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Mineral Modernism: The Mexican Subsoil and the Remapping of American Form in the
1930s

By

Grace L Kuipers

A dissertation submitted in partial satisfaction of the
requirements for the degree of

Doctor of Philosophy

in

History of Art

in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Lauren Kroiz, chair
Professor Darcy Grimaldo Grigsby
Professor David Henkin
Professor Sugata Ray

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Abstract

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This dissertation theorizes an aesthetics of extraction in the modernist dialogue between U.S. and Mexican artists and critics in the 1930s. I analyze the ways in which perceptions of underground resources featured prominently in artistic theories about what was shared by U.S. and Mexican modernisms in the 1930s, as the United States renegotiated its access to the Mexican subsoil. As Mexico pushed to nationalize its underground resources, U.S. diplomats responded by stressing the transnational properties of minerals, mobilizing cultural diplomacy and the modernist capacity to transcend national borders. The artists and institutions I study reflect such a vision of the borderless underground: I argue that for each of them, minerals and the subsoil were conceptual mechanisms with which to produce expanded boundaries of American culture, challenging borders and the governing logics of flat, cartographic surfaces. To emphasize the apolitical, borderless quality of the subterrain, for instance, agents of the mineral frontier recruited authorities such as Diego Rivera and the Museum of Modern Art, who deployed aesthetic ideas about a formal “substratum” shared by Mexican and U.S. modern art. Primitivist dialogues by two lesser-known artists linked with Rivera, Jean Charlot and William Spratling, positioned Mesoamerican motifs as undeveloped “mines” for abstraction, at the same time that they conceptualized the materiality of minerals in their artwork as racialized reserves of dormant, primordial potential. And while some Mexican artists challenged the U.S. mineral frontier in canvases, murals, and political cartoons that explicitly championed Mexican control, others, like Rivera, did so by troubling ownership altogether, using muralism and cubist techniques to envision the subsoil as a collectivist, decentralized, and environmentally interconnected ecosystem.

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- Figure 113.** Romeo Gómez López, *Space Miners*, 2022. Concrete, acrylic, 14.9 x 12.1 x 2 in. Salón Silicón, Mexico City.
- Figure 114.** Consuelo Jiménez Underwood, *One Nation Underground*, 2013. Stitched, embroidered. Nylon, cotton, silk fabric; leather; cotton thread. 56 x 90 in. Ruiz-Healy Art, San Antonio, Texas.

Introduction

What can histories of extraction tell us about modernist aesthetics? This dissertation proposes that American modernism in the 1930s emerged in dialogue not just with U.S. industrial modernity, but also with the Mexican natural resources that increasingly fueled that modernity. In this period of unprecedented dialogue between Mexican and U.S. artists, artists and critics mobilized a vocabulary of modernist form to imagine a shared American modernism. These efforts, however, unfolded against a backdrop of geopolitical tension, as the United States renegotiated its access to valuable minerals in Mexico. As the ownership of Mexico's minerals became an increasingly contentious political issue between the two countries, perceptions of underground natural resources began to feature prominently in artistic theories. Attempting to claim Mexican Indigenous cultural production as a distinctly American source of modernist form, artists and critics in the 1930s also forged equivalences between minerals and other objects unearthed from the subsoil, such as Pre-Columbian art. By taking seriously the discursive associations of minerals in this context, this dissertation considers important connections between the modernist preoccupation with form and the historically situated role of extraction in this period. Ultimately, I argue, concepts of autochthonous American artistic form both reflected and produced ways of seeing the Mexican subsoil.

U.S. and Mexican artists and critics structured this association repeatedly in the 1930s. In 1931, for instance, the critic Walter Pach likened Aztec sculpture to precious oil reserves.¹ For Pach, the language of earthly reserves spoke to the nature of a crisis which tugged at the very identity of American art: citing the need for a “background of the primitive,” the Indigenous cultural production of the hemisphere represented a “unique American asset” which, like so many natural resources, was in peril of being squandered. A few years later, the printmaker and archaeologist Jean Charlot referred to Maya sculpture as a “mine” for authentically American “plastic abstraction.”² Meanwhile, the designer William Spratling devised geometric designs for silver jewelry inspired by the “vast mines” of metal and archaeology in Mexico.³ And in 1933, as the Mexican muralist Diego Rivera painted his famed frescoes capturing U.S. industrial modernity in *Detroit Industry*, he joined his machine-art imagery of stainless steel gears and engines with iconography of Pre-Columbian Mexico, which he described as the “substratum” of America’s “continental culture.”⁴ Geological resources dominate the composition: above the smelting, forging, and assembling of steel, the machinery’s mineral provenance is represented both through the layered, primordial stratigraphy of the subterrain and through the symbolic, embodied form of four, monumental nudes. Like Pach, Charlot, and Spratling, Rivera also affixed an image of American modern culture to a Mesoamerican past at the same time as he predicated that modernity upon the natural resources that fueled it.

The chapters that follow untangle the associations, focusing on three artists and one exhibition, each of which was supported financially by the extractive interests of U.S. companies in Mexico. Across four chapters, I analyze Diego Rivera’s *Detroit Industry* (1933) alongside the Museum of Modern Art’s exhibition from the same year, *American Sources of Modern Art*; the

¹ Walter Pach, “The Indian Tribal Arts: A Critic’s View of the Significance of a Unique American Asset,” *The New York Times*, November 22, 1931.

² Jean Charlot, “Mayan Art,” *The American Magazine of Art* 28, No. 7 (July 1935): 421.

³ William Spratling, “The Silver City of the Clouds: Taxco, a Forgotten Gem of Colonial Spain.” *Travel* 53, no. 3 (July 1929): 22.

⁴ Diego Rivera, “Dynamic Detroit: an Interpretation.” *Creative Art* 12 (April 1933): 293.

printmaker Jean Charlot's lithographs of Maya masonry; William Spratling's silver jewelry workshop in Taxco, Mexico; and Rivera's *Detroit Industry* again, this time alongside the anti-imperial ecologies of the subsoil expressed in his murals at Chapingo, Mexico (1923-1927).

Each of these case studies is part of a larger negotiation surrounding the geographies of American modernism in the 1930s, as artistic dialogues between Mexico and the U.S. received unprecedented support. Mexican muralists such as Diego Rivera, José Clemente Orozco and David Alfaro Siqueiros achieved celebrity status in the United States during this decade, prompting both nativist outrage and spirited defenses which championed them as "the most purely and truly American artists (excepting our own Indians) that are now at work on this continent."⁵ The period also saw unparalleled travel to Mexico from U.S. artists: figures such as Marsden Hartley, Henrietta Shore, and Edward Weston looked south of the border to absorb the artistic vitality of Mexico's post-revolutionary moment and to reinvigorate their art with authentic, autochthonous inspiration.⁶ The precepts of modernist form, in particular, allowed critics to trace alternative geographies, so that Diego Rivera's murals, for instance, might be seen by one critic as representing the "common traits which are characteristic of a continent as a whole, without regard to its geographical boundary lines."⁷ Modernist formalism was especially adept at tracing a binational category of American art that was united by the abstraction manifested by pre-contact Mesoamerican objects. In 1933, the Museum of Modern Art mounted *American Sources of Modern Art*, in which Pre-Columbian archaeological specimens were exhibited alongside the art of contemporary U.S. and Mexican artists such as Diego Rivera, Max Weber, and Jean Charlot to assert a hemispheric artistic identity. For critics such as Walter Pach, these formal similarities— between the representational logic of ancient Mexican sculpture and U.S. modernist abstraction— were evidence of a cultural geography in which the U.S. and Mexico were separated "merely by political boundaries."⁸

Undergirding this artistically inflected moment of cultural exchange, however, is a story of political, corporate, and philanthropic manipulation in which key extractive figures are surprisingly present. For families such as the Guggenheims and Rockefellers, who had built their fortunes from Mexican minerals, financial support of artistic exchange was a neutral vehicle with which to reframe the asymmetries of extraction through the lens of cooperation, trade, and shared values. This intervention was crucial in the 1930s, when the U.S. relationship with Mexico was destabilized by a conflict over the subsoil. While U.S. companies had dominated Mexico's mining and oil industries since the late 19th century, they found themselves newly threatened in

⁵ Condemning Nelson Rockefeller's famous destruction of Diego Rivera's mural, John Sloan wrote that those opposing the mural due to nativism or nationalism "have taken a regrettable course for advancing American art in their opposition to the employment of the most purely and truly American artists (excepting our own Indians) that are now at work on this continent. The artists of the United States, who have usually gone to Europe for their training, should not lose the opportunity for study that the masterly work of Rivera, and the powerful designs of Orozco and other Mexican painters afford us. We who work in a money-seeking, over-industrialized environment must eagerly draw on the artistic wealth of these Americans from below the Rio Grande." Reproduced in Walter Pach, "Rockefeller, Rivera, and Art." *Harper's Weekly*, September 1933, 474–83.

⁶ The interwar artistic exchange between the United States and Mexico has been well-documented. See James Oles et al., *South of the Border: Mexico in the American Imagination 1914-1947* (Washington, D.C.: Smithsonian Institution Press, 1993) and Helen Delpar, *The Enormous Vogue of Things Mexican: Cultural Relations between the United States and Mexico, 1920-1935*, (Tuscaloosa: The University of Alabama Press, 1993).

⁷ W.R. Valentiner, "History Cited by Valentiner," *Detroit Free Press*, March 36, 1933. Detroit Institute of Art scrapbooks.

⁸ Walter Pach, "New Found Values in Ancient America." *Parnassus* 7, no. 7 (December 1935): 8.

1917, when Mexico's post-revolutionary constitution defined the subsoil as the inalienable property of the Mexican nation. When Mexican officials moved to act on this stipulation in 1926, extractive U.S. companies and their political allies launched campaigns of mineral diplomacy, which stressed the transnational properties of minerals. They positioned foreign underground resources as apolitical elements of nature, which extended beneath and beyond the horizontal layer of superficial borders. Transnational artistic exchange, in particular, represented a powerful tool with which to redefine the relationship between Mexico, the U.S., and the common ground that was literally beneath them. For over a decade, these efforts proved to be successful at securing the rights of U.S. mining companies in Mexico. And while the Mexican president Lázaro Cárdenas ultimately expropriated the country's petroleum in 1938, the image of a borderless subterrain continued to be an important tool for the extraction of other Mexican minerals through World War II. These diplomatic projects— which began in 1926 and assumed a more global reach after 1945— form the chronological boundaries of my study, and inform a long view of the “1930s.”

While scholars have acknowledged the diplomatic role of art in the subsoil negotiations of the 1930s, this dissertation turns our attention to the ways in which the art and theory of the period engaged competing, subterranean geographies. We enter this line of inquiry through the antithetical perspectives that circumscribed the subsoil negotiations: where Mexico envisioned its subsoil as hemmed in by the state, the U.S. pictured it as a shared bounty of Pan-American cooperation, divorced from borders that demarcate sovereignty and people. What emerges is a different story of U.S. foreign expansionism, which occurred not by challenging borders or sovereignty but through a more invisible conquest below the surface. When we consider modernist geographies of a Greater American art in this context, a new view of the tensions within those geographies shifts into focus. In different ways, the *American Sources* exhibition, Charlot's lithographs, Spratling's jewelry, and Rivera's murals at Detroit and Chapingo reflect a vision of a *borderless* underground. In each instance, minerals and the subsoil were conceptual mechanisms with which to produce expanded boundaries of American culture, challenging above-ground borders and the governing logics of flat, cartographic surfaces.

Mexico's subsoil in the 1930s was a surprisingly layered construct. More than just a repository of mined substances, the subsoil was also a space conditioned by various social, political, and cultural levels of signification.⁹ For example, notions of gender in post-revolutionary Mexico (as in many other contexts) positioned the subsoil as a fertile womb or a feminized site of penetration by masculine labor.¹⁰ This dissertation is most concerned, however,

⁹ Elizabeth Emma Ferry has written extensively about the cultural and patrimonial meanings of the Mexican subsoil. See *Not Ours Alone: Patrimony, Value, and Collectivity in Contemporary Mexico* (New York: Columbia University Press, 2005) and *Minerals, Collecting, and Value across the US-Mexico Border* (Bloomington: Indiana University Press, 2013).

¹⁰ The gendered associations surrounding the subsoil represent an important future line of inquiry for this project. Ferry describes the construction of the mine as female or as a womb in *Not Ours Alone*, 116-119; She also outlines a large body of scholarship that has analyzed the gendered associations that attend mining in places across Latin America and Africa in *Not Ours Alone*, 8-9. See, for instance, June Nash, *We Eat the Mines and the Mines Eat Us: Dependency and Exploitation in Bolivian Tin Mines*, (New York: Columbia University Press, 1979) and Eugenia Herbert, *Iron, Gender and Power: Rituals of Transformation in African Societies*, (Bloomington: Indiana University Press, 1993). For an analysis of the ways in which these gendered associations served an imperialist project, see Anne McClintock, “Maidens, Maps and Mines: *King Solomon's Mines* and the Reinvention of Patriarchy in Southern Africa” in Cheryll Walker (ed.), *Women and Gender in Southern Africa to 1945* (London: James Currey, 1990): 97-124.

with the ways in which American modernism confronted imperialist assumptions about the Mexican subsoil that emerged around the subsoil's associations with a Pre-Hispanic Indigenous past. Indeed, my first three chapters focus on American modernism's effort to visually assimilate Mesoamerican archaeology, another valuable class of subterranean objects and one that had long been categorically merged with Mexico's legendary mineral wealth. Mexico's constitution, by contrast, merged archaeology and minerals into a single unit of subterranean "patrimony" in order to strengthen its territorial grip on the subsoil. This construction is important, not least because it testifies to the ways in which the terms of the subsoil were as much a matter of cultural understanding as they were of legal and geopolitical dispute. Thus when Rivera positioned Mesoamerican archaeology as the continental "substratum" of a shared American modernism, he inscribed not only an aesthetic geography but also a particular way of seeing the Mexican subsoil, which conflicted with the terms set out by the Mexican state.

So too did this modernist encounter with Mesoamerican archaeology speak to the expansive and fluid meaning of minerals, especially in their capacity as a Primitive "source" to the modern more broadly.¹¹ In the case of Charlot's preoccupation with Maya masonry and the materiality of stone, for example, we can see how geological matter was racialized and in turn perceived as a latent, undeveloped source of primordial potential. And by analyzing the aesthetics of Spratling's silver jewelry project, we can attend to a vision of mineral developmentalism which aimed to refine a Primitive, undeveloped "source" into an abstract store of value that could be possessed or exchanged. But these parallels between archaeology and minerals do more than just reveal the ways in which minerals operated as negotiators of borders, race, or developmentalism. They also begin to articulate a set of theoretical imbrications between American modernist primitivism and extraction, tracing the ways in which an aesthetics of extraction— as transformation from whole to part, from latent reserve to developed quantity, from depth to surface, or from primordial to modern— shaped the logic through which artists and critics began to understand the incorporation of a Primitive source into an American modernism.

Like any study that confronts modernism's reticulations with primitivism, my analysis faces a double bind.¹² On the one hand, it risks reinforcing the sweeping imprecision of modernist artists, which failed to account for cultural specificity and instead extended a universalizing generality across diverse ethnic groups and time frames— a universalism that was itself based on racist ideas about Black and Indigenous capacity to represent "elemental" qualities. I have tried to remain attuned to precise distinctions that may have escaped the modernists I study, but this project is not an in-depth study of Mesoamerican archaeology. American modernism's pursuit of a Primitive "source" from Mexico in the 1930s was loosely defined and often united only by essentialist constructs of a simplified "racial" Indigeneity and its heritable characteristics; it frequently coalesced Mexican Pre-Columbian sculpture from various places and time periods with Indigenous craft, consolidated under generalized rubrics of

¹¹ I follow Sally Price in capitalizing the term Primitive not only to signal its status as a constructed title, but also to acknowledge the related instabilities of its meanings. See Sally Price, *Primitive Art in Civilized Places*. 2nd ed. (Chicago: University of Chicago Press, 2001). In referencing the "expansive and fluid meaning of minerals," I am referring to the ways in which minerals might denote more than just a rigidly-defined category of inorganic solid matter: both the *Oxford English Dictionary* and the *Merriam Webster Dictionary* suggest that the term 'mineral' might also be used to refer broadly to a larger category of mined substances obtained from the ground, which would include organic materials such as fossil fuels, as well.

¹² Joshua Cohen has drawn attention to the "double-edged sword" that attends studies of primitivism. See Joshua Cohen, "Fauve Masks: Rethinking Modern 'Primitivist' Uses of African and Oceanic Art, 1905—8." *The Art Bulletin* 99, no. 2 (2017): 136.

form and race.¹³ On the other hand, to study the terms of modernist primitivism is to examine a highly influential construct that was deeply interwoven with (and some have argued, constitutive of) modernism itself.¹⁴ Indeed, exhibitions such as *American Sources* represent powerful treatises on the terms of interwar U.S. modernism, which trouble established binaries between European-imported abstraction and “rooted” nationalism. Moreover, considering the role of extraction within these discourses can help us understand the ways in which modernism was itself intimately bound up with the minerals— and all their associations with the elemental, the subterranean, or the Primitive— upon which modernity relied. In doing so, I open up a new way of seeing American modernism, which transcends national borders, and uncovers its assumptions about race and the natural environment.

Greater America and the U.S. Mineral Frontier

Scholarship surrounding the relationship between Mexican and U.S. art in the 1930s has flourished in recent years. Exhibitions such as the Whitney’s *Vida Americana: the Mexican Muralists Remake American Art* (2020) and SFMOMA’s *Diego Rivera’s America* (2022), for instance, have drawn our attention to the ways in which distinctions between Anglo and Latin American art were blurred in the 1930s by cultural exchanges between Mexican muralists and artists based in the United States.¹⁵ In response, reviews have championed the suggestion of a “pan-American inheritance” of American art and embracing the “timely reminder that ‘American Art’ encompasses all of the Americas.”¹⁶ Likewise, Monica Bravo’s *Greater American Camera* (2021) analyzes artistic exchanges between U.S. photographers and their Mexican interlocutors in order to trace “the emergence of a greater American modernism in the interwar period.”¹⁷ Like Bravo, I spotlight the historically situated promise of a category of American art that was inclusive of both the U.S. and Mexico. As Bravo notes, the relationship between the U.S. and Mexico represented a central binary through which a more hemispheric geography was understood. Geologically bound to the United States yet linguistically, culturally, and ethnically representative of Latin America’s Otherness, Mexico represented a “fault line” between the U.S. and the larger continental unit.

These narratives represent welcome efforts at a global turn in American art history that also specifically work to decenter Eurocentric narratives of modernism. They also serve to reframe the geographic contours of American art, defamiliarizing the ethnocentric tendency to

¹³ In this dissertation, I use terms such as “Pre-Columbian” and “Pre-Hispanic” to refer to things made by the Indigenous people of the Americas during the time period that preceded European arrival in 1492; “Mesoamerica” refers to a region encompassed by Mexico and parts of central America, particularly as distinct from South American Pre-Columbian culture. While these terms are imperfect, generalizing, and in some cases might seem to imply a teleology of discovery inaugurated by the Spanish conquest, I retain them for the clarity with which they describe a construct that was meaningful to the artists I study.

¹⁴ See, for instance, Anne Anlin Cheng, *Second Skin: Josephine Baker & the Modern Surface* (New York: Oxford University Press, 2011) or Sieglinde Lemke, *Primitivist Modernism: Black Culture and the Origins of Transatlantic Modernism* (New York: Oxford University Press 1998).

¹⁵ Barbara Haskell, Mark Castro, and Marcela Guerrero, *Vida Americana - Mexican Muralists Remake American Art, 1925-1945*, (New Haven: Yale University Press, 2020); James Oles, *Diego Rivera’s America*, (Berkeley: University of California Press, 2022)

¹⁶ Dennis Zhou, “‘Vida Americana’ Positions Mexico at the Center of American Modernism.” *Art in America* 108, no. 4 (April 2020): 75–77.

¹⁷ Monica Bravo, *Greater American Camera: Making Modernism in Mexico* (New Haven: Yale University Press, 2021), 3.

equate “America” with the U.S. alone and challenging isolationist, xenophobic definitions delimited by an increasingly militarized southern border. In abandoning the nation state as a unit of art historical study, these studies ask questions about different cultural units, or what Niko Vicario has called “geocultural categories.”¹⁸ As Vicario shows, geocultural categories born of transnationalism can represent regional solidarity in the face of global cultural hegemony. Indeed, the interwar period saw a swell in assertions of hemispheric identity in response to perceived ideas about European cultural supremacy. The concept of “Greater America” emerged most forcefully in 1932, when the U.S. historian Herbert Bolton used the term to advance a historical framework that would encompass the “Spanish Borderlands” and underscore the shared history of the hemisphere as distinct from Europe.¹⁹ Bolton’s terminology and framework were immensely influential to artists negotiating the transnational geography forged by the conditions of the 1930s: Mary Coffey’s analysis of José Clemente Orozco’s *American Epic* mural series, for instance, points out that the artist’s continental vision of the Americas aligned with Bolton’s. Like Bolton, Orozco’s series encouraged viewers to critically reflect upon the frontier thesis of American history as one which bore an uncomfortable proximity to Spain’s violent conquest of the Americas. Ultimately, Coffey argues that Orozco’s series confronts and undermines what María Deguzmán has called the U.S. fantasy of “anti-empire,” which constructed the United States as independent, isolated, and as exempted from the broader violent colonial histories of the continent.²⁰

While geographies of “Greater America” at times served, as Coffey shows, to dismantle the isolationist exceptionalism of the U.S. “anti-empire” fantasy, they also alleged unity within a relationship that was historically marked by asymmetry. Moreover, Vicario’s account of the geocultural construction of American and Latin American art shows us that certain transnational artistic geographies can replicate imperial relationships, flattening geopolitical inequalities in their wake. Notions of American art which absorb Latin American art into a category defined by the U.S., for instance, necessarily invite questions about parallel expansionist geographies of empire and imperialism that the U.S. has deliberately sought to obscure. Indeed, as Latin American artists navigated the possibility of a Greater American modernism, many explicitly critiqued the terms of this implied alliance, while others rejected it altogether. As they did so, they joined turn-of-the-century figures such as José Martí, Rubén Darío and José Enrique Rodó, who, over three decades prior, had expressed skepticism of hemispheric unity in light of the U.S.’ history of (and continued tendencies towards) imperialism in Latin America. Even as Roosevelt’s Good Neighbor policy promised to end U.S. military intervention in the Americas in 1933, many harbored misgivings that this policy was merely a more palatable form of empire that only remained harder to see. Corroborating these suspicions, historians have described the Good Neighbor Policy as a model of “gentle” power that functioned mainly to rebrand the U.S. frontier, orient it southwards, and reinforce the reach of its expansionism.²¹

¹⁸ Niko Vicario, *Hemispheric Integration: Materiality, Mobility, and the Making of Latin American Art* (Berkeley: University of California Press, 2020), 13.

¹⁹ Herbert Bolton, “The Epic of Greater America.” *The American Historical Review* 38, no. 3 (1933): 448–74.

²⁰ See Mary Coffey, *Orozco’s American Epic: Myth, History, and the Melancholy of Race* (Durham: Duke University Press, 2020), and María DeGuzmán, *Spain’s Long Shadow: The Black Legend, Off-Whiteness, and Anglo-American Empire* (Minneapolis: University of Minnesota Press, 2005).

²¹ See Greg Grandin, *Empire’s Workshop: Latin America, the United States, and the Rise of the New Imperialism* (New York: Metropolitan Books, 2006) and Fredrick Pike, *FDR’s Good Neighbor Policy: Sixty Years of Generally Gentle Chaos* (Austin: University of Texas Press, 1995).

Therein lies the paradox of visualizing U.S. empire within these geographies: while isolationist understandings of the U.S. and its militarized border reinforce fantasies of U.S. “anti-empire,” transnational concepts of “Greater America” also occlude imperialist dynamics, rendering them equally difficult to see. By employing the historian Megan Black’s concept of the U.S. “mineral frontier,” however, I turn our attention to a subterranean form of expansionism that was not necessarily in conflict with above-ground political borders.²² In what Black terms a practice of “resource globalism,” a key operative technique of the mineral frontier functioned by separating minerals and the underground from questions of borders or territorial sovereignty in order to further the aims of private extractive interests. By arguing that minerals were politically neutral and thus exempt from the tensions dictated by geopolitical boundaries, agents of extraction concealed the imperial character of the mineral frontier. Minerals, Black shows us, were not merely the *reason* for U.S. expansionism, they were also the *route*. A deterritorialized, apolitical vision of the interior of the earth functioned to refute the notion that minerals could be owned by any one country. Here, in the context of the Mexican nationalization campaign of the 1930s, it was the very prospect of shared geological matter between (and beneath) the U.S. and Mexico that most clearly served the aims of the mineral frontier. If Black shows us how arguments surrounding minerals and the subterrain shaped a new political geography of American power, however, I focus on the contours of American modernism. For the artists and critics in this dissertation, cultural and artistic perceptions of minerals- as terrestrially rooted, subterranean, elemental, primordial, - were instrumental in redrawing the boundaries of American form to incorporate the difference of Indigenous Mexico, but not that of Europe. I thus theorize a moment in which the boundaries of American culture were delimited not so much by definite borders as by a frontier- a contested, liminal space in which U.S. culture sought to incorporate difference into its fold.

Extraction and the Modernist Mode

I am fortunate to be able to draw on the work of other scholars who have analyzed the role of art in the years leading up to Cárdenas’ decision to wrest all petroleum from foreign hands in 1938. Anna Indych-López, for instance, has underscored the ways in which Mexican muralism was viewed in the 1930s as an instrument of diplomatic negotiation for U.S. companies amidst the increased geopolitical tensions produced by the subsoil conflict, arguing that U.S. institutions ultimately failed to depoliticize the content of the Mexican muralist’s artwork.²³ While my analysis of Rivera ultimately aligns with Indych-López’s conclusion, I focus less on the efficacy of such diplomatic efforts and more on the ways in which minerals and the subsoil registered complex cultural meanings that shaped this artistic exchange. In a different vein, Niko Vicario has engaged the ways in which the geocultural category of Latin American art was shaped by discourses about raw materials and materiality in the 1930s and 1940s.²⁴ The subsoil shows up most clearly in Vicario’s first chapter, which discusses the ways in which David Alfaro Siqueiros’ use of Duco Finish paint aligned with the expropriation of petroleum by the Mexican state at the same time. While I share Vicario’s interest in the construction of geocultural

²² Megan Black, *The Global Interior: Mineral Frontiers and American Power* (Cambridge: Harvard University Press, 2018).

²³ Anna Indych-López, *Muralism Without Walls: Rivera, Orozco, and Siqueiros in the United States, 1927-1940*. (Pittsburgh: University of Pittsburgh Press, 2009).

