Cambridge, MA: MIT Press, 2004.
- Kennicott, Philip. "Bahrain's Pearl Statue is gone, but it remains an icon of democracy." *The Washington Post*. March 13, 2011. Accessed September 10, 2011. URL: https://www.washingtonpost.com/lifestyle/style/bahrain-pearl-statue-is-gone-but-it-remains-an-icon-of-democracy/2011/05/10/AFKcnh2G_story.html.
- Kern, Stephen. *The Culture of Time and Space 1880-1918*. Cambridge, MA: Harvard University Press, 2003.
- Khalaf, Amal. "The Many Afterlives of Lulu: The Story of Bahrain's Pearl Roundabout," *Ibraaz: Contemporary Visual Culture in North Africa and the Middle East*. February 28, 2013. Accessed June 2, 2013. <http://www.ibraaz.org/essays/56>
- Khalaf, Amal. "The Many Afterlives of Lulu," *Uncommon Grounds: New Media and Critical Practices in North Africa and the Middle East*. Edited by Anthony Downey. London, UK: I.B. Tauris, 2014.
- Kiaer, Christina. *Imagine No Possessions: The Socialist Objects of Russian Constructivism*. Cambridge, MA: MIT Press, 2005.

- Kirkland, Stephane. *Paris Reborn: Napoléon III, Baron Haussmann, and the Quest to Build a Modern*. New York, NY: St. Martin's Press, 2013.
- Klein, Mason. "Alias Man Ray," *Alias Man Ray: The Art of Reinvention*. Edited by Mason Klein. New Haven, CT: Yale University Press, 2009.
- Kleine, Susanne. "Ansichten >85<, Harburg/New York (Views >85<, Harburg/New York), 1984 – 1985" in *Hanne Darboven: Enlightenment – Time Histories, A Retrospective*. Edited by Okwui Enwezor and Rein Wolfs. Munich: Prestel, 2015.
- Klocker, Hubert. *Vienna Actionism: Art and Upheaval in 1960s' Vienna*. New York: DAP Publishers, 2012.
- Kim, Alan. "Johann Friedrich Herbart," *Stanford Encyclopedia of Philosophy*. Published 2015. Accessed February 10, 2017. <https://plato.stanford.edu/entries/johann-herbart/#BioSke>
- Koolhaas, Rem. "How Perfect Perfection Can Be: The Creation of Rockefeller Center." *Delirious New York: A Retroactive Manifesto for Manhattan*. New York, NY: Oxford University Press, 1978.
- Koortbojian, Michael. *Myth, Meaning, and Memory on Roman Sarcophagi*. Berkeley, CA: University of California Press, 1995. <http://ark.cdlib.org/ark:/13030/ft4199n900/>
- Kostof, Spiro. *The City Shaped: Urban Patterns and Meanings Through History*. London, UK: Thames and Hudson, 1991.
- Kouddous, Sharif Abdel. "Scenes from a Bahraini Burial," *The Nation*. February 20, 2013. Accessed March 4, 2013. <https://www.thenation.com/article/scenes-bahraini-burial/>
- Kreitner, Richard. "Selling off Teapot Dome," *Nation* 300, No. 12 (March 23, 2015).
- Kreps, Christina F. *Liberating Culture: Cross-Cultural Perspectives on Museums, Curation, and Heritage Preservation*. London, UK: Routledge, 2003.
- Krüger, Klaus. "Die Zeit der Schrift. Medium und Metapher in der "Schreibzeit," *Hanne Darboven—Schreibzeit*. Edited by Bernhard Jussen. Cologne, Germany: Walther König, 2000.
- Krüger, Klaus. *Politik der Evidenz : Öffentliche Bilder als Bilder der Öffentlichkeit im Trecento* (Göttingen, Germany: Wallstein Verlag, 2015).
- L|
- Lababidi, Lesley Kitchen. *Cairo's Street Stories: Exploring the City's Statues, Squares, Bridges, Gardens and Sidewalk Cafés*. New York, NY: American University in Cairo Press, 2008.
- Lacan, Jacques. *The Four Fundamental Concepts of Psychoanalysis* (1977). Edited by Jacques-Alain Miler. Translated by Alan Sheridan. London, UK: Karnac, 2004.

- “La Fetes Jeanne Hachette,” *Les Amis des Fetes Jeanne-Hachette*. N.d. Accessed January 20, 2017. <http://photosdebeauvais.free.fr/fetesjh/fetesjh.html>.
- Lambert-Beatty, Carrie. *Being Watched: Yvonne Rainer and the 1960s*. Cambridge, MA: MIT Press, 2008.
- Langhorne, Elizabeth. “Jackson Pollock: The Sin of Images,” *Meanings of Abstract Art: Between Nature and Theory*. New York, NY: Routledge, 2012.
- Lapatin, Kenneth. “Picturing Socrates” in *A Companion to Socrates*. Edited by Sara Ahbel-Rappe and Rachana Kamtekar. Oxford, UK: Blackwell Publishing, 2000.
- La Roue* (The Wheel, 1922), directed by Abel Gance. 1922, Hat Creek, CA: Film Preservation Associates, 2008. DVD.
- Lauder, Adam. “‘Alien Qualities’: Hanne Darboven – Constructing Time,” *Technoetic Arts: A Journal of Speculative Research*. Vol. 11, No. 2 (2013).
- Lavrinec, Jekaterina. “Urban Scenography: Emotional and Bodily Experience.” *LIMES: Borderland Studies*. Volume 6, Issue 1, (2013).
- Lawlor, Julia. “The Great Marfa...Land Boom.” *The New York Times*. Published April 29, 2005. Accessed September 10, 2016. <http://www.nytimes.com/2005/04/29/realestate/the-great-marfa-land-boom.html>
- Lay, M.G. *Ways of the World: A History of the World’s Roads and of the Vehicles that Used Them*. New Brunswick, NJ: Rutgers University Press, 1992.
- Lebel, Robert. “The Inventor of Gratuitous Time (L’Inventeur du temps gratuit, 1957; 1964).” trans. Sarah Skinner Kilborne (with Julia Kotliansky). *Tout-Fait: The Marcel Duchamp Studies Online Journal*. Vol. 1, Issue, 2 (May 2000). Accessed January 20, 2017.
- Lebel, Robert. “L’Inventeur du Temps Gratuit,” *Toutfait* (May 1, 2000). Updated July 13, 2016. Accessed July 1, 2015. <http://toutfait.com/linventeur-du-temps-gratuit/>
- “Lebensgefühl,” PONS German-English Dictionary, Version 7.7. Stuttgart, Germany: PONS GmbH, 2012.
- Lee, Pamela. *Chronophobia: On Time in the Art of the 1960s*. Cambridge: MIT Press, 2004.
- Léger, Fernand. *Functions of Painting*. Edited by Edward Fry. Translated by Alexandra Anderson. New York, NY: The Viking Press, 1973.
- Legrain, Jean-François. “The Shiite Peril in Palestine: Between Phobias and Propaganda,” *The Dynamics of Sunni-Shia Relationships: Doctrine, Transnationalism, Intellectuals and the Media*. London, UK: Hurst & Company, 2013.

- Leigh, Karen. "How the Bahrain Regime Wants to Erase its Bad Memories," *TIME*. March 18, 2011. Accessed June 1, 2011. <http://content.time.com/time/world/article/0,8599,2060367,00.html>
- Lemon, Ralph. "I'd Rather Talk About the Post-part," *On Value*. Edited by Triple Canopy and Ralph Lemon. New York, NY: Triple Canopy, 2016.
- Le Nevez, Adam. "Driving in Tunis: Or How I Stopped Worrying and Learned to Love the GP9." *TunisiaLive*. February 12, 2012.
- Le Pont du Nord*, directed by Jacques Rivette (1982; New York, NY: Kino Lober, 2015), Video Bluray.
- Leroi-Gourhan, André. *Gesture and Speech* (1964). Translated by Anna Bostock Berger. Cambridge: MIT Press, 1993.
- Les Possédés: Thais*, directed by Antonio Giulio Bragaglia and Riccardo Cassano (1916; Italy: Novissima Film, 1916), 35mm film. Conserved at La Cinémathèque Française. www.cinematheque.fr/film/42502.html
- "Letter from Adolf Hildebrand to Aby Warburg, May 2, 1898," Warburg Institute Archive, General Correspondence, WIA GC/364.
- "Letter from Aby Warburg to Moritz Warburg, February 15, 1898," Warburg Institute Archive, General Correspondence, WIA GC/369.
- "Letter from Fritz Saxl to Heinrich Jantsch, December 29, 1925," *Warburg Institute Archive, General Correspondence*, WIA GC/16175.
- "Letter from Heinrich Jantsch to Aby Warburg, August 24, 1926," *Warburg Institute Archive, General Correspondence*, WIA/GC 17648.
- Letter from Heinrich Jantsch to Fritz Saxl, December 15, 1925," *Warburg Institute Archive, General Correspondence*, WIA/GC 16174.
- Leung, Helen Hok-Sze. *Under Currents: Queer Culture and Postcolonial Hong Kong*. Vancouver, Canada: UBC Press, 2008.
- Levin, Erica. "Dissent and the Aesthetics of Control: On Carolee Schneeman's *Snows*," *World Picture* (Summer 2013).
- Levine, Sherrie. *Cadeau* (c. 2005), edition of 12, polished bronze in 2 parts (flat iron: 5 ¾ x 4 ½ x 3 ½ in (14.6 x 11.4 x 8.9 cm); dog: 5 ½ x 4 ½ x 2 ½ in (14 x 11 x 6.4 cm), Jablonka Galerie. Image: Jablonka Galerie.
- Levinas, Emmanuel. *Totality and Infinity: An Essay on Exteriority* (1961). Translated by Alphonso Lingis. Dordrecht, Germany: Kluwer Academic Publishers, 1991.

- Lévy, Sophie and Christian Derouet, "Chronology 1918 – 1939," *A Transatlantic Avantgarde: American Artists in Paris, 1918 – 1939*. Edited by Sophie Lévy and Christian Derouet. Berkeley, CA: University of California Press, 2003.
- Lewis, Charlton T. *An Elementary Latin Dictionary*. New York: American Book Company, 1890.
- Ley, David. "Artists, Aestheticisation and the Field of Gentrification," *Urban Studies*, Vol. 40, No. 12 (November 2003).
- Libecap, Gary D. "The Political Allocation of Mineral Rights: A Re-Evaluation of Teapot Dome." *The Journal of Economic History* 44, No. 2, The Tasks of Economic History (June 1984).
- Lipsitz, George. *Footsteps in the Dark: The Hidden Histories of Popular Music*. Minneapolis: University of Minnesota Press, 2007.
- Lilli, Eugenio. "Foreign Actors: A Double-Edged Sword Hanging Over Contentious Politics in the Middle East." *Contentious Politics in the Middle East: Popular Resistance and Marginalized Activism beyond the Arab Uprising*. Edited by Fawaz A. Gerges. New York, NY: Palgrave Macmillan, 2015.
- Lilli, Eugenio. *New Beginning in US-Muslim Relations: President Obama and the Arab Awakening*. New York, NY: Palgrave Macmillan, 2016.
- Limmer, Wolfgang. "Bose neue Welt," *Der Spiegel*, no. 43, October 25, 1982. N.d. Accessed January 3, 2017. <http://www.spiegel.de/spiegel/print/d-14352715.html>.
- Lindworsky, Johannes. *Experimentelle Psychologie* (1923), München, Kösel & Pustet, 1927.
- Lista, Giovanni. *Futurisme: Manifestes, Proclamations, Documents*. Lausanne, Switzerland: L'Age d'Homme, 1973.
- Livorini, Ernesto. "Ezra Pound and Giuseppe Ungaretti: Between Haiku and Futurism," *Ezra Pound and Europe*. Edited by Richard Taylor and Claus Melchior (Amsterdam, Netherlands: Rodopi, 1993),
- Locke, Nancy. "Valentine de Saint-Point and the Fascist Construction of Woman," *Fascist Visions: Art and Ideology in France and Italy*. Edited by Matthew Affron and Mark Antliff. Princeton, NJ: Princeton University Press, 1997.
- Lomnitz, Claudio. "Keynote Lecture: Public Life and Anthropology," International Congress of the International Union of Anthropological and Ethnological Sciences and the Japanese Society of Cultural Anthropology, International Conference Hall of Makuhari Messe, Chiba City, Tokyo. May 15 – 18, 2014. IUAES2014.video, "02 03 Keynote Lecture Claudio Lomnitz," Youtube. Video Clip. Published on October 15, 2014. Accessed March 3, 2017. <https://www.youtube.com/watch?v=6NWbafUnby0>
- Loos, Adolf. "Ornament and Crime (1908)," *Programs and Manifestoes on 20th-Century Architecture*. Edited by Ulrich Conrads. Cambridge: MIT Press, 1971.

- Louër, Laurence. "The Political Impact of Labor Migration in Bahrain." *City & Society*. Vol. 20, Issue 1 (2008).
- Love, Lynn and Ann Sappenfield, "Week 11" as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Love, Lynn and Ann Sappenfield, "Week 11. Lynn Love and Ann Sappenfield. 50° Celsius," A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* December 26, 2013. Accessed December 27, 2013. <http://gulflabor.org/2013/week-11-lynn-love-and-ann-sappenfield-50-celsius/>
- Lowery, Rebecca. "A Timeline," *Regarding Warhol: Sixty Artists, Fifty Years*. Edited by Mark Rosenthal, Marla Prather, Ian Alteveer and Rebecca Lowery. New Haven, CT: Yale University Press, 2012.
- Lupton, Julia Reinhard. *Afterlives of Saints: Hagiography, Typology and Renaissance Literature*. Stanford, CA: Stanford University Press, 1996.
- Lübbke, Maren. "Wien ist anders: Eine Stadtführung mit Valie Export / Vienna is Different: A Tour of the City with Valie Export," *Camera Austria*, Vols. 57/58 (1997).
- Lucas, Scott. "Syria (and Beyond) LiveBlog: What Will Happen With Today's Protests?" November 18, 2011. Accessed December 7, 2011. <http://www.enduringamerica.com/home/2011/11/18/syria-and-beyond-liveblog-what-will-happen-with-todays-prote.html>
- Lynch, Kevin. "The City Image and Its Elements" from *The Image of the City* (1960) as reprinted in *The City Reader*. Edited by Richard T. LeGates and Frederic Stout. New York, NY: Routledge, 1996.
- M|
- Mabon, Simon "The Battle for Bahrain: Iranian-Saudi Rivalry." *Middle East Policy*. 19.2 (Summer 2012).
- Mackay, Robin, Luke Pendrell and James Trafford, *Speculative Aesthetics*, Redactions Series 004. Edited by Robin Mackay, Luke Pendrell and James Trafford. Falmouth, MA: Urbanomic, 2014.
- Maclean, Ian. *Logic, Signs and Nature in the Renaissance: The Case of Learned Medicine*. Cambridge, UK: Cambridge University Press, 2002.
- Magic Town*, film, directed by William Wellman. 1947; Los Angeles, CA: RKO Radio Pictures, 2013. DVD.
- Magni, Stefano. "Lucano Folgore's Self-Parody: End or Renewal of Futurism?" *The History of Futurism: Precursors, Protagonists, and Legacies*. Edited by Geert Buelens, Harald Hendrix and Michelangela Monica Jansen. Lanham, MD: Lexington Books, 2012.

- Mainberger, Sabine. “‘Tragödie der Verleibung’: zu Aby Warburgs Variante der Einfühlungstheorie,” *Gefühl und Genauigkeit*. Edited by Jutta Müller-Tamm, Henning Schmidgen and Tobias Wilke. Paderborn, Deutschland: Wilhelm Fink, 2014.
- Malabou, Catherine. *The Future of Hegel: Plasticity, Temporality, and Dialectic*. New York, NY: Routledge, 2005.
- Malabou, Catherine. *Ontology of the Accident: An Essay on Destructive Plasticity*. Cambridge, UK: Polity, 2012.
- Malabou, Catherine. *Plasticity at the Dusk of Writing: Dialectic, Destruction, Deconstruction*. Translated by Carolyn Shread. New York, NY: Columbia University Press, 2010.
- Mallgrave, Harry Francis and Eleftherios Ikononou, “Introduction,” *Empathy, Form, and Space: Problems in German Aesthetics, 1873 – 1893*. edited by Harry Francis Mallgrave and Eleftherios Ikononou. Santa Monica: Getty Center for the History of Art and the Humanities, 1994.
- Malraux, André. *Picasso’s Mask* (1976). Translated by June Guicharnaud with Jacques Guicharnaud. New York, NY: Da Capo Press, 1994.
- “Manama Central Market,” *Lonely Planet Oman, UAE & Arabian Peninsula*. N.d. Accessed December 16, 2016. <https://www.lonelyplanet.com/bahrain/manama/attractions/manama-central-market/a/poi-sig/1528316/361010>
- Mannes-Abbott, Guy. “The Emergent Wave of Artworld Activism” in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Man Ray, *Cadeau* (1963 replica of lost 1921 original), cast iron and brass tacks, 6 ¼ x 3 5/8 x 4 ½ (15.9 x 9.2 x 11.4 cm), Philadelphia Museum of Art. Image: Philadelphia Museum of Art.
- “Man Ray, *Gift*. Paris. c. 1958, replica of 1921 original,” *Dada in the Collection of the Museum of Modern Art*. Edited by Anne Umland and Adrian Sudhalter with Scott Gerson. New York, NY: Museum of Modern Art, New York, 2008.
- “Marcel Duchamp, The Clock in Profile, 1964,” *Tout-Fait: The Marcel Duchamp Studies Online Journal*. Vol. 2, Issue 4 (January 2002). http://www.toutfait.com/issues/volume2/issue_4/news/barnes/popup_16.html
- Marchegiani, Elio. Reconstruction of Giacomo Balla’s scenography for *Feu d’Artifice* (Fireworks, 1917), abstract action of light and color with music by Igor Stravinskij for Sergej Djagilev’s Ballets Russes, at Teatro Costanzi, Rome (1997), Castello di Rivoli Museo d’Arte Contemporanea.
- Marfa residents. Conversations with Emily Verla Bovino. Personal Interviews. Marfa, Texas. October 2011 through December 2011.

- Margolin, Victor. *The Struggle for Utopia: Rodchenko, Lissitzy, Moholy-Nagy, 1917-1946*. Chicago, IL: University of Chicago Press, 1997.
- “Mark Steyn: Roundabouts and Decline of Civilization.” *Anti-Planner*. February 20, 2010. Accessed September 22, 2015. <http://ti.org/antiplanner/?p=2777>.
- Marinetti, F.T. “Manifesto of Futurist Dance,” *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven, CT: Yale University Press, 2009.
- “Mark Rothko, Slow Swirl at the Edge of the Sea, 1944,” *Collection. Museum of Modern Art, New York*. Published 2017. Accessed January 10, 2017. <https://www.moma.org/collection/works/79691?locale=en>
- Marks, Laura U. *The Skin of Film: Intercultural Cinema, Embodiment and the Senses*. Durham: Duke University Press, 2000.
- Maria Hassabi: Plastic*, curated by Thomas J. Lax with Martha Joseph. February 21 – March 20, 2016. Museum of Modern Art, New York. “Maria Hassabi: Plastic,” *Museum of Modern Art, New York. Calendar*. Published 2016. Accessed February 2016. <https://www.moma.org/calendar/exhibitions/1611>.
- “Maria Hassabi: Plastic,” *Calendar. The Museum of Modern Art, New York*. Published 2016. Accessed February 2016. <https://www.moma.org/calendar/exhibitions/1611>.
- Marinetti, F. T., *The Founding and Manifesto of Futurism* (1909). *Futurism: an Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman (New Haven: Yale University Press, 2009).
- “Martha Graham’s ‘Errand’ Returns, Restored.” *Wall Street Journal*. February 10 2015. Accessed on October 11, 2016. URL <https://www.youtube.com/watch?v=xNUyQEFFkYA>
- Marx, Wolfgang. “From Numbers to Notes: Transcribing and Arranging Hanne Darboven’s Music” in *Hanne Darboven: Enlightenment – Time Histories, A Retrospective*. Edited by Okwui Enwezor and Rein Wolfs. Munich: Prestel, 2015.
- Mascarenhas, Natasha. “Here’s how universities are offering support to students after Trump’s election,” *USA Today*, November 15, 2016. <http://college.usatoday.com/2016/11/15/heres-how-universities-are-offering-support-to-students-after-trumps-election/>
- “Maso degl Albizzi,” *Treccani. Dizionario Biografico degli Italiani*, Vol. 2 (1960). N.d. Accessed October 2015. http://www.treccani.it/enciclopedia/maso-albizzi_%28Dizionario-Biografico%29/
- Mathur, Saloni. “Museums and Globalization,” *Anthropological Quarterly* 78, no. 3 (2005): 702 – 703; Elsheshtawy, “Cities of Sand and Fog: Abu Dhabi’s Global Ambitions,” in *The*

Evolving Arab City: Tradition, Modernity and Urban Development. Edited by Yasser Elsheshtawy. New York, NY: Routledge, 2008.

- Matthiesen, Toby. "Battling over the legacy of Bahrain's Pearl Roundabout," *Foreign Policy*. February 13, 2012. Accessed June 1, 2011. foreignpolicy.com/2012/02/13/battling-over-the-legacy-of-bahrains-pearl-roundabout/
- Mattison, Robert S. *Robert Motherwell: Early Collages*, curated by Susan Davidson, Megan Fontanella, Brandon Taylor and Jeffrey Warda. Peggy Guggenheim Collection, Venice, May 26 – September 8, 2013; Solomon R. Guggenheim Museum, New York, September 27, 2013-January 5, 2014." *caa.reviews*. College Art Association. July 17, 2014. Accessed January 9, 2017. <http://www.caareviews.org/reviews/2184#.WHVKjIU7Vvt>
- Mazzucco, Katia. "Mnemosyne, Il Nome della Memoria : Bilderdemonstration, Bilderreihen, Bilderatlas: Una Cronologia Documentaria del Progetto Warburghiano." *Quaderni Warburg Italia*. Vols. 4 – 5 – 6. Siena, Italia: Diabasis, 2006 – 2008.
- Mazzucco, Katia. "I Pannelli di Mnemosyne" in Katia Mazzucco and Kurt W. Forster, *Introduzione ad Aby Warburg e all'Atlante della Memoria*. Edited by Monica Centanni. Milano, Italia: Bruno Mondadori, 2002.
- McCartney, Laton. *The Teapot Dome Scandal: How Big Oil Bought the Harding White House and Tried to Steal the Country*. New York, NY: Random House, 2008.
- McCarren, Felicia. *Dancing Machines: Choreographies of the Age of Mechanical Reproduction*. Stanford, CA: Stanford University Press, 2003.
- McCormack, Derek P. *Refrains for Moving Bodies: Experience and Experimenting Affective Spaces*. Durham, NC: Duke University Press, 2013.
- McEvers, Kelly. "The Crackdown: How the United States Looked the Other Way While Bahrain Crushed the Arab Spring's Most Ill-Fated Uprising." *Washington Monthly*. March/April 2012. Accessed October 15, 2016. URL: <http://washingtonmonthly.com/magazine/marchapril-2012/the-crackdown/>
- McEvelly, Thomas. *Sculpture in the Age of Doubt*. New York, NY: Allworth Press, 1999.
- McEwan, Dorothea. "Aby Warburg's (1866-1929) Dots and Lines. Mapping the Diffusion of Astrological Motifs in Art History," *German Studies Review*, Vol. 29, No. 2 (May, 2006).
- Means, Joyce. Conversation with Emily Verla Bovino. Personal Interview. Tucson, Arizona. April 2012.
- Means, Joyce. *Pancho Villa Days at Pilares: Stories and Sketches of Days-Gone-By from the Valentine Country of West Texas*. El Paso, TX: Means Press, 1976.
- Meikle, Jeffrey. *American Plastic: A Cultural History*. New Brunswick, NJ: Rutgers University Press.

- Meltzer, Allan H. *A History of the Federal Reserve*, Vol. 1: 1913 – 1951. Chicago, IL: University of Chicago Press, 2003.
- Menschenfrauen (Human Woman)*, directed by Valie Export. 1980; Chicago, IL: Facets Video, 1989. Video VHS.
- Meyer, James. "Introduction: 'Carl Andre, Writer,'" *Cuts: Texts 1959-2004*. Edited by James Meyer. Cambridge, MA: MIT Press, 2005.
- Michael, Mike. "Process and Plasticity: Printing, Prototyping and the Prospects of Plastic" in *Accumulation: The Material Politics of Plastic*. Edited by Jennifer Gabrys, Gay Hawkins and Mike Michael. Abingdon, Oxon: Routledge, 2013.
- Michaud, Philippe-Alain. *Aby Warburg and the Image in Motion*. Translated by Sophie Hawkes. New York, NY: Zone Books, 2004.
- MichiganDOT, "How to Use a Roundabout." Online video clip. *Youtube*. August 10, 2011. Accessed December 8, 2016. <https://www.youtube.com/watch?v=ONacAiKXe-8>.
- "Mike Kelley," *Mike Kelley Foundation for the Arts*, N.d. Accessed February 10, 2017. <http://www.mikekelleyfoundation.org/#!/about/mission>
- Miller, Sanda. *Constantin Brancusi*. London, UK: Reaktion Books, 2010.
- Mirowski, Philip, and Dieter Pehwe, *The Road from Mont Pèlerin: The Making of the Neoliberal Thought Collective*. Cambridge, MA: Harvard University Press, 2009.
- "Missions and Objectives. Ashkal Alwan – The Lebanese Association for Plastic Arts." *Anna Lindh Foundation*. Accessed October 10, 2016. URL: <http://www.annalindhfoundation.org/members/ashkal-alwan-lebanese-association-plastic-arts>
- Mobile Irony Valve, "Logical Volume Identifier". *KCHUNG Radio*. May 25, 2014. For video: <http://www.mobile-irony-valve.net/index.php/lvi/lvi/>; For audio: <http://www.volume.la/broadcasts/volume-on-kchung-ii-week-2/>
- "Modeling – Meshes – Primitives," *Blender 2.78 Manual*. N.d. Accessed December 27, 2016. <https://www.blender.org/manual/ko/modeling/meshes/primitives.html>.
- Modotvideo, "All about a Roundabout." Online video clip. *Youtube*. June 16, 2010. Accessed December 8, <https://www.youtube.com/watch?v=X0RcTWEBtYM>.
- Moholy-Nagy, Laszlo. "Produktion-Reproduktion" in *De Stijl* 1922, no. 7. 97 – 101, reprinted in *Moholy-Nagy* edited by Krisztina Passuth and trans. Matyas Esterhazy. New York, NY: Thames & Hudson, 1985.
- Moi, un Noir (Treichville)*, film, directed by Jean Rouch (1958; Brooklyn, NY: Icarus Films, 2010) DVD.