²⁴ Vicario, *Hemispheric Integration*.

categories as well as his fascination with a widespread trope which likened the cultural production of Latin America to raw materials, I pay special attention to the racial and ecological dimensions of how, exactly, those metaphors were constructed and fit into a transnational modernism. Many of the Latin American artists Vicario studies, for instance, were themselves conceiving of their production techniques through dialogues informed by primitivism and indigenismo, in which Indigenous material culture became the raw material to be manufactured and modernized (in the case of Torres-García) or divested from as a retrograde “export commodity” (in the case of Siqueiros). By foregrounding discourses of primitivism and modernist form as aesthetic phenomena which promised to unite the two countries in the face of subsoil tensions, I offer not only an examination of the multitudinous ways in which extraction and modernism informed one another in this context, I also probe the ways in which this dialogue was specifically racialized.

In doing so, I join the many scholars of modernism who have argued persuasively that universalizing theories of form have colluded with the imperial desires of Europe and the United States. In Europe, the formalism of Roger Fry and Clive Bell proposed line, balance, and composition as two-dimensional, mathematical metrics for reconciling African sculpture, Renaissance artwork, and the puzzling representational tides of Parisian Post-Impressionism. Following the Museum of Modern Art’s controversial 1984 exhibition on primitivism, Hal Foster, James Clifford and others have argued that the positivist concepts of formal “affinities” which animated European primitivism enacted and concealed the relations of colonial conquest.²⁵ Where primitivist artists abstracted and appropriated objects from their original context, formalism promised to neutralize the imperialist asymmetries that made such appropriation possible. Likewise, scholars such as Serge Guilbaut and Francis Francina have written about the ways in which Greenbergian formalism at midcentury intersected with the deployment of capitalist liberalism throughout the world, by depoliticizing art and by championing the supposedly authentic, expressive individualism of U.S. society.²⁶ By contrast, my dissertation examines the artistic theories and practices that emerged in tandem with a hemispheric, more terrestrially grounded premise for US imperialism, which relied on extraction as a central mechanism of expansionism.

This dissertation might be understood, then, as an exploration of the ways that the U.S. history of foreign extraction can teach us to rethink the terms of American modernism in the 1930s. I join scholars such as Lauren Kroiz, Michael Leja, and Jennifer Jane Marshall, who have examined the ways in which modernism in the U.S. emerged not as a slavish import from Europe, but as a response to the unique conditions of modernity in late-nineteenth and early twentieth-century United States.²⁷ To be sure, these studies are not entirely isolationist in scope:

²⁵ Hal Foster, “The ‘Primitive’ Unconscious of Modern Art.” *October* 34 (1985): 45–70. James Clifford, *The Predicament of Culture: Twentieth-Century Ethnography, Literature, and Art* (Cambridge: Harvard University Press, 1988).

²⁶ Serge Guilbaut, *How New York Stole the Idea of Modern Art: Abstract Expressionism, Freedom, and the Cold War*. (Chicago: Univ. of Chicago Press, 1985); Francis Francina, “Institutions, Culture, and America’s ‘Cold War Years’: The Making of Greenberg’s ‘Modernist Painting.’” *Oxford Art Journal* 26, no. 1 (2003): 69–97.

²⁷ Lauren Kroiz, *Creative Composites: Modernism, Race, and the Stieglitz Circle* (Berkeley: University of California Press, 2012), Michael Leja, *Looking Askance: Skepticism and American Art from Eakins to Duchamp* (Berkeley: University of California Press, 2004). Jennifer Jane Marshall, *Machine Art, 1934*, (Chicago: University of Chicago Press, 2012).

Kroiz, for one, highlights the ways in which debates about ethnicity and race in the face of increased immigration were taken up by cosmopolitan figures such as the Mexican critic Marius de Zayas, even as they theorized modernism within a specific national context. Many of the existing arguments about the relationship between artistic modernism and the industrial modernity of machine-age U.S., however, invite further interrogation about the transnational margins of that industry. While Jennifer Jane Marshall's astute analysis of MoMA's 1934 exhibition *Machine Art* highlights the uniquely U.S.-American modernity of objects like a Standard Oil pump, a sterling silver lighter, or copper hardware, for instance, those same companies and materials might also be understood to index the transnational history of Mexican minerals. Moreover, the associations drawn by period critics about modernism suggest a belief in extraction's centrality to abstraction. Lewis Mumford, for one, used examples from *Machine Art* in his 1934 volume *Technics and Civilization* to place modern art and aesthetic abstraction more broadly in a wider context of "carboniferous capitalism" and its origins in the mining industry.²⁸ As we will see, the question of American form in the transnational context of the 1930s raised intimately related questions about the interaction between modernism and modernity in the most resource-intensive country on the planet.²⁹

In addition to asking how extraction informed certain visual practices within 1930s American modernism, this dissertation also asks what American modernism can tell us about the ways that we *see* something as inscrutable as extraction. Numerous scholars of environmental studies have discussed the challenges to vision posed by phenomena such as imperialism or our current climate crisis, arguing that this invisibility results in a kind of "slow violence" that escapes the recognition or urgency of other, more conspicuous crises.³⁰ Given its role in our current climate crisis, subterranean extraction might be understood to represent a particularly insidious occlusion of our visually-dominated epistemologies. The relative difficulty of depicting the underground, after all, has made it a problematic object of visual inquiry.³¹ Building on this quandary, my first chapter examines the ways in which notions about a shared geocultural interior of American art reflected a version of imperialism that was *enabled* by the underground's obfuscating properties. Broadly, this dissertation analyzes theories of American form as part of a wider visual regime that was simultaneously registering the perceptual mechanisms which engaged the Mexican subsoil. Training a critical eye on ways of seeing and perceiving the Mexican subsoil can help us begin to unmask the rhetorical manipulations that have functioned to secure the continuation of extraction.

²⁸ Lewis Mumford, *Technics and Civilization* (New York: Harcourt Brace, 1934).

²⁹ Numerous scholars have pointed to the United States' outsized ecological footprint and unique role in our current planetary crisis. Karl Kusserow and Alan Braddock, for instance, have examined the art-historical significance of a country that "has done more to create the Anthropocene than any other." see *Nature's Nation*, Eds. Karl Kusserow and Alan Braddock (Princeton: Princeton UP, 2018): 12. Similarly, the historian John Soluri has charted the ways in which "the twentieth-century United States was the most resource-intensive society in the world... whose ecological footprint grew to empire-like proportions over the course of the twentieth century." John Soluri, "Empire's Footprint: The Ecological Dimensions of a Consumers' Republic." *OAH Magazine of History* 25, no. 4 (October 1, 2011): 15.

³⁰ See Rob Nixon, *Slow Violence and the Environmentalism of the Poor*, (Cambridge: Harvard University Press, 2011), and Anne McClintock, "Ghostscapes from the Forever War" in *Nature's Nation*, 272-289.

³¹ A prescient article by the Indian astrophysicist Meghnad Saha made a similar point in an article entitled "Oil and Invisible Imperialism" in 1942. See Meghnad Saha and S.N. Sen, "Oil and Invisible Imperialism" *Science and Culture* VII, 4, Oct 1942) cited in Jagdish Sinha, *War and Imperialism: India in the Second World War* (Boston: Brill, 2008), 118.

By defamiliarizing the ways of looking that legitimized (and contested) the mineral frontier, I join a number of scholars in the environmental humanities who have begun to ask how ideas about the earth are mediated by cultural constructs. Interrogating how logics of modernist primitivism took shape in a transnational landscape defined by the U.S. pursuit of foreign minerals, for instance, can also shed light on the ways that race and extraction are interwoven. My arguments in this regard build on work by scholars such as Kathryn Yusoff and Beth Povinelli, who have analyzed the ways in which human concepts of race have been imputed onto minerals, which we might otherwise understand as this most non-human of categories.³² Charlot's primitivist vocabulary, for instance, saw the lithic materiality of stone as racially Indigenous— an association that was itself inseparable from developmentalist viewpoints which saw minerals as a latent, untapped potential. William Spratling's modernist design process reflected a similarly developmentalist fantasy. For Spratling, realizing the full potential of both minerals and pre-Hispanic design motifs meant transforming them from Primitive sources to modern, abstract stores of value that could be possessed or exchanged. Moreover, this line of analysis demonstrates the ways in which perceptions of form do not merely express but also actively intervene in perceptions of the subsoil: as a project of cultural diplomacy, Spratling's Taxco workshop was instrumental in the introduction of other, midcentury developmentalist incursions into the Mexican subsoil.

Finally, taking perceptions of the Mexican subsoil seriously can also help us recover alternative epistemologies with which to imagine more sustainable futures or critique our current, extractive paradigms. My final chapter, for instance, identifies a modernist perceptual mode which aimed to destabilize the capitalist epistemologies that guided imperialist visions of the Mexican subsoil in the first place. The kaleidoscopic, immersive experience of Rivera's subsoil-inflected murals speak to a Mexican revolutionary ideal in which the subsoil would not be possessed as a single object but rather engaged as a commons, with interdependent ecological roles. This dissertation is thus informed by scholars such as Enrique Leff and Timothy Morton, who have advocated for more careful scholarly consideration of "new paths of knowledge," to resist the destructive, reductive habits of the anthropocene and guide more communal modes of stewardship that account for environmental complexity.³³

I thus argue that concepts of autochthonous American form both reflected and produced ways of looking at the subsoil. My argument is developed across four chapters. Chapters 1-3 examine the ways in which understandings of American *form*, as the theoretical mechanism through which Mesoamerican archaeology could be claimed as both American and modern, shared a parallel set of assumptions with the U.S. project of extraction in Mexico. Chapter four, by contrast, considers a notion of form that troubled extractive approaches to the subsoil as much as it accommodated those approaches. Taken together, my chapters argue that these concepts of form shaped and were shaped by cultural and artistic perceptions of the subsoil: as a shared continental interior; as racially Indigenous; as a latent reserve in wait of development; or as a decentralized, multidimensional network of interconnected fragments.

³² Elizabeth Povinelli, *Geontologies: A Requiem to Late Liberalism*. (Durham: Duke University Press, 2016); Kathryn Yusoff, *A Billion Black Anthropocenes or None*. (Minneapolis: University of Minnesota Press, 2018).

³³ Enrique Leff, "Pensar la Complejidad Ambiental," in Leff, Funtowicz, de Marchi, et al, *La Complejidad Ambiental* (Mexico City: Siglo Veintiuno, 2003), 7. See also Morton, *Being Ecological* (Cambridge: MIT Press, 2018) xxi-xxxiv.

Chapters

My first chapter examines Diego Rivera's *Detroit Industry* (1933) as one of many artworks, theories and exhibitions in the 1930s which, in their efforts to define an American modernism that was inclusive of both Mexico and the United States, employed the image of a continental shared subterrain. While *Detroit Industry* literally pictures the subterrain, it also envisions a Greater American modernism whose formal terms are anchored to Pre-Columbian sculpture, itself freighted with subsoil associations. I pay particular attention to parallels between *Detroit Industry* and *American Sources of Modern Art*, a MoMA exhibition from the same year in which Aztec, Inca, and Maya archaeological specimens were displayed alongside the artwork of contemporary artists from Mexico and the United States. I trace their entanglements with political attempts to position the interior of the earth as shared, arguing that artists and critics also envisioned a shared *geocultural* interior. Critics such as Walter Pach and Elie Faure, for instance, reconciled the territorially situated notion of America with the supposedly universal rubric of form by imagining a geologically situated interior, which mediated external artistic surfaces and united objects across geopolitical boundaries, time, and medium.

I expand on this notion of abstraction's geological interior in the next chapter, which discusses the ways in which both Mexican minerals and American abstract form were imagined to have an interior that was racially Indigenous. I do so through an analysis of Jean Charlot's lithographs of Maya masonry, which appeared to merge Indigenous flesh with stone and which were noteworthy for the artist's unusual intimacy with a stone-based lithographic process. As an artist struggling to make sense of his own, distant Nahua ancestry, Charlot proposed an aesthetic in which surfaces- whether artistic or epidermal- were mediated by a sense of geological interiority. His work as an archaeologist generated a popular idea that the original makers of his archaeological specimens had been profoundly, personally, and racially connected to the stones they carried and carved. Fascinated by perceived similarities between Mesoamerican stonework and modernist direct carving, Charlot and his U.S. contemporaries saw stone as capable of determining its own representational logic. Moreover, Charlot's identification with a biologically heritable yet phenotypically unobservable Indigeneity bolstered ideas of modernist form which supposedly emerged from a racialized, latent, interior – not just of the artist but also within the stone he worked. I situate Charlot's primitivism within 1930s developmentalist perspectives on both sides of the border, which saw Mexico's geological matter not as defiantly lifeless, but rather as racially Indigenous and thus in possession of a latent, atavistic energy that was in wait of development.

Turning next to William Spratling's silver jewelry workshop, I examine how this brand of modernism also actively *produced* ways of looking at the subsoil. With the support of the U.S. ambassador to Mexico, Dwight Morrow, Spratling revived a colonial-era silver mine in Taxco, Mexico in order to construct silver jewelry based on Pre-Columbian designs. Deeply entrenched within early efforts at cultural diplomacy, Spratling's workshop speaks to a politics of developmentalism in which U.S. standards of capitalist modernity promised to more efficiently liberate Mexico's minerals. These rhetorical strategies of mineral developmentalism shaped the spectacle of "modernization" in Spratling's factory-like process as well as the silver materiality of the jewelry itself. Yet mineral developmentalism was also instrumental in constructing Spratling's primitivist design practice, which saw the process of abstraction as its own kind of developmentalism. For Spratling, formalist aesthetics promised to resurrect and refine the "latent values" of Pre-Hispanic design into an abstract store of value that could be possessed or exchanged.

The final chapter complicates my initial analysis of *Detroit Industry* by examining it as part of Rivera's enduring critiques of mineral imperialism and his commitment to Indigenous, communally stewarded mines and the Mexican revolutionary ideal of communal land tenure more broadly. I thus reframe Rivera's concept of a shared continental underground as part of an anti-capitalist perspective which troubled the assumptions of ownership that upheld the U.S. mineral frontier. I contextualize *Detroit Industry* through a comparison with Rivera's murals at Chapingo, which were oriented around the subsoil and the ejido system, the name given to the redistribution of mines and land for collective use in the Mexican constitution. At Chapingo, Rivera re-appropriated formal techniques of cubism to envision a collectivist, decentralized, and environmentally interconnected way of looking at the subsoil. Rather than render the underground as an inert store of abstract values, Rivera's sense of form positions the subsoil as part of an ecosystem with interdependent links to racial and economic equality. This formal interconnectedness thus enacts what I conclude by referring to as a kind of ecological modernism.

Together, these chapters theorize the mineral modernism that emerged in the transnational dialogue between Mexican and U.S. art in the 1930s.

Chapter One

American Resources: *Detroit Industry* and the Geocultural Interior of American Art

While frequently discussed as a paean to the advanced machinery at Ford's River Rouge motor complex, Diego Rivera's *Detroit Industry* raises just as many questions about the subterranean minerals that sustain that machinery.³⁴ What are we to make, for instance, of the middle registers of the North and South wall, which are devoted to stratigraphic elevations of coal, iron ore, sand, and lime—the four core materials used in making steel (figs. 1 and 2)? Positioned in the center of each wall, these subsurface cross-sections represent a pivotal locus for the larger series: they offer the basic continuity between the panels below them and those above and beside them, as well. In the far corners, these minerals form the basis of life itself, generating cells. Above them, solid pieces of ore emerge in the clenched fists of disembodied hands, themselves erupting from beneath the surface of pyramidal structures. Adjacent, and occupying perhaps the most commanding stance of the entire series, each of the four minerals is incarnated through a racialized type and the monumental body of a powerful, blocky female nude. A category of space that generally resists visual representation, the subterrain at *Detroit Industry* adjusts our eyes to study its vital role.

Indeed, *Detroit Industry* issues a statement on the significance of the subsoil that extends far beyond the making of an automobile. The East wall, for instance, depicts a cross-section of a subterranean womb, an image Rivera imbued with the gravity of Detroit's "aesthetic culture" (fig. 3).³⁵ As he reflected upon the fresco series, Rivera mobilized the characteristics of the subsoil for a commentary on the nature of aesthetic production itself. He described his organizing concept as nothing less than the "plastic expression" of metaphysical movement, which could be found in the "stratifications of the different layers under the surface of the earth."³⁶ Elsewhere, he identified the four crucial minerals necessary to make steel as those also used to make a fresco.³⁷ The subsoil's industrial uses may have been consequential, but its artistic purposes were loftier.

In a moment that was characterized by U.S. artists' nationalist anxieties about a place-based sense of aesthetic identity, the terrestrially rooted metaphor of the underground is perhaps fitting.³⁸ *Detroit Industry*, however, also reveals the way in which Rivera's concept of the underground extended from minerals to Pre-Columbian art, creating a powerful conceptual tool for a more expansive notion of American art that intermixed the iconography of U.S. modernity with that of pre-conquest Mexico. Amidst the factory's smooth, stainless steel surfaces were also a Tlatilco mask, a stepped pyramid, and a massive, mechanical stamping press on the South wall, which Rivera had modeled after the iconography of the Aztec goddess Coatlicue. For the aesthetic cause of a shared American art, the subsoil represented common ground. Rivera employed decisive subterranean language in his discussion of *Detroit Industry* and the aesthetics

³⁴ See, for instance, Terry Smith, "The Resistant Other: Diego Rivera in Detroit" in *Making the Modern* (Chicago: University of Chicago Press, 1993), 199-246. More recently, the series' relationship to industry has been underscored in Oles, *Diego Rivera's America*.

³⁵ Diego Rivera, "Dynamic Detroit," 289.

³⁶ Rivera, "Dynamic Detroit," 289.

³⁷ See Diego Rivera, "Architecture and Mural Painting," *The Architectural Forum* 60, no. 1 (January, 1934): 3-6.

³⁸ As Wanda Corn has noted, U.S. artists in the interwar period were preoccupied with the duty to represent a distinctly American sense of place, a concern which took shape frequently in representations of soil, rocks, and climate. Wanda Corn, *Great American Thing*, (Berkeley: UC Press, 1999.) 249-251.

of “Greater America,” as he envisioned a union between Mexico and the United States. Pausing on the mechanical goddess, he declared that the “morphological Nahuatl cosmogony of earliest prehistoric America” that suffused *Detroit Industry* constituted a “historic substratum into which plunge the roots of our continental culture.”³⁹

We might dismiss Rivera’s use of the word “substratum” as an editorial flourish, but other critics used similar subterranean language in the 1930s as they struggled to define American art through Mesoamerican form. Rivera was just one of many to position the archaeology of ancient Mexico as the “source” of a New World primitivist encounter which could rearrange the modern artist’s visual order, extend the aesthetic heritage of the American continent, and free U.S. and Mexican artists from the constraints of European tradition. 1933 was a representative year: just months after Rivera finished painting *Detroit Industry*, the Museum of Modern Art opened *American Sources of Modern Art: Aztec, Inca, Maya*, which anchored the formal terms of a binational American modernism to the materiality and designs of Pre-Columbian sculpture. As modernist critics arrived at similar conclusions, they positioned Mesoamerican art alternately as the “mine,” oil reserves, or “mineral skeleton” of a continentally rooted modernist form.

In the context of an American art that was conceived as shared between Mexico and the United States, this sort of stratigraphic terminology evoked territorial ambiguity around the subterrain at a moment when such a concept was bitterly contested. The U.S.’ relationship with Mexico in the 1930s was characterized by a conflict over the subsoil, which pitted Mexico’s efforts to nationalize its underground resources against the U.S.’ “mineral frontier.”⁴⁰ In response to Mexico’s constitution, which claimed its subsoil as “patrimony,” the U.S. initiated campaigns of mineral diplomacy aimed at positioning foreign underground resources as politically neutral units, whose subterranean origins existed beneath the shallow field of geopolitical borders. The image of a shared “substratum” for American art, then, was a politically loaded one. Moreover, it tapped into the specific mineral meaning of Mexico’s Pre-Hispanic material past within this below-ground conflict. The Mexican government’s defense of subterranean “patrimony” had folded geology and archaeology into a single category of excavated objects that signified its struggle for territorial sovereignty against the United States. Exhibitions such as *American Sources* thus stood in opposition to Mexico’s subsoil agenda: even as many Mexican artists celebrated Mexican archaeology as part of a politically charged nationalist heritage, modernist concepts of form endowed archaeological artifacts with the border-crossing promises of the underground.

This chapter argues that the political assertion of a shared continental subterrain was registered and supported in a range of artwork and theories that sought to define an American modernism that was inclusive of both the U.S. and Mexico. As the Mexican subsoil was increasingly invested with political urgency, the competing visual regimes attending the conflict were articulated not just in the artwork of Diego Rivera, but also by many artists in his orbit. The friction they negotiated between Mexican nationalism and imperialist continentalism also inscribed attempts to shape a tensile geography of American art that, in uniting Mexico and the U.S., would bridge the historic cultural, linguistic, and ethnic fissures between Anglo and Latin America. Nothing symbolized these tensions quite like the subterrain: if for some, it was a

³⁹ Rivera, “Dynamic Detroit,” 293.

⁴⁰ The term “mineral frontier” comes from Megan Black, who has written of the expansion of U.S. power through its rapacious pursuit of foreign minerals. See Black, *The Global Interior*.

connective channel or an invisible bond, for others it was a bordered locus of Mexican sovereignty.

Rather than offering a conclusive analysis of *Detroit Industry*, to which I will return in the final chapter, this chapter examines it as one of several testaments to this transnational geocultural category. Rivera's aesthetics of Greater America were accompanied by exhibitions such as *American Sources*, which posited a psychic link between Mexican and U.S. modernism through Mesoamerican art, itself a messy signifier of the subterrain. Within these expanded geographies of American art, I argue, the subterrain offered a way to construct a common ground between, and indeed beneath, the two countries. Moreover, as this category of American art staked its bets on Mesoamerican "source" for modern abstraction it raised questions about the relationship between modernist aesthetics and extraction as well. Important modernist critics from Rivera's circle, such as Walter Pach and Elie Faure, wrestled with the relationship of geographic categories to artistic form through the proposal of a geologically situated interior, which itself mediated external similarities across space, time, and medium. Although discussions surrounding formalist criticism have tended to privilege flat canvases, steel plates, hollow masks and geometric shapes, this chapter reveals the ways in which the geological *interior* of the continent became the central register through which the surfaces of Greater American modernism were understood.

Contested Subsoil Regimes

To better appreciate the stakes of a shared, geocultural interior to American art, it is necessary to clarify the historical and political contexts that posited the subsoil as a shared rather than a national resource. For Rivera as for many post-revolutionary Mexican artists, minerals had long been a symbol of U.S. imperialism. As Rivera and other Mexican artists navigated increasingly complex relationships with the United States over the course of the interwar period, their work frequently returned to the iconography of minerals and mining, speaking to a tense standoff between the United States and Mexico. Within Rivera's career alone, representations of the subsoil registered entirely antithetical perspectives: if one seemed to affix the subsoil's borders to the Mexican state, the other assigned it to the expansive, politically neutral landmass of the continent. Analyzing these competing ways of looking can help us understand the political significance of the underground within *Detroit Industry* and within the 1930s geography of American modernism more broadly.

Detroit Industry's Pan-American ecosystem seems to accommodate the premise of a shared subterrain more than it troubles such an assumption. Although the minerals it depicts are all supposedly drawn from the local stratigraphy, they are also distinctly placed within a continental geography. On the South Wall, handfuls of minerals emerge from a stepped pyramid that is identifiably Mesoamerican. Its geometric blocks parallel the grid of limestone slabs beneath it, in turn suggesting the acts of construction that occur on the assembly line directly below. On the North Wall, a volcano suggests the geological continuity between the unmistakably U.S.-American world of River Rouge and a topographic feature that had come to be associated with the Mexican landscape.⁴¹ Its molten interior provides the heat for the

⁴¹ The volcano was a clear example of a geological symbol for Mexican nationalism that later came to represent geological unity of the hemisphere. Dr. Atl, a mentor for many of the Mexican muralists, had painted Mexico's volcanoes as his primary subject matter, and assumed a remarkable level of expertise on the matter. By the late 1930s, however, even artists as radical as Siqueiros had begun to use Mexico's volcanoes to signify a subterranean

formation of coal and hematite, as well as for the blast furnace below. In addition, while Mesoamerican iconography is distributed throughout the series, none so explicitly deals with the U.S. dependence on foreign raw materials as the split Toltec mask, which punctuates a small, grisaille panel on the middle register of the West Wall (fig. 4). Entitled “The Interdependence of North and South,” the panel portrays a large cargo ship moving through a river, bringing rubber extracted on the right to an industrial dock on the left. *Detroit Industry*, in other words, charted a political geography in which minerals and the factory formed a self-contained circuit that stretched from Mexico to the United States.

The choice to include minerals at all in *Detroit Industry* was a political one, reflective of an issue Rivera himself had frequently engaged. Yet the geographically expansive mineral message he sent in *Detroit Industry* registers entirely different patterns of thought from just a few years earlier, when his murals actively derided foreign incursion into the Mexican subsoil. Nowhere is this difference more visible than when compared to the bright, 41-panel fresco series in the former baroque chapel of Chapingo’s Autonomous University, completed in 1927 (fig. 5). The series, entitled *The Song of the Earth and Those who Till and Liberate It*, portrays a story of revolution and the earth driven almost entirely by the Mexican subsoil’s unequal distribution. He locates the origins of the Mexican revolution in a scene from the interior of a mine, in which shirtless white men chip away at brittle, gray ore, while a crowd of brown farmers looks angrily in their direction (fig. 6). The binary tension in this scene, between a large group of Indigenous farmers and a small group of white men extracting mineral resources, reads as an image of the discontent within the pre-revolutionary mining economy under Porfirio Díaz. The dictator’s encouraging attitude towards white foreign investors, particularly from the U.S. and the U.K., resulted in a smoldering inequality that was a driving force behind the revolution and also Article 27 of the 1917 constitution.⁴² Undoubtedly the most well-known and discussed article of the constitution, Article 27 specifically incorporated measures to ban foreign mine ownership, claiming mineral wealth as “patrimony” and aiming to redistribute its use rights to the people of Mexico. In practice, however, challenges from the U.S. meant that Mexican leaders found the article scarcely worth enforcing. Rivera’s murals, in other words, were painted in a post-revolutionary Mexico which still contended daily with the forces of foreign extractive capitalism.

The Chapingo chapel’s narrative continues in the following panel, “Formation in Leadership,” where a miner exits the mine shaft only to be humiliated by his boss in a pat-down (fig. 7). It was an image that recurred frequently across Rivera’s work, and one which clearly illustrated the indignity endured by Mexicans at the hands of U.S. mining companies.⁴³ More than epitomizing the poor treatment of miners, the recurring image also directly highlighted the irony of policing the “theft” of a fortune that the constitution declared the birthright of the Mexican people. On view in both this scene and Article 27 itself was a way of understanding and relating to the subsoil that stood in marked contrast to the view of foreign investors. “Formation

connection between the U.S. and the rest of Latin America. This point is emphasized by Nico Vicario in his analysis of Siqueiros’ *Dos Montañas de América* in *Hemispheric Integration*, 56-57.