- Mondrian, Piet. *Composition 10 in black and white* (1915), oil on canvas, 33.46 x 45.52 in (85 x 108 cm), Rijksmuseum Kröller-Müller, Otterlo.
- Mondrian, Piet. *Composition in Black and Gray* (Composition with Grid 4 [Lozenge], 1919), oil on canvas, 23 5/8 x 23 11/16 in (60 x 60.2 cm), Philadelphia Museum of Art.
- Mondrian, Piet. *Composition in Yellow, Blue, and White, I* (1937), oil on canvas, 22 ½ x 21 ¾ in (57.1 x 55.2 cm), Museum of Modern Art, New York.
- Mondrian, Piet. *Composition in line, second state* (1916-1917), oil on canvas, 42.52 x 42.52 in (108 x 108 cm), Rijksmuseum Kröller-Müller, Otterlo.
- Mondrian, Piet. *Compositie met raster 5: ruit, compositie met kleuren* (Composition with grid 5: lozenge, composition with colors, 1919), oil on canvas, diagonal 33.07 in (diagonal 84 cm), Rijksmuseum Kröller-Müller, Otterlo.
- Mondrian, Piet. *Compositie met raster 6: ruit, compositie met kleuren* (Composition with grid 6: lozenge, composition with colors, 1919), oil on canvas, diagonal 26.38 in (diagonal 67 cm), Rijksmuseum Kröller-Müller, Otterlo.
- Mondrian, Piet. *Composition with Color Planes 5* (1917), oil on canvas, 19 3/8 x 24 1/8 in (49 x 61.2 cm), Museum of Modern Art, New York.
- Mondrian, Piet. *Composition with Grey Lines (Lozenge)* (1918), oil on canvas, diagonal 47.64 in (diagonal 121 cm), Gemeentemuseum, The Hague, Haags.
- Mondrian, Piet. *Pier and Ocean* (1914-1915), charcoal on paper, 20.07 x 24.80 in (51 x 63 cm), Gemeentemuseum, The Hague, Haags.
- Mondrian, Piet. *The Lighthouse at Westkapelle* (1909-1910), oil on canvas, 53.15 x 29.53 in (135 x 75 cm), Gemeentemuseum, The Hague, Haags.
- Mondrian, Piet. *The New Art—The New Life: the Collected Writings of Piet Mondrian*. Boston, MA: G.K. Hall, 1986.
- Mondrian, Piet. *Victory Boogie Woogie* (1942-1944), oil and paper on canvas, 50 x 50 in (127 x 127 cm), Gemeentemuseum, The Hague, Haags.
- “Montage (filmmaking), *Wikipedia*. Last Edited November 24, 2016. Accessed December 20, 2016. https://en.wikipedia.org/wiki/Montage_%28filmmaking%29
- Morris, George L.K. *Composition* (1938), 24 1/8 x 18 1/8 in (61.3 x 46 cm), Yale University Art Gallery.
- Motherwell, Robert. *The Writings of Robert Motherwell*. Edited by Dore Ashton with Joan Banach. Berkeley, CA: University of California Press, 2007.

- Mueller, Roswitha. *Valie Export: Fragments of the Imagination*. Bloomington: Indiana University Press, 1994.
- Mullen, Tony. *Introducing Character Animation with Blender*. Hoboken, NJ: John Wiley & Sons, 2011.
- Murrin, John M., Paul E. Johnson, James M. McPherson, Gary Gerstle, Emily S. Rosenberg and Norman L. Rosenberg, *Liberty, Equality, Power: A History of the American People. Volume II. Since 1863*. Belmont, CA: Thomson Wadsworth Publishing, 2008.
- Museum of Modern Art, New York, "Jackson Pollock," Artists. Museum of Modern Art, New York. *Moma.org*. Published 2017. Accessed January 2017. <https://www.moma.org/artists/4675>.
- Museum of Modern Art, New York. "Maria Hassabi in Conversation with Philip Bither," Online video clip, *Youtube.com*. February 24, 2016. Accessed February 2016, www.youtube.com/watch?vDq_pEXSHFVU&t=6s
- Museum of Modern Art, New York. "Maria Hassabi: Plastic," *MoMA Press*. Published June 2015. Accessed March 3, 2016 <http://press.moma.org/2015/06/maria-hassabi-plastic/>
- Museum of Modern Art, New York. "Maria Hassabi | PLASTIC," Online video clip. *Youtube.com*. February 4, 2016. Accessed February 2016. https://www.youtube.com/watch?list=PLfYVzk0sNiGH029oSQMwJHEqOjeVdEd6W&ime_continue=22&v=1bKuXZ0iYVs
- Museum of Modern Art, New York, "Maria Hassabi | PLASTIC (Performance Excerpt)," September 22, 2016. Accessed October 10, 2016. <https://www.youtube.com/watch?v=otx5yO6YHX4>
- Museum of Modern Art, New York. "Musée de la Danse: Three Collective Gestures," Exhibitions. Museum of Modern Art, New York. *Moma.org*. Published 2013. Accessed February 2016. <https://www.moma.org/calendar/performance/1385>
- Museum of Modern Art, New York. "Robert Motherwell," Artists. Museum of Modern Art, New York. *Moma.org*. Published 2017. Accessed February 2017. <https://www.moma.org/artists/4126>
- Museum of Modern Art, New York. "Some Sweet Day (2012)." Exhibitions. Museum of Modern Art, New York. *Moma.org*. Published 2012. Accessed February 2016. <https://www.moma.org/calendar/performance/1292>
- N|
- Nagel, Alexander and Christopher S. Wood, *Anachronic Renaissance*. New York: Zone Books, 2010.
- National Library of Australia, *Mapping our World: Terra Incognita to Australia*. Canberra, Australia: National Library of Australia, 2013.

- Naumann, Francis. *Conversion to Modernism: The Early Work of Man Ray*. New Brunswick, NJ: Montclair Art Museum, 2003.
- Neidich, Warren. "Abstract of Session: Some Stories Concerning the Construction of the New Observer," *Some Stories Concerning the Construction of the New Observer*, College Art Association Annual Conference, 2003. <http://138.23.124.165/exhibitions/neidich2/essay3.html>
- Neidich, Warren. *Blind Man's Bluff* (2002). Single Channel Video, 1 min 58 sec. Warren Neidich, "Blind Man's Bluff," Warren Neidich. Artist's website. N.d. Accessed January 10, 2017. <http://www.warrenneidich.com/blind-mans-bluff-2002/>
- Neidich, Warren. *Blow-up: Photography, Cinema and the Brain*. New York, NY: Distributed Art Publishers, 2003.
- Neidich, Warren. *The Duende Diagram*, 2014 from the exhibition Connecting Sound Etc. Cable Works, Cable Sounds, Cables Everywhere, curated by Georg Weckwerth. June 5 - August 24, 2014. Freiraum Quartier21 INTERNATIONAL / MuseumsQuartier Wien, Vienna, Austria.
- Neidich, Warren. *Remapping* (2002), September 14 – October 14, 2002. Storefront for Art and Architecture, New York.
- "Neoplasm." *National Cancer Institute Dictionary of Cancer Terms*. N.d. Accessed on September 30, 2015. URL: <https://www.cancer.gov/publications/dictionaries/cancer-terms?cdrid=46264>
- "Neo-Plasticism," in *Glossary of Art Terms*. Tate. N.d. Accessed January 2, 2017. URL: <http://www.tate.org.uk/learn/online-resources/glossary/n/neo-plasticism>.
- Nicolescu, Basarab. *From Modernity to Cosmodernity: Science, Culture and Spirituality*. Albany, NY: State University of New York Press, 2015.
- Nilsen, Micheline. *Railways and the Western European Capitals: Studies of Implantation in London, Paris, Berlin and Brussels*. New York, NY: Palgrave Macmillan, 2008.
- Njoh, Ambe J. *French Urbanism in Foreign Lands*. Cham, Switzerland: Springer, 2015.
- Noack, Rick. "What Germans Really Think about Those Hitler-Trump Comparisons," *Washington Post*, November 7, 2016.
- Noggle, Burl. *Teapot Dome: Oil and Politics in the 1920s*. Baton Rouge, LA: Louisiana State University Press, 1962.
- North, Paul. *The Yield: Kafka's Atheological Reformation*. Stanford: Stanford University Press, 2015.

“Notes,” *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven: Yale University Press, 2009.

Nouvelles Histoires des Fantômes (New Ghost Stories). February 13, 2014 – September 6, 2014. *Palais de Tokyo*, Paris, France.

“Nouvelles Histoires des Fantômes (New Ghost Stories),” *Palais de Tokyo*. Published 2014. Accessed March 4, 2014. <http://www.palaisdetokyo.com/en/event/georges-didi-huberman-and-arno-gisinger>.

O|

Occupying Space. Generali Foundation Collection, a curated display of works from the collection of the Generali Foundation, Vienna. A travelling exhibition hosted at Haus der Kunst, Munich, Germany, March 9, 2003 to May 16, 2005; Museum of Contemporary Art, Zagreb, 28 October to 9 December 2005; Witte de With, TENT. Centre for Visual Art and the Netherlands fotomuseum, Rotterdam, July 8 to August 28, 2005

O’Connell, Chris. “Roundabouts Proposed for Moraga Ave.,” *The Clairemont Times*, July 15, 2015. Accessed July 20, 2015. <http://clairemonttimes.com/2015/07/15/roundabouts-proposed-for-moraga-ave/>

O’Connor, Louise S. and Cecilia Thompson, *Marfa*. Images of America Series. Charleston, SC: Arcadia Publishing, 2009.

Odling-Smee, F. John, Kevin N. Laland and Marcus W. Feldman, *Niche Construction: The Neglected Process in Evolution*. Princeton: Princeton University Press, 2003.

Onians, John. *Atlas of World Art*. Oxford: Oxford University Press, 2004.

Osbourne, Peter. “Contemporary art is post-conceptual art,” *Public Lecture. Fondazione Antonio Ratti*. Villa Scuota, Como (July 9, 2010).

Osbourne, Peter. *Anywhere or Not at All: Philosophy of Contemporary Art*. London, UK: Verso Books, 2013.

P|

Packe, Cathy. “Tunis: This Spirited City has a Spring in its Step.” *The Independent*. April 7, 2012. Accessed September 10, 2015. <http://www.independent.co.uk/travel/africa/tunis-this-spirited-city-has-a-spring-in-its-step-7626692.html>

Paetzold, Heinz. “Rethinking Key-Concepts of Modern Urban Culture” in *Senses and the City: An Interdisciplinary Approach to Urban Senses*. Wien, AU: Lit, 2011.

Page, Sophie. *Astrology in Medieval Manuscripts*. London, UK: British Library, 2002.

Panofsky, Erwin. *Studies in Iconology: Humanistic Themes in the Art of the Renaissance*. New York: Harper & Row, 1972.

- Papapetros, Sypros. *On the Animation of the Inorganic: Art, Architecture and the Extension of Life*. Chicago, IL: University of Chicago Press, 2012.
- Paterson, Tony. "Neo-Nazis lay siege to asylum-seekers hostel in Freital as race hate rears its ugly head once again in east Germany," *Independent*, July 12, 2015. Accessed June 10, 2015. <http://www.independent.co.uk/news/world/europe/neo-nazis-lay-siege-to-asylum-seekers-hostel-in-freital-as-race-hate-rears-its-ugly-head-once-again-10383943.html>
- Payne, Alina. *From Ornament to Object: Genealogies of Architectural Modernism*. New Haven, CT: Yale University Press, 2012.
- Paz, Octavio. *Marcel Duchamp: Appearance Stripped Bare* (1978). Translated by Rachel Phillips and Donald Gardner. New York, NY: Arcade Publishers, 1990.
- Peacebleif, "Bahrain police is destroying Pearl Roundabout symbol (نوار اللؤلؤة)," Online video clip, *Youtube*. April 29, 2011. Accessed June 30, 2012. <https://www.youtube.com/watch?v=I0FQas1ZQxs>
- Pearlman, Karen. "La Mesa roundabouts are out," *The San Diego Union Tribune*. April 22, 2015. Accessed July 20, 2015. <http://www.sandiegouniontribune.com/sdut-la-mesa-roundabouts-out-2015apr22-story.html>
- PERFORMA, "Music for 16 Futurist Noise Intoners," Online video clip. *Youtube*. November 9, 2011 Accessed March 3, 2015. <https://www.youtube.com/watch?v=4G0mBnzSXD8>
- Performance and the City*. Edited by Kim Solga, S. Orr and D.J. Hopkins. New York, NY: Palgrave Macmillan, 2011.
- Performing Animality: Animals in Performance Practices*. Edited by Lourdes Orozco-Garcia and Jennifer Packer-Starbuck. New York, NY: Palgrave Macmillan, 2015.
- Persse, Jason. "Marina Abramović: The Artist Is Present," *Interactives. Museum of Modern Art, New York*. Published 2010. Accessed February 2016. <https://www.moma.org/interactives/exhibitions/2010/marinaabramovic/>
- Pfaff, Donald. *Man and Woman: An Inside Story* (New York, NY: Oxford University Press, 2011),
- Photographs of Valentine de Saint-Point from her performances of *La Métachorie* at the Théâtre Leon-Poirier in Paris, 1913-1914. Reproduced in the Sketch Supplement, 7, January 1914. Courtesy of the Dance Collection, New York Public Library.
- Picasso, Pablo. *Guernica* (1937), oil on canvas, 11 feet 6 in x 25 feet 6 in (349.3 x 776.6 cm), Museo Nacional Centro de Arte Reina Sofia, Madrid, Spain. "Guernica," *Museo Nacional Centro de Arte Reina Sofia*. N.d. Accessed March 2, 2017. <http://www.museo-reinasofia.es/en/collection/artwork/guernica>

- “Pico della Mirandola by an Unknown Tuscan Master,” Supplement to *The Lark*. Edited by Gelett Burgess. Vol. 1, no. 1. May 5, 1895.
- Piejko, Jennifer. “Why Dance in the Art World?” *Performa 15*. September 28, 2012. Accessed January 3, 2015. <http://performa-arts.org/magazine/entry/why-dance-in-the-art-world>
- Pinotti, Andrea. *Il Corpo dello Stile: Storia dell'Arte come Storia dell'Estetica a Partire da Semper, Riegl, Wolfflin*. Palermo, Italia: Centro Internazionale Studi di Estetica, 1998.
- Pinotti, Andrea. *Memorie del Neutro: Morfologia dell'Immagine in Aby Warburg*. Milano, Italia: Mimesis, 2001.
- Pinotti, Andrea. “Symbolic form and symbolic formula: Cassirer and Warburg on morphology (between Goethe and Vischer). *Cassirer Studies* 1. Università degli Studi di Napoli, 2008; 2009.
- Pitts, Andrew. “Paul in Tarsus: Historical Factors in Assessing Paul’s Early Education,” *Paul and Ancient Rhetoric: Theory and Practice in the Hellenistic Context*. Edited by Stanley E. Porter and Bryan R. Dyer. Cambridge, UK: Cambridge University Press, 2016.
- “Planning to Make Streets Safe,” *The Automobile Journal* (February 10, 1915).
- "plastic, n. and adj." *OED Online*. Oxford University Press. December 2016. Accessed December 28, 2016. <http://www.oed.com/view/Entry/145291?rskey=9MoE5p&result=1&isAdvanced=false>
- “Plastic, the plastic arts, *bildende Künste*,” *Dictionary of Untranslatables: A Philosophical Lexicon* edited by Barbara Cassin, Emily Apter, Jacques Lezra, Michael Wood. Princeton, NJ: Princeton University Press, 2014.
- “Plastik,” *PONS*. Version 7.7 (Stuttgart, Germany: PONS GmbH, 2012); “plastisch,” *PONS*. Version 7.7. (Stuttgart, Germany: PONS GmbH, 2012).
- “plastique (n.),” *WordReference English-French Dictionary*. WordReference.com. Published 2017. Accessed January 20, 2017. <http://www.wordreference.com/fren/plastique>
- “plastique,” *Larousse*. Éditions Larousse. N.d. Accessed December 10, 2016. <http://www.larousse.fr/dictionnaires/francais-anglais/plastique/61096>.
- PLASTIQUE*, no. 1-5. (1937-1939). Collections of Yale University Library.
- “plastisch,” *PONS German-English Dictionary*, Version 7.7. Stuttgart, Germany: PONS GmbH, 2012.
- “plastico,” *Garzanti*. De Agostini Scuola Spa. Published 2016. Accessed December 10, 2016. <http://www.garzantilinguistica.it/ricerca/?q=plastico>.
- “*PLASTIQUE (Metaphysique)*,” *Encyclopédie, ou dictionnaire raisonné des sciences, des arts et des métiers*, etc., eds. Denis Diderot and Jean le Rond d'Alembert. Chicago, IL:

University of Chicago: ARTFL Encyclopédie Project, Spring 2016 Edition. Edited by Robert Morrissey and Glenn Roe, 2016.

“*Plastique, Plastice (Sculpture)*,” *Encyclopédie*, ou dictionnaire raisonné des sciences, des arts et des métiers, etc., eds. Denis Diderot and Jean le Rond d'Alembert. Chicago, IL: University of Chicago: ARTFL Encyclopédie Project, Spring 2016 Edition. Edited by Robert Morrissey and Glenn Roe, 2016.

Plebani, Eleonora. *Tornabuoni: una famiglia fiorentina alla fine del Medioevo*. Milano, Italia: FrancoAngeli, 2002.

Plett, Heinrich. *Enargeia in Classical Antiquity and the Early Modern Age: the Aesthetics of Evidence*. Leiden, Netherlands: Brill, 2012.

Poggi, Christine. *Inventing Futurism: The Art and Politics of Artificial Optimism*. Princeton, NJ: Princeton University Press, 2009.

Pollock, Jackson. *Gothic* (1944), oil on canvas, 7 ft 5/8 x 56 in (215.5 x 142.1 cm), Museum of Modern Art, New York.

“Portrait of Dali The Persistence of Memory Shower Curtain by Jerome Stumphauzer,” *fineartamerica*. N.d. Accessed March 10, 2017, <http://fineartamerica.com/products/portrait-of-dali-the-persistence-of-memory-jerome-stumphauzer-shower-curtain.html>

Potts, Alex. *The Sculptural Imagination: Figurative, Modernist, Minimalist*. New Haven: Yale University Press, 2000.

Poyner, Rick. “Typotranslation: In a typographic tour de force, Richard Hamilton has turned Marcel Duchamp’s Notes for the Large Glass into printed form.” *Eye*, Vol. 10, no. 38 (Winter 2000). N.d. Accessed September 8, 2017. <http://www.eyemagazine.com/feature/article/typotranslation>

Pratelli, A. and H.M.N. Al-Madani, “Testing for a large roundabouts capacity model: experimental comparisons between Italy and Bahrain.” *WIT Transactions on The Built Environment*, Vol. 116 (2011) in *Urban Transport XVII: Urban Transport and the Environment in the 21st Century*. edited by Antonio Pratelli and C.A. Brebbia. Southampton, UK: WIT Press, 2011.

Presidio-Chihuahua residents. Conversations with Emily Verla Bovino. Personal Interviews. West Texas and Northern Mexico. October 2011 to January 2012 and October 2012 to December 2012

Prinz Gholm, *Ein Ding mehr*, 2006 as part of the exhibition Living Currency, Tate Modern, London, 2008.

“Prinz Gholam,” *Le Mouvement: Performing The City*. Biel/Bienne 2014. Published 2014. Accessed February 10, 2017. <http://www.lemouvement.ch/gholam.html>

Probert, Scotty. "New UCSD Bikepaths...Aren't: Angry Bikers and Informed Campus Development." *The Triton. Student Run Newspaper for UCSD Students, Faculty and Alumni*. November 15 2015. Accessed November 28, 2015. <http://triton.news/2015/11/new-ucsd-bikepaths-arent/>

"Project on the Decade of the Brain, Presidential Proclamation 6158. George H. W. Bush, July 17, 1990. Filed with the Office of the Federal Registrar, July 18, 1990." *Library of Congress*. N.d. Accessed March 5, 2017. <http://www.loc.gov/loc/brain/proclaim.html>

"provenance, n." *OED Online*. Oxford University Press, December 2016. 28 December 2016. <http://www.oed.com/view/Entry/153408?redirectedFrom=provenance#eid>

Puff, Helmut. *Miniature Monuments: Modeling German History*. Berlin, Germany: de Gruyter, 2014.

Pyramid (Square Plan), New York, 1959, wood, 2" x 4" fir, destroyed, 74-unit stack, 18 tiers of 4 interlocking units each, converging on 1 tier of 2 interlocking units, 2 in x 4 in x 31 in each, 68 7/8 in x 31 in x 31 in., 114.

Q|

"quinci," *Treccani. Vocabolario*. N.d. Accessed October 2015. <http://www.treccani.it/vocabolario/quinci/>

R|

Raad, Walid. *Part I_Chapter 1_The Atlas Group (1989–2004)*, 2009. Gallery walls and understructure: acrylic sheet with latex paint; Floor: red oak veneer with polyurethane; Photos: resin, latex paint, polycarbonate and archival inkjet prints; Video installation: 4 lcd screens. 12 1/2 x 110 3/8 x 41 in. Paula Cooper Gallery.

Raad, Walid. "Walkthrough," *Scratching on things I could disavow: A History of Art in the Arab World, Part 1, Volume 1, Chapter 1: Beirut*." Fondazione Antonio Ratti. July 3 – August 20, 2009.

Raad, Walid. "Walkthrough," *Scratching on things I could disavow*. Museum of Modern Art, New York. Donald B. and Catherine C. Marron Atrium. October 12, 2015 – January 31, 2016.

Raad, Walid and Jalal Toufic, *The Withdrawal of Tradition Past a Surpassing Disaster*. Los Angeles, CA: Redcat, 2009.

Rabbat, Nasser. "Circling the Square: Architecture and Revolution in Cairo," *Artforum* 49 (April 2011).

Rado, Antonio. *Dalla Repubblica Fiorentina alla Signoria Medicea: Maso degli Albizzi e il partito oligarchico in Firenze dal 1382 al 1393*. Firenze, Italia: Vallecchi Editore, 1926.

- Rainer, Yvonne. "The Mind is a Muscle (A Quasi Survey of Some Minimalist Tendencies in the Quantitatively Minimal Dance Activity Midst the Plethor, or an Analysis of Trio A)," *Work 1861-1973*. Halifax: Press of the Nova Scotia College of Art and Design, 1974.
- Rainey, Lawrence. "Introduction: F.T. Marinetti and the Development of Futurism," *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven: Yale University Press, 2009.
- Raizon, Dominique. "Giuseppe Penone, une invitation au 'regard tactile'," *Arts Plastiques. RFI*. May 31, 2004. Accessed January 20, 2017.
- Rallis, Donald. "Geographies of Protest and Occupation: From Manama, Bahrain to Richmond, Virginia," *Regional GeogBlog*. November 26, 2011. Accessed December 16, 2016. <http://regionalgeography.org/101blog/wp-content/uploads/2011/11/pearlgraffiti3.jpg>
- "Ramallah." *Encyclopedia Britannica. Encyclopedia Britannica Online*. Encyclopedia Britannica, Inc., 2016. Accessed October 24, 2016. URL: <https://www.britannica.com/place/Ramallah>
- Ramazani, Rouhallah K. *The Persian Gulf and the Strait of Hormuz*. Netherlands: Sijthoff & Noordhoff, 1979.
- Ramírez, Juan Antonio. *Duchamp: Love and Death, Even*. London: Reaktion Books, 1998.
- Rampley, Matthew. "Mimesis and Allegory, on Aby Warburg and Walter Benjamin," *Art History as Cultural History: Warburg's Projects*. Edited by Richard Woodfield. Amsterdam, Netherlands: G & B Arts International 2001.
- Raskin, David. *Donald Judd*. New Haven, CT: Yale University Press, 2010.
- Raskin, David. "The Shiny Illusionism of Krauss and Judd." *Art Journal*, Vol. 65, No. 1 (Spring 2006): 6 – 21.
- Rebelliouswalls.com, "Graffiti: Walls of the People," Al Akhbar English. *English.Al-Akhbar.com*, N.d. Accessed September 20, 2015. <http://english.al-akhbar.com/node/2944>.
- Redington, T. "The Rapid Infiltration of the Canadian and United States Highway Transportation Marketplace by Roundabouts as a Transportation Revolution for Urban Areas." *Crossing Borders: Travel, Trade, Security and Communication. Canadian Transportation Research Forum, Proceedings of the 38th Annual Conference*. (Saskatoon, Canada: Canadian Transportation Research Forum, 2003). For the abstract, see the National Academy of Sciences website: <https://trid.trb.org/view.aspx?id=688491>
- "Redesign 'Wielandplatz' in Weimar," *Dane: Landscape Planning, Open Space Planning and Historic Garden Design*. Published 2014. Accessed October 3, 2015. http://www.dane-la.de/project-list/details/redesign-wielandplatz-in-weimar/no_cache.html?L=1
- Rees, Tobias. *Plastic Reason: An Anthropology of Brain Science in Embryogenetic Terms*. Oakland, CA: University of California Press, 2016.