⁴² The article asserted that “in the Nation is vested direct ownership of all minerals . . . such as . . . petroleum and all solid, liquid, or gaseous hydrocarbons.” See Jonathan C. Brown, *Oil and Revolution in Mexico* (Berkeley: University of California Press, 1992), 226.

⁴³ A similar scene had appeared in Rivera’s murals at the Ministry of Education in Mexico City, for example, where the East patio’s “court of labor” explored the plight of the Mexican worker throughout the mining and smelting of Mexican metals. So legible an image was it that it appeared also as a graphic illustration accompanying Alfons von Golschmidt’s national character study, *Mexiko*, published in 1925. Alfons Goldschmidt, *Mexiko* (Berlin: Ernst Rowohlt Verlag, 1925).

in Leadership” drilled the spatial boundaries of the state deep below the Earth’s surface. Article 27 brought together petroleum, precious metals, and other mined substances as a spatially defined unit that was subject to more exacting limits by federal law than, say, farmland. Moreover, through a vocabulary of national patrimony, it yoked the ownership of the subsoil specifically to questions of national sovereignty and self-determination, particularly against foreign interests.⁴⁴

As the Mexican president Lázaro Cárdenas moved to expropriate the oil industry in the late 1930s, this nationalist way of looking played out in works such as José Clemente Orozco’s *Las Riquezas Nacionales*, painted for the Mexican Supreme Court in 1941 (fig. 8).⁴⁵ The title alone (“National Riches” in English) suggests a reserve of wealth hemmed in by the nation, but the imagery is remarkably explicit about the nature of this wealth. A jaguar cloaked in a Mexican flag joins nationalism with a folk symbol of the Indigenous resistance to conquest. Together they span nearly the length of the horizontal panel, sprawling across stratigraphic layers of oil, copper, gold, and silver, claiming and shrouding it from imperial intruders.

No doubt threatened by such a portrayal of mineral resources and changing Mexican laws, extractive companies and their political allies in the United States began advancing a competing series of ideas as early as the mid-1920s to counter subsoil nationalism. As minerals became increasingly indispensable for manufacturers in the machine-age United States, the Mexican government’s rising taxation and occasional eviction of mining companies over the course of the 1920s resulted in some of the first diplomacy organized around diminishing nationalist claims on the underground. While corporations frequently referred to Mexican retractions of oil or mining concessions as geopolitical “theft,” the prospect of military intervention was nevertheless resoundingly unpopular with the U.S. public. Anti-imperialist positions advocating “friendly neighborliness” with Mexico rather than “manifest destiny” flooded newspapers and journals in the United States.⁴⁶ Thus president Calvin Coolidge dispatched the ambassador Dwight Morrow to resolve the situation in a neighborly way, to the delight of oil industrialists and anti-imperialists alike. With a skillful ability to foreground shared goals, Morrow successfully walked back several terms of Article 27. Morrow’s method was an early version of what has been referred to as an official policy of “resource globalism,” in which natural resources, and minerals in particular, were positioned as apolitical elements of nature, guided by separate principles from borders, which demarcated sovereignty and people.⁴⁷ This

⁴⁴ For an important discussion of the ways in which the subsoil has been seen as “patrimony” and a nationalist issue in Mexico, see Elizabeth Emma Ferry, *Not Ours Alone: Patrimony, Value, and Collectivity in Contemporary Mexico* (New York: Columbia University Press, 2005).

⁴⁵ Art historians Mary Coffey and Itzel Rodríguez Mortellaro have highlighted the ways in which this painting has served as an allegory of Article 27. See Itzel Rodríguez Mortellaro, “El Paisaje Subterráneo y *Las Riquezas Nacionales* (1940-1941) de José Clemente Orozco,” in José Narro Robles, ed. *Estética del Paisaje en las Américas*, (Ciudad de México: Universidad Nacional Autónoma de México, 2015); and Mary K. Coffey, “Orozco’s Rocks: Race and the Geontologies of Mexico’s Pedregal” in *Futures Uncertain*, ed. Chad Elias (Durham: Duke University Press, forthcoming).

⁴⁶ Amy Blanche Greene, for instance, advocated against military intervention in a volume entitled *The Present Crisis in Our Relations with Mexico*, (New York: George H. Doran Company, 1927). In it, she also cites John Dewey’s response to U.S. imperialism in Mexico, which was published in *The New Republic* in 1927. See John Dewey, “Imperialism is Easy,” *The New Republic* 50 (March 23, 1927).

⁴⁷ Megan Black discusses resource globalism in *The Global Interior*. Yet while Black’s focus is on the more global period of the late 1940s, I am pointing out that attempts to diminish nationalist claims on minerals through a similar conceptual device had begun much earlier.

method of divorcing minerals from divisions of territorial sovereignty thus obfuscated the U.S. government's own imperialism while simultaneously enabling it.

Indeed, beginning in the mid-1920s, the popular language of extraction depicted borders for minerals that were quite different from those of nations. One need only read Standard Oil's unofficial slogan from the late 1920s, "from Canada to Mexico," to picture an empire of oil defined more by the marrow of a continental land mass than geopolitical units.⁴⁸ As officials distanced themselves from the Big Stick, cultural diplomats denounced what they saw as "rival and ardent nationalism," instead invoking the "wealth waiting to be shared" from "the mines and factories of the Americas," both as a homogeneous hemispheric asset and as a force for spiritual sameness.⁴⁹ As the mineral crisis with Mexico dominated headlines, critics from disparate fields weighed in to voice their condemnation of subsoil nationalism. The earth sciences assumed new urgency within the field of foreign affairs: the geologist Charles Leith, for instance, wrote that minerals, as something "which binds nations together materially," ought not to be subjected to the "spirit of narrow nationalism."⁵⁰ Conceding that "we need Mexico's minerals, and we will get them," Leith nevertheless framed his argument as anti-imperialist, arguing that "the exploitation of these minerals will in the long run accrue to the advantage of both countries."⁵¹ Through a language of mutually beneficial development, Leith pitched borders and nationalism as the belligerent enemies of a geologically enshrined unity which could amicably bridge geopolitical divisions. For some, it appeared as if U.S. modernity had inaugurated a new era, in which the subterrain escaped the planar logic of superficial borders, allowing new units of sovereignty to unfurl below them. Journalist James Murphy, writing in 1929, commented that it seemed as if "deposits of coal and iron form distinct regions of their own, and these regions extend throughout the subsoil beneath and beyond the old national divisions of the surface."⁵² Concealed and resistant to the terrestrial layer of government jurisdiction, these new regions followed the grooves of modernity's mineral appetite.

Murphy's words intimate the very qualities that gave the notion of a borderless underground its potency. Seen as separate from the minerals that lie beneath it, traditional demarcations of territory have been limned around understandings of land as a surface.⁵³ As a kind of vertical space that exists below the stratum of visibility, the underground destabilizes the horizontal frameworks that have dominated geopolitical discourse at the same time that it resists surveillance and territorial control.⁵⁴ Indeed, scholars from outside art history have begun to discuss the ways in which mining's subterranean sense of accumulation rendered it an ambiguous subject for two-dimensional regimes of property enclosure, thereby enabling

⁴⁸ Available in any number of issues of the *Standard Oil Bulletin* from the late 1920s, but see, for instance, *Standard Oil Bulletin* v. 5, (California: Standard Oil Company of California, 1930): 5.

⁴⁹ Hubert Herring and Herbert Weinstock, *Renasant Mexico* (New York: Covici Friede, 1935), 293

⁵⁰ C. K. Leith, "Exploitation and World Progress." *Foreign Affairs* 6, no. 1 (1927): 139

⁵¹ Leith, "Exploitation and World Progress," 139.

⁵² James Murphy, "The Passing of the Politicians," *Forum* 82 (New York: The Forum Publishing Company, November, 1929).

⁵³ See Rachael Squire and Klaus Dodds, "Introduction to the Special Issue: Subterranean Geopolitics," *Geopolitics*, 25:1 (2020), 4-16.

⁵⁴ Cynthia Sorrensen, "Making the Subterranean Visible: Security, Tunnels, and the United States-Mexico Border." *Geographical Review* 104, no. 3 (2014): 328-345. Sorrensen writes: "the subterranean border is both less visible and more difficult to monitor and control."

incursions of international capital.⁵⁵ Moreover, in proposing concepts of a “subterranean frontier” or a “mineral frontier,” historians of Europe and the U.S. have suggested the ways in which imperialist expansions of power did not simply pursue resources underground, they were also enabled by the underground’s obfuscating properties.⁵⁶ Thus even as Mexico’s constitution attempted to assert and reinforce the authority of its geographic demarcations within subterranean space, the notion of a continental American interior proved as familiar as it was politically expedient.

Some artists, however, critiqued this logic. Frida Kahlo’s *Self Portrait on the Borderline*, painted in the same year Rivera began *Detroit Industry*, neatly illustrates the ways in which the subsoil might act as a conduit for imperialism, escaping borders while also acting as a connective tissue between the two countries (fig. 9). Holding a Mexican flag and a cigarette, she straddles the two binary worlds of Mexico and the United States, suturing the divide between a botanical landscape of Pre-Columbian ruins and the smokestacks of the Ford factory. The concrete beam on which she stands forms a bisection; its left suggesting the border’s increasing militarization during the 1930s. Directly below it, a stratigraphic view of the subsoil extends horizontally across the lower edge of the painting. It becomes a meeting place for the two countries, and also the dimly perceptible channel for uneven exchange. The cords of the electrical appliances of the United States conjoin, below the border, with the roots of the Mexican plants. The relationship is positioned as asymmetrical: the plants power the industry of the North, and yet it is the black, wiry cord that is offered the latitude to cross borders. In fact, the generator also gains its power from the concrete manifestation of the border itself, that convenient pretense of U.S. isolation. From her position atop the border, Kahlo offers a caustic critique of the tentacular, subterranean reach of U.S. modernity.

Self Portrait on the Borderline might also be read as a parody of Rivera’s artwork as it was beginning to evolve in the United States. *Self-Portrait*’s central concept, depicting the relationship between Pre-Columbian Mexico and Ford’s factory, necessarily places the painting in conversation with *Detroit Industry*. The robotic ventilator pipes and massive skyscrapers that characterize Kahlo’s Detroit were lifted almost directly from set designs Rivera had painted the previous year, for a ballet whose stated aim was the promotion of “Pan-American cooperation,” and which Kahlo herself had derided as stiff and “insipid” (fig. 10).⁵⁷ As Terry Smith has argued, Kahlo’s *Self Portrait* explored topics nearly identical to those in *Detroit Industry*, yet did so within a visual register that exposed the absurdity of its Pan-Americanism: the name “Carmen Rivera,” inscribed on the borderline, was one she explicitly rejected; the cigarette and crumbling ruins embody a marked contrast to Rivera’s grandiose allegories.⁵⁸

The Geocultural Interior and the Aesthetics of American Art

That Kahlo’s critique of Rivera’s work played out in a representation of the subsoil is fitting. The continental geography *Detroit Industry* traced was a seductive fiction for U.S. oil diplomacy, itself a cause Rivera was all too familiar with by 1932. His name had been publicly

⁵⁵ See Matthew Schutzer, “Subterranean Properties: India’s Political Ecology of Coal, 1870-1975,” *Comparative Studies in Society and History* 62, no. 3 (2021):1-33.

⁵⁶ Corey Ross, “Subterranean Frontier,” in *Ecology and Power in the Age of Empire: Europe and the Transformation of the Tropical World*. (Oxford University Press, 2017).

⁵⁷ Kahlo, cited in Jeffrey Belnap, “Diego Rivera’s Greater America Pan-American Patronage, Indigenism, and H.P.” *Cultural Critique* no. 63 (2006): 90.

⁵⁸ Terry Smith, *Making the Modern*, 213 and 252.

attached to mineral internationalism when, in 1929, he painted a series of murals for Dwight Morrow, the U.S. ambassador to Mexico who had been dispatched specifically to negotiate the oil conflict. Guided by a belief in the political neutrality of art, Morrow's soft-power mineral mission promoted artistic exchange as a way to forge common ground. In the United States, Rivera's popularity had been accelerated further by a number of organizations with similar ambitions. He had been the subject of a wildly popular solo exhibition in 1931 organized by the Mexican Arts Association for New York City's Museum of Modern Art; both institutions were helmed primarily by the Rockefellers, a family whose Standard Oil holdings in Mexico were rendered particularly unstable by the conflict between the two countries.⁵⁹

The objective of these artistic exchanges was relatively straightforward political manipulation that found financial promise in an expanded cultural geography. Extractive interests rushed to support a binational category of "American Art" that could establish a level of continental continuity removed from matters of nation or state. John Simon Guggenheim revealed as much in his letter establishing fellowships for travel between Mexico and the United States, which spurred an increase in artistic exchange in the 1930s. He remarked that while he and his brothers, as owners of the largest mining corporation in Mexico, had long extended the geographic scope of industry from the U.S. to Mexico, "a similar commerce of things of the mind, of spiritual values, is yet to be accomplished."⁶⁰ Drawing a parallel between mining and intellectual creation, Guggenheim pressed border-crossing spiritual interiority into the supposedly innocent landscape of art and culture.

Detroit Industry was more than just a representation of subterranean geopolitics. It also traced a *cultural* geography, with equally significant implications for the subsoil. Itself a product of unprecedented fluidity for the territorial boundaries of American art, *Detroit Industry* reflected the artist's recent interest in the aesthetics of "Greater America," a topic to which Rivera returned frequently throughout the 1930s.⁶¹ Rivera's own descriptions of the series rarely failed to include a connection to his continental artistic ideal, which he envisioned as the synthesis of a Mexican autochthonous authenticity and U.S. industrial modernity. Reflecting upon the significance of *Detroit Industry* in his memoir *Portrait of America* in 1934, for instance, Rivera described the series as representative of "American art" in general, a category he imagined as a fusion between the "indigenous art" from the "center and south of the continent" and "that of the industrial worker of the North," defined by "dynamic productive sculptures which are the mechanical masterpieces of the factories."⁶² As a series which integrated the motifs of Pre-Columbian art with the machinery of the U.S. factory, *Detroit Industry* typified precisely the continental artistic identity Rivera imagined.

⁵⁹ This point is detailed by Anna Indych-López in "Mural Gambits: Mexican Muralism in the United States and the 'Portable' Fresco," *The Art Bulletin* 89, no. 2 (June 1, 2007): 287–305.

⁶⁰ Cited in Joseph Kiger, *Philanthropists and Foundation Globalization*, (Milton: Taylor and Francis, 2017), 45.

⁶¹ Rivera used the phrase "Greater America" in his description of *Detroit Industry* in *Creative Art* in 1933. The term comes from the U.S. historian Herbert Bolton, who in 1932 famously called for an "Epic of Greater America" in which he made an urgent, but not uncontroversial, appeal for a more hemispheric understanding of American history. This Boltonian framework was significant for a number of artists in the period, and art historians have since begun to untangle the tensions between U.S. and hemispheric-American art. Most recently, Monica Bravo has described the 1930s aspirations towards a modernism of "Greater America," which used the United States and Mexico as a metonym for the historic "fault line" between Anglo and Latin America. Bravo, *Greater American Camera*. See also Belnap, "Diego Rivera's Greater America," Herbert Bolton, "The Epic of Greater America," and Rivera, "Dynamic Detroit," 293.

⁶² Diego Rivera and Bertram Wolfe, *Portrait of America* (New York: Covici Freide, 1934) 19.

To Rivera, even the drill presses on the South wall were “as beautiful as the masterpieces of the ancient art of pre-columbian America, today rendered dynamic and productive by the creative genius of American engineers” (fig. 11).⁶³ As the most obvious example of such a philosophy, however, Ford Motor’s stamping press machine on the south wall is configured in the form of Coatlicue, the earth-mother Aztec goddess who embodied both life and death, fertility and war, and agricultural bounty and destruction; in short, the dualities of Nahua cosmology (fig. 12). Rivera described the stamping press as the central axis of the “main currents” of “realistic and abstract plastic” expression, a union he likened to the

Marvelous morphological representations of the Nahuatl cosmogony of earliest prehistoric America, that historic substratum into which plunge the roots of our continental culture, now on the eve of an artistic blossoming-forth through the union of the genius of the South, coming from the depths of Time, with the genius of the North, coming from the depths of Space, to produce the new human expression which shall be born in Greater America, where all races have come together to produce the new worker.⁶⁴

The form of Coatlicue thus represented the convergence of multiple artistic currents: not only the composition, but also within Rivera’s concept of Greater American art itself. In fact, this capacity to embody hybridity would position the Coatlicue figure as a quintessential symbol of continental aesthetics. It reappeared as the centerpiece of another Rivera mural, *Pan American Unity*, which the artist envisioned as a representation of “The Marriage of the Artistic Expression of the North and of the South on This Continent,” in 1939 (fig. 13). Embodying a dialogue between the U.S. visual culture of the machine and the forms of ancient Indigenous creation, the Coatlicue stamping press, in other words, evokes the possibility of a binational category of American art.⁶⁵

The emergence of such an expanded cultural geography of American art in the 1930s has attracted significant scholarly attention in recent years. Numerous recent exhibitions and books have documented the existence of a “Greater American modernism” that materialized as a result of the heightened networks of exchange that occurred between Mexico and the U.S. in the 1930s.⁶⁶ These studies have constituted valuable interventions to histories of American modernism, which have been dominated by isolationist or Eurocentric frameworks until relatively recently.⁶⁷ Efforts to “remap” American modernism have raised important questions about what Niko Vicario has called the “geocultural categories” that emerge in place of the

⁶³ Rivera, “Dynamic Detroit,” 291.

⁶⁴ Rivera, “Dynamic Detroit,” 293.

⁶⁵ Rivera’s enduring seduction with the Coatlicue stamping press figure has been attributed to Rivera’s messages of hybridity and Pan-American cooperation by other scholars. It is worth noting that the gendered characteristics of Coatlicue were also part of a 20th century imaginary which figured this hybridity as a sexual union between an Indigenous, feminized South and a white, masculine North. See, for instance, “American Modernity and the Play of Mourning” in Mary Coffey, *Orozco’s American Epic*, 123-206. See also Anthony Lee’s analysis in Anthony Lee, “Workers and Painters: Social Realism and Race in Diego Rivera’s Detroit Murals” in *The Social and the Real*, Alejandro Anreus, Diana L. Linden, and Jonathan Weinberg, eds., (University Park: Pennsylvania State University Press, 2005): 209.

⁶⁶ Bravo, *Greater American Camera*, 3.

⁶⁷ See, for instance, Katherine Manthorne, “Remapping American Art.” *American Art* 22, no. 3 (Fall 2008): 112–17.

nation state.⁶⁸ As Vicario reminds us, however, so too do they invite an interrogation of the asymmetries and uneven dimensions that exist within their more expansive scope. While hemispheric definitions of “American art” were frequently forged in response to European cultural hegemony in the interwar period, they also glossed a homogenizing patina over geopolitical relationships that were historically underwritten by imperialism. For many Latin American artists, the unity implied by this Greater American modernism reproduced histories of U.S. expansionism within the hemisphere. David Alfaro Siqueiros, for instance, specifically critiqued Rivera’s newfound internationalism, famously condemning his colleague in 1934 as an “aesthete of imperialism.”⁶⁹ Outside of Mexico, figures such as the Venezuelan poet Rufino Blanco Fombona cautioned against including the U.S. within any transnational artistic alliances in 1928, lest Latin American artists submit to another form of “yankee” imperialism. For figures like Siqueiros and Fombona, the implied solidarity of Pan-Americanism grated against the still-fresh histories of U.S. military intervention in places such as Nicaragua, Haiti, Cuba and, as recently as 1916, Mexico.

How, though, might the visual field of American art’s geocultural negotiations in the 1930s reflect a form of imperialism that operated not by challenging above-ground borders, but rather through the invisible space of the subterrain? Minerals, as the first section of this chapter established, were not only a significant *reason* for border-crossing; they were also a *route*. They obscured the less palatable signs of empire by keeping the desires of U.S. international expansion below ground, where it escaped the governing logics of flat, cartographic surfaces. If, as Vicario suggests, the transnational geographies of American art in the 1930s reproduced imperial relationships between the U.S. and Mexico, might the vertical vectors of the U.S. mineral frontier have worked to produce spatial imaginaries of American Art, as well? As an expression of both historically specific continental geographies of American art and of the political geography of minerals between the U.S. and Mexico, *Detroit Industry* begins to answer some of these questions.

There are several ways that the subterrain shows up within *Detroit Industry*’s cultural geography. For one thing, the notion that the “morphological representations” of “earliest prehistoric America” would serve as a “substratum” of a shared, continental expression conflicted with separate geocultural boundaries drawn by the Mexican State. Those boundaries were themselves circumscribed by discursive associations between Mesoamerican archaeology and the subterrain. In Mexico, subterranean minerals and archaeology had long been categorically merged as objects that originated from the earth’s interior and gave value to the Mexican nation.⁷⁰ The Mexican constitution of 1917 and its ensuing conflict, however, had given fresh energy and direction to both archaeology’s mineral meaning and the grip of subterranean geocultural boundaries. The legal designation of the subsoil as patrimony implicitly cast the earth’s interior as a cultural category, assigned meaning based on its history and placed within a structure of ownership hemmed in by the nation.⁷¹ As Andrés Bustamante Agudelo is currently

⁶⁸ Here I am employing the vocabulary of Niko Vicario, who has written on the emergence of the “geocultural category” of Latin American Art as it developed in relationship with the United States. Vicario, *Hemispheric Integration*.

⁶⁹ David Alfaro Siqueiros, “Rivera’s Counter Revolutionary Road,” *New Masses*, May 29, 1934.

⁷⁰ Larissa Kelly makes this point in her unpublished dissertation, “Waking the Gods: Archaeology and State Power in Porfirian Mexico.” UC Berkeley, 2011, 31-33.

⁷¹ See Elizabeth Emma Ferry, *Not Ours Alone: Patrimony, Value, and Collectivity in Contemporary Mexico*. (New York: Columbia University Press, 2005).

exploring, such associations were insinuated in the terms by which the constitution was originally drafted in the first place: Andrés Molina Enríquez, the central author of Article 27, was an anthropologist in addition to his role as an intellectual pioneer of land reform, a dual position which, for Bustamante, reflects the ways in which archaeology in Mexico has always been conceived within a national landscape and its natural resources.⁷² It is telling, then, that by 1934, discussions were underway to include archaeology officially under the protections of Article 27.⁷³

Indeed, as artists embraced Cárdenas' defense of the subsoil in the late 1930s, they visualized their nationalism by recognizing Mexico's archaeological artifacts as part of the same subterrain as its mineral resources. José Clemente Orozco, for example, rendered Mexico's cultural identity in precisely such a stratigraphic landscape in a panel entitled *Lo Científico* (fig. 14) for a fresco at the Hospicio Cabañas in Guadalajara. The cross-section is comprised of a singular mass of rugged gray ore, marked by a jumbled mixture of ancient motifs: both the wide, pronounced nose of an Olmec mask and the triangular cavity of an Aztec skull from the Templo Mayor are blended within the dense texture of geological matter. Here, Orozco puts archaeology to use as a symbol of the struggle for subterranean sovereignty and as a vertical marker of the Mexican state's territorial custody.⁷⁴ In doing so, he underscores the way such geographies were *cultural* as well. If foreign dominance of the natural resources of the Mexican subsoil was challenged by clear, subterranean proprietary markers which in turn were linked to the autonomy of the Mexican nation state, Mexico's cultural substance was subject to the same contours.⁷⁵

By contrast, Rivera uses Mexico's ancient material past to conjure the earthly interior of a more expansive geocultural category. While Orozco remained firm that "the art of the New World cannot take root in... the remains of our ancient Indian peoples," the autochthonous authenticity afforded by Pre-Columbian archaeology was central to Rivera's vision of an American art that was independent of European tradition but which nevertheless belonged to modernism.⁷⁶ Without it, Rivera declared in an article for *Hesperian* in 1931, it would be impossible to achieve what he referred to as the "aesthetic independence of the American continent."⁷⁷ Himself an insatiable collector of Mesoamerican antiquities, Rivera implored U.S. audiences to seek out the artifacts of shared continental essence: "the territory of America," he wrote, "has for centuries nourished an indigenous and productive art with roots deep struck (sic) in their own soil."⁷⁸ It is telling that, in his visualizations of a geography of continental culture, Rivera continuously relies on the devices of earthly interiors, mobilizing the space of the subterrain as an anchor for artistic authenticity. Rivera here imagines a cross section of the

⁷² Andrés Bustamante Agudelo is a graduate student at Yale University, where he will complete his dissertation in the next few years. I extend my thanks to him for this point.

⁷³ "Mexico Is to Protect Historical Treasures," *The Hartford Courant*, April 9, 1934.

⁷⁴ Mary Coffey has provided a compelling analysis of this painting in "Orozco's Rocks," elucidating the ways in which Orozco negotiated the professed links between the Mexican state, Indigeneity, and the subsoil, and indeed the ways in which Indigeneity and geology together formed a specific ontological unit. Coffey, "Orozco's Rocks," 19-21.

⁷⁵ Coffey also draws our attention to the wheel which rests above the cross section. The wheel, she points out, is positioned in contradistinction that which rests below it: a marker of civilized vs. primitive, it suggests that minerals and archaeology subtend civilization even as they are defined clearly as Primitive.

⁷⁶ José Clemente Orozco, "New World, New Races, and New Art." *Creative Art* (New York) 4 (1929): supplementary xlv-xlvi.

⁷⁷ Diego Rivera, "Scaffoldings," *Hesperian* (Spring 1931) n.p.

⁷⁸ Rivera, "Scaffoldings," n.p.

geocultural category of American art, with roots extending vertically below; likewise, in his interpretation of the Coatlicue-stamping press at *Detroit Industry*, Rivera positioned Mesoamerican art as a “substratum into which plunge the roots of our continental culture.”⁷⁹ He thus evokes the territorial indeterminacy of the underground to conjure a common, core element of an American art that spanned Mexico and the United States.

American Sources, Modernist Resources

Rivera’s continental aspirations for Mesoamerican art were shared by many in the United States. As art historians have thoroughly established, discourses about American artistic independence from European tradition in the interwar period were marked by the concern that U.S. aesthetic practices were derivative copies, and that they lacked an essential authenticity.⁸⁰ As a result, many critics in the early twentieth century presented primitivist appropriations of Indigenous or African American cultural production as home-grown remedies to Anglo America’s perceived absence of durable tradition or spiritual intuition. As dialogues between U.S. and Mexican art flourished, however, they also opened up the possibility that Pre-Columbian archaeology might provide the primitivist confluence of Indigeneity (the racial otherness of a society deemed Primitive) and representational novelty at the same time as it offered the historical depth of a “usable past.” Simultaneous to the completion of *Detroit Industry*, for instance, the Pan American Union in Washington, D.C. hosted an exhibition which linked modern art from across the Americas to Aztec sculpture, in an effort to “weld [the] aims of two continents.”⁸¹ The cultural geography imagined by *Detroit Industry* was thus supported by a number of U.S. curators who, like Rivera, traced broader geographical horizons of American art and grounded that more expansive identity firmly in the aesthetic novelty and uniquely new-world Primitive authenticity of Mesoamerican art.⁸²

This intellectual milieu was in many ways exemplified by *American Sources of Modern Art*, an exhibition at the Museum of Modern Art that opened barely a month after *Detroit Industry* debuted for public visitors in March 1933. *American Sources* exhibited contemporary painting and sculpture from the U.S. and Mexico next to Aztec, Maya, and Inca archaeological specimens in an assertion of a formally defined category of Pan-American art. Painting and sculpture by artists such as Jean Charlot, Diego Rivera, Max Weber, and William Zorach, for instance, were proposed as examples of modern art that could trace their “sources” to ancient America.