- "replication, n.". OED Online. December 2016. Oxford University Press. N.d. Accessed December 14, 2016. <http://www.oed.com/view/Entry/162883?redirectedFrom=replication>
- Reps, John William. *The Making of Urban America: A History of City Planning in the United States*. Princeton, NJ: Princeton University Press, 1965.
- Resident-Intern at *The Chinati Foundation*. Conversation with Emily Verla Bovino. Persona Interviews. Marfa, Texas. October to January 2011.
- Retallack, Joan. *The Poethical Wager*. Berkeley: University of California Press, 2003.
- Retallack, Joan. "Blue Notes on the Know Ledge" in *Poetics Journal. Digital Archive*. Edited by Lyn Hejinian and Barrett Watten. Middletown, CT: Wesleyan University Press, 2014.
- Reuters/Caren Firouz, "An anti-government protester holds a model of the monument of the former Pearl Roundabout during a demonstration in Manama February 3, 2012. Thousands of Bahrainis held a demonstration in Manama calling for the fall of the government." *alamy.com*. N.d. Accessed September 13, 2012. <http://www.alamy.com/stock-photo-an-anti-government-protester-holds-a-model-of-the-monument-of-the-112205723.html>
- Reuters/Hamad I Mohammed, "An anti-government protester holds a model of the Pearl Monument as she participates in a march held by Bahrain's main opposition party Al Wefaq in the village of Karzakan, south of Manama, May 11, 2012." *alamy.com*. N.d. Accessed September 13, 2012. <http://www.alamy.com/stock-photo-an-anti-government-protester-holds-a-model-of-the-pearl-monument-as-113313902.html>
- Reuters/Roger Bacon, "Bahrain human rights activist Nabeel Rajab talks on his mobile phone as a miniature Bahrain Pearl Square monument is seen behind him, upon arriving home in Budaiya, west of Manama, after being detained for over two weeks, May 28, 2012. Rajab, a prominent Bahraini opposition activist accused of organising illegal protests and insulting authorities in the Gulf Arab state, was freed from jail on Monday after being granted bail, his lawyer said." *alamy.com*. N.d. Accessed September 10, 2012. <http://www.alamy.com/stock-photo-bahrain-human-rights-activist-nabeel-rajab-talks-on-his-mobile-phone-113346103.html>
- "Richard Huelsenbeck," *DADA-Companion*. N.d. Accessed February 4, 2017. <http://www.dada-companion.com/huelsenbeck/>.
- Riegl, Alois. *The Origins of Baroque Art in Rome*. Los Angeles, CA: Getty Research Institute, 2010.
- Roark, Tony. *Aristotle on Time: A Study of the Physics*. Cambridge, UK: Cambridge University Press, 2011.
- Robbins, David. *Concrete Comedy: An Alternative History of Twentieth-Century Comedy* (Copenhagen, Denmark: Pork Salad Press, 2011).

- “Roberta Carreri - Dance of Intentions.” *Odin Teatret-Nordisk Teaterlaboratorium*. N.d. Accessed April 2015. <http://www.odinteatret.dk/workshops/dance-of-intentions.aspx>
- Robert Motherwell. *Art of this Century*. Gallery catalog, essay by James Johnson Sweeney (1944). “Art of this century gallery catalog for Robert Motherwell exhibition,” *Smithsonian Archives of American Art*. N.d. Accessed March 3, 2017. <https://www.aaa.si.edu/collections/items/detail/art-century-gallery-catalog-robert-motherwell-exhibition-17884>.
- Roberts, Siobhan. *King of Infinite Space: Donald Coxeter, the Man Who Saved Geometry*. New York, NY: Bloomsbury, 2006.
- Rodchenko, Aleksander. *Spatial Construction No. 12* (c. 1920), plywood, open construction partially painted with aluminum paint and wire. 24 x 33 x 18 ½ in (61 x 83.7 x 47 cm). Museum of Modern Art, New York.
- Rodegerdts, Lee A. and Bruce W. Robinson, *Roundabouts: An Informational Guide* (Washington D.C.: Transportation Research Board, 2010).
- Rodriguez, Sal. “Frequently Asked Questions: What Are Conditions Like in Solitary Confinement?” *Solitary Watch*. Published 2015. Accessed September 10, 2016. <http://solitarywatch.com/facts/faq/>
- Roeck, Bernd. *Florenz 1900: die Suche nach Arkadien*. München, Deutschland: Verlag C.H. Beck, 2003.
- Rogers, David F. *An Introduction to NURBS: with Historical Perspective*. San Francisco, CA: Morgan Kaufmann Publishers, 2001.
- Rose, Ernestine Bradford. *The Circle: The Center of Indianapolis*. Indianapolis, IN: Crippin Printing.
- “Rosemarie Castoro,” *Broadway1602*. Artists. N.d. Accessed March 3, 2017. <http://broadway1602.com/artist/rosemarie-castoro/>; “Rosemarie Castoro (1939 -),” *North American Women Artists of the Twentieth Century: A Biographical Dictionary*. Edited by Jules Heller and Nancy G. Heller. New York, NY: Garland Publishing, 1995.
- Rosenberg, Arnol. *Marcel Duchamp plaing chess on a sheet of Glass* (1956), silver gelatin print, 11 x 14 in (27.94 x 35.56 cm), Francis M. Naumann Fine Art.
- Rosengarten, Ruth. *Between Memory and Document: The Archival Turn in Contemporary Art*. Museo Coleção Berardo. Lisbon, Portugal. March 7, 2013 to May 1, 2014. Exhibition Catalogue. Cork: BookBaby, 2013.
- Rosenquist, James. *Painting Below Zero: Notes on a Life in Art*. New York, NY: Alfred A. Knopf, 2009.

- Rosenthal, Gabriele. "The Social Construction of Individual and Collective Memory." *Theorizing Social Memories: Concepts and Contexts*. Abingdon, Oxon: Routledge, 2016.
- Rosenthal, Nan. "Marcel Duchamp (1887-1968)," Metropolitan Museum of Art. Heilbrunn Timeline of Art History. *Metmuseum.org*. October 2004. Accessed February 13, 2017. http://www.metmuseum.org/toah/hd/duch/hd_duch.htm
- Ross, Andrew. "Leveraging the Brand" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor) New York, NY: OR Books, 2015.
- Ross, Jeffrey Ian. "Introduction: Sorting It All Out," *Routledge Handbook of Graffiti and Street Art*. Edited by Jeffrey Ian Ross. Abingdon, Oxon: Routledge, 2016.
- Roth, Michael. "John Dewey's Vision of Learning as Freedom," *The New York Times*. September 5, 2012. Accessed January 22, 2017.
- Rothko, Christopher. "Introduction," in Mark Rothko, *The Artist's Reality: Philosophies of Art*. New Haven, CT: Yale University Press, 2004.
- Rothko, Mark. *Slow Swirl at the Edge of the Sea*, (1944). Oil on canvas. 75.35 x 84.76 in (191.4 x 215.3 cm), Museum of Modern Art, New York.
- Rothko, Mark. *The Artist's Reality: Philosophies of Art*. New Haven, CT: Yale University Press, 2004.
- Rothman, Joshua. "The Real Amazons," *The New Yorker*. October 17, 2014. Accessed January 20, 2017. <http://www.newyorker.com/books/joshua-rothman/real-amazons>.
- "Roundabouts," *Facilities Development Manual*. (Madison, WI: State of Wisconsin Department of Transportation. April 23, 2004), 9. Accessed October 2015. <http://www.k-state.edu/roundabouts/research/WIS10.pdf>
- Roussel, Raymond. *Locus Solus*. Paris: A. Lemerre, 1914.
- "Roy Lichtenstein," Artists. Museum of Modern Art, New York. *Moma.org*. From the Getty's Union List of Artist Names. N.d. Accessed January 17, 2017. <https://www.moma.org/artists/3542>
- Rubin, William. "Jackson Pollock and the Modern Tradition," *Artforum* (February – May 1967), as republished in *Jackson Pollock: Interviews, Articles and Reviews*. Edited by Pepe Karmel. New York: Museum of Modern Art, New York, 1999.
- "Ruler of Bahrain King Fahad plays a Prominent Role in Issues in Region," *Saudi Review: The English Daily Highlighting Local and World News* (October 2, 1984).
- Russell, Mark. *Between Tradition and Modernity: Aby Warburg and the Public Purposes of Art in Hamburg* (1896-1918). New York, NY: Berghahn Books, 2007.

S|

- Sadler, Simon. *The Situationist City*. Cambridge, MA: MIT Press, 1998.
- Saiber, Arielle. *Giordano Bruno and the Geometry of Language*. Burlington, VT: Ashgate, 2005.
- Saldanha, Arun. *Psychedelic White: Goa Trance and the Viscosity of Race*. Minneapolis, MN: University of Minnesota Press, 2007.
- “Salvador Dali’s Persistence of Memory Inspired Melted Wristwatch,” *Cool Pile*. N. d. Accessed March 10, 2017. <http://coolpile.com/style-magazine/salvador-dalis-persistence-memory-inspired-melted-wristwatch>; “Salvador DALI Persistence of Memory Fine Art Print T Shirt Mens M L XL Short Sleeve,” *Art Print Clothing Dot Com*. N.d. Accessed March 10, 2017. <https://artprintclothing.com/products/salvador-dali-persistence-of-memory-fine-art-print-t-shirt-mens-xl-short-sleeve>
- Sante, Luc. *The Other Paris*. New York, NY: Farrar, Straus and Giroux, 2015.
- Sant’Elia, Antonio. “Futurist Architecture (1914)” in *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven: Yale University Press, 2009.
- Sarasota County Government (Official), “Navigating Roundabouts.” Online video clip. *Youtube*. March 24, 2016. Accessed December 8, 2016. <https://www.youtube.com/watch?v=pYpfcmwxa4U>.
- Sarcophagus of the Muses* (2nd-century CE), marble, 3ft x 6 ft ¾ in x 2 ft 1/4in (92 x 206 x 68 cm), Albani Collection, Louvre, Paris.
- Sarcophagus with a Myth of Selene and Endymion* (early 3rd-century CE), marble, approx 37.50 x 82.28 x 236.22 in (approx 95 cm x 209 cm x 600 cm), Musei Capitolini, Palazzo dei Conservatori, Rome.
- Sarcophagus with the Legend of Selene and Endymion* (240-240 CE, discovered 1805), marble, 37.50 x 82.28 x 236.22 in (95 cm x 209 cm x 600 cm), Louvre, Paris.
- Savinio, Alberto. *Le Voyage au bout du monde* (The Voyage to the End of the World, 1929), oil on canvas, 28.54 x 23.42 in (72.5 x 59.5 cm), Mazzoleni Art, Torino
- Savinio, Alberto. *L’Isola Portatile* (Portable Island, c. 1930), oil on canvas, 16.14 x 12.20 in (41 x 31 cm), Galleria Civica d’Arte Moderna e Contemporanea, Torino, Italia
- Savinio, Alberto. *Senza Titolo* (Untitled, 1929), oil on canvas. 25.59 x 32.01 in (65 cm x 81.3 cm), Sotheby’s London. The Italian Sale. October 15, 2015
- Saxl, Fritz. “Plan of the Collected Edition,” in Aby Warburg, *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*. Translated by David Britt. Los Angeles, CA: Getty Research Institute, 1999.

- Sayili, Aydin. "Ibn Sina and Buridan on the motion of the Projectile" in *From Deferent to Equant: A Volume of Studies in the History of Science in the Ancient and Medieval Near East in Honor of S. E. Kennedy*. Edited by David A. King and George Saliba. From *Annals of the New York Academy of Sciences* 500. New York, NY: New York Academy of Sciences. 1987.
- Schechner, Richard. "Exoduction: Shape-shifter, shaman, trickster, artist, adept, director, leader, Grotowski," *The Grotowski Sourcebook*. Edited by Richard Schechner and Lisa Wolford Wylam. New York, NY: Routledge, 2001.
- Schiller Lab, "Slide Show: The Neural Control of Vision: Research on the Visual System," *MIT Web*, web.mit.edu/bcs/schillerlab/research/A-Vision/A.htm
- "Schlafender Hirtenknabe [Hildebrand, von Adolf]," *Deutsche Digitale Bibliothek. Kultur und Wissen online. Deutsches Dokumentationszentrum für Kunstgeschichte – Bildarchiv Foto Marburg*. January 15, 2009. Accessed February 8, 2017. <https://www.deutsche-digitale-bibliothek.de/item/5WKJ7Z3U3B4A64K7HKB4QILAH76NF7L7>
- Schneeman, Carolee. *Imagining Her Erotics: Essays, Interviews, Projects*. Cambridge, MA: MIT Press, 2002.
- Schneeman, Carolee. *Correspondence Course: An Epistolary History of Carolee Schneeman and her circle*. Durham, NC: Duke University Press, 2010.
- Schoell-Glass, Charlotte. "Serious Issues": The Last Plates of Warburg's Picture Atlas Mnemosyne," *Art History as Cultural History: Warburg's Projects*. Edited by Richard Woodfield. London, UK: Routledge, 2001.
- Schoenberger, Janna. "Bas Jan Ader's Ludic Conceptualism: Performing a Transnational Identity." *The Power of Satire. edited by Marijke Drees and Sonja de Leeuw* (Philadelphia: John Benjamins Publishing Company, 2015), 185.
- Schröter, Jens. *3D: History, Theory and Aesthetics of the Transplane Image* (2009). Translated by Brigitte Pichon and Dorian Rudnytsky. International Texts in Critical Media Aesthetics. Vol. 6. New York, NY: Bloomsbury, 2014.
- Schriwer, Charlotte. "Insight 117: The 'Pearl Effect' and Bahrain's 'Spring of Culture.'" *Middle East Institute. National University of Singapore*. September 8, 2014. Accessed December 10, 2016. https://mei.nus.edu.sg/index.php/website/publications_tmpl/insight-117-the-pearl-effect-and-bahrains-spring-of-culture
- Schulze, Franz. *Philip Johnson: Life and Work*. Chicago, IL: University of Chicago Press, 1994.
- Schwab, Dave. "Roundabout Reasoning Revisited," *La Jolla Light*. October 6, 2010. Accessed July 20, 2015. <http://www.lajollalight.com/sdljl-roundabout-reasoning-revisited-2010oct06-story.html>
- Schwarz, Arturo. "Prolegomena to the 'Large Glass,'" *Marcel Duchamp*. Edited by Klaus Beekman. Amsterdam, Netherlands: Editions Rodopi B.V., 1989.

- Schwedler, Jillian and Ryan King, "Political Geography," *The Arab Uprisings Explained: New Contentious Politics in the Middle East*. Edited by Marc Lynch. West Sussex, England: Columbia University Press, 2014.
- Scott, Tom. "The Magic Roundabout: Swindon's Terrifying Traffic Circle and Emergent Behaviour," Online video clip. *Youtube*. January 12, 2015. Accessed July 9, 2015. <https://www.youtube.com/watch?v=D22BOOGbpFM>.
- Scribner, Charity. "Buildings on Fire: The Situationist International and the Red Army Faction," *After the Red Army Faction: Gender, Culture and Militancy*. New York, NY: Columbia University Press, 2015.
- Sebastiani, Chiara. *Una città, una Rivoluzione: Tunisi e la riconquista dello spazio pubblico*. Cosenza: Pellegrini Editore, 2014.
- Segalen, Victor. *René Leÿs* (1922) Paris: Editions Chatelain-Julien, 1999.
- Sekula, Allan. *Ship of Fools/The Dockers' Museum*. Edited by Hilde Van Gelder. Leuven: Leuven University Press, 2015.
- Serra, Richard. *Gutter Corner Splash: Night Shift* (1969/1995), lead, 19 x 108 x 179 in (48.26 x 274.32 x 454.66 cm), SFMOMA (San Francisco Museum of Modern Art), San Francisco, California. "Richard Serra, Gutter Corner Splash: Night Shift (1969/1995)," SFMOMA. Artwork. N.d. Accessed January 3, 2017. <https://www.sfmoma.org/artwork/91.30>.
- Severini, Gino. *Mare=Ballerina* (Sea=Dancer, 1914), oil on canvas with artist's painted frame, 41 ½ x 33 13/16 in (105.3 x 85.9 cm), The Solomon R. Guggenheim, Foundation Peggy Guggenheim Collection, Venice 1976.
- Severini, Gino. "Plastic Analogies of Dynamism: Futurist Manifesto," *Futurism: An Anthology*. Edited by Lawrence Rainey, Christine Poggi and Laura Wittman. New Haven: Yale University Press, 2009.
- Shahryar, Josh. "Bahrain Feature: Today's Revival of Mass Protests," *EAWorldView*. December 7, 2011. Accessed February 20, 2012. <http://www.enduringamerica.com/home/2011/12/7/bahrain-feature-todays-revival-of-mass-protests.html>.
- Sholette, Gregory. "Art out of Joint: Artists' Activism Before and After the Cultural Turn," *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Siegel, Robert. "In Bahrain, Iconic Pearl Monument Destroyed." *National Public Radio*. *All Things Considered*. March 18, 2011. Accessed June 1, 2011. www.npr.org/2011/03/18/134665539/Pearl-Monument-Destroyed.
- Singerman, Howard. *Art History, After Sherrie Levine*. Berkeley, CA: University of California Press, 2012.

- Sintusingha, Sidh and Morteza Mirgholami, "Parallel Modernization and Self-Colonization: Urban Evolution and Practices in Bangkok and Tehran." *Cities*. Vol. 30 (2013).
- Sitte, Camillo. *City Planning According to Artistic Principles* (1889). Translated by G.R. and C.C. Collins. Columbia University Studies in Art History and Archaeology, no. 2. New York, NY: Random House, 1965.
- Sleeping Endymion* ("Spada Endymion"), (early 2nd century, A.D.) Stanza dei Imperatori, Musei Capitolini, Rome, Italy; Marble Sarcophagus with the myth of Selene and Endymion (3rd century, A. D.), Metropolitan Museum of Art, New York.
- Smith, Benjamin. *Market Orientalism: Cultural Economy and the Arab Gulf States*. Syracuse, NY: Syracuse University Press, 2015.
- Smith, Terry. *What is Contemporary Art?* Chicago: University of Chicago Press, 2009.
- Snowden, Robert, Peter Thompson and Tom Troscianko, *Basic Vision: An Introduction to Visual Perception* (Oxford, UK: Oxford University Press, 2012),
- Solt, John. *Shredding the Tapestry of Meaning: The Poetry and Poetics of Kitasono Katue (1902 – 1978)*. Cambridge, MA: Harvard University Press, 1999.
- Somigli, Luca. "Italy," *The Cambridge Companion to European Modernism*. Edited by Pericles Lewis. Cambridge, UK: Cambridge University Press, 2011.
- "Sophie Taeuber-Arp," *Concise Dictionary of Women Artists*. Edited by Delia Gaze. London, UK: Fitzroy Dearborn, 2001.
- Sophie Taeuber-Arp: Today is Tomorrow*. Edited by Aargauer Kunsthaus, Switzerland and Kunsthalle Bielefeld, Germany (Chicago, IL: University of Chicago Press, 2014), 164.
- Speake, Jennifer and MarkLaFlaur, "vieux marcheur," *The Oxford Essential Dictionary of Foreign Terms in English* (Oxford, UK: Oxford University Press, 1999; online 2002), <http://www.oxfordreference.com/view/10.1093/acref/9780199891573.001.0001/acref-9780199891573-e-7606?rkey=utNCMv&result=1>
- Special Collection, "Performance of Maria Hassabi PLASTIC at MoMA – Periscope [20/03/2016]," Online video clip. *Youtube*. June 30, 2016. Accessed August 8, 2016. <https://www.youtube.com/watch?v=DGCwiDQTbU8>
- Stavitsky, Gail. "Albert Eugene Gallatin and the Paris-New York Connection, 1927-1942," *A Transatlantic Avantgarde: American Artists in Paris, 1918 – 1939*. Edited by Sophie Lévy and Christian Derouet. Berkeley, CA: University of California Press, 2003.
- "Steatopyga," *Oxford English Dictionary*. Oxford University Press, 2017. Accessed January 17, 2017. <http://www.oed.com/view/Entry/189514?redirectedFrom=steatopyga#eid>
- Stefanelli, Stefania. *Manifesti Futuristi: Arte e Lessico*. Livorno, Italy: Sillabe, 2001.

- Steinkamp, Maike. "In the Modernism Network: Sophie Taeuber-Arp's involvement in the magazine *Plastique*," *Sophie Taeuber-Arp: Today is Tomorrow*. Edited by Aargauer Kunsthau, Switzerland and Kunsthalle Bielefeld, Germany. Chicago, IL: University of Chicago Press, 2014.
- Stern, Peter. "Encinitas should stop building roundabouts," *San Diego Union-Tribune*. October 9, 2007. Accessed November 3, 2014. <http://www.sandiegouniontribune.com/sdut-encinitas-should-stop-building-roundabouts-2007oct09-story,amp.html>
- Stevenson, Elizabeth. *Park Maker: A Life of Frederick Law Olmstead*. New Brunswick, NJ: Transaction Publishers, 2000.
- Stevenson, Wendel. *Circling the Square: Stories from the Egyptian Revolution*. Harper Collins Publishers, 2015.
- Stimilli, Davide. "La Tintura di Warburg," in Ludwig Binswanger and Aby Warburg, *La Guarigione Infinita: Storia Clinica di Aby Warburg*. Translated by Chantal Marzia and Davide Stimilli. Edited by Davide Stimilli. Vicenza, Italia: Neri Pozza, 2005.
- Stockebrand, Marianne. "The Journey to Marfa and the Pathway to Chinati," in *Chinati: The Vision of Donald Judd*. Edited by Marianne Stockebrand. 12-49. New Haven, CT: Yale University Press, 2010.
- Stockebrand, Marianne and Rob Weiner, "Donald Judd: Artillery Sheds with 100 Works in Mill Aluminum, 1982 – 1986" in *Chinati: The Vision of Donald Judd*. Edited by Marianne Stockebrand. 80-105. New Haven: Yale University Press, 2010.
- Stockebrand, Marianne and Rob Weiner, "Donald Judd: Freestanding Works in Concrete, 1980 - 1984," in *Chinati: The Vision of Donald Judd*. Edited by Marianne Stockebrand. 50-79. New Haven: Yale University Press, 2010.
- Stoichita, Victor. *The Pygmalion Effect: From Ovid to Hitchcock*. Translated by Alison Anderson. Chicago: The University of Chicago Press, 2008.
- Stratton, David. H. *Tempest over Teapot Dome: The Story of Albert B. Fall*. (Norman, OK: University of Oklahoma Press, 1998).
- Straughn, Ian. "'Other Monumental Lessons,'" in *Of Rocks and Water: Towards an Archaeology of Place*. Edited by Ömür Harmanşah. Joukowsky Institute Publication 5. Oxford, UK: Oxbow Books, 2014.
- Streiter, Richard. *Ausgewählte Schriften*. Munich: Delphin, 1913.
- Stiles, Kristine. *Concerning Consequences: Studies in Art, Destruction and Trauma* (Chicago: University of Chicago Press, 2016).
- Strohl, Andreas. "Introduction" in Vilém Flusser, *Writings*. Minneapolis: University of Minnesota Press, 2002.

- Supplier Hong Kong, "New The Persistence of Memory by Salvador Dali Pillow Case Cover Free Shipping," *ebay*. N.d. Accessed March 10, 2017. <http://www.ebay.com/itm/New-The-Persistence-of-Memory-by-Salvador-Dali-Pillow-Case-Cover-Free-Shipping-/252408397071>.
- Sutro, Dick. "Price Center an Attractive, if Disputed, UCSD Addition," *Los Angeles Times*, April 16, 1989. Accessed December 10, 2016. http://articles.latimes.com/1989-04-26/news/vw-1887_1_student-center-rounded-food-court
- Suvini-Hand, Vivienne. *Mirage and Camouflage: Hiding Behind Hermeticism in Ungaretti's 'L'Allegria.'* Market Harborough, UK: Hull Italian Texts, 2000.
- Swedberg, Richard and Olga Agevall, *The Max Weber Dictionary: Key Words and Central Concepts*, Second Edition, Stanford, CA: Stanford University Press, 2005, 2016.
- "synapse (n.)," *Online Etymological Dictionary*. Edited by Douglas Harper. Published 2001 – 2017. Accessed February 2017. <http://www.etymonline.com/index.php?term=synapse>
- T|
- Taeuber-Arp, Sophie. *Turned Wood Sculpture* (1937), Wood (lathe-turned), 15 5/16 in (38.9 cm). Yale University Art Gallery. Gift of Jean Arp in memory of Sophie Taeuber-Arp (1950).
- Taeuber-Arp, Sophie. *Flottant, aligné, oscillant, écartant, soutenant* (Emerging, falling, adhering, flying, 1932), oil on canvas, 31.89 in x 25.60 in (81 x 65 cm), private collection, Basel.
- Taeuber-Arp, Sophie. *Surgissant, tombant, adhérent, volant* (Floating, aligned, oscillating, parting, supporting, 1934), oil on canvas, 33.29 x 28.85 in (99.8 x 73.3 cm), Kunstmuseum Basel
- Taub, Eric A. "As Americans Figure Out the Roundabout, It Spreads across the U.S." *The New York Times*. July 30, 2015. Accessed September 30, 2015.
- Taylor, Lonn. Conversation with Emily Verla Bovino. Personal Interview. Fort Davis, Texas. December, 2011.
- Taylor, Lonn. Conversation with Emily Verla Bovino. Personal Interview. Fort Davis, Texas. April, 2017.
- Taylor, Lonn. "Fort D.A. Russell, Marfa," transcript of a lecture presented at the Chinati Foundation, May 1, 2011. Accessed September 10, 2016. <https://chinati.org/programs/lonn-taylor-fort-d-a-russell-marfa>
- Taylor, Michael R. "Princess X," *Sculpture at the Sheldon Memorial Art Gallery*. Edited by Karen O. Janovy and Daniel A. Siedell. Lincoln, NE: University of Nebraska, 2005.
- Tchen, John Kuo Wei and Dylan Yeats, *Yellow Peril! An Archive of Anti-Asian Fear*. New York, NY: Verso Books, 2014.