If nothing else, exhibitions such as *American Sources* are a testament to the elastic geocultural boundaries of American art in 1933, and to the underlying significance of the subterrain in establishing such transnational continuities. The exhibition reveals, like *Detroit Industry*, the ways in which geocultural categories situated archaeology as a mechanism with

⁷⁹ Rivera, “Dynamic Detroit,” 293.

⁸⁰ This point has been made most famously by Wanda Corn in her field-defining study *The Great American Thing*. Since then, it has also been explored by Lauren Kroiz in her analysis of early U.S. modernists, particularly in her chapter on collage by artists such as Arthur Dove and Georgia O’Keeffe. These collages, Kroiz shows, drew on regionalized concepts of race in order to construct a national “usable past” for U.S. modernism. Lauren Kroiz, “The Sense of Things: Collage, Illustration, and Regional American Culture,” in *Creative Composites*, 143-187.

⁸¹ *The Washington Post*. “Primitive Art of Aztecs and Best Modern Works Are Linked at Pan-American Union,” August 13, 1933.

⁸² Other instances are detailed in Holly Barnett-Sanchez, “The Necessity of Pre-Columbian Art: U.S. Museums and The Role of Foreign Policy in the Appropriation and Transformation of Mexican Heritage, 1933-1944.” University of California, Los Angeles, 1993.

which to escape borders. The scaffolding of the exhibition was hardly innocent: as the art historian Holly Barnett Sanchez has shown, *American Sources* was one of several instances in the 1930s and 1940s in which expanded interest in Pre-Columbian art was mobilized by museums as a “contribution to U.S. foreign policy efforts to improve hemispheric relations.”⁸³ Indeed, the very concept of *American Sources* came not from the exhibition’s curator, Holger Cahill, but rather from the Board of Trustees, itself helmed by the Rockefeller family.⁸⁴ The collection of archaeology, moreover, was culled from the collections of Dwight Morrow and Nelson Rockefeller. Given the meaning of archaeology within the mineral conflict these figures had dedicated their careers to negotiating, it is hardly surprising that archaeology would serve as the fulcrum of binational American Art.

For our purposes, however, such a scopic system is also worth discussing for the ways in which it reminds us that the primitivist aesthetics within this Greater American modernism were based upon a specifically modernist relationship between modern, abstract form and its *Primitive source*. The suggestion at *American Sources* was clear: the visual semiotics of ancient art in the Americas could generate the abandonment of traditional spatial illusionism, just as African masks had for Parisian artists. The accompanying catalog recounted the mythology of the Fauves, the Trocadéro, and the resulting “renewed consciousness of the abstract qualities in art,” moving swiftly but cautiously into a New World origin story.⁸⁵ The Armory Show, which “intensified the interest in ancient American art” suggested that other U.S. artists might also be inspired by the “simplification of form, and methods for analyzing objects into design elements” manifested on those objects.⁸⁶ Viewers’ eyes were thus directed to see similarities between the flat masses of paint in Max Weber’s *Tranquility* (fig. 15) and the “simplification of form” at work in, say, an Aztec maize goddess on view (fig. 16). Form moreover became the means by which archaeological specimens could act as *sources* to the modern, positioned as sustaining the creation of abstract form, in particular. The exhibition thus coached viewers to trace how visual form could be extricated from its ancient point of origin and pressed into the service of the U.S. and the modern.

If the geography staged by *American Sources* allows us to take stock of the modernist world in which Rivera formulated his vision of a continental artistic identity, the exhibition’s formalist proposal clarifies the tendency within that world to position Mesoamerican sculpture as a “source” for U.S. modernist aesthetics. This shared framework, however, assumes additional complexity when we consider that Rivera imagined that affinity as a process that paralleled the relationship between Mexican minerals and U.S. manufacturing. Just months before he began painting in Detroit, Rivera designed the set and costumes for *H.P. or Horsepower*, the very ballet on the subject of “Pan-American cooperation” that would later be parodied by Frida Kahlo in her self-portrait. When interviewed about *H.P.*, Rivera suggested that the performance signified primarily an artistic alliance, explaining that it foretold the “common bond in the elements of art, beauty, and the mind” between the two countries.⁸⁷ Yet the ballet’s four parts illustrated not the act of painting or sculpting but rather the transformation of Mexican raw materials by U.S. machinery. In the final scene of the ballet, Mexican commodities such as gold, iron, oil, and

⁸³ Barnett-Sanchez, xviii.

⁸⁴ Holly Barnett-Sanchez devoted a chapter of her dissertation to an analysis of this exhibition.

⁸⁵ Holger Cahill, *American Sources of Modern Art*. (New York, N.Y.: Museum of Modern Art, 1933,) 7.

⁸⁶ Cahill, *American Sources*, 7.

⁸⁷ Rivera, cited in Belnap, “Diego Rivera’s Greater America,” 70.

tobacco danced with U.S. manufactured products such as ventilator pipes, gas pumps, and cigars in a display of transformation and continental unity (fig. 17-20). We are reminded of the spectacle's commentary on shared artistic elements through Indigenous motifs-- ancient and contemporary alike-- which are appended to the raw materials. As Jeffrey Belnap has pointed out, the cyborgian main character, a figure of continental hybridity, joined the imagery of technology with the "underlying design principles" of the Yaqui Deer Dance, suggesting the continental nature of Rivera's Indigenism.⁸⁸

Even as Belnap underscores the subtle political messages buried within Rivera's vision, he acknowledges that for its audience of businessmen and diplomats, the ballet offered a cooperationist (even paternalistic) resolution to the conflict surrounding the relationship of U.S. industry to Mexican natural resources. What interests me, however, are the ways in which *H.P.*'s resolution between raw materials and machinery would take shape as a geography of Greater American aesthetics, subtended by Indigenous "forms" and absorbed by the visual grammar of U.S. industrial modernity.⁸⁹ Understood as one of Rivera's many proposals on Greater American aesthetics, *H.P.* can also be read as a suggestion about the relationship between different strands of modernism, merging the modernist love of tubular steel and mass-produced commodities with its inclination towards the supposed timelessness of non-white cultural production. It is difficult, in fact, not to associate Rivera's theatrical icons of U.S. modernity with the interwar visual experiments of various U.S. artists: ventilator pipes were, after all, a seductive study for Charles Demuth (fig. 21), as were cigars for Gerald Murphy (fig. 22) and gas pumps for Stuart Davis (fig. 23).

Detroit Industry, like *H.P.*, makes reference to the abstract visual principles of Rivera's U.S. contemporaries. The machinery of River Rouge was a recognizable agent of the clean lines and hard-edge geometries of U.S. modernists. Ford's automobile plant was a paradigmatic subject for the rationality and order of Charles Sheeler's precisionism, an iconic visual language of the ascendant modernist identity of the United States (fig. 24). And while Rivera's own formal language differed significantly from the dominant cropped machine aesthetic of the 1930s, *Detroit Industry* nevertheless paid homage to the intersecting planes, dizzying speed, smooth steel surfaces, and indispensable functionalism that had so attracted the modernist to the machine in the first place.

In bringing our attention to the raw materials that sustain that machinery, however, *Detroit Industry* also invites us to consider another source of the modern. The U.S. machine aesthetic that captivated Rivera was always in dialogue with his continental primitivist aesthetics, a dialogue that necessarily mobilized questions of form. In this sense, Rivera seemed to be engaging what Gorham B. Munson identified in 1925 as a category of "skyscraper primitives."⁹⁰ Munson coined the term originally to refer to U.S. artists who, as they searched for an "indigenous art" independent of Europe, drew upon primitivist aesthetics and in so doing discovered that "perhaps there was something in the forms of machinery for the aesthetic eye."⁹¹

⁸⁸ Belnap, "Diego Rivera's Greater America," 86.

⁸⁹ Belnap refers repeatedly to a generalized sense of "indigenous cultural forms" or "revitalized cultural forms of the continent's ancient peoples" that would animate the technological modernity suggested by Rivera. Belnap, "Diego Rivera's Greater America," 77, 93.

⁹⁰ Gorham B. Munson, "The Skyscraper Primitives." *The Guardian*, March 1925.

⁹¹ Indeed, Munson traced the genealogy of artists who, in their study of "African sculpture and other examples generally shunned by the official art world of America," discovered that "perhaps there was something in the forms of machinery for the aesthetic eye." Munson, "The Skyscraper Primitives" 164.

The term demonstrates the role of modernist formalism: as encounters which demanded a deference to formal priorities over iconographic content, the modernist engagement with Black or Indigenous art has been described by numerous scholars as crucial to the development of various abstract machine aesthetics.⁹² We might consider, for instance, the ways in which Charles Sheeler's seduction with machinery was preceded by an eye for Aztec sculpture (fig. 25). As Laura Moore Ceccini has pointed out, Sheeler's photograph of an Aztec head in 1916 (for an exhibition of Rivera's cubist paintings at Marius de Mayas' Modern Gallery) adopted the primitivist visual grammar of many of his Stieglitz Circle associates.⁹³ Buffed clean and hermetically isolated, the Aztec head through Sheeler's lens embodied the lexicon of unadorned geometric simplicity that would characterize the photographer's later work.

For both Rivera and *American Sources*, Pre-Columbian sculpture was a uniquely American supply of formal innovation. In his description of the Coatlicue stamping press, for instance, Rivera highlighted not the ability of the Aztec goddess to transcend dualisms or steward the elements of the earth, but rather the ways the machinery's "realistic and abstract plastic" form mirrored the "morphological representations" of ancient Mexico.⁹⁴ Here, Rivera's words endow the silhouette of the stamping press with the figurative indeterminacy of its ancient counterpart. If *Detroit Industry* was about the possibility of a Greater American art, it was also about the sources of American modernist form.

More clearly than *American Sources*, however, *Detroit Industry* spells out the ways in which this aesthetic system implicitly simulates the relationship between minerals and U.S. machinery. Indeed, Rivera's commentary that the South Wall machinery "rendered dynamic and productive" the "masterpieces of ancient pre-columbian America" suggests the intimacy between U.S. industrial processes and the modernist labor of abstract form's revelation from Mesoamerican archaeology.⁹⁵ That industrial work itself enacted such a visual reappraisal introduces an organizing metaphor in which the relationship of those ancient masterpieces to the monumental columns of the drill press paralleled that of the minerals to the machine. The Coatlicue stamping press, for instance, stages the same sort of modernist continuity between the machine aesthetic and its Mesoamerican source. Where its formal debts are in Mesoamerican archaeology, its functional debts are in the lime, sand, coal and hematite that comprise its steel exterior and feed its utilitarian operation. Beyond its construction as both Mexican mineral "patrimony" and the "substratum" of Rivera's Greater American aesthetics, Mesoamerican archaeology is also positioned as isomorphic to raw materials in the exercise of visual discernment which derived modern form from its Primitive source.

What begins as a suggestion about the source of modernity, then, soon becomes a set of questions about the sources of modernism, as well. There was ample reinforcement for such an analogy: for critics in the 1930s, U.S. modern art was a machine, and Mesoamerican art was its fuel. The art critic Walter Pach made such a connection in 1931, as he stressed the need for a "background of the primitive" in American modern art, comparing ancient Mexican sculpture to

⁹² For an example of this narrative, see Zabel, Barbara. "Man Ray and the Machine." *American Art* 3, no. 4 (Fall 1989): 67–83. A similar story is rehearsed in Dickran Tashjian, *Skyscraper Primitives: Dada and the American Avant-Garde, 1910–25* (Middletown, Conn.: Wesleyan University Press, 1975).

⁹³ Cecchini, "Aztec Cubists between Paris and New York: Diego Rivera, Marius de Zayas, and the Reception of Mexican Antiquities in the 1910s." *Modernism/Modernity* 28, no. 2 (2021): 251–86.

⁹⁴ Rivera, "Dynamic Detroit," 293.

⁹⁵ Rivera, "Dynamic Detroit," 291.

precious oil reserves.⁹⁶ Modernist curators and critics in general seemed to be of a shared mind that abstract art in the U.S. was in need of a “rich vein of raw material” from which to draw.⁹⁷ Indeed, Pach’s language corresponds to what Elizabeth Hutchinson has referred to as a “basic premise of primitivism,” in which “the primitive is a resource outside the modern that can fuel and improve modern cultural production.”⁹⁸ Intellectuals fixated on an independent American aesthetic, however, demonstrated particularly vivid connections between modernist sources and natural resources; nothing, for them, compared to the “reservoirs of unspoiled primitive material” that could be supplied by the art of Indigenous Mexico.⁹⁹ In language similar to Pach, for instance, the lithographer and critic Jean Charlot inserted Maya bas-reliefs into the “common heritage” of American art, identifying them as “one of the wealthiest mines of theological motives and plastic abstraction” available.¹⁰⁰ Reviews of *American Sources* borrowed from the language of extraction: Carlyle Burrows referred to the various collections of ancient American art as the “richest repositories” of such “unrefined” artistic inspiration.¹⁰¹ As a commentary on American modernist sources, Rivera’s mineral imagery found itself in good company.

These examples suggest a cultural imaginary in which concepts of form, through which Mesoamerican archaeology was claimed as both American and modern, were mediated by the same processes that pressed Mexican minerals into U.S. modernity. In positioning Pre-Columbian art as a raw material, Rivera and his contemporaries invoked a familiar principle of modernist primitivism, in which representational techniques from outside of Europe are treated as sources of inspiration for other, more truly modern instances of abstract form at the same time as they are positioned as exemplars of shared human tendencies or cross-cultural legibility. Written through the metaphor of raw materials at *Detroit Industry*, however, this vision of primitivist artistic sources also assumes the processes of selective distillation, refinement, and transformation which characterized the eventual fates of mineral ore in particular. We might imagine these sources transforming into the sorts of objects that have been known to announce their surfaces to modernist artists: a canvas of paint, for instance, or a layer of polished, stainless steel.

As *Detroit Industry* traced the transformation of minerals from their subterranean origins—beneath the Mesoamerican pyramids and volcanoes of the Mexican landscape—to their final mechanical materialization in the United States, it also traced a cultural geography, modeled after Rivera’s own interests in a Pan-American artistic identity. Analyzed alongside coeval efforts at positioning Mesoamerican archaeology as a shared source for continental art, however, this geography of Greater American modernism trains our awareness on the well-worn modernist fantasy of aesthetic continuity between the Primitive and modern.

To understand *Detroit Industry* as reflecting both the Mexican mineral sources of U.S. modernity *and* the American modernist’s fixation on a Mesoamerican source, however, is also to

⁹⁶ Walter Pach, “The Indian Tribal Arts.”

⁹⁷ Duncan Phillips, *A Collection in the Making: A Survey of the Problems Involved in Collecting Pictures, Together with Brief Estimates of the Painters in the Phillips Memorial Gallery*. (Cambridge: The Riverside Press, 1926), 12.

⁹⁸ Elizabeth Hutchinson, *The Indian Craze: Primitivism, Modernism, and Transculturation in American Art, 1890–1915*. (Durham: Duke University Press, 2009), 118.

⁹⁹ *New York Times*. “Native Mexican Art: Indigenous Folklore, Instruments and Composers-- Stokowski, on Visit, to Conduct.”, February 1, 1931.

¹⁰⁰ Jean Charlot, “Mayan Art,” 418, 421.

¹⁰¹ Carlyle Burrows, “American Sources of Modern Art Revealed in Museum Show” *New York Herald Tribune*, May 14, 1933. E8

suggest parallels between abstraction and extraction. There are, to be sure, shared properties: both extricate the ancient and subterranean source from its original context, distill it into a simplified, usable element, and ultimately mobilize it to sustain the chief signifiers of the modern. More importantly for the purposes of this essay, however, both facilitate a geography that defined that source as a shared one, which extended far beyond officially acknowledged borders. In what follows, I consider the ways in which concepts of form — as an organizing principle of Rivera’s most influential interlocutors, and a crucial component of 1930s modernist aesthetics more broadly — reflect the notion of a shared, continental interior.

The Modernist Interior

Thus far, I have interpreted *Detroit Industry* as a commentary on modernist aesthetics, which suggested parallels between American Mesoamerican primitivism and the use of Mexican mineral resources by U.S. machinery. This matters, in part, because it amounts to a re-reading of *Detroit Industry*. To be sure, other scholars have interpreted the series in relationship to modernist aesthetics: David Craven has examined the cubist debts of the work’s multidimensional, intersecting planes; Terry Smith, in his analysis of Rivera’s Marxist history of the factory, has interpreted *Detroit Industry* as an explicit refusal of modernist machine aesthetics.¹⁰² As the previous section has shown, however, Rivera was not only explicitly engaged with questions of form, but also modeled his notion of American continental aesthetics as a dialogue between the modern and its Primitive source, a framework with echoes in (if not borrowed directly from) ideas about 1930s American primitivist aesthetics. In suggesting that *Detroit Industry* not only confronts those aesthetics, but also registers parallels between those aesthetics and an economy of extraction, this chapter has proposed a new way of looking at Rivera’s most famous U.S. mural series.

More than rethinking *Detroit Industry*, however, this interpretation also amounts to a critical intervention in the scholarship surrounding modernist primitivism and its formalist intellectual negotiations. Of course, the imperialist frameworks of modernist formalism and primitivism have been so thoroughly critiqued by scholars such as Serge Guilbaut and Hal Foster that there might appear little left to say.¹⁰³ Hal Foster and others, for instance, have argued that the positivist concepts of formal “affinities” which animated European primitivism both enacted and concealed the relations of colonial conquest that enabled it. As a phenomenon that took shape within the intellectual history of the United States, however, primitivism is largely treated as a domestic issue, with transnational connections imagined primarily as a function of its European import.¹⁰⁴ While brilliant scholarship has analyzed modernist primitivism as a response to histories of race and specifically Black or Indigenous populations within the United States, approaches which might view more global aesthetic formations of U.S. primitivism as a function

¹⁰² See Terry Smith, *Making the Modern* and David Craven, *Diego Rivera as Epic Modernist* (New York: G.K. Hall & Co, 1997).

¹⁰³ Likewise, scholars such as Serge Guilbaut have written about the ways in which Greenbergian formalism at midcentury intersected with the deployment of capitalist liberalism throughout the world. Hal Foster, “The ‘Primitive’ Unconscious of Modern Art;” James Clifford, *The Predicament of Culture*; Serge Guilbaut, *How New York Stole the Idea of Modern Art*.

¹⁰⁴ Sieglinde Lemke traces this story of European import in *Primitivist Modernism*.

of the U.S.' own foreign imperialism have been limited.¹⁰⁵ Such a singular focus, of course, not only overlooks transnational primitivisms like the one at work in *American Sources* and *Detroit Industry*, but also fails to account for the specificities of U.S. imperialism that underwrote them, homogenizing very different colonial histories. My claim can thus be situated as a response to this intellectual context: in what follows, I think through Rivera's greater American primitivism and the formal aesthetics that supported it as a mode of perception which served the premise of a shared subterrain.

There are numerous reasons why minerals fit seamlessly into Rivera's analogy of modernist primitivism's formal process. For one thing, minerals embody the temporality assigned to the primitivist sources of modern art: fundamentally opposed to modernity, they index a time at once so ancient that it can only be conceived of as timeless and ahistorical. In *Detroit Industry*, minerals are represented by the conventional temporal and gendered schemas through which primitivism achieves legibility: in the middle of the North and South walls, minerals are represented in both the distant elsewhere of mythical female nudes, but also through their primordial formation. Extricated from their context, however, they also become indispensable to the fixtures of modernity. Their final destinations as combustible fuel, metal, or glass were archetypal materials of the modern, which enabled the sort of movement and speed that escaped mimetic representation.

Minerals thus express the temporal register of the kind of formal process at work in *American Sources*, which located supposedly enduring, elemental qualities that span the ancient and ultramodern alike. In the 1930s, nothing signaled the universal like geological matter: for some formalist primitivists like Carl Einstein, new developments in geological history announced a magnitude of time so large it necessarily relied on the powers of abstraction and simplification, reducing art history to a "morphology of minerals" that might better account for humanity's common origins.¹⁰⁶ Just as the claims of form to unmediated human legibility supposedly allow art history to identify shared features across language, race, and culture, so too do minerals at *Detroit Industry* take on a similar quality. They represent the fundamental building blocks of human life, embodied by the supposed origins of the continent's racial diversity. Moreover, minerals become foundational to non-human life as well: in the far right corner of the South Wall, Rivera depicts the spontaneous generation of living cells from a cluster of crystalline material (fig. 2).¹⁰⁷

Minerals are also territorially rooted, however. Much as expanses of deep time were mobilized to pronounce unity across human history, they also bespoke the geologically consecrated fissure of continents like Europe from the landmass of North America. The centrality of geological matter to the material and structural makeup of the continent satisfied a desire on the part of self-conscious artists and critics from across the Americas to tether artistic

¹⁰⁵ For intersections between race, form, and primitivist aesthetics in early U.S. modernism, see Elizabeth Hutchinson, *The Indian Craze*, Lauren Kroiz, *Creative Composites*, and Jacqueline Francis, *Making Race: Modernism and "Racial Art" in America* (Seattle: University of Washington Press, 2012.)

¹⁰⁶ Geology's ability to signal common humanity has been highlighted recently in Cécile Debray and Rémi Labrusse in *La Préhistoire: Une Énigme Moderne*. (Paris: Bibliothèque publique d'information du Centre Pompidou, 2019). For Einstein's "morphology of minerals," see Carl Einstein, quoted in Maria Stavrinaki, "Carl Einstein's History Without Names: From Geology to the Masses," *Grey Room*, no. 62 (Winter 2016): 75.

¹⁰⁷ Linda Banks Downs has described the iconography of each panel in detail, affording generous description to the role of minerals within the "unity of life." Downs, Linda Banks. *Diego Rivera: The Detroit Industry Murals*. (New York: W.W. Norton & Company, 1999.)103-112.

identity to a sense of terrestrial place that could announce aesthetic autonomy from Europe.¹⁰⁸ For artists intellectually and genealogically descended from Europe, foregrounding the aesthetic and spiritual importance of American earthly matter offered the comforting sense of a detached, primordial identity.

Precisely such contradictory terms were also at work in *American Sources of Modern Art*. The exhibition highlighted modernist formalism's preoccupation with expansive cross-cultural similarity and paired that preoccupation with a language of "native soil" and an apparent isolationism from Europe. Indeed, *American Sources* paired an early endorsement of the universalizing formalism that became inseparable from the Museum of Modern Art with an exegesis on the purely American.¹⁰⁹ In MoMA's first iteration of what William Rubin would later call "affinities," *American Sources* joined objects from disparate spatial and temporal categories under the legitimizing veneers of the formally modern, proposing flattened, abstract forms as a mechanism through which shared traits might be uncovered.¹¹⁰ Yet *American Sources* was distinct in that it also connected its treatise on form with a statement on the terms by which something could be considered American. It joined a conviction in the "elemental" formal qualities of Mesoamerican art with the assertion that it was, "not derived from the Old World, but originating and growing up here, without models or masters, having a distinct, separate, independent existence; like the plants and fruits of the soil, indigenous."¹¹¹ If Clive Bell's "significant form" could be gleaned in cave paintings and Chinese graphic arts alike, *American Sources* promised a visual regime that was as distinctly American as it was formally modern.

Form thus becomes the legitimizing vector through which Mesoamerican archaeology is absorbed into a geography of American modernism that included both the U.S. and Mexico, and is made into the defining basis of such a geography. What contemporary U.S. painting had in common with contemporary Mexican painting, the exhibition suggested, were formal roots in pre-Hispanic Mesoamerican abstraction. As I have already mentioned, this exhibition most obviously reflected the vertical dimensions of American art's shared "substratum" through its focus on objects that themselves were legally and culturally associated with the Mexican subterrain. Yet as the previous section underscored, the modernist syntax of a "mine" for abstraction presses this stratigraphic imaginary into the visual exercises which decoded and authorized representational abstraction to begin with. In aligning minerals with American modernism's Primitive "source," *Detroit Industry* participated in a wider critical discourse which suggested that modernist aesthetics and their formal processes might have something to say about extraction, as well. Histories of modern art, however, raise questions about this aesthetic

¹⁰⁸ Niko Vicario has written of the ways in which, as artists across Latin America variously did or did not include the U.S. in their self-definitions as independent from Europe, they mobilized the materiality of raw materials or industrial modernity that were unique to their hemisphere. Likewise, Wanda Corn has written of the ways in which an aesthetic preoccupation with "soil" for U.S. modernists offered a rooted sense of identity. Here, I am highlighting the ways in which geological matter offered a similar, materially grounded sense of aesthetic independence.

¹⁰⁹ Alfred Barr, the museum's director, would become known over the course of the 1930s for coaching viewers to appreciate the puzzling representational tides of Braque or Moholy-Nagy by expanding those same principles to surprising candidates, such as a weathervane or ball-bearing. And though the critic Holger Cahill organized *American Sources* while Barr was away, its principles were aligned with the sort of visual comparisons that would follow it. Barr's formalism has been detailed elegantly in Jennifer Jane Marshall's *Machine Art 1934*.

¹¹⁰ Rubin's controversial MoMa exhibition, *Primitivism in 20th Century Art*, has been significant for the clarity with which it illustrated the pretenses of neutrality afforded to form as a point of contact between modernism and non-Western art. Rubin, *Primitivism in 20th Century Art* (New York: Museum of Modern Art, 1984).

¹¹¹ Cahill, *American Sources of Modern Art*, 17.

idiom: modern art's preoccupation with surfaces, flatness, and depthless exteriority might seem to conflict with the topos of the mineral frontier, which was organized around the possibilities of the deep, the buried, and the invisible. What, then, can concepts of form tell us about American modernism's subterranean schema?