- Templer, John A. *The Staircase: Studies of Hazards, Falls and Safer Design*. Cambridge, MA: MIT Press, 1992.
- Tharoor, Ishaan. "On Election Day, the History of Fascism Matters," *Washington Post*, November 8, 2016. https://www.washingtonpost.com/news/worldviews/wp/2016/11/08/on-election-day-the-history-of-fascism-matters/?utm_term=.71f6ae574b42
- "'The Accident Rate is Simply Terrifying': Tunisia sees deadly spikes on roads." *The National*. September 1, 2016. Accessed October 5, 2016. <http://www.thenational.ae/world/middle-east/the-accident-rate-is-simply-terrifying-tunisia-sees-deadly-spike-on-roads>
- The Artist and His Critic Stripped Bare: The Correspondence of Marcel Duchamp and Robert Lebel*. Edited by Paul B. Franklin. Los Angeles, CA: Getty Research Institute, 2016.
- "The Bride Stripped Bare by Her Bachelors, Even (The Large Glass)," *Philadelphia Museum of Art*. Published 2017. Accessed February 2, 2017. <http://www.philamuseum.org/collections/permanent/54149.html>
- The Editors of the Encyclopedia Britannica, *Encyclopedia Britannica*, March 5, 2009. Accessed February 19, 2017. <https://www.britannica.com/biography/Filippo-Tommaso-Marinetti>.
- The Editors of the Encyclopedia Britannica, "Jerzy Grotowski," *Encyclopedia Britannica*. Published September 4, 2015. Accessed March 3, 2017. <https://www.britannica.com/biography/Jerzy-Grotowski>
- The Editors of Encyclopedia Britannica, "Yves Saint Laurent," *Encyclopedia Britannica*, May 5, 2012. Accessed February 5, 2017.
- "The Global Ultra Luxury Faction (G.U.L.F.)" in "Contributors" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- The Gold Rush*, directed by Charlie Chaplin (1925; San Francisco, CA: Kanopy Streaming, 2014) Internet Resource.
- The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- "The Hollis Frampton Collection," *Harvard Film Archive*. Published 2017. Accessed March 3, 2017. <http://hcl.harvard.edu/hfa/collections/frampton.html> "A Hollis Frampton Odyssey," The Criterion Collection. N.d. Accessed March 3, 2017. <https://www.criterion.com/films/27945-a-hollis-frampton-odyssey>.
- "The hottest trend of 2016? Roundabouts. What is with all the roundabout proposals?" Jessica Saggio, "BDB: Roundabouts are so 2016, another daggone shooting and Bob is 60," *Florida Today*. Part of the USA Today Network. July 16, 2016. Accessed December 26, 2016. <http://www.floridatoday.com/story/news/2016/07/26/bdb-roundabouts-so-2016-another-daggone-shooting-and-bob-60/87531080/>

- The Learning Network, "Word of the Day: Plasticity," *The New York Times*. February 26, 2010. Accessed January 22, 2017. https://learning.blogs.nytimes.com/2010/02/26/word-of-the-day-plasticity/?_r=0.
- "The Liver is the Cock's Comb (1944). Gorky, Arshile. 1944," *Artstor.org*. Published 2007. Accessed March 9, 2017. <http://library.artstor.org/library/iv2.html?parent=true#>
- The London Lancet: A Journal of British and Foreign Medical and Chemical Science, Literature and News*. New York: Burgess, Stringer & Company, 1878.
- "The Passion of St. Alban and His Companions, Who at that Time Shed Their Blood for Our Lord. [A.D. 305]," in The Venerable Bede, *The Ecclesiastical History of the English Nation*, Book I. Translated by L. C. Jane (London: J.M. Dent, 1910) as presented for Internet Medieval Sourcebook: Bede (673735) *Ecclesiastical History of the English Nation*, Book I. Edited by Paul Halsall (New Jersey: Fordham University, 1998). Published 1998; Accessed February 4, 2017. <http://sourcebooks.fordham.edu/halsall/basis/bede-book1.asp>
- "The Pedimental Sculptures from the Temple of Aegina," *Antike am Königsplatz: Antikensammlungen und Glyptothek*. N.d. Accessed January 12, 2016. <http://www.antike-am-koenigsplatz.mwn.de/en/ancient-masterpieces/museum-highlights/archive-of-museum-highlights/aeginetans.html>
- The Report: Emerging Bahrain, 2007*. London, UK: Oxford Business Group, 2007.
- "The Story of Bahrain's Pearl Roundabout," *The Bahrain Observer*. March 2, 2013. Accessed August 10, 2013. <http://www.bahrainobserver.com/en/page/761/The+Story+of+Bahrain%E2%80%99s+Pearl+Roundabout.html>
- Thingiverse*. Makerbot Industries, LLC. Published 2016. Accessed December 4, 2016. <https://www.thingiverse.com/>
- Thompson, Cecilia. *History of Marfa and Presidio County, Texas, 1535 – 1946*. Waco, TX: Nortex Press, 2011.
- "Three Months After the Sponsorship System in Bahrain was "Scrapped," What Really Changed?" *Migrant-Rights.org*. November 11, 2009. Accessed September 5, 2016. <https://www.migrant-rights.org/2009/11/three-months-after-the-sponsorship-system-in-bahrain-was-scrapped-what-really-changed/>
- Tollazzi, Tomaz. *Alternative Types of Roundabouts: An Informational Guide*. Springer Tracts on Transportation and Traffic, Vol. 6. Edited by Roger P. Roess. Cham, Switzerland: Springer, 2014.
- Tombs, Robert. *The Paris Commune 1871*. Abingdon, Oxon: Routledge, 1999.

- Toufic, Jalal. *The Withdrawal of Tradition Past a Surpassing Disaster*. Forthcoming Books, 2009.
- Traboulsi, Suha. "Week 51. Suha Traboulsi. Guggenheim Appetizer." A contribution to *52 Weeks* curated by the Gulf Labor Coalition. *Gulf Labor Artist Coalition. Who's Building the Guggenheim Abu Dhabi?* October 3, 2014. Accessed October 3, 2014. <http://gulflabor.org/2014/week-51-suha-traboulsi-guggenheim-appetizer/>
- Traboulsi, Suha. "Week 51" as republished in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Troxler, Peter. "Fabrication Laboratories (Fab Labs)" *The Decentralized and Networked Future of Value Creation: 3D Printing and its Implications for Society, Industry, and Sustainable Development*. Edited by Jan-Peter Ferdinand, Ulrich Petschow and Sascha Dickel. Switzerland: Springer, 2016.
- Troy, Nancy J. *The Afterlife of Piet Mondrian*. Chicago, IL: University of Chicago Press, 2013.
- Tully, Kathryn. "Buying a Banksy: A Guide to the Graffiti Superstar's Booming Market," *Observer*. November 19, 2014. Accessed December 20, 2016. <http://observer.com/2014/11/buying-a-banksy-a-guide-to-the-graffiti-superstars-booming-market/>
- Tunis, Courtney. "scopic, vocative," *The Key Words of Media Theory. Theories of Media*. Edited by W. J. T. Mitchell, Eduardo de Almeida and Rebecca Reynolds. February 2004. Accessed January 4, 2017. The University of Chicago, <http://csmt.uchicago.edu/glossary2004/scopicvocative.htm>.
- Tupitsyn, Margarita. "After Vitebsk: El Lissitzky and Kazimir Malevich, 1924 – 1929)," *Situating El Lissitzky: Vitebsk, Berlin, Moscow*. Edited by Nancy Lynn Perloff, Brian M. Reed and El Lissitzky. Los Angeles, CA: Getty Research Institute, 2003.
- Turse, Nick. "How Bahrain Strong-armed the President of the United States." *The Arab American News*. (April 9, 2011).
- Twelvetrees, W.N. "London Street Traffic Regulation (Address to the Civil and Mechanical Engineers Society, by the President, Mr. W. N. Twelvetrees); October 3, 1907)," *The Builder* (October 12, 1907).
- U|
- "UK's First Roundabout," *Letchworth Garden City: The World's First Garden City*. N.d. Accessed September 3, 2015. http://www.leitchworthgc.com/first_garden_city/uks_first_roundabout
- Ulansey, David. *The Origins of the Mithraic Mysteries: Cosmology and Salvation in the Ancient World*. Oxford, UK: Oxford University Press, 1991.

- Uneven Growth: Tactical Urbanisms for Expanding Megacities*, Issues in Contemporary Architecture Series, curated by Pedro Gadanho with Phoebe Springstubb, Department of Architecture and Design, Museum of Modern Art, New York, November 22, 2014 to May 10, 2015.
- United States Embassy of Tunisia Consular District. United States Department of State. "Travel & Transportation," *General Guidance for American Citizens living in Tunisia*. N.d. Accessed October 24, 2016. <https://travel.state.gov/content/passports/en/country/tunisia.html>
- University of California, San Diego (UCSD) Craft Center Administration. Conversation with Emily Verla Bovino. Craft Center (UCSD), San Diego, California. September 2012.
- V|
- Van Alphen, Ernst. *Staging the Archive: Art and Photography in the Age of New Media*. London, UK: Reaktion Books, 2014.
- Van Den Berg, Hubert F. and Gillis J. Dorleijn, "Modernism(s) in Dutch Literature," *Modernism*. Edited by Astradur Eysteinnsson, Vivian Liska. Amsterdam, Netherlands: J. Benjamins Publishers, 2007.
- Van Den Berg, Klaus. "Staging a Vanished Community: Daniel Liebeskind's Scenography in the Berlin Jewish Museum." *Performance and the City*. Edited by Kim Solga, S. Orr and D.J. Hopkins. New York, NY: Palgrave Macmillan, 2011.
- Vanderbilt, Tom. "Don't Be So Square: Why American drivers should learn to love the roundabout," *Slate*. July 20, 2009. Accessed October 11, 2015. http://www.slate.com/articles/life/transport/2009/07/dont_be_so_square.html
- van Hensbergen, Gijs. *Guernica: The Biography of a Twentieth-Century Icon*. London, UK: Bloomsbury, 2004.
- van Huisstede, Peter. "Towards an Electronic Edition of the Mnemosyne Atlas," *Darstellung und Deutung: Abbilder der Kunstfeschichte*. Weimar, Deutschland: VDG Weimar, 2000.
- Vassé, Louis-Claude. *Sleeping Shepherd* (1751), Musée du Louvre, Paris, France
- Venus of Lespugue* (c. 23,000 BCE), mammoth tusk, height 6 in (15.24 cm), Musée de l'Homme, Paris, France.
- Verheijde, Joseph L., Mohamed Y. Rady and Joan L. McGregor, "Brain Death, States of Impaired Consciousness, and Physician-Assisted Death for End-of-Life Organ Donation and Transplantation," *Medicine, Health Care, and Philosophy*. Vol. 12, Iss. 4. (2009), 409-421.
- Vickers, Brian. *Occult and Scientific Mentalities in the Renaissance*. Cambridge, UK: Cambridge University Press, 1984.