This question, as it turns out, is one that is best answered by aesthetic enterprises outside of *American Sources*. If reviews are any indication, the details behind the exhibition's conceptual framework were poorly understood by its U.S. audiences. To be sure, *American Sources* is valuable for the clarity with which it testifies to wider efforts that positioned Mesoamerican archaeology as a shared, formal source for Pan-American modernist form. And as *The Nation* put it, "the theory [behind *American Sources*] is not entirely without significance. It marks a tardy recognition in art of a commercial and political fact."¹¹² But while viewers generally accepted the notion that there was a "related simplified compactness" and shared tendency towards "rigorously simplified" representation, they were otherwise skeptical that visually, there was anything uniquely American or mutually inherited about such a thesis.¹¹³ Though he observed a clear visual parity between Pre-Columbian objects and Mexican moderns, for instance, Edward Allen Jewell was less certain about "our own modern [U.S.] American artists." Aside from a common propensity to abstraction, he argued, U.S. art "would scarcely indicate a relationship to ancient South and Central American sources were not such a relationship italicized by pointed juxtaposition."¹¹⁴ Instead, he concluded the formal appearance of U.S. art more likely "evolved through contact with French modernism."¹¹⁵ Another critic in the *New York Herald Tribune*, while conceding that "modern plastic art has derived extensively from primitive sources," nevertheless qualified that "the Americans of the North" seemed more clearly to "have followed the Europeans" in their study of African, rather than Pre-Columbian art.¹¹⁶ If Rivera identified Mesoamerican sculpture as a shared "substratum" of American art, *American Sources* supplied, for its New York audience, more questions than answers about the formal terms of that common ground.

Instead, a more thorough explanation of the relationship between a synchronic, transnational modernist form and distinctly American artistic geography was provided by critics in Rivera's circle, such as Walter Pach and Elie Faure. The two traced a relationship between terrestrial interiority, regional artistic identity, and modernist form that would be crucial to both Diego Rivera and the perception of a primitivist geography of American modernism more broadly. As their ideas about form reveal, the promise of a Greater American modernism also charted a geocultural interior whose relationship to the surfaces of abstraction was being negotiated as well. If the notion of shared American sources offered a method with which to escape American modernism's U.S. borders, the theoretical terms by which those sources were understood suggested also an optical re-evaluation of the flat planes which delineated those borders.

That concepts of modernist form would reflect a shared continental *interior*, of all things, may strike readers as surprising. Modernist formalism had, after all, been begging its viewers to

¹¹² Brenner, Anita Brenner, "The Tail Wags the Dog." *The Nation*, June 28, 1933.

¹¹³ Burrows, "American Sources of Modern Art Revealed in Museum Show" and Edward Allen Jewell, "Very Plump Lean Year: Art Is Longer than Any Bread Line-- A Second Look at 'American Sources.'" *The New York Times*, June 4, 1933.

¹¹⁴ Jewell, "Very Plump Lean Year"

¹¹⁵ Jewell, "Very Plump Lean Year"

¹¹⁶ "American Sources of Modern Art." *New York Herald Tribune*, September 10, 1933.

see with surfaces for several decades, defending Post-Impressionism as masses of paint on a flat canvas at the same time as it bestowed the benevolent veneer of universality upon the two-dimensional shapes which represented faces on African masks.¹¹⁷ In her study of Josephine Baker, the critical race theorist Anne Cheng has described the ways in which a number of modernism's most consequential semioticians, from Pablo Picasso to Adolf Loos to William Rubin himself, saw the intimacy between modernism and its Primitive Other as a continuity that happened on the level of surfaces, cladding, sheaths, and skin.¹¹⁸ MoMA was no exception: the director Alfred Barr had presented his vision of aesthetic principles in an exhibition on *Modern Architecture's* international style in 1932, training viewers to recognize "the clean perfection of surface" in a building's orderly slices of steel or glass.¹¹⁹ In 1934, Barr's *Machine Art* exhibition guided its audience to perceive the "perfection of surface" on an aluminum tube, a steel spring, or even, yes, a Standard Oil gasoline pump.¹²⁰

But for modernists in Rivera's circle, in pursuit of a distinctly American form by way of its Primitive source, surfaces were as hollow as they were irrelevant. Jean Charlot, for instance, wrote in 1933 that he was becoming skeptical of surfaces. As an archaeologist, artist, and theorist of Pre-Columbian abstraction, he had begun to reject the shallow preconditions by which modernism was accepted. In an article for *Creative Art*, he publicly critiqued the "scientific" ontology of art collector and formalist author Albert Barnes, who, Charlot wrote, placed too much emphasis on the "surface quality" and "flatness" of paintings.¹²¹ Perhaps most significant for our purposes was the art critic Walter Pach, who in 1935 wrote an article for *Parnassus* entitled "New Found Values in Ancient America" in which he, like Rivera, proposed a modernist cultural geography of American art based upon Mesoamerican form.¹²² Speaking most clearly to U.S. modernists, he granted his approval of many of the organizing assumptions that would have motivated *American Sources of Modern Art*. Just as modernism had broadened the meaning of representation, he argued, so too could aesthetic form expand the boundaries of what would be considered American. Pach took issue, however, with the "scientific mind" of most modernists (including a direct reference to the Museum of Modern Art), which, he argued, allowed its proponents to be "carried away by our curiosity about surface appearances."¹²³ When it came to Pre-Columbian sculpture, Pach distanced himself from the kind of positivism which yoked abstract form to two-dimensional matters of geometry and design.

It was a concept that Pach had no doubt come to adopt while translating the global, five-volume survey of art history by the French art theorist Elie Faure, who anchored a spirited network of artists in Rivera's circle, including Jean Charlot (fig. 26). Faure, who had been Rivera's most enduring interlocutor from Rivera's time in Paris, would continue to correspond with Rivera upon the artist's return to Mexico, contemplating the relationship between form's

¹¹⁷ See, for instance, "Surface Forms: Photography and Gertrude Stein's Contact History of Modernism" in Cara L. Lewis, *Dynamic Form: How Intermediality Made Modernism* (New York: Cornell University Press, 2020).

¹¹⁸ Cheng, *Second Skin*.

¹¹⁹ Jennifer Jane Marshall, *Machine Art 1934*, 30.

¹²⁰ For "perfection of surface," see Marshall, *Machine Art 1934*, 30. For the inclusion of a Standard Oil gasoline pump, see Barr, *Machine Art* (New York: The Museum of Modern Art, 1934), 54.

¹²¹ Jean Charlot, "Pinning Butterflies." *Creative Art* 12, no. 5 (May 1933): 354–59.

¹²² Pach, "New Found Values," 7–10.

¹²³ Pach, "New Found Values," 9.

“inner structure” and a “universal language” that connected all art (fig. 27).¹²⁴ Indeed, in *The Spirit of the Forms*, the final volume in Faure’s five-part series, Faure laid out a universal theory of form in which morphological unities of form were indebted to an internal “spirit” which “circulates within them like the central fire that revolves at the heart of the planets.”¹²⁵ Even as he considered the abstract planes of the most flattened, modern paintings, Faure proposed a “bony framework [for] these forms” which themselves arose from the vertical depths of the earth.¹²⁶ Writing that Cézanne’s flat planes were “bound also.... to the deepest and most secret geological strata of the soil,” Faure provided the foundation for the terms of abstraction that would justify Pach’s critique of surfaces.¹²⁷ If histories of modernism have told us that primitivism’s abstract forms entered into formalist lexicons as a surface, here Faure’s account teaches readers to see the “geological strata” in which those planes are couched.

Like the notion of a Mesoamerican “substratum” to American art, this aesthetics of interiority positioned the subsoil as an artistic force that generated visual similarities across time and political borders. The very notion of internal form was presented in support of a larger thesis about shared subterranean sources and artistic identities determined by geology rather than cultural affiliation or national borders. Indeed, *The Spirit of the Forms* was especially focused on the ways in which the outward appearance of artistic forms reflected a region’s “subterranean force” or its “geological structures.” Faure devoted a lengthy section towards a global, comparative discussion of the “geological structure[s]” of places that had produced great art, arguing that the “the soft earth here, the hard stone there” would result in different formal qualities.¹²⁸ For Faure, the subterrain functioned as something that signaled cross-cultural unity, as well as a concealed, eruptive force with the ability to determine the appearance of artistic surfaces. Thus, as products of the same continent, U.S. modernist painting and a Coatlicue stone sculpture could evince the “skeleton of the soil” from which they both came (fig. 28).¹²⁹ The subterrain, then, formed both a literal and formal substratum for geocultural categories.

For Pach, this formal, inner unity amounted to a cultural geography in which the U.S. and Mexico were separated “merely by political boundaries.”¹³⁰ In his article “New Found Values in Ancient America,” Pach applied Faure’s ideas to his proposed primitivist geography of American modernism, suggesting that the spiritual marrow of the American continent suffused the character of those who settled it, generating an internal similarity between all U.S. and Mexican modernists and their ancient Indigenous forebears. In explaining the apparent similarities between U.S. modernist forms and ancient Pre-Columbian sculpture, Pach reminded his readers that “we are on the soil which produced the art of its former owners,” grounding his logic in alluvial agency.¹³¹ Moreover, as Pach sought to untangle a model of American form that went “beyond surface appearances,” he borrowed from Faure as he centered his analysis around the ability of external form to express a psychic connection to the earth’s interior through a

¹²⁴ Bertram Wolfe recounts correspondence between Faure and Rivera in *The Fabulous Life of Diego Rivera*. (New York: Stein and Day, 1963), 111.

¹²⁵ Élie Faure, *History of Art: Spirit of the Forms*. Translated by Walter Pach. (New York: Harper & Brothers, 1930), xiv.

¹²⁶ Faure, *Spirit of the Forms*, 300.

¹²⁷ Faure, *Spirit of the Forms*, 303.

¹²⁸ Faure, *Spirit of the Forms*, 114.

¹²⁹ Faure, *Spirit of the Forms*, 124.

¹³⁰ Pach, “New Found Values” 8.

¹³¹ Pach, “New Found Values” 7.

recognition of a material's intrinsic character. What "the great sculpture of early America" had to offer to U.S. modernist artists was "a special nearness to our idea for expressing the genius of its land."¹³² This expression of terrestrial origin was most immediately apparent through material itself, especially those artistic materials which conveyed the inner contents of the continent. Suggesting that form arose from the inner, agentive spirit of an artist's material, Pach lauded a deference to "simple and natural materials like stone" highlighting direct carving in particular, a medium which had recently taken to modeling itself after Mesoamerican sculpture.¹³³ Still, the ability of matter to express the "genius" of its geographic provenance was not limited to rocks, but rather could be identified in a whole range of mineral matter, such as iron, copper, or gold.¹³⁴ Finally, Pach mentioned that fresco, too, as an American expression, had a special mineral materiality that altered its formal qualities. As temporally durable materials accessed by the penetration of the earth's crust, minerals and other geological matter were uniquely suited to the task of representing an interior, essential Americanness, defined not by borders but rather the material composition of the continent itself.

Rivera's aesthetic proclivities enacted several of the subterranean habits of mind that attended Pach and Faure's concept of continental form. In 1925, he published an article in *The Arts* in which he outlined an "Indian aesthetic" that recognized the "pure beauty to be found in America."¹³⁵ Written directly in between his time in France and his time in the United States, the article represents a clear effort to deploy modernist aesthetics in order to negotiate the continental American artistic identity he was beginning to imagine. Rivera explained that he had, by then, moved away from visual practices which saw the world as a "shallow surface of related planes," in favor of one that recognized the "fixed law of inner structure" behind external appearance.¹³⁶ While he felt that artists such as Cézanne and, most of all, Picasso had understood this "hidden universal structure," most cubist artists overlooked this "divine mysterious core hidden within the visible spectacle of the world."¹³⁷ Representing this inner world was a matter of "the plastic materials which compose [the artist's] own nature," by which he meant materials appropriate to the artist's specific "geographical" and "physical conditions."¹³⁸ Only then, with appropriate relationship to one's materials, could an artist reconnect with their "primitive instincts," thus enabling both the art and artist to transcend "the boundary lines of aesthetic understanding."¹³⁹ The existence of such materially-oriented interiority within "ancient primitive sculpture," he argued, was what could represent an aesthetic continuity between a "Mexican

¹³² Pach, "New Found Values" 10.

¹³³ Pach was especially enthusiastic about modernist direct carving modeled after Mesoamerican sculpture, which expressed the "genius" of the continent's earthly materiality. Works like John Flannagan's serpent (fig. 36), for instance, announced the ways in which they were "intrinsically of the soil" and thus "representative of the American continent," through a method of deference to materials which gave "visible form" to the "profound subterranean urges of the human spirit." Pach referred directly to Flannagan's serpent sculpture in "New Found Values." He also devoted a lengthy obituary to Flannagan's intrinsically American merits upon the sculptor's untimely death in 1943. Walter Pach, "John B. Flannagan, American Sculptor," *The Kenyon Review* 5, no. 3 (1943): 390, 391.

¹³⁴ Pach, "New Found Values," 10.

¹³⁵ Diego Rivera, translated by Katherine Anne Porter, "From a Mexican Painter's Notebook," *The Arts*, Volume VII, No. 1. January 1925. 21

¹³⁶ Rivera, "From a Mexican Painter's Notebook," 21-22.

¹³⁷ Rivera, "From a Mexican Painter's Notebook," 22.

¹³⁸ Rivera, "From a Mexican Painter's Notebook," 22.

¹³⁹ Rivera, "From a Mexican Painter's Notebook," 22.

Indian from Oaxaca and a North American of the most civilized type.”¹⁴⁰ Rivera’s language here speaks not only to the guiding influence of Faure, but also to early efforts (by the likes of Rivera and Pach) to mobilize those theories of aesthetic interiority and geographically specific materiality for a shared geography of American art.

Fittingly, Rivera’s writing about the medium of fresco, too, stressed both the concept of formal interiority and a mineral materiality which communicated the territorial identity of a place. He was acutely aware that the basic source of his own American modernism was in the minerals that comprised his frescoes; the intimacy with a region’s specific geological makeup had been what led Faure to recommend the medium to Rivera in the first place.¹⁴¹ As he drafted an article for *Architectural Forum* in 1934, Rivera announced that a fresco was a “process of painting essentially architectonic,” because its constituent materials were essentially the same as those required to make the building.¹⁴² Its “structural materials,” he pointed out to his readers, “are lime, sand, marble, cement, and steel, the colors it admits are the result of varying degrees of oxidation of iron and manganese, of aluminum and copper sulphates.”¹⁴³ It thus made known outwardly its “internal function” through its “constituent materials.”¹⁴⁴ The minerals he used to make a fresco, in other words, reflected the inner form of the building to which it was fused.

Just as they aligned with the interior, artistic force of the work itself, so too did the artistic material of minerals signal the interior of the continent from which they came.¹⁴⁵ The four minerals Rivera associates with the construction of steel take shape in the four mythical female nudes that have been understood to allegorize the American continent more broadly. They assume the form of racial types, linked, in Rivera’s estimation, to the black, red, yellow, and white races through their “plastic quality and color of form as well as by their historic functions.”¹⁴⁶ This simplified, mythic representation of racial diversity has been widely understood to speak to a utopian, future union of Greater America.¹⁴⁷ Indeed it was precisely this

¹⁴⁰ Rivera, “From a Mexican Painter’s Notebook,” 23.

¹⁴¹ Bertram Wolfe, *The Fabulous Life of Diego Rivera*, 165.

¹⁴² While the version printed in *Architectural Forum* was translated differently, the original typescript reads “el fresco es un proceso de pintura esencialmente arquitectónico.” Diego Rivera, “Arquitectura y Pintura Mural,” typescript dated 1934. CENIDIAP archives, archivo Diego Rivera, Box 2, folder 1.

¹⁴³ Rivera, “Architecture and Mural Painting,” *Architectural Forum*, January 1934, p. 5

¹⁴⁴ Rivera, “Architecture and Mural Painting,” 5.

¹⁴⁵ Rivera had long associated the minerals required for fresco painting with the earth and a distinct sense of place. He had set forth enormously specific and expensive demands for which materials he was to use and how they were to be prepared for *Detroit Industry*. See, for example, the correspondence between Clifford Wight and William Valentiner, in which they discuss, over the course of several months and across dozens of letters, how exactly they will accommodate Rivera’s requests for lime and marble dust and their specific locations. In addition to specifying grueling conditions with which to grind the pigments and create the marble dust and lime, he also specified that the materials must be sourced locally, from specific locations. At one point, Wight suggests shipping a supply of “glacial sand,” from San Francisco, because “he saw some of this sand when he was in San Francisco and says it is the same as the sand he uses in Mexico.” Clyde H. Burroughs Records, Administrative files 1908-1946, Box BUR48, folder 8.

¹⁴⁶ Rivera, “Dynamic Detroit” 291. See also Rivera’s interview with Florence Davies, in which he explains that “the black race represents coal; the yellow race, sand; the red race, iron; and the white race, lime,” with an ensuing analysis of each analogy. Florence Davies, “Rivera Tells Meaning of Art Institute Murals” *Detroit News*, January 19, 1933.

¹⁴⁷ Mary Coffey has discussed the ways in which these four “goddesses” spoke to, even if their masculine form did not exactly accommodate, a biopolitical narrative of Pan-Americanism and mestizaje. Mary Coffey, *Orozco’s American Epic*, 176-178. Indeed, Rivera would also argue elsewhere that “the whole composition gives one the

sense of racial diversity that Rivera would identify with the “international, universal character of the American continent” in his own analysis of *Detroit Industry*.¹⁴⁸ Yet as Rivera’s discussion in *Architectural Forum* suggests, lime, sand, iron and coal (the latter two in their capacity as ingredients for steel) are also crucial to the construction of a fresco, as well. Seen this way, these allegorical female personifications might be understood to represent the geological basis for a Greater American artistic identity, as well.

Rivera’s most developed discussion of Greater American aesthetics would foreground the connection between artistic and terrestrial interiority. In 1943, he published a treatise on Pan American art, in which he declared that specific aesthetic innovations in the history of art were “produced by the adaptation to the variants of the telluric environment and climates that range from the equator to the poles, but with a common backbone.”¹⁴⁹ In a metaphor that would reappear several times in his writing, Rivera clarified that this central, unifying feature was “similar to the backbone whose vertebrae are mountains, an uninterrupted chain that rises from Tierra del Fuego to Canada.”¹⁵⁰ Suggesting that aesthetic similarities were a product of “telluric environments,” this backbone was more than a metaphor: Mexican and U.S. art was united, he implied, by a common geological interior of the continent they shared.

Ultimately, nothing made minerals shared like a unified geological history, and nothing made that proposal more innocent and diplomatic than the language of artistic sameness. Just one year after Rivera identified this “common backbone,” Pach would mobilize a similar claim for more overt mineral ambitions: he had gone to work for Rockefeller’s Office of Inter-American Affairs in 1939, which used the neutralizing pretenses of cultural exchange as a way to extract geological resources from Latin America. While there, he promoted an American art that found continuity through “our ancestors of the soil,” using the modernist ideas outlined in this chapter to assert the geological basis for an internal, formal unity of the hemisphere.¹⁵¹ Like Rivera, Pach appealed to the “thousands of mountains in the single range that, from Alaska to southern Chile, makes the backbone of the continent” arguing that “with all its varieties of aspect, climate, and men, it is one country, really.”¹⁵² For an imperial project that mobilized the borderless space of the subterrain for its own expansion, American modernism’s conviction in an aesthetically shared geological interior proved to be a remarkably convenient diplomatic tool.

Conclusion

As I have argued in this chapter, *American Sources* exemplified broader efforts to chart a new geography of American form, which bound the external appearances of Mexican and U.S. art together through archaeological objects that were legally and artistically linked and likened Mexico’s subterrain. In mapping a similarly expansive Greater American modernism through both its modernist sources and mineral raw materials, however, *Detroit Industry* raises questions

feeling of growth, of the birth of a new culture, a new race that this age of steel is creating here in America.” Florence Davies, “Rivera Tells Meaning of Art Institute Murals” *Detroit News*, January 19, 1933. The Detroit Institute of Arts itself explained the four figures as “four races that have helped to build the distinctly American civilization.” George Pierrot and Edgar Preston Richardson, *Diego Rivera and his Frescoes of Detroit* (Detroit: Detroit Institute of Arts: 1934), 10.

¹⁴⁸ Rivera “Dynamic Detroit” 291.

¹⁴⁹ Diego Rivera, “El Arte, base del Panamericanismo.” *Así* (Mexico City: August 14, 1943): 8-9, 54.

¹⁵⁰ Rivera, “El Arte, base del Panamericanismo.” 54.

¹⁵¹ Pach, “Our Ancestors of the Soil,” *The Virginia Quarterly Review* 20, no. 3 (1944): 413-26.

¹⁵² Pach, “Our Ancestors of the Soil,” 426.

about the ways in which those modernist aesthetics borrowed from parallel logics of extraction. Rivera himself would not have had to look far: what we witness in his own modernist theories as well as those of Elie Faure and Walter Pach is a construction of the source of American modernist form not as a surface but rather as an interior that penetrated deep into the crust of the continent, towards that contested space of the subsoil. Within this modernist circle, this interior, continental source was not nationally specific but rather *shared* by the modernist artwork of Mexico and the United States. These theories paralleled and reinforced an extractive logic. In the context of modernism's role in the U.S. mineral frontier, the concept of a shared earthly interior was one that actively accommodated the U.S. imperialist claims on the Mexican subsoil.

The shared resonances between form and extraction, however, extended beyond the issue of territorial unity in the context of Greater American aesthetics. The very construct of the Primitive and the 1930s infatuation with "Indigenous" sources, for instance, reminds us that race has always been central to the question of extraction. As the next chapter explores, Faure, Pach, and Rivera's imputation of a Primitive agentive force within inorganic materiality was not only racialized, it actively accommodated extractive interests. Through an analysis of the lithographs of Jean Charlot, I argue that this aesthetic approach emerged in tandem with larger efforts to racialize Mexico's geological matter and portray it as a latent reserve of dormant potential. And as the third chapter demonstrates, the very association of Pre-Columbian form with the primordial potential of Mexico's geological wealth was a crucial idiom for U.S. artists whose work exploited both. As the jewelry designer William Spratling wove his "development" of Mexican silver reserves into his grammar of modernist design, his racialized, developmentalist notion of form actively worked to shape perceptions of the Mexican subsoil.

While Rivera shared important intellectual continuities with these artists, his work was informed by a far more coherent (if appropriative, utopian, and at times opportunistic), commitment to anti-imperialism, and this political allegiance manifested in an entirely different visual language. Rivera's visual language was not marked not by a collapse of depth or geometric simplification but rather by the complexity and interconnectedness of volumetric space and, in turn, the subterranean. Certainly, his notion of a shared, geological interior of American form was a modernist one, which was ultimately deployed in the service of the expansive U.S. mineral frontier. But, as numerous eco-critical scholars have shown, the notion that the underground might be borderless and universally stewarded is not inherently an ecologically damaging one. Many have highlighted the emancipatory possibilities of communally owned resources that are independent from the ownership of the state and, in fact, ownership in general. Rivera's sense of political ecology was as multidimensional as his mural programs, a subtlety I tease out in the final chapter of this dissertation.

Like much of the iconography in Rivera's muralism, the subterranean minerals at *Detroit Industry* register multiple meanings. Their placement within a Pan-American ecosystem indexed not only the disputed possibility of a shared subterranean, but also the mineral diplomacy that funded much of Rivera's artwork in the United States. This context, in turn, helps us see important dimensions of U.S. modernism's transnational aspirations in the 1930s. The continental continuity minerals came to represent – as apolitical, borderless agents of unity– became a crucial concept not just for Diego Rivera, but for emerging geographies of Greater American aesthetics more broadly, which were frequently organized around the subterranean signifiers of Mesoamerican archaeology. Moreover, minerals' role as raw materials for the U.S. machinery in *Detroit Industry* highlighted parallels between U.S. manufacturing and the modernist aesthetics that motivated exhibitions like *American Sources*, which yearned to make a

“source” of Mesoamerican archaeology. These modernist exercises trained viewers to look beneath the surfaces of abstraction, towards the unifying subterranean core of American form’s continental purview.

Chapter Two

Geological Primitivism: Race, Vitalism, and the Lithic Force of Stone in Jean Charlot's *Builders*

Over the course of the 1930s, Jean Charlot emerged as a key artist within a U.S. modernist world that sought to remap American form around a Primitive, Mesoamerican “source.” There is perhaps no other artist who so deeply internalized the obligation to a transnational category of American, modernist form based upon Pre-Columbian archaeology. Though he was born in France and ultimately settled in the U.S. in 1928, Charlot is most frequently associated with Mexico, where he arrived in 1922 and immersed himself in the early muralism movement and forged close ties with the likes of Diego Rivera and José Clemente Orozco. As an artist struggling to make sense of his own, distant Nahua ancestry, he developed an affinity for Mexican Indigenismo and found work as an archaeological field artist at the excavation of Chichén Itzá in the mid-1920s. In the United States, however, he became not only a prolific author of modernist theory, but also framed his interventions around hemispheric cultural independence from Europe. As his archaeologically inspired visual language gained recognition at exhibitions such as *American Sources of Modern Art*, his writing emphasized the “distinctively American” quality of Maya art’s “contribution to the world’s aesthetic achievements.”¹⁵³ He maintained close correspondences with modernist theorists like Elie Faure and Walter Pach, and aligned much of his criticism with their subterranean vocabulary for formal aesthetics. Stressing the “purely American characteristics” of Maya art, for instance, Charlot declared it “one of the wealthiest mines of theological motives and plastic abstractions the world has ever known.”¹⁵⁴

Charlot’s work reminds us that the blueprint of modernist primitivism, which framed the search for American sources of abstract form, inevitably summoned the question of race. Though he was born in France, Charlot had rhetorically maneuvered a sense of artistic authority over American art that was otherwise subject to question by emphasizing his distant Nahua ancestry, the result of a marriage between his great-great grandfather, who had worked as an archaeologist in Mexico in the early nineteenth century, and a Mestiza woman.¹⁵⁵ He routinely credited this heritage with his artistic approach, clarifying at the end of his life to his son that the “strongest influence in my paintings is the blood legacy of a great grandmother whose Aztec ascendancy gave me a taste for so-called primitive art.”¹⁵⁶ In turn, critics saw Charlot’s “racial inheritance” as responsible for his “tendency to abstraction.”¹⁵⁷ Race also became the lens through which viewers understood how the visual language of ancient archaeology would show up within modern art: works such as *Three Pyramid Builders* (fig. 29) were perceived by critics as a

¹⁵³ Jean Charlot, “The Art of the Maya,” *Carnegie Institution of Washington News Service Bulletin* 1929 Number 5, Sunday March 17.

¹⁵⁴ Jean Charlot, “Mayan Art,” 421.

¹⁵⁵ Jean Charlot, “Mayan Art,” 418.

¹⁵⁶ In an unpublished typed manuscript from 2007, Charlot’s son John claims that “at the end of his life, in a shaky hand on a slip of paper, he wrote down guidelines for any student of his work.” “Jean Charlot Biography I: Family Background” January 30, 2007, Jean Charlot Collection at the University of Hawaii (heretofore referred to as JCC), also online at https://jeancharlot.org/books-on-jc/2003-2017_john-charlot_jc-lw_vol-1_version-2_2-family-background.pdf

¹⁵⁷ Margaret Bruening, “Paintings by Jean Charlot at Levy Galleries— Young Americans at Harriman Gallery— Other Art Events” *New York Evening Post*, April 4, 1931.

“statement of a race and racial character” in part because of the ways they rendered Indigenous bodies, using the flattened spatial field and compacted figuration of ancient bas-reliefs or stone sculptures.¹⁵⁸

As they remarked on Charlot’s “ultra-racial boldly carved out forms,” viewers also understood his “racial aesthetic” as bridging the ancient with the modern through the materiality of stone.¹⁵⁹ This was most palpably reflected in his lithographs of Yucatecan builders, in which anatomically distorted but recognizably Mayan figures lift stones to their heads to fashion the impressive Pre-Columbian masonry he was studying. The artist’s most persistent motif, the masonry of ancient Mesoamerica generated unremitting comment for its material polysemy. Critics rarely failed to mention the “stony” quality of Charlot’s images, in which the Indigenous people he pictures appear to fuse with both the grainy, leaden texture of the work itself and the stones they assemble. Nowhere was this stony substance more clearly evoked than in his lithographs, which used the porous texture and pronounced depth of stone lithography to align his builders with the surface appearance of ancient relief sculptures. Basing “the builders” on archaeological sites where he worked to create a temporal “composite,” Charlot deliberately exploited the expansive temporality of stone to suggest similarities between the Indigenous workers carrying archaeological remains and the fragments they exhumed.¹⁶⁰

Charlot’s fascination with masonry also shaped his own relationship to materiality within his printmaking practice. Fashioning himself as a “builder” who had inherited an Indigenous intimacy with the stony “subconscious” of geological matter, Charlot was deeply embedded within a broader primitivist seduction with the materiality of stone. He had built his reputation as a master of stonework, having gained recognition in the early 1920s for pioneering the signature wet-limestone fresco method that would become central to the Mexican muralism movement. Afterwards, he earned a reputation for his lithographic technique, which emphasized direct contact with unusually large and burdensome stones. This attachment to the artistic possibility of stone was enabled by a vocabulary of modernist primitivism that was uniquely inspired by Mesoamerican stonework. As U.S. artists looked to Mesoamerican archaeology for an American Primitive source that could liberate them from the constraints of European tradition, they found themselves gripped by the idea that the original Mesoamerican masons had been profoundly, personally, and racially connected to the stones they manipulated. Guided by a fascination with Mesoamerican “direct carving,” Charlot and his U.S. contemporaries reimagined stone as a material that could command its own formal outcome. Race was never far away: Charlot’s own unique identity built around a biologically authentic yet epidermally imperceptible Indigeneity lent him special credibility in his understanding that modernist form arose from a racialized, latent subconscious situated deep within stone and person.

What does it mean to make geological matter Primitive? Certainly, Charlot’s work and methods call attention to unsurprising assumptions of racial inferiority, in which Indigenous people were cast as metaphysically connected to the geological, earthly matter most obviously devoid of consciousness. But Charlot’s work also challenged anthropocentric notions of the objecthood of the matter in question, imputing a racialized psychic interiority onto the

¹⁵⁸ Bruening, “Paintings by Jean Charlot at Levy Galleries.”

¹⁵⁹ “Jean Charlot: Levy Galleries” *Art News* April 4, 1931. JC clippings, JCC.

¹⁶⁰ Frances Flynn Paine plainly explained in 1931 that Charlot’s work was a temporal “composite,” which mixed “actual observations of the Mayan and close study of their ancient arts.” Frances Flynn Paine, *Jean Charlot, by arrangement with Frances Flynn Paine*, (New York: John Levy Galleries, April 1 to April 18, 1931). JC clippings, JCC.

materiality of stone itself. This rhetorical transmission between race and material is surprising for the ways in which it uses race, a circumstance that is uniquely dependent upon human life, to animate a material otherwise known for its inanimacy. I contextualize Charlot amidst a discourse on both sides of the border which had drawn connections between Indigeneity and geological matter as a mechanism of extraction, and which had also mobilized the notion of geological matter as possessing a latent, Indigenous force. Ultimately, I argue that this primitivist redistribution of agency between artist and material testifies to extractive assumptions which imagined geological matter not as defiantly lifeless but rather as alive, Indigenous, and in wait of development.

Extracting Form

Charlot's lithographs provoked consistent comment for their apparent material ambiguity, in which both figures and the work itself appear to have been carved out of stone. This is in part due to the printing materials Charlot chose: in works such as *Great Builders II*, for instance, bodies adopt the rough, uneven texture of the stone that printed them (fig. 30). But it is also because of the shallow depth and anatomical distortion, which recall relief and stone sculpture more than they serve to approximate bodies in space. This visual approach lent itself well to modernist representational schemas: the stepped pyramid in *Great Builders II*, for instance, is condensed as a flat surface with little spatial depth except as a geometric contour. Objects and people appear materially connected with negative space, which itself appears to have a weight and a volume. Bodies, in particular, are condensed and flattened into side profile, or abbreviated into volumes that destabilize illusionistic anatomy so much that they could not possibly be made from flesh. *Seated Nude*, for instance, is so compressed, and her volumes so simplified, that we imagine her features only as reductions from a single, blocky piece of dense material (fig. 31). Charlot avoids the attenuated features of necks, wrists, or ankles, instead pressing her head into her shoulders, and folding her limbs into her torso to compact her body into a single, solid volume.

Perhaps for this reason, Charlot's formal language was routinely described as more abstract than that of the other Mexican artists with whom he was closely associated. For one critic in *The Carmelite*, his work instantiated a skillful "fusion" which renovated the muralists' figurative subject matter in "the most abstract of plastic aesthetics."¹⁶¹ Remarking on the generalized, compressed bodies in Charlot's pictures, another writer in *Creative Art* noted the "power of their forms and the brutish simplicity of their manner."¹⁶² With remarkable consistency, viewers identified a "modern viewpoint" in Charlot's work which privileged "simplified forms" and "abstract design" over efforts to faithfully simulate the three-dimensional world.¹⁶³

It was clear to almost everyone that Charlot owed his visual strategy to his archaeological experience: some concluded that the use of "ancient symbols in his work has led him to evolve strange anatomical variations on the human form," while others dubbed his a "neo-Mayan conception of form."¹⁶⁴ Of course, Mexican artists such as Rufino Tamayo and Carlos Mérida would also draw on Pre-Columbian art to develop an abstract, modernist visual grammar that

¹⁶¹ "Charlot Exhibit" *The Carmelite*, February 5, 1931. JC clippings, JCC.

¹⁶² *Creative Art* 2, (February 1928) JC clippings, JCC.

¹⁶³ *New York Evening Post*, April 10, 1931 JC clippings, JCC.

¹⁶⁴ *Art News* (February 1933) and "Jean Charlot: Levy Galleries" *Art News* April 4, 1931. JC clippings, JCC.

nevertheless spoke to Mexican identity. Yet Charlot's European background led viewers to perceive a representational framework that extended "beyond national tendencies."¹⁶⁵ As an author of modernist theory and a new resident of the United States, Charlot framed his aesthetics through a more transnational, continental register. In 1935, for instance, Charlot emphasized the "purely American characteristics" of Maya art, characterizing it as "one of the wealthiest mines of theological motives and plastic abstractions the world has ever known."¹⁶⁶

Charlot's choice of words here sutures his aesthetics to the political condition of extraction that is threaded throughout this dissertation. While we might dismiss the word "mine" as haphazard, the previous chapter tells us that he was repeating an analogy that had been made frequently by the likes of Diego Rivera, Walter Pach, and even the Mexican constitution itself. Moreover, it is impossible to separate Charlot's visual register from his work as a field artist for the Carnegie Institution's Maya excavations at Chichén Itzá, which itself was implicated in the pursuit of Mexico's subterranean minerals.¹⁶⁷ By the time Charlot arrived in 1926, the site was involved in legal battles over expropriation and what Lisa Breglia has referred to as debates over Mexico's "vertical ownership" of national heritage. In fact, the conflict came to a head that year, as the U.S. owner of the site was arrested over the alleged theft of precious patrimonial assets.¹⁶⁸ Even as the struggle over the vertical ownership of Mexico's patrimonial past waged on, Charlot mobilized Pre-Columbian archaeology to trace a more transnational understanding of American heritage, positioning it as a shared source for a Greater American modernism and as "still waiting to become a part of our common aesthetic heritage."¹⁶⁹

To be sure, then, Charlot's likening of Maya art to a "mine" for American abstraction might be understood to reflect the unique geographical dimensions of American empire as much as art in the 1930s. But it also recalls the vertiginous logic of the mineral frontier's extractive process. While several critics used the image of the mine to liken Charlot's artistic inspiration to valuable ore, other critics focused more on Charlot's process of formal translation, casting it as a "welding" or "smelting process," using terms that borrowed from the vocabulary of merging inorganic solids, or processing raw geological matter, removing organic impurities, and extracting a simplified modern product.¹⁷⁰ Pressing the language of extraction and transformation of inert minerals into the discourse of artistic formal innovation, they also conjured the parallel processes of conversion at work in *Detroit Industry*. In likening it to a "mine," Charlot

¹⁶⁵ "Guide Through New York Art Land" *Pittsburgh Post-Gazette* Saturday, April 11, 1931. JC clippings, JCC.

¹⁶⁶ Jean Charlot, "Mayan Art," *The American Magazine of Art*, Vol. 28, No. 7 (July 1935): 421.

¹⁶⁷ It is perhaps relevant to note here that the Carnegie archaeological excavations in Mexico were wielded as a way of advancing U.S. economic interests in Mexico. Sylvanus Morley, the archaeologist who ran the excavation of Chichen Itza, had long been at work in a dual mission to support the United Fruit Company, using archaeology as a cover. See Thomas C. Patterson, "The Last Sixty Years: Toward a Social History of Americanist Archaeology in the United States." *American Anthropologist* 88, no. 1 (1986): 7–26.

¹⁶⁸ The patrimonial importance of the subsoil had become so tense that in 1926, the government arrested Edward Herbert Thompson, a U.S. businessman that bought the land on which Chichén Itzá rested during the Porfirian regime. In an event that neatly illustrates the anxieties surrounding subsoil territory purchased by foreigners, Thompson was charged with the theft of precious patrimonial assets after attempting to export artifacts that had been dredged from a cenote, a subterranean waterway. As Breglia describes, although Thompson was posthumously acquitted because of a technical difference between subaquatic and subsoil space, the debate ultimately highlighted the significance of vertical ownership in patrimony debates. Lisa Breglia, *Monumental Ambivalence: The Politics of Heritage* (Austin: UT Press, 2016).

¹⁶⁹ Jean Charlot, "Mayan Art," 418.

¹⁷⁰ Lincoln Kirstein, "Drawings by Jean Charlot." *Parnassus* 7, no. 2 (1935): 4–5.

analogized the formal manipulations of abstraction to the processes that might be imposed upon raw, unprocessed geological resources. How, these comparisons invite us to ask, was Charlot's abstraction like extraction?

If the last chapter established that the geography of American modernist primitivism in the 1930s was bound together with the geography of U.S. mineral imperialism, it also asked us to think about both extraction and modernist primitivism as parallel processes by which an ancient, subterranean resource was subsumed into a logic of abstract exchange value.¹⁷¹ Extraction is, after all, at its core a process of separating a part from a whole, not unlike the process of deriving form from a Primitive source. The similarities do not end there: let us consider for a moment the formalist tendencies, which had legitimized both abstraction and its Primitive source by projecting supposedly universal geometric values onto art from across space and time, coaching viewers to see in two dimensions. Like extraction's representational modes, which have viewed the subsoil through the two-dimensional abstraction of stratigraphy, modernist formalism asks us to see volumetric depth in all works as surface. And if we think of the universalizing temporal framework of modernist form as one that can recast the ancient as modern, we might draw comparisons with the equally modern process of extraction, which takes minerals from billions of years ago and selectively transforms them into the fundamentally modern. Finally, this comparison draws attention to the shared tendency, between abstraction and extraction, to recast asymmetries between these things— between surface and depth, ancient and modern, or elemental and constructed— as equivalent samenesses.

In some ways, these parallels invite us to see Charlot's primitivism, like extraction, as a process by which material is reduced and abstracted into a fungible, immaterial value that facilitates exchange and mobility across borders. No stranger to Parisian primitivism, Charlot was frequently compared to Picasso, who had famously translated the dense matter of African masks into a weightless, experimental convergence of illusory, theoretical planes. We might understand Charlot's primitivism, then, through the lens of European high modernism, which insisted upon formal continuities between modernist abstraction and African masks by aiming their attention at two-dimensional geometric values.

But more than the tendency towards flattened space, it is the textural approximation of stone that recalls the carved artwork of ancient American artists. Charlot himself was clear that his primitivism derived from a uniquely Mexican stony materiality rather than a debt to European cubism. In an interview, he ventured that the quality observed by some critics as cubism was, more than they realized,

from my knowledge of Mexican things because it's obvious that looking at those people, I didn't think of them as flesh but as hard matter, hard obsidian and so on. That is, a faceting that the French had used without any sense of weight or texture, I would say, in early cubism, with me became a way of changing the flesh into hard stone. And I think that already is Mexican.¹⁷²

Here, Charlot distances himself from European approaches to form as a question of dematerialized geometry, which were “without any sense of weight or texture.” Instead, he

¹⁷¹ This comparison has been made elsewhere. See, for instance, Delinda Collier, *Media Primitivism: Technological Art in Africa*. (Durham: Duke University Press, 2020).

¹⁷² John Pierre Charlot, Twenty-Fourth Interview, Jean Charlot, May 18, 1971, <https://jeancharlot.org/interviews/JohnCharlot/interview24.html>

describes the ways in which his particular distortions were not so much about an approach to space as an approach to materiality, which turned “flesh into hard stone.” Indeed, as we will see, in his study of art and antiquities as in his printing process, form was determined ultimately by the weight, texture, and substance of stone.

Yet Charlot’s approach to materiality was also informed by race. It is unclear whether Charlot’s “knowledge of Mexican things” refers to the phenotypically Indigenous appearance of his favored subjects or the geological materiality that he references, but the ambiguity is instructive. Throughout his career, Charlot fixated on the external appearance of Indigenous bodies, which he filtered through the material approaches to stone that he associated with Maya or Aztec carvers. *Seated Nude*, for instance, suggests race through bodily features such as a wide nose, high, flat cheekbones, and single-fold eyelids, even as it assumes the texture and compact dimensions of an Aztec stone sculpture (fig. 31). As we will see, Charlot worked to adopt a “racial aesthetic” which was built around a predilection for abstraction as well as a metaphysical ability to harness the creative energy of stone.

This brings us, then, to a final parallel between primitivism and extraction, which is that both processes are built around racial hierarchies. This chapter argues that the primitivist dialogues of form and materiality that motivated Charlot’s work expressed extractive ways of seeing the Mexican subsoil in the 1930s, which also posited a vitalist conductivity between geological matter and a racialized sense of Mexico’s Indigenous heritage. In what follows, we will trace the ways in which Charlot’s approaches to fresco, lithography, and Mesoamerican sculpture all assigned an unusual level of agency to materiality of stone. In doing so, we will see how a preoccupation with Indigenous “religious energies” as well as an intellectual legacy of modernist vitalism reinforced extractive perceptual regimes in expressing the material substance of stone and its perceived relationship to a racialized, Primitive unconscious.

Charlot and the Introduction of Stone Lithography

Charlot’s interest in “the builders,” as he called them, was so intimately connected to his identity as an artist that in the foreword for one of his exhibitions at John Becker Gallery in 1931, Paul Claudel wrote, “One of the themes that our friend never tires of interpreting is that of Mayan masons at work on one of those sacred pyramids of Yucatan.”¹⁷³ Insisting that “Jean Charlot is a builder,” Claudel continued that:

Yet another architecture, yielding to the same inspiration- I was going to say the same upheaval- as did the muscling of this soil of azure and copper, has powerfully assembled these blocks and cylinders of dark flesh, these heavy dovetailing limbs, this slow rhythm of fabric and flesh which scrutiny and imagination are as powerless to use up as they are to exhaust the environment which nourishes them.¹⁷⁴

This foreword stressed several comparisons that highlight the lithic dimension of Charlot’s primitivism. First, Claudel remarks upon the way bodies of “dark flesh” appear more as the “blocks and cylinders” of building materials. The inspiration for such a parallel is not difficult to imagine: in works such as *Great Builders II*, the volume and texture of both Indigenous body and building block are treated identically (fig. 30).

¹⁷³ Paul Claudel, Foreword to *Jean Charlot Watercolors and Drawings May 8 - 31*, at Paul Becker Gallery, 1931, 4-6, JCC, University of Hawaii.

¹⁷⁴ Claudel, *Watercolors and Drawings*, 6.

It was through the expansive tonal spectrum of lithography that Charlot achieved this effect most skillfully. The same subtle, granular effect of the crayon on stone is used to create a kind of uniform sense of weight and texture that works to obscure differences between lithic and epidermal surfaces. Certainly, the monochromatic range of a print such as *Great Builders II* approximates what we would typically imagine as the limited hues of building blocks made of compressed earth. But the illusion of material continuity is just as visible in Charlot's color lithography, which he created using a groundbreaking technique of color separation that he would later patent. The polychrome palette of the builders from *Picture Book*, a hand-printed book of lithographs released by Charlot in 1933, renders the merging between flesh and stone even more deliberate (fig. 32). Depicted in the same strange, inhuman palette of cyan, maroon and green as the lumpy, oblong boulder, the body of the builder is chromatically connected to the rock.

Claudel's foreword analogized not only Indigenous bodies to architectural units, but also Charlot's artistic labor to that of the builders limned in his work. The vocabulary of "muscling" and "powerfully assembling" the composition of the works gestures towards the way Charlot had come to be known through his involved artistic process as having some of the qualities of the builders he represented. He developed his compositions directly on large, heavy slabs of lithographic limestone rather than the transfer paper more commonly used by artists in the period, and demonstrated an unusual level of involvement in the printing process. Charlot's color lithography, in particular, involved making color images by mentally separating colors and drawing them independently on every stone rather than by using photomechanical separation. Each block, which only represented a fragment of the complete polychrome image, was then individually pressed. Claudel's insistence that "Jean Charlot is a builder" was thus steeped in Charlot's distinction as a technical innovator of artistic processes that gave special importance to stone.

Charlot had been associated with stonework since he developed, with the help of Mexican masons, a true fresco method that would become standard for Mexican muralism. Upon his arrival in 1921, he became the first to experiment with the wet-plaster technique over the method of encaustic painting already being used by Diego Rivera.¹⁷⁵ Drawn to the Pre-Columbian legacy and "earth colors" of true fresco, Charlot began to study "the ways of Mexican masons and Mexican mortars" on his own.¹⁷⁶ Undaunted by the laborious process, Charlot enlisted the collaboration of local masons, who supplied a crucial combination of brawn and expertise of geological properties. After stripping a wall to expose the rocks, the masons used "mine sand" to make cement, which was overlaid on the rocks to rebuild the wall.¹⁷⁷ As in all true fresco, the final coat was the most important: lime was ground into wet plaster, which was applied to the wall and painted—while still wet—with mineral pigments, which chemically bind to the wall. Recognizing the assistance that was afforded in such a process by a deep knowledge of stone, Charlot persistently foregrounded the role of the masons in matters of artistic attribution. He signed his first fresco, "painted by Jean Charlot and plastered by master

¹⁷⁵ For this reason, Charlot has been called "the father of the Mexican mural movement." Luis-Martín Lozano, *Mexican Modern Art, 1900-1950* (Ottawa : National Gallery of Canada, 1999), 153.

¹⁷⁶ Jean Charlot, *The Mexican Mural Renaissance, 1920-1925*. (New Haven: Yale University Press, 1963), 181

¹⁷⁷ Jean Charlot, "Aide-Mémoire Technique," Circa 1923, Jean Charlot Foundation. See English version in Jean Charlot, *The Mexican Mural Renaissance* 184.

mason Luis Escobar.”¹⁷⁸ It is fitting, then, that this motif would appear in the very medium that had illuminated Charlot’s interest in masonry. In one of the earliest extant frescoes of the Mexican muralism movement, *Cargadores* at the Secretaría de Educación Pública shows the back-breaking work of burden-bearers as they bend under the oppressive weight of stones, blocks, and other building materials (fig. 33).¹⁷⁹ Given Charlot’s own attachment to unusually laborious artistic processes and the material of stone, the iconography of masonry operates as a commentary on artistic production itself.

Charlot’s prints had not always been from stone. Rather, his initial success in printmaking came through the medium of the woodcut, which he helped popularize shortly after arriving in Mexico City in 1921. He became known in Mexican circles not only for the prints themselves, which were published in Mexican newspapers to great fanfare, but for his scholarship about the history of Mexican printmaking, which generated renewed interest in the nineteenth-century printmaker José Guadalupe Posada. In his work as an assistant to Diego Rivera, Charlot met the Mexican artist Emilio Amero and the two began experimenting with the more technologically complex medium of lithography. Amero later recalled the way that he and Charlot, inspired by a movie poster one day in 1923, found themselves drawing on a stone in a local print shop the next day, impressed by a range of tone and texture unavailable in woodcuts.¹⁸⁰ Although both initially found better success with this medium in the United States, Amero and Charlot would later be credited with the resurgence of lithography in Mexico.¹⁸¹

In the years that followed Charlot’s move to the United States in 1928, he became known as a “modern messiah” of printmaking for his teaching and development of direct-stone lithography.¹⁸² In the United States, artistic lithography had struggled to distance itself from commercial printmaking, even as lithography slowly gained popularity amongst artists over the course of the 1920s. In the twentieth century, it had been associated with the transfer technique, in which a professional printer photochemically transferred an artist’s drawing onto a metal plate for printing, a process that critics derided as lacking authenticity, skill, and artistic legitimacy. By

¹⁷⁸ Emily Edwards, *Painted Walls of Mexico from Prehistoric Times Until Today* (Austin: University of Texas Press, 1966), 176.

¹⁷⁹ These murals were described by his close friend as a representation of the “burden and toilsome path of the Indian,” the motif drew comparisons to Pre-Columbian builders, as “so did they bear the squared stones with which their temples were built.” Alfons Goldschmidt, *Auf den Spuren der Azteken: Ein Mexikanisches Reisebuch*. (Berlin: Universum-Bücherei für Alle, 1927):189.

¹⁸⁰ Amero recalls “caminando por la calle, Charlot y yo nos detuvimos frente a la casa de un impresor. En la entrada, pegado a lo que fuera el cancel, había unos carteles anunciando películas italianas que por aquel entonces estaban de moda. Pregunté a Jean, de si había razón por que nosotros no podríamos hacer lo mismo, es decir; dibujar de la misma manera con que estaban hechos los carteles. Muy pronto Charlot y yo estábamos platicando con el impresor y unos días más tarde Jean en un lado y yo en el otro, dibujábamos en una piedra litográfica.” Ariel Zuñiga, *Emilio*

Amero: Un Modernista Liminal (Mexico City: Albedrío, 2008), 24.

¹⁸¹ Charlot published a series of eight lithographs for the stridentist journal of Manuel Maples Arce. Francisco Diaz de Leon attributed the revival of lithography in Mexico to Charlot and Amero, the latter of whom established a lithographic studio there around 1930, Francisco Diaz de Leon, “Mexican Lithograph Tradition,” *Prints*, Vol. VI, No. 1 (October 1935): 29.

¹⁸² “De La Lithographie,” *Monthly Letter of the Limited Editions Club* No. 132, (April 1941): 2. The idea that Charlot was responsible for the development of lithography in the United States was shared by several people. Arthur Miller, for instance, wrote “Charlot has done real service here by developing artistic lithography.” Arthur Miller, “Pink Teas Sidestepped by Hardworking Mural Artist: Man Who Painted First Modern Fresco Mexico Got No Wall Here But Did Make Grand Picture Book” *Los Angeles Times*, February 18, 1934.

contrast, Charlot's prints were drawn by hand directly onto the absorbent, heavy surface, often pressed personally by Charlot as well. His unusual level of involvement in the printmaking operation earned him reviews that praised his craftsmanship and artistic integrity and read his work as "self-made lithographs, auto-lithographs, full of the special flavor and color which only the honest lithograph can be full of."¹⁸³ The honesty and authenticity was, for these reviewers, a product of the immediacy of Charlot's hand, which stabilized anxieties about authorship and reproduction and dissociated his work from artistically invalid commercial methods.

Charlot's process, however, was informed not by a preoccupation with authorship but rather by a particular relationship to the medium of print and the material on which he printed. Although Charlot eventually capitulated to the occasional use of more lightweight, mobile plates made of zinc, he built his reputation around a relationship to the sensuous, responsive surface of stone. Upon his arrival to the United States, Charlot began working with the master printer George C. Miller, whose proselytization of the superiority of stone over metal plates extended even into his entry on lithography for the *Encyclopedia Britannica*.¹⁸⁴ Over the years, many artists who worked with Charlot commented on the spontaneous nature of his process, which eschewed both preliminary drawings and transfer paper as he formed compositions directly on the stone.¹⁸⁵ Lynton Kistler, with whom Charlot collaborated from 1933 onward, later described a process in which Charlot balanced a deference to the artistic material of stone with his mastery of it:

Though almost reverent towards the medium of lithography, Charlot is nevertheless its complete master. To him the clean fine stone is an invitation to his skill. Working with complete assurance, in most instances without preliminary sketches, he often develops his theme and his composition on the stone.¹⁸⁶

Here, Kistler describes the vacillating locations of authority in Charlot's intuitive, reciprocal exchange with the stone. Charlot not only draws directly upon the stone but is *invited by it* to create an impromptu composition without preparation. Drawn in by the "clean fine stone," Charlot cedes a level of control in his "reveren[ce] towards the medium of lithography." Ultimately, however, his dexterity over the process renders him its "complete master."

Charlot's taste for the materiality of stone was shared by other artists in the 1930s. While the inexpensive medium of the print was undoubtedly a fitting medium for the Great Depression, direct stone lithography also gained particular traction because of the swell of Mexican artists in the United States. After moving to New York in 1925, Emilio Amero began to teach courses on lithography at the Florence Cane school, promising a particular focus on the materiality of the stones themselves. Advertising in *Art Digest*, he offered a "thorough knowledge of the medium" through "study [of] geological composition of the lithographic stones and how to grain and

¹⁸³ "De La Lithographie," 2.

¹⁸⁴ Miller's entry on lithography, which remained in the encyclopedia until the 1960s, specified not only that stone was the best medium, but that it was heavy and burdensome, a quality which led many to adopt metal plates despite their inferiority. George Miller, "Lithography" *Encyclopedia Britannica*, 14th ed., v.14, (New York: Encyclopaedia Britannica Company, 1929), 207 - 211.

¹⁸⁵ Peter Morse, for one, remarked on the way that "Charlot drew directly on the stone, without preliminary drawings and without transfers..." Peter Morse, "Jean Charlot's Color Lithograph Technique: An Example," *Print Review* 7 (1977):30.