- Vienna Actionism: Art and Upheaval in 1960s Vienna*. Edited by Eva Badura-Triska, Hubert Klocker, Museum Moderner Kunst Stiftung Ludwig Wien. Köln: Verlag der Buchhandlung Walther König, 2012.
- “Vienna Actionism” in *Collection Focuses*. Museum Moderner Kunst Stiftung Ludwig Wien (mumok), n.d. Accessed October 2016. <https://www.mumok.at/en/vienna-actionism>.
- Vischer, Friedrich Theodor. *The Symbol* (1887). Translated by Holly A. Yanacek, *Art in Translation*. Vol. 7, No. 4 (2015), 434.
- Vischer, Robert. “On the Optical Sense of Form: A Contribution to Aesthetics (1873),” *Empathy, Form, and Space: Problems in German Aesthetics (1873-1893)*. Translated by Harry Francis Mallgrave and Eleftherios Ikononou. Los Angeles, CA: Getty Center for the History of Art and the Humanities, 1994.
- Viviani, Giada. “Luciano Folgore,” *Encyclopedia of Italian Literary Studies*. Edited by Gaetana Marrone and Paola Puppa. New York, NY: Routledge, 2007.
- Vogel, Carol. “A New Art Capital, Finding its Own Voice,” *The New York Times*. December 4, 2014. Accessed September 10, 2014. <https://www.nytimes.com/2014/12/07/arts/design/inside-frank-gehrys-guggenheim-abu-dhabi.html>.
- Voight, Michael L., Barbara J. Hoogenboom and William E. Prentice, *Musculoskeletal Interventions: Techniques for Therapeutic Exercise*. New York, NY: McGraw-Hill Professional, 2006.
- [von] Hildebrand, Adolf. *Das Problem der Form in der Bildenden Kunst*. Strassburg, Austria: Heitz & Mondel, 1918.
- von Hildebrand, Adolf. *Schlafender Hirtenknabe* (Sleeping Shepherd Boy, 1871-1873), marble, 41.33 x 26.77 x 41.73 in (105 x 68 x 106 cm), Sammlung Konrad Fiedler, Alte nationalgalerie, Berlin.
- von Hildebrand, Adolf. *The Problem of Form in Painting and Sculpture*. Translated by Max Meyer and Robert Morris Ogden. New York, NY: G. E. Stechert & Co., 1907.
- [von] Hildebrand, Adolf. *The Problem of Form in the Fine Arts (1893), Empathy, Form, and Space: Problems in German Aesthetics (1873-1893)*. Translated by Harry Francis Mallgrave and Eleftherios Ikononou. Los Angeles, CA: Getty Center for the History of Art and the Humanities, 1994.
- W|
- Wade, Gavin. “Nathan Coley, Bas Jan Ader, Gavin Wade,” curated by Gavin Wade. *Vilma Gold*. October 4 – October 28, 2001. <http://vilmagold.com/exhibition/2001-nathan-coley-bas-jan-ader-gavin-wade/>

- Wade, Nicholas, and Michael Swanston, *Visual Perception: An Introduction*. London, UK: Psychology Press, 2013.
- Wakefield, Sarina. "Heritage Cosmopolitanism and Identity in Abu Dhabi" in *Cultural Heritage in the Arabian Peninsula: Debates, Discourses and Practices*. Edited by Karen Exell and Trinidad Rico. Farnham, UK: Ashgate, 2014.
- Wanshel, Elyse. "Viral Letter from "People of Germany" Compares Donald Trump to Hitler," *Huffington Post*, November 7, 2016. http://www.huffingtonpost.com/entry/donald-trump-hitler-germany_us_5820a1a7e4b0e80b02cb48a3
- Warburg, Aby. *Der Bilderatlas MNEMOSYNE*. Gesammelte Schriften, II.1. Edited by Martin Warnke and Claudia Brink. Berlin, Deutschland: Akademie Verlag 2008.
- Warburg, Aby. *Diario Romano, 1928-1929*. Edited by and trans. Maurizio Ghelardi. Torino, Italia: Arago, 2005.
- Warburg, Aby. *Fragmente zur Ausdruckskunde*. Edited by Ulrich Pfisterer und Hans Christian Hones. Berlin, Deutschland: Walter De Gruyter GmbH, 2015.
- Warburg, Aby. *Frammenti sull'Espressione = Grundlegende Bruchstücke zu einer pragmatischen Ausdruckskunde*. Edited by Susanne Müller. Translated by Maurizio Ghelardi and Giovanna Targia. Pisa, Italia: Edizioni della Normale, 2011.
- Warburg, Aby. "Italienische Kunst und international Astrologie im Palazzo Schifanoja zu Ferrara," *Die Erneuerung der heidnischen Antike: Kulturwissenschaftliche Beiträge zur Geschichte der europäischen Renaissance*. Edited by Horst Bredekamp and Michael Diers. Berlin, Germany: Akademie Verlag, 1998.
- Warburg, Aby. *The Renewal of Pagan Antiquity: Contributions to the Cultural History of the European Renaissance*. Translated by David Britt. Los Angeles, CA: Getty Research Institute for the History of Art and the Humanities, 1999.
- Warburg, Aby and Gertrud Bing, "Fragmentary Notes," as quoted in *Seminario Mnemosyne*, coordinated by Monica Centanni, Silvia De Laude, Daniela Sacco and Silvia Urbini, "Through the Maze: Plates A, B and C, The Opening Themes of Aby Warburg's Mnemosyne Atlas," trans. Elizabeth Thomson. *Engramma*. No. 125, March 2015. http://www.engramma.it/eOS2/index.php?id_articolo=2341
- Warburg, Aby, et. al. *Tagebuch der Kulturwissenschaftlichen Bibliothek Warburg*. Gesammelte Schriften VII. Edited by Karen Michels and Charlotte Schoell-Glass. Berlin, Deutschland: Akademie Verlag, 2001.
- Warhol, Andy. *A, A Novel*. New York, NY: Grove Press, 1968, 1998.
- Warhol, Andy. *The Andy Warhol Diaries*. New York: Grand Central Publishing, 2014.
- Wark, McKenzie. *The Spectacle of Disintegration: Situationist Passages Out of the Twentieth*. New York, NY: Verso Books, 2013.

- Warner, Ezra J. *Generals in Blue: Lives of the Union Commanders*. Baton Rouge, LA: Louisiana State University Press, 1964.
- “Warren Neidich, Remapping: Storefront for Art and Architecture,” e-flux, September 7 2002. Accessed February 2, 2017. <https://www.e-flux.com/announcements/43412/warren-neidich-remapping/>
- Watson, Steven. *Factory Made: Warhol and the Sixties*. New York, NY: Pantheon Books, 2003.
- We Make Money Not Art, “Book Review: The Gulf. High Culture/Hard Labor,” *Computational Thinking: Programming for Artists*. *Rampages.us*. August 10, 2015. Accessed December 27, 2016. <https://rampages.us/comptthink/category/architecture/page/2/>
- Weiner, Lawrence. “Statement (1970),” *Theories and Documents of Contemporary Art: A Sourcebook of Artists*. Edited by Kristine Stiles. Berkeley, CA: University of California Press, 2012.
- Weizman, Eyal. *The Roundabout Revolutions*. From *Critical Spatial Practice* 6. Edited by Nikolaus Jirsch and Markus Miessen. Berlin, Germany: Sternberg Press, 2015.
- Welchman, John. *Invisible Colors: A Visual History of Titles*. New Haven, CT: Yale University Press, 1997.
- Wieczorek, Marek. “Mondrian’s First Diamond Composition: Spatial Totality and the Plane of the Starry Sky,” *Meanings of Abstract Art: Between Nature and Theory*. New York, NY: Routledge, 2012.
- “Wielanddenkmal am Wielandplatz,” *Ausflugsziele Weimar: Urlaub in der Goethe und Schiller Stadt*. August 1, 2012. Accessed October 3, 2015. <https://ausflugsziele-weimar.de/wielanddenkmal-am-wielandplatz/>
- “When was the traffic roundabout invented, and by whom?” In *Notes & Queries in The Guardian*. N.d. Accessed October 21, 2015. URL: <https://www.theguardian.com/notesandqueries/query/0,5753,-1860,00.html>
- White, Micah. *The End of Protest: A New Playbook for Revolution*. Toronto, Canada: Alfred A. Knopf, 2016.
- White, Randall. *Prehistoric Art: The Symbolic Journey of Humankind*. New York, NY: Harry N. Abrams, 2003.
- Whitfield, Peter. *The Mapping of the Heavens*. San Francisco, CA: Pomegranate Art Books in association with the British Library, 1995.
- Wiles, Mary M. *Jacques Rivette*. Urbana, IL: University of Illinois Press, 2012.
- Willms, Johannes. *Paris, Capital of Europe: From the Revolution to the Belle Epoque*. New York, NY: Holmes & Meier, 1997.

- Wilkins, Ian. "Contention and Constitutionalization in the Global Realm: Assessing the Uprisings in West Asia and North Africa and Their Impact on International Politics." *Contentious Politics in the Middle East: Popular Resistance and Marginalized Activism beyond the Arab Uprising*. Edited by Fawaz A. Gerges. New York, NY: Palgrave Macmillan, 2015.
- WilliamAAdams, "OpenScad Surface Solids 1.1," *Thingiverse*. June 17, 2011. Accessed September 2, 2011. <http://www.thingiverse.com/thing:9389>.
- Wilson, Mabel, Jordan Carver and Kadambari Baxi, "Who Builds Your Architecture? – An Advocacy Project" in *The Gulf: High Culture/Hard Labor*. Edited by Andrew Ross (for Gulf Labor). New York, NY: OR Books, 2015.
- Winkler, John J. *The Constraints of Desire: The Anthropology of Sex and Gender in Ancient Greece* (New York, NY: Routledge, 1990), 203.
- Wired, "See How an Insane 7-Circle Roundabout Actually Works," Online video clip. *Youtube*. August 3, 2016. Accessed December 9, 2016. <https://www.youtube.com/watch?v=6OGvj7GZSIo>.
- Wis DOT, "WisDOT Roundabout Educational Video: Take it Slow. How to navigate a multi-lane roundabout." Online video clip. *Youtube*. August 21, 2013. Accessed December 8, 2016. <https://www.youtube.com/watch?v=KchcFhrMtls>.
- Witten, Edward. "A Note on Einstein, Bergmann, and the Fifth Dimension," *History and Philosophy of Physics* (physics.hist-ph). January 31, 2014. Accessed February 3, 2017. <https://arxiv.org/abs/1401.8048>
- Wolf, Reva. *Andy Warhol, Poetry and Gossip in the 1960s*. Chicago, IL: University of Chicago Press, 1997.
- Wölfflin, Heinrich. *Principles of Art History: The Problem of the Development of Style in Later Art* (1932) trans. M. D. Hottinger. Mineola, NY: Dover Publications, 2012.
- Wood, Christopher S. *Forgery, Replica, Fiction: Temporalities of German Renaissance Art*. Chicago, IL: University of Chicago Press, 2008.
- "Words Used to Describe Someone's Voice," *Macmillan Dictionary*. Published 2009-2017. Accessed September 2017. <http://www.macmillandictionary>
- Writers for the 99%, *Occupying Wall Street: The Inside Story of an Action that Changed America* (New York, NY: OR Books
- "What are game assets," *Conceptdevelopmentbendavis.blogspot.com*. February 8, 2009. Accessed December 5, 2016. <http://conceptdevelopmentbendavis.blogspot.com/2009/02/what-are-game-assets.html>

Xaero, "Assets: The Pearl Roundabout," *Simnation.tv*, curated by Jan Chrnich. N.d. Accessed October 5, 2016. <http://simnation.tv/citiesskylines/mods/assets/buildings/the-pearl-roundabout/>.

Y|

York, Chris. "London Ashura Remembrance Sees Muslims Protest Against Terrorism and ISIS," *Huffington Post*, October 12, 2016. Accessed January 20, 2017. http://www.huffingtonpost.co.uk/entry/london-ashura-islam_uk_57fe7ccce4b0e982146bbae9

Young, Arthur. *Bell-47D1 Helicopter* (1945), aluminum, steel and acrylic plastic. 9 ft 2 $\frac{3}{4}$ x 7ft 11 in x 42 ft 8 $\frac{3}{4}$ in (281.3 x 302 x 1271 cm). Museum of Modern Art, New York. "Arthur Young, Bell-47D1 Helicopter, 1945," Artists. Museum of Modern Art, New York. *Moma.org*. Published 1999. Accessed January 20, 2017. <https://www.moma.org/collection/works/2234?locale=en>

Young, Iris Marion. *Justice and the Politics of Difference*. Princeton, NJ: Princeton University Press, 1990.

Z|

Zanker, Paul. *Living with Myths: The Imagery of Roman Sarcophagi*. Oxford, UK: Oxford University Press, 2012.

Zhang, Xudong. "Challenging the Eurocentric, Cold war View of China and the Making of a Post-iananment Intellectual Field." *East Asia* (Spring – Summer 2001).

Zizek, Slavoj. *The Parallax View* (Cambridge, MA: MIT Press, 2006

Zöllner, Frank. "'Eilig Reisende' im Gebiete der Bildvergleichung": Aby Warburgs Bilderatlas 'Mnemosyne' und die Tradition der Atlanten." *Marburger Jahrbuch für Kunstwissenschaft*. 37 (2010).

Zunes, Stephen. "Bahrain's Arrested Revolution." *Arab Studies Quarterly*. 35.2 (Spring 2013).