¹⁸⁶ Lynton R. Kistler, "Catalogue of the Prints of Jean Charlot printed by Lynton R. Kistler," January 1953. JCC, also quoted in Morse, viii.

sensitize them.”¹⁸⁷ Direct stone lithography, his advertisement implied, offered a level of communion with the valences of geological substance. Lithography was furthermore an attractive medium for Mexican artists who had made their career painting on wet plaster made of ground limestone mortar. “The technique of fresco... has a lot to do with my approach to other techniques,” Charlot reported to Peter Morse.¹⁸⁸ In the absence of a wall on which to paint, lithography offered a materially similar alternative.¹⁸⁹ Diego Rivera, for instance, revealed that after fresco, he preferred the “directness of contact” with the stone over easel painting.¹⁹⁰ Rivera, Amero and Charlot were just a few of the Mexican artists who worked in the U.S. with both the Weyhe Galleries and the aforementioned printer George Miller, the latter of whom was known to send entire slabs of stone back and forth to Mexico.¹⁹¹

The technique of abandoning transfer paper in favor of drawing directly on the lithographic limestone attracted significant attention for the Weyhe Galleries. After a 1936 exhibition of American lithographers featuring Charlot, *The New York Times* devoted an entire article to “the superior method [of] crayon-stone lithography.”¹⁹² Of the new, direct contact technique, Elizabeth Luther Cary described the way “the young men who practice it today for the most part make their drawings directly on the lithographic stone and scorn the use of transfer paper.” Cary had two years earlier covered a master lithographer’s dismissal of transfer lithography, explaining that “he told us how the stone has the flat surface that drawing asks for—has a surface flat ‘beyond what any piece of paper ever dreamed of,’ and the surface, he said, must be firm ‘and the stone is firm, rock firm, with a quality unknown to paper.’”¹⁹³ The stone, Cary continued, was indispensable to the printer not only for its solidity but for its “abrasiveness,” which responds best to chalk and carefully-calibrated applications of pressure.

In many of these assessments, the stone’s singular combination of both sensuous, porous responsiveness and firm, unyielding solidity inspired a visceral intimacy between artist and object. For Cary, the command of the printer over stone served as an illustration of the way that artists might, in “mastering both their medium and their art,” be able to “lose themselves least [and] most richly communicate their individuality.”¹⁹⁴ A year after the Weyhe gallery exhibition, a reviewer similarly argued that direct contact lithography not only allowed for a more “modern” look, but that it offered uncensored access to the artist’s individuality, as “they can draw directly

¹⁸⁷ “The Lithographic Medium,” *Art Digest* (October 15, 1935): 22.

¹⁸⁸ Morse would later recall that “[Charlot] works on lithographic stone in much the same manner as he works on a fresco wall.” Morse, “Jean Charlot’s Color Lithograph Technique,” 30.

¹⁸⁹ Rivera’s assistant, Maltby Sykes, would later recall that fresco “relates to lithography only because, while plastering for Rivera, I was struck by the fact that the surface of lime plaster prepared for fresco painting looks and feels like a lithographic stone” (p. 41). “Recollections of a Lithographile,” *The Tamarind Papers* 6 (Summer 1983),

¹⁹⁰ “Diego said that next to fresco he liked litho best. He much preferred it to oil painting - a directness of contact with material.” Ziggrosser, quoted in John Ittman, *Mexico and Modern Printmaking: a Revolution in the Graphic Arts, 1920 to 1950*. (Philadelphia: Philadelphia Museum of Art, 2006), 41.

¹⁹¹ Reba Williams has established that both Diego Rivera and David Alfaro Siqueiros received stones while in Mexico for printing. “Miller also rented and shipped stones to artists. After putting an image on the stone, the artist shipped it back to Miller for etching and proving. Proofs were mailed to the artist and, when these were okayed, Miller went ahead with the edition.” Maltby Sykes, quoted in Reba Williams, “The Weyhe Galleries Between the Wars, 1919-1940” Phd Diss, CUNY, 1996, 148.

¹⁹² Elizabeth Luther Cary, “On Modern Lithography: Many of Our Young Artists Today Draw on the Stone, Abandoning Transfer Paper” *The New York Times* July 12, 1936.

¹⁹³ Elizabeth Luther Cary, “Lithography: Some Artists of Quality,” *The New York Times*, December 23, 1934.

¹⁹⁴ Cary, “Lithography, Some Artists of Quality.”

on the stone instead of having to cut their [premade] picture into it with a steel instrument, [so] more direct and personal expression is possible.”¹⁹⁵ The materiality of the stone, these reviewers implied, offered a vector for artistic expression unmediated by external intervention. The psychoanalytic language of artists “losing themselves” and of realizing “direct and personal expression,” moreover, implicitly situated such creation in the automatic and intuitive realm of the unconscious. The notion that direct contact with lithographic limestone could facilitate the release of latent, unconscious creativity in printmaking thus made the technique into an efficient vehicle for the modernist project of authentic, unconstrained expression.

To be sure, this conviction about the importance of a printmaker’s fidelity to stone might be appropriately situated within modernist dialogues about medium-specificity.¹⁹⁶ As Lauren Kroiz has argued, artists such as Arthur Dove confronted the meaning of medium specificity in the interwar United States by adopting a modernist emphasis on materiality, as an aesthetic criteria that could unite diverse artworks *across* media.¹⁹⁷ Indeed, the parallels between direct stone lithography, fresco, and masonry made by Charlot and others suggest an artistic engagement with the materiality of stone that extended beyond the confines of any specific medium. As the next section underscores, Charlot – like other modern artists in other media – drew on Pre-Columbian sculpture to advance an interpretation of form which located aesthetic authority within artistic material and stone, in particular.

Truth to Materials: Lithography and Sculpture

Writing about Charlot’s lithographs (again) in 1934, Paul Claudel characterized the prints’ visual qualities by foregrounding the ways in which stone defined the artist’s process. In correspondence between the two, Claudel remarked: “These massive beings which you show us have the definitive and convincing character of geological events from which they borrow their coloration and volume.”¹⁹⁸ Claudel was referring to the depth, volume, and texture that lithographic limestone conveys most deftly. To be sure, the compact, faceted figuration, blue-gray palette, and dry, stippled brushwork in a painting such as *Builder Carrying Stone* all convincingly suggest the properties of sedimentary rock (fig. 34). Unlike an oil painting, however, a lithograph such as *Great Builders II* announces, with subtle gradient and gauzy sediment, the soft grain of the stone that pressed it (fig. 30). The sense of volume that Claudel references is what Charlot called in his diary “the beautiful chiaroscuro of the Great Builders,” in which dramatic darkness, against the spotlight positive space of the paper, appears to recede into the surface of the work itself.¹⁹⁹ Claudel’s assessment that the “massive beings” in Charlot’s prints appeared convincingly similar in character to the stone which printed them suggested that the use of lithographic stone for printing left welcome traces of its visual properties.

¹⁹⁵ “The Printmakers” *The Arts Digest* (15th November 1937) 24.

¹⁹⁶ For an analysis of the modernist debates about medium-specificity that took shape in the first few decades of the 20th century, see Lauren Kroiz, *Creative Composites*.

¹⁹⁷ Lauren Kroiz, “The Sense of Things: Collage, Illustration, and Regional American Culture” in *Creative Composites*, 143–87.

¹⁹⁸ Claudel to JC on January 31, 1934. Quoted in Peter Morse and Jean Charlot. *Jean Charlot’s Prints: A Catalogue Raisonné*. (Honolulu: University Press of Hawaii, 1976), 88.

¹⁹⁹ Charlot kept meticulous diaries of his printmaking process, which have been posted to UH’s website and which have been transcribed by the Jean Charlot Foundation. The log for this particular work is reproduced in Morse and Charlot, 54.

This effect was so persuasive that reviewers consistently commented on the way Charlot's works looked themselves as if they were carved in stone. Carlyle Burrows, for instance, referred to one of Charlot's works as "a massive grotesque showing a man bearing a rock. It has the rugged properties of some ancient stone carving and the primitive power of a Mayan temple sculpture."²⁰⁰ Another reporter, upon viewing an exhibition at the San Diego Fine Arts Gallery, wrote that Charlot's forms appeared "as though moulded in stone."²⁰¹ This effect extended into an attribution of Charlot's artistic materials: the *San Francisco Chronicle* in 1938 looked back on the "blocky, monumental figures" of Charlot's early 1930s work and the way in which they appeared to be "modeled as if with crude stone tools."²⁰² Critically, lithography's unique combination of wide tonal range and consistent granular finish create in Charlot's lithographs the convincing illusion of faceted, volumetric depth chiseled into a dense, lithic body of matter.

A critical tendency to equate Charlot's prints of Yucatecan builders with fragments of stone speaks, of course, to Charlot's deference to the thick slabs of sedimentary rock in his printing process. But it also, in drawing a comparison between lithography and the archaeological carvings themselves, highlights an artistic engagement with materiality as a metric for understanding art across media. As a prolific critic and aesthetic theorist throughout the twentieth century, Charlot frequently compared lithography to other stony media, such as Chinese "rubblings from stone bas-reliefs," or to the paintings "also smudged on stone in the caves of Altamira."²⁰³ The direct contact with the lithographic stone, Charlot seemed to imply, placed it on a similar plane of comparison with other art which, despite entirely different subject matter and historical context, involved a similarly direct intimacy with lithic matter.

Indeed, Charlot's approach to stone informed not only his printing process but also his study of art and antiquities in general. His writing on art and aesthetics often read like a philosophical proposal on materiality, in which form was determined ultimately by the weight, texture, and substance of artistic wares. Servility to materials, he maintained, could reveal similarities and universal tendencies in art. "Tradition," he wrote, "is also this continuity of the craft that leads the worker wisely to submit to the laws of his material."²⁰⁴ In his discussions of an artist's submission to principles of matter and substance, Charlot advanced an artistic approach to form in which material guides human creation rather than vice versa. Stone, as the most timeless and inanimate of materials, stood out also as this aesthetic treatise's most strident lesson of this aesthetic interpretation. While Charlot would later write that the "soul" of fresco was determined by the "inner strata of lime and sand backed by the cement, brick or stone," this metaphysical mode of perception had long been a part of his criteria for sculpture, in particular.²⁰⁵ As early as 1923, he wrote that "a beautiful statue should be in the nature of a beautiful rock" and that a "finished piece will be dictated as much by the material as by the sculptor, handling his tools in accord with density and texture, subjected as he is to its organic

²⁰⁰ Carlyle Burrows, "News and Comment on Current Art Events," *New York Herald Tribune*, April 5, 1931. JCC.

²⁰¹ Katharine Morrison Kahle, "San Diego Art and Artists," (there is no date on this clipping, nor is there the name of a newspaper. It is, like other clippings about this exhibition, from early 1934. From the clippings box in JCC.)

²⁰² "Around the Galleries: Charlot Flicks his Brush in a Few New Directions," *San Francisco Chronicle*, May 8, 1939.

²⁰³ Jean Charlot, *An Artist on Art: Collected Essays of Jean Charlot* (Honolulu: University Press of Hawaii, 1972) 157, 154. From "American Prints: 1913-1947"

²⁰⁴ Charlot, "Painter's Insight," 141

²⁰⁵ Jean Charlot, *An Artist on Art*, "public speaking in paint," 111.

laws.”²⁰⁶ Here, his words locate artistic authority within the stone as much as the human carving it.

Perhaps unsurprisingly, Charlot’s universalizing writing about art frequently draws from his knowledge of Pre-Columbian masonry, which he believed represented a foremost example of submission to artistic materials. In an unpublished 1927 text entitled “Modelado,” Charlot put forward a general theory of sculpture, pointing specifically to Maya and Aztec respect for materiality and the internal “subconscious” volume of stone.²⁰⁷ Charlot underscored the merits of Aztec and Maya sculpture by comparing it to what he saw as the flawed aesthetic traditions of Ancient Greece, whose shallow focus on surface appearance and efforts to imitate human skin compromised a sculpture’s material integrity. By contrast, he suggested, Aztec and Maya treatment of stone kept to an internal logic dictated by its mineraloid makeup.²⁰⁸ He returned to this subject in his 1963 text, *The Mexican Mural Renaissance*, in which he wrote effusive praise for the way Aztec and Maya sculpture “emphasize their quality of being hard stone, as if the tools of the artist, however successful in their delineation of the subject, were as attuned to the material as weather erosion.”²⁰⁹ The Aztec sculpture of central Mexico, in particular, represented “the loving interchange that should exist between the sculptor and the material he chooses.”²¹⁰ For Charlot, this treatment of stone benefitted from minimal mediation: “to be proclaimed beautiful,” he suggested, “the statue should roll intact from the top of a mountain to the valley below.”²¹¹

Moreover, in his capacity as both aesthetic theorist and expert on Pre-Columbian art, Charlot frequently expressed the conviction that the Aztec and Maya had understood a fundamental law of sculpture which respected the inner, agentive spirit of stone. Just as he coached readers to understand the Mesoamerican respect for a stony “subconscious,” Charlot would avow the existence of a “meaning buried by centripetal forces at the innermost core of the rock.”²¹² Elsewhere, he would applaud the ways that a photographer could capture Pre-Columbian sculpture in a way that “brings out, from the core of the carved stone, marks even more ancient than those left by the pre-hispanic chisel, the volcanic texture, the congealed geological fierceness that matches (and perhaps in the beginning inspired) the fierceness of the theogonical [sic] concept.”²¹³ Here, the “geological fierceness” inspires both the artwork and Mesoamerican religion, as a force which emanates from the “core of the carved stone.” This meaning penetrated the land which surrounded it: if a sculpture were to be “buried

²⁰⁶ “Martinez Pintao” in *Art from the Mayans to Disney*, 97. Originally published *El Demócrata* (Mexico, August 5, 1923, p. 5

²⁰⁷ Charlot, “Modelado,” Unpublished typescript dated 1927. JCC, File: “Jean Charlot Writings in Spanish.”

²⁰⁸ Describing the differences between modeling and carving, Charlot argued that modeling was less interesting because it required the artist to determine the volume. Carving, on the other hand, especially the kind completed by Aztec sculptors, allowed artists to defer to the volume of the stone. “Es por eso que buenas esculturas--aunque el pulido de la superficie haya sido destruido por la erosión (ver esculturas aztecas en piedras volcánicas)--conservan su belleza plástica esencial; conservando su volumen, en cuanto obras de tendencias más naturalistas pre-que estéticas (ciertos mármoles anatómicos griegos) pierden todo su valor estético y se vuelven repugnantes cuando pierden el valor imitativo de la superficie (piel humana).” Charlot, “Modelado,” JCC.

²⁰⁹ Jean Charlot, “Indian Roots” in *The Mexican Mural Renaissance*, 6.

²¹⁰ Charlot, *The Mexican Mural Renaissance*, 5.

²¹¹ Charlot, *The Mexican Mural Renaissance*, 5.

²¹² Charlot, *The Mexican Mural Renaissance*, 7.

²¹³ Charlot, “Mexican Heritage” *Magazine of Art* Volume 40, No. 1, January 1947, 38.

underground,” he insisted, “it would continue to exude a kind of silent existence, like a bulb.”²¹⁴ The use of the word “bulb” here suggests an organic, latent animacy and thus a rethinking of the insensate, unresponsive qualities typically ascribed to stone. So too does this hypothetical scenario demonstrate the ways in which a latent animacy was imagined to persist within stone even after human intervention.

The veneration of a perceived Mesoamerican intuition for the potential of stone was far from unique. Direct carvers, in particular, had been seduced in the 1930s by the “truth to material” represented in Pre-Hispanic Mexican sculpture. Diego Rivera had been an insistent champion of the method, as both a natural corollary to masonry’s direct engagement with stone and as a modernist adaptation of Mexico’s Pre-Columbian past.²¹⁵ The best-known example of such an infatuation is Henry Moore, whose reasoning for his persistent emulation of Aztec sculpture in the 1930s almost always had to do with its “stoniness.”²¹⁶ For Moore, the ability of the density, weight, and texture of stone to supersede its representational function was what made ancient Mexican art worthy of such high praise.²¹⁷ But the belief that Pre-Columbian treatment of stone served as a prelude to the intuitive, spontaneous methods of modernist direct carving was at work in a growing group of direct carvers in the U.S. that included William Zorach, John Flannagan and Donal Hord. The breadth of this engagement in the United States was showcased in MoMA’s 1933 exhibition, *American Sources of Modern Art*. As I described in the previous chapter, this exhibition featured contemporary painting and sculpture from the U.S. and Mexico, exhibited next to Aztec, Maya, and Inca archaeological specimens. Alongside Charlot, Diego Rivera, and David Alfaro Siqueiros, four direct carvers from the U.S. also gained recognition for their rough-hewn granite, alabaster or sandstone sculptures, which were proposed as examples of modern art that could trace their “source” to ancient America.

In attempting to highlight the similarities between Mesoamerican objects and contemporary art from the U.S. and Mexico, the exhibition suggested a new category of Pan-American modernist primitivism. Charlot contributed both a replica of an ancient fresco from Chichén Itzá and a vivid oil of pyramid builders digging and carrying a cuboid mass of solid, sandy substance (fig. 35). While many reviewers struggled to make sense of the proposed logic at work in the exhibition, the critic Walter Pach suggested that the similarities lay not in the unoriginal and unduly “scientific” theft of abstract form, but rather in the ways ancient American art could offer modern artists a deeper understanding of “truth to materials.”²¹⁸ He asserted not only that “truth to materials” was best achieved in stone, but that Pre-Columbian sculptors offered the best example of such intuition. In an article arguing for a shared continental heritage of ancient America, he outlined the virtues of Pre-Columbian sculpture and demanded their inclusion in U.S. art museums. Speaking of “our love for simple and natural materials like

²¹⁴ Charlot, *The Mexican Mural Renaissance*, 6.

²¹⁵ Diego Rivera, “Escultura: Talla Directa.” *Forma* (Mexico City) 1, no. 3 (1927): 1-3. 1927.

²¹⁶ See Barbara Braun, “Henry Moore and Pre-Columbian Art.” *RES: Anthropology and Aesthetics* 17/18 (Spring-Autumn 1989): 158–97. Anne Wagner has alerted us to the gendered dimensions of Henry Moore’s sculptural practice, and of direct carving as a modernist activity more broadly. See Anne Wagner, *Mother Stone: The Vitality of Modern British Sculpture*, (New Haven: Yale University Press, 2004).

²¹⁷ Moore’s words are worth reprinting: “Mexican art as soon as I found it seemed to me true and right... Its stoniness, by which I mean its truth to material, its tremendous power without loss of sensitiveness, its astonishing variety and fertility of form invention and its approach to a full three-dimensional conception of form, make it unsurpassed, in my opinion, by any other period of stone sculpture.” Moore, 1941, quoted in Braun, “Henry Moore and Pre-Columbian Art,” 173.

²¹⁸ Pach, “New Found Values.”

stone,” Pach wrote of the intimacy between artist and material that was clear in the work of both modern artists and Mesoamerican sculptors:

There is, to be sure, a special beauty in things that have the humility to keep near to natural objects....[W]e have a sense of relief in coming upon some image, comparatively rude perhaps, but telling us that the man who made it respected the stone he had picked up beside a stream, or broken from a mountain. That nearness to sources is part of the attraction that Brancusi has for us today, and it is with never-failing astonishment that we notice in ourselves the same sensations he gives when we come on ancient American sculpture such as that marvelous stone head in the museum of Santa Fe.²¹⁹

In gesturing towards Brancusi, Pach signaled the European artist’s pioneering aesthetic standpoint in which form was dictated by the honest, spontaneous deference to material and creative process. Yet he goes on to explain that “truth to material” and “nearness to sources” was best represented by modern artists such as those at *American Sources* whose materials shared the same geological provenance as intuitive, spontaneous creations of Pre-Columbian carvers centuries ago.

As an example, Pach pointed to a diorite sculpture of a serpent created by the U.S. artist John Flannagan, which had been on display at *American Sources* (fig. 36). Flannagan, an artist who was counseled by both Pach and Carl Zigrosser on Pre-Columbian source material, would soon write *The Image in the Rock*, a manifesto known as a defining text of direct carving. In it, he upheld the notion that within every stone was a latent form: musing that “the eventual carving involuntarily evolves from the eternal nature of the stone itself,” Flannagan concluded that “to that instrument of the subconscious, the hand of a sculptor, there exists an image within every rock. The creative act of realization merely frees it.”²²⁰ Flannagan’s language was undoubtedly influenced by Henry Moore, who also idealized Mesoamerican art and whose understanding of “truth to materials” likewise involved a conviction in the artistic authority inherent in the materiality of stone. Yet it also points to a reorganization of artistic subjecthood, in which the control of the thinking human artist defers to the will of inanimate matter, released by the subconscious of the artist. The rock is not fully assigned cartesian consciousness, but rather an involuntary eruption of form that stems from its “eternal nature.” Not unlike the direct-contact stone lithographers of the Weyhe Gallery, direct carvers offered a unique level of agency to the materiality of stone in the name of relinquishing control and achieving more authentic expression.

There was nothing particularly new about the Western fantasy of relinquished control and direct expression of a latent, psychological force. But this detour is valuable for explaining the new relationship between maker and material involved in Charlot’s primitivism. The artistic processes of Charlot, like those of Moore and Flanagan, were characterized by a redistribution of agency away from the human and into the materiality of stone. The modernist conviction that the materiality of stone could guide artistic creation was at work not just in direct carving, but also in the resurgence of direct contact lithography which characterized Charlot’s career: both involved a deference to process and the lithic presence, and both were perceived to result in more unmediated, artistic expression. The shared engagements of these artists enabled a new

²¹⁹ Pach, “New Found Values,” 9.

²²⁰ John B. Flannagan, “The Image in the Rock,” in Dorothy C. Miller, Carl Zigrosser ed., *The Sculpture of John B. Flannagan*, (New York: The Museum of Modern Art, 1942) 7-9.

understanding of the relationship between form and materiality which defined 1930s U.S. primitivist encounters with the Pre-Columbian.

Race & the Inhuman

The belief in the ability to access an internal psychic layer of primal sentience that could more consciously connect with the earthly and inhuman was predictably racialized. Modern artists had long sought to redistribute agency by acting out an unmediated artistic expression of the subconscious they perceived as more readily accessed by Black and Indigenous people.²²¹ In Charlot's world, the trope that Maya people were in possession of a racially determined connection to the material of stone was a frequently repeated response to European astonishment that an Indigenous civilization could have built as durable and impressive a structure as Chichén Itzá without metal tools. In 1936, for instance, a bewildered columnist for *The New York Times* offered precisely such a racial explanation. As science writer Waldemar Kaempfert puzzled over the "colossal blocks of stone" in the Yucatán, he wondered: "the Mayas of today... are human puzzles. Have we stumbled here on some racial characteristic?"²²² Charlot was no exception: in an article on Maya art for *Magazine of Art*, he asserted that despite an apparent observed listlessness, the Maya ability to handle stone was an innate racial quality that demonstrated millennia-long continuity:

How such languid-looking adolescents were able to build and to keep in working order the complex machinery of their civilization is more understandable for those who have seen Mayan masons lift with lazy gesture, and carry on their heads, weights under which one of our strong men would stagger.²²³

He had the opportunity to observe such a phenomenon because the Carnegie Institution hired the local Indigenous population to do much of the heavy lifting involved in the archaeological excavation. Charlot asserted they demonstrated a continuity of gestures with the past, substantiating the artist's reconstructions of the creation of pyramids hundreds of years ago. Accordingly, in his printing process diary for one of his *Builder* lithographs, Charlot commented that because they were of "pure Mayan stock," the archaeological workers he sketched and painted represented an "obvious parallel to the original pyramid builders."²²⁴ Adding that "in some of the lithographs, I made a point of having the bas reliefs look like a portrait of the live worker," Charlot consolidated thousands of years into a timeless plane of racial heritability.

The immutable heritability of such an ability furthermore bolstered the temporal ambiguity of the builders, which was a deliberate feature of the prints. Frances Flynn Paine, in an introduction to a one-man exhibition of Charlot's work in 1931, plainly explained that his work was a temporal "composite," which mixed "actual observations of the Mayan and close study of

²²¹ Consider, for instance, Marius de Zayas' assertion in 1916 that "while the vital and abstract qualities of children's or African art derived from unconscious expression, these effects in modern art must be achieved by conscious effort." quoted in Sally Price, *Primitive Art in Civilized Places*, 33.

²²² *The New York Times*, as late as 1936, relied on this racial explanation for the conundrum of Yucatán Temples. "They had no metal tools, no wheel, no beasts of burden. Human muscles had to haul and lift colossal blocks of stone. The Mayas of today... are human puzzles. Have we stumbled here on some racial characteristic?" Waldemar Kaempfert, "The Week in Science: Investigating the Maya," *The New York Times*, December 13, 1936.

²²³ Charlot, "Mayan Art," 420.

²²⁴ Morse and Charlot, 122.

their ancient arts.”²²⁵ Although observers seemed to understand Charlot’s builders as responsible for the temple’s construction around 900 A.D, Charlot deliberately offered suggestions that his builders were also contemporary participants in the archaeological reconstruction. The workers in *Great Builders II*, for example, use metal tools like shovels and even wheelbarrows, and some of the stone objects they leverage are clearly not building materials but archaeological specimens: the bottom-left resurrection of a carved stone from within a trench makes little sense in the context of the pyramid’s initial construction (fig. 30). At the same time, the cranial modifications, loincloths, and cropped huipiles were characteristic of ancient rather than 20th-century workers, and the title insists that his figures are particularly gifted *builders* rather than excavators or archaeologists.

Given Charlot’s insistence upon the racialized trait of masonry and Modernism’s long history of racist objectification, it is unsurprising that Indigenous workers became exemplary models of a reorganization of subjecthood in which people and the nonliving matter with which they dealt were not meaningfully separated by a cartesian privileging of human consciousness.²²⁶ That Indigenous people and stone were perceived as metaphysically connected by a Primitive subconscious took shape in Charlot’s work as a visual dissolution between the bodies of the Maya workers and the stones they carried. In *Three Pyramid Builders*, the frames of the three figures appear not as distinct matter but rather as extensions of the stone architecture they are assembling (fig. 29). Not only does a homogenous palette and consistency of mark-making suggest similarities in the tangible makeup of bodily tissue and boulder, but limbs follow the architectural logic of building blocks. At the bottom, a head mirrors the circular curve of a hooked corner ornament. At center, a man’s wide stance and extended arms improbably twist into the same pyramidal angle as the block at his back. Positioned within this architectonic rhythm, the builders are cast as part and parcel of the building’s substance.

Three Pyramid Builders’ simulation of the shape and depth of stone carving summons the image of similar features in *Seated Nude*, whose cramped, compact build recalls the blocky conditions of a boulder more than a desire to convincingly imitate any extant structure of flesh, muscles, and bones (fig. 31). Charlot had identified a “stocky” aesthetic as the product of the Pre-Columbian regard for unmediated stone: “The craft of an Aztec hand,” he wrote, “is suggested by the directness of carving, of a stockiness that bespeaks respect for his material... [of] statues kept close to the original boulder shape.”²²⁷ This much we might have speculated already: almost more than its sedimentary texture, what dramatizes *Seated Nude*’s proximity to stone is the single dense volume of the woman’s body, which presses together limbs and other attenuated appendages as if to safeguard the integrity and constitution of a bulky, solid, boulder. Yet Charlot also likened the minimal intervention in Aztec sculpture to a bodily type that he described as observable in contemporary Nahua people. Indeed Charlot himself indicated that his broad, sturdy approach to anatomical form was also the result of what he perceived as the

²²⁵ Frances Flynn Paine, *Jean Charlot, by arrangement with Frances Flynn Paine*, (New York: John Levy Galleries, April 1 to April 18, 1931).

²²⁶ By “cartesian” I am referring to the concept developed by Rene Descartes of consciousness as (1) a uniquely human phenomenon that dictates a person’s control, authority, and superiority over all other species (2) an entity separate from all other matter, including the human body. For my purposes, the term highlights a distinction between human and nonhuman that fell apart in Charlot’s representations of Indigenous people and stone. While Cartesian frameworks might assume a hierarchical distinction between human and stone based upon rational consciousness, here both are assigned a subconscious animacy.

²²⁷ Jean Charlot, *Mexican Art and the Academy of San Carlos, 1785-1915* (Austin: UT Press, 1962): 71-72.

“squatty” bodies of the “snubnosed, slit-eyed, round-topped Aztec” people around him.²²⁸ Fixing racial categories in embodied physicality, Charlot instantiated a practice of vision which rendered Indigenous bodies as dense, azoic stones.

As if to confirm Charlot’s own declaration that he did not see his subjects as “flesh but hard stone,” critics commented frequently on the perceptual elision between body and rock in his work. Reflecting retrospectively on Charlot’s work in 1936, *Parnassus* wrote that Charlot’s most durable, characteristic quality was the way in which he rendered “bodies broadly monolithic,” a comment that filters embodied existence through the materiality and structure of geological features or rock cut architecture.²²⁹ A sense of metaphysical imprecision was also identified by Charlot’s close interlocutor, the journalist and cultural critic Anita Brenner, who was reminded by his work that the difference between “materials (from rock to flesh), are a change only of intonation.”²³⁰ *The New York Times* even clarified, after remarking upon the way Charlot’s figures resembled “great stone buddhas,” that “they are flesh, however, not stone.”²³¹ *The Art News* suggested “figures seem chiseled out of rock.”²³² Similarly Margaret Bruening, upon examining a print of a woman who seemed to be an “archetype of her race” paused on a sense of lithified ambiguity, musing that “she might be a carving or a temple, yet she is, too, reality as well as abstraction.”²³³ Even José Juan Tablada, though he ultimately landed on clay (*barro*) as a more apt comparison, concluded in his analysis of the blocky dimensionality of Charlot’s *cargadores* that one would be forgiven for assuming they were made of “inhuman stone.”²³⁴

If, like Tablada, scholars have identified stone as representing the most “inhuman” of matter, Charlot’s work invites questions about the meaning of stone within the well-worn history of race-based dehumanization.²³⁵ Indeed, it matters that the artistic allure of stone was demonstrated largely through the bodies of Indigenous people. Situated at the threshold between biological and geological matter, figures such as the builder (fig. 32) represent a category of subject that troubles distinctions between life and nonlife, or, more specifically, human life and its most lifeless, inhuman other. Such ontological liminality relies on tropes which have long sought to dispossess Indigenous people of humanity: perceived as the pre-modern relic of an “ancient race” and as the atavistic worshiper of the inhuman, the Indigenous figment of the Western imagination emerges as a petrified deposit of primordial life.²³⁶ And as Charlot’s temporal “composite” of archaeological workers reveals, stone’s ability to signal a durable and

²²⁸ Jean Charlot, passages cut from the original typescript of *the Mexican Mural Renaissance*, “J.C. Mex. Mural Ren. — Unpublished Material,” ca. 1946.

²²⁹ “Front Matter.” *Parnassus* 8, no. 3 (1936): 1–26.

²³⁰ Anita Brenner, *Idols Behind Altars: Modern Mexican Art & Its Cultural Roots* (New York: Payson & Clark) 310.

²³¹ “Spring Days in the Art Galleries: Jean Charlot’s Mexican Paintings-- Other Exhibitions” *New York Times*, April 25, 1926.

²³² M.D. “A Vital Figure in the Development of Mexican Art: Charlot,” *The Art News*, March 1938. Also talks about “primitive carved form.”

²³³ Margaret Bruening, “Paintings by Jean Charlot at Levy Galleries”

²³⁴ José Juan Tablada, “Nueva York de Día y Noche,” *El Universal*, February 19 1933.

²³⁵ Kathryn Yusoff, *A Billion Black Anthropocenes or None* (Minneapolis: University of Minnesota Press, 2018); Jeffrey Jerome Cohen, *Stone: An Ecology of the Inhuman* (Minneapolis: University of Minnesota Press, 2015).

²³⁶ Yusoff, *A Billion Black Anthropocenes*, see also Elizabeth Povinelli, *Geontologies: A Requiem to Late Liberalism*. (Durham: Duke University Press, 2016). Mary K. Coffey, “Orozco’s Rocks: Race and the Geontologies of Mexico’s Pedregal” unpublished manuscript for *Futures Uncertain*, ed. Chad Elias (Durham: Duke University Press, forthcoming).

expansive magnitude of time also suggested a temporal location for Indigenous people that was at once ancient and timeless. Indistinguishable from geological matter, they share its discursive associations with the primordial, the elemental, and the inhuman.

Charlot was not the only person to use lithography in order to intimate a continuity between the figure of the Indian and stony materiality. José Clemente Orozco's "Rocks," a lithograph printed in 1935, also employs a uniformity of monochromatic mark-making to suggest a material sameness between the four Indigenous women in the foreground and the mass of black rocks on which they sit (fig. 37). It is difficult not to see shared habits of mind: Charlot had been the one to introduce Orozco to the medium of lithography, and the two maintained a close correspondence and friendship throughout their careers. And like Charlot's builders, this print invites analysis about the convergence of race and geological matter. Indeed, Mary Coffey has recently analyzed Orozco's "Rocks" on precisely those grounds, identifying a historically situated homology between Indigenous body and the lifeless materiality of pedregal, a region in Mexico City known for its volcanic rock *and* its supposedly Indigenous soul.²³⁷

As Coffey argues, this merging between rocks and Indigenous subjects points to the ways in which the Mexican state enacted similar methods of power over Indigenous people and mineral resources. In opening up a porous resemblance between Indigenous life and geological nonlife, Coffey argues, Orozco invokes not only the Liberal fantasy of Indigenous animism but also of the Indigenous "soul" that is frequently attributed to Pedregal. For Coffey, this animist vision of the Pedregal "was the necessary condition for its [economic] exploitation."²³⁸ Such an argument is highly relevant to an analysis of Charlot's work, which also bridges questions of extraction, Mexican Indigeneity, and the tensile distinctions between life and nonlife in 1930s lithographs. Indeed, my argument in what follows builds upon Coffey's to show how animism, race, and geological materiality all interacted in this milieu to support a logic of extraction.

Extraction & the Imaginary of the Indigene

As both Charlot and Orozco's prints reveal, the aesthetic language of material conductivity between Indigenous body and stone demonstrated a perceptual order in which Indigenous bodies were instilled also with stone's most ancient, inhuman associations. This semiotic transmission is underscored in Charlot's work: the fantasy of Indigenous servility to stone, at times, was predicated on assumptions which presupposed a dearth of cartesian authority. In *Picture Book*, for instance, the imagined metaphysical exchange between builder and material appears to diminish the humanistic achievements of the Maya. In one image, the builders' role in the creation of the temple appears more as an auxiliary support to the forceful constructive power of the stone (fig. 32). Charlot puts this redistribution of agency into words by captioning the image, "human cathedral buttresses the uprising stone."²³⁹ The caption ossifies its subjects, construing lively intentionality as inanimate scaffolding. It renders humans as the architectural basis of the cathedral, offering them the more static role of "buttressing" rather than designing, crafting, transporting, and constructing. Venerated for their perceived metaphysically equal dialogue with stone, the Indigenous builders here assume stone's inert, lifeless connotations.

²³⁷ Coffey, "Orozco's Rocks."

²³⁸ Coffey, "Orozco's Rocks." 4.

²³⁹ Charlot, *Picture Book*, 1933, 13.

Significantly, however, this image also assigns stone a level of unusual agency: the word “uprising” registers the kind of independent, convulsive energy that might sooner suffuse a crowd, offering the stone an autonomous, eruptive capacity for growth and movement. As it rises, it is buttressed only by human material stability. The caption instantiates precisely the sort of agentive redistribution that had weighed so heavily in the minds of Charlot and his contemporaries. It was, after all, logically consistent with Charlot’s conviction in a stony “subconscious” which, like Flannagan’s belief in the involuntary emergence of his direct carving, saw “centripetal forces at the innermost core of the rock.” In the world of 1930s primitivism, we recall, stone’s connotations are not as the lifeless, unresponsive material devoid of any vitality, but rather as a dormant reserve of creative artistic energy. Was stone really, then, imagined to be so inert?

We are reminded of the other side of this ontological realignment, in which primitivism’s racist subtexts of presumed access to an otherwise “buried” intuition were transferred to the core of the earthly and inhuman. Indeed, Charlot’s image of Indigeneity was characterized not so much by a stony refusal of Indigenous consciousness, but rather by an insistence upon that consciousness’ latent, eruptive potential. Like many artists and critics of his generation, Charlot was fascinated by what he perceived as an innate, irrational impulse of the Indigenous subconscious. This took shape in his writing about form and abstraction as racial predispositions. After viewing an exhibition of *Indian Art*, Charlot concluded that “the language of abstract art” as much as other forms of “magic power,” for instance, came not from any reasoned intention but rather from “the deepest thrust of the Indian mind.”²⁴⁰ Such language was not uncommon: As many have pointed out, understandings of the Primitive have often involved assumptions about childlike access to unmediated intuition that the civilized person “buries.”²⁴¹ What interests me about this otherwise typical, racialized language about the unmediated generation of form, however, is the way in which it gets imputed onto a material that otherwise connotes a lack of consciousness (think, for instance, of the saying “slept like a rock,” or the phrase “stone cold” to relate a lack of emotive capacity). Indeed if Charlot’s affirmation of the existence of a “subconscious volume” of an artist’s stone material is any indication, his materialism was suffused with a sense of the latent, the automatic, and the undeveloped.

The psychic dimension of this material interchangeability between Maya people and stone was perhaps most clearly suggested by the formal equivalence of human heads and stone. The workers in Charlot’s series nearly always carry building materials by pressing them against their elongated foreheads, a practice that the artist wrote about frequently, and which was widely understood as the reason for cranial modifications in the ancient Yucatán.²⁴² The stones in Charlot’s prints are often shaped in a way to mirror the head of the person who carries it, and their volumetric treatment often intimates a metaphysical continuity. *Great Builders II* shows an

²⁴⁰ Jean Charlot, “All-American,” *The Nation*, February 8, 1941.

²⁴¹ As Sally Price has written, “the proposition that art is a ‘universal language’ expressing the common joys and concerns of all humanity is based firmly on the notion that artistic creativity originates deep within the psyche of the artist.” She likewise observes that “Western enthusiasts of primitive art have always argued that its authors are in particularly close touch with the ‘fundamental, basic, and essential drives of life’ -- drives that Civilized Man shares but ‘buries’ under a layer of learned behavior.” Sally Price, *Primitive Art in Civilized Places*, 32.

²⁴² Charlot was fascinated with the practice of head-binding and cranial modification. Reviewing a book written by the lead archaeologist on the site at which he worked, Charlot referred to the notion that head-binding arose out of an admiration for stones. “So zealous were the Mayans in their belief in their own peculiar ideal of beauty that artists were called to produce it not only in stone but in living flesh.” Jean Charlot, “Review of Sylvanus G. Morley, *The Ancient Maya*.” *Magazine of Art*, Vo. 40, No. 5 (May 1947): 208–209.

organizational system of stones which, as the builders ascend, becomes harder and harder to distinguish from their heads (fig. 30). The stones become progressively oblong, and they are increasingly given value in much the same way as the body that carries it. This visual analogy, in which stones gradually transform to simulate heads as well as vice versa, suggests a psychic intimacy between the two. The stone, then, summons Charlot's image of the "Indian mind" and the "ancestral instincts" that were associated with it.²⁴³

Charlot's preoccupation with an imagined layer of latent intuition was informed by what he perceived as Indigenous freedom from Western rational thought. As he tried to codify a specific Maya aesthetic, for instance, he concluded that it "substitut[ed] esthetic intuition for rational knowledge."²⁴⁴ The specific psychic acuity was, unlike the knowledge that attended modern science, the visceral, innate, and primordial residue of ancient ancestors. A childlike, religious innocence about modern science became a racial characteristic; As an enthusiastic observer of Indigenous culture, Charlot took a special interest in what he referred to as the "spirituality of the Indian race."²⁴⁵ Indeed his sense of an innately Indigenous impulse was informed by an elaborate fantasy of Indigenous metaphysics. Soon after his arrival in Mexico, for instance, Charlot announced the "supernatural" quality of the land, captivated by a culture he perceived as unsullied by western reason.²⁴⁶ While Charlot himself was a devout Catholic, he remained fascinated by the exotic "religious customs of the Indian," characterizing them as mixed "with superstition, magic, [and] paganism."²⁴⁷ Still, Charlot clarified, such folly could be justified through the authenticity of an intrinsic, atavistic mental state, as "his [the Indian's] religious feeling is intensely pure."²⁴⁸

The role and characterization of Indigenous religion within Charlot's career can help explain his fixation on the materiality of stone, as well as stone's relationship to abstraction. Of all naturally occurring substances, stone has routinely been identified as superlative in its

²⁴³ As a critic of art, Charlot referred to the artwork of mestizo artists such as David Alfaro Siqueiros as an illustration of the "ancestral instincts of the Indian." Charlot, "Interesting display of Mexican art now at Michael's." *Banner-Herald*, February 3, 1943. p. 1, col. 5; p. 3,

²⁴⁴ Writing of the lithographer Alfredo Zalce, Charlot described the ways in which Maya intuition and lithographic medium come together: "Pero en donde fracasa el cientista, el artista logra el gol, sin saber cómo y casi sin anhelarlo, sustituyendo con la intuición estética al conocimiento razonable, llevado por el puro gusto de manejar la magia negra y blanca del medio litográfico." translation: "But where the scientist fails, the artist achieves the goal, without knowing how and almost without longing for it, substituting aesthetic intuition for rational knowledge, driven by the sheer pleasure of handling the black and white magic of the lithographic medium." Jean Charlot, "Prólogo: Alfredo Zalce, Estampas de Yucatán." in Zalce, *Imágenes de Yucatán* (Mexico City, Talleres de Grafica Popular. Escritos, January 1946).

²⁴⁵ Jean Charlot, "Réponse à Molina," April 1923

²⁴⁶ In an article about the engraver José Guadalupe Posada, Charlot wrote that Posada reminded viewers that "Mexico is a land essentially plastic, tragic, and supernatural." ("México es una tierra esencialmente plástica, trágica y sobrenatural.") Using a method of "direct carving" ("tallando directamente") in his zinc plates, Posada had uncovered the "subsoil of emotion" ("subsuelo de emoción") and shown that the Mexican people "have not lost their sense of the supernatural" ("no han perdido el sentido de lo sobrenatural.") Jean Charlot, "Un precursor del movimiento de Arte Mexicano: El grabador Posadas." *Revista de revistas: El semanario nacional* (Mexico City), August 30, 1925, 25.

²⁴⁷ "Quelques mêlées que soient les coutumes religieuses de l'indien de superstitions, de magie ou de paganisme, son sentiment religieux est intensément pur." translation: "However mixed the religious customs of the Indian with superstition, magic or paganism, his religious feeling is intensely pure." Jean Charlot, *Ébauche d'un Essai sur la Religion Populaire Indo-Américaine*, 1925-1926. JCC

²⁴⁸ Charlot, 1925-1926 "Ébauche d'un Essai sur la Religion Populaire Indo-Américaine."

expression of absolute lifelessness. Its ability to endure and index unimaginable expanses of time, its inability to sexually reproduce, and its ruthless, unrelenting hardness readily obscure its relationship to biological life cycles. To refuse stone's inertness and insist instead upon its agency represents perhaps the most radical challenge to human-centered worldviews that organize metaphysical urgency around human consciousness. Indeed, Charlot's published writings about the aesthetic contribution of Maya stele had largely to do with their divergence from European ontologies. In 1935, he wrote an article for *The American Magazine of Art* in which he summarized this sort of spiritual, epistemological nonconformity as a "racial affinity" which resulted in the language of abstract form:

But in the Mayan scheme of things, man was far from playing the dominant role. He was a well-nigh useless addition to a universe in which planets, stars, and innumerable and complex host of gods moved in orderly fashion. To live his life without crossing the way of those mysterious beings was man's main concern. Hence the priest controlled all. The metaphysical subjects proposed by the priesthood to the hired artist were, by happy accident or racial affinity, exactly those that befitted his gift. The Mayan artist was most interested in abstractions. The use of line, volume, and color for non descriptive, highly intellectualized purpose, was as natural with him as an objective fidelity is to the camera. As a result, this art stands as one of the wealthiest mines of theological motives and plastic abstractions the world has ever seen.²⁴⁹

Charlot not only characterized the emergence of non-illusionistic representation in Maya archaeology as innate and automatic, he attributed abstraction to a spiritual paradigm and its non-anthropocentric worldview. This worldview dictated the spiritual inventory of stones: referring to archaeological specimens as "monoliths" or "chunks of stone," Charlot insisted that they "palpitate a spirituality," were "endowed with psychological flavor," and were "accumulator[s] for religious energies."²⁵⁰ Connecting the form of the stones, religious practices, and a sense of latent, psychic interiority, Charlot identified what he perceived as a psychological tendency away from reason. In earlier typescripts, he remarked upon the ways in which the "magnificent monoliths" he saw were "impressively illogical in their jungle surroundings."²⁵¹ Here, Charlot assigns not just vitality but the supposedly illogical impulse of a spiritual subconscious.

In other words, Charlot found himself drawn in by the notion of an Indigenous worldview which did not distinguish life from nonlife. He was far from alone: a number of writers in Charlot's circle described the Indigenous legacy in Mexican art as one which was about animism, and supposedly illogical spiritual meanings imputed within inanimate idols or earthly matter. There is perhaps no better example than Charlot's close interlocutor Anita Brenner, a journalist and cultural critic who built her career around identifying the surviving strains of Pre-Columbian religion. As she wrote *Idols behind Altars: Modern Mexican Art and its Cultural Roots* in 1931, she aimed to capture the "constant Indian attitude, which is the participation of the same stuff of being, with other lives not human."²⁵² At times, Brenner seems to move from the role of disinterested observer of Indigenous customs to one where she herself was adopting a

²⁴⁹ Charlot, "Mayan Art," 420.

²⁵⁰ Charlot, "Mayan Art," 420.

²⁵¹ Jean Charlot, Early Typescript of "Mayan Art," before 1935. JCC, Writings in English, 1930s.

²⁵² Brenner, *Idols Behind Altars*, 37.

belief in the spiritual unity and animacy of all matter. Remarking upon the survival of an “ancient custom of giving personal names to volcanoes,” for instance, Brenner affirmed the existence of a “tense, animal vitality” within the Mexican landscape.²⁵³ The intimate recognition of being within geological matter on the part of Indigenous contemporaries translated, for her, into an assertion of an untamed, pulsing power of their environs.

This fantasy of a simplified Indigenous worldview has been termed the “imaginary of the Indigene” by Elizabeth Povinelli, in which generalized animism is understood simply as a failure to make the distinctions of rational subjects between life and nonlife.²⁵⁴ Indeed Charlot’s flirtation with animism can be attributed as much to the significance of modernist vitalism as to his study of Maya archaeology and worldviews. As the previous chapter illuminated, Charlot, Pach, and Rivera were all part of an intellectual circle helmed by the French art historian Elie Faure. Faure was a leading proponent of modernist vitalism, which asserted metaphysical unity and the morphological interconnectedness of the universe. *The Spirit of the Forms*, for instance, asserted the spiritual animacy of all matter, proclaiming a “constant interchange between the matter of the world, which we immediately transform into spirit the moment it touches us, and the spirit that we immediately represent as matter the moment we are touched by it.”²⁵⁵ To proffer examples of such interchange, Faure lingered on the unique supremacy of stone.²⁵⁶ The materiality of stone carving was in fact central to Faure’s argument; he related that “in the very heart of the stone there is established the identity of his spirit with the profound movements that determine the surfaces of the stone, the incidence of light and the play of shadows upon it, its grain, density, sonority, savor.”²⁵⁷ Elsewhere, he had encouraged Diego Rivera to feel a spirit within all matter, “even all that seems dead— even to the very tissue of stones.”²⁵⁸ Reassuring his readers that such stony expression “seems inconceivable, but it is natural,” Faure insisted upon the potential of all matter to become spiritually animate.

To be sure, even the modernist vitalist’s conviction in the animacy of all matter might represent, in some ways, a challenge to the sort of human-centered perspective that Jane Bennett refers to as “earth-destroying.”²⁵⁹ In the Western imagination, however, this universalizing axiom not only fails to record the complexity of Indigenous relationships between organic and inorganic entities, but also itself can be marshaled to sustain a logic of extraction.²⁶⁰ A

²⁵³ Brenner, *Idols Behind Altars*, 4.

²⁵⁴ Elizabeth Povinelli, “Geontologies: The Concept and Its Territories.” *E-Flux* 81 (2017).

²⁵⁵ Elie Faure, *History of Art: The Spirit of the Forms*, 265

²⁵⁶ Faure wrote that stone had a unique capacity “to “produce what is most general and most perceptible in the drama of humanity.” Faure, *Spirit of the Forms*, 269.

²⁵⁷ Faure *Spirit of the Forms*, 267.

²⁵⁸ Bertram Wolfe recounted correspondence between Faure and Rivera in *The Fabulous Life of Diego Rivera*. (New York: Stein and Day, 1963), 111.

²⁵⁹ Jane Bennett writes, “Why advocate for the vitality of matter? Because my hunch is that the image of dead or thoroughly instrumentalized matter feeds human hubris and our earth-destroying fantasies of conquest and consumption” in Jane Bennett, *Vibrant Matter: A Political Ecology of Things*, (Durham: Duke University Press, 2011), ix. For a critique of how universalizing rhetorics of human-wide culpability have appropriated Indigenous epistemologies and exculpated the epistemologies surrounding race and capital that underwrote European colonization, see Zoe Todd, “Indigenizing the Anthropocene” in Davis and Turpin, *Art in the Anthropocene: Encounters Among Aesthetics, Environments and epistemologies* (London: Open Humanities Press, 2015), 241-54.

²⁶⁰ In the Karrabing aboriginal epistemologies that Povinelli elucidates, for instance, geological matter is not simply alive: it is assigned the ability to shift forms, turn its back on mutual recognition, and extinguish life altogether. Generalized animism, however, was “born from and operate[s] within a (post)colonial geography in which some

generalized sense of Indigenous animism has long been mobilized, for instance, as a childlike, pre-modern resistance to modernity rather than any kind of sophisticated response to the unsustainable practices of extraction.²⁶¹ Indeed, the supposed failure to recognize the scientifically correct relationship between person and mineral has also been historically linked to a failure to develop and make adequate use of mineral resources. This rationale was ubiquitous in the economic discourse around Mexican minerals, but it made its way into artistic circles, as well. Brenner, during her tenure as a Guggenheim fellow in Mexico, made precisely such a case. Upon return from an exploratory archaeological mission in 1931, numerous newspapers reported her discovery of a “wild Mexican area rich in oil and gold,” which was also deemed an “Indian region where petroleum seeps from the hillsides” and where “archaeological treasure is plentiful.”²⁶² The articles were saturated, however, with Brenner’s own fixation on the undeveloped nature of both Indigenous belief systems as well as the resources themselves. “This country is tremendously rich in minerals and oil,” she lamented, “and yet the Indians there live in poverty because of their ignorance and superstition.”²⁶³ She not only labeled Indigenous ways of thinking as superstitious, ignorant, and the reason for observable poverty, but also as the only possible reason for their failure to develop those minerals.

It is worth pausing to underscore Brenner’s notion that an irrational, inchoate belief system could be responsible for a reserve of geological matter that is also cast as itself undeveloped, crude, and having failed to assimilate properly to modernity. Left up to the supposedly archaic principles of the “Indian region,” the latent energy within that geological matter has failed to achieve its modern potential. Such an equivalence fits neatly into a critical landscape which associated Indigenous epistemologies with a supposedly “illogical” and “psychological flavor” within stone sculpture, as well. It calls to mind Charlot’s notion that there was some relation between modern form, a perceived, religious ferocity and the “geological fierceness” of stone itself. The concept of a latent, eruptive energy within the most inert of all matter also suggested its assimilative potential. After all, weren’t Mexican mineral resources, like Indigenous form, also treated as undeveloped reserves of modern possibility?

Brenner’s words thus return us to Charlot’s declaration that Maya archaeology was a “mine of theological motives and plastic abstractions,” highlighting the latent, animate potential of the Primitive to the modern. That this Primitive potential was imagined to be situated deep within geological matter, however, also underscores also the ways in which vitalist materialisms

humans were represented as unable to order the proper causal relations between objects and subjects, agencies and passivities, organic and inorganic life, and thus control language and experience through self-reflexive reason.” Povinelli, *Geontologies*, 27. Moreover, insisting that these complicated analytics conform to animism may be “reiterating rather than challenging the discourse and strategy of geontopower.... The Animist says, Life no longer needs to face its terror- the lifeless, the inert, and the void of being- because we can simply refuse to acknowledge any other way of existing than our own.” Povinelli, *Geontologies*, 55.

²⁶¹ But as Povinelli argues, this universalizing animist axiom not only fails to record the complexity of Indigenous relationships between organic and inorganic life, but also itself sustains a logic for extraction and dispossession in the settler state. She writes, “the demand on indigenous people to couch their analytics of existence in the form of a cultural belief and obligation to totemic sites (a belief and obligation that is absurd from the point of view of geontopower and its figure of the Desert) is a crucial longstanding tactic wherein settler late liberalism attempts to absorb indigenous analytics in geontopower.” Povinelli, *Geontologies*, 33.

²⁶² “Wild Mexican Area Rich in Oil and Gold : American Woman Finds Indian Region where Petroleum Seeps from Hillsides.” *The New York Times* May 25, 1931;

²⁶³ “Wild Mexican Area Rich in Oil and Gold”

might share a guiding structural logic with extraction.²⁶⁴ Brenner's description of this "wild Mexican area," where untouched petroleum "seeps from the hillsides" yet lies woefully dormant was after all, itself a recognition of lively potential within geological matter.²⁶⁵ Refusing to see the area's subterranean substance as lifeless, Brenner projects the lively into the inert, assimilating both the inorganic (in precious metals, minerals) and the long-dead (in the fossilized remains of primordial organisms) to her own sense of worthy, animate potentiality.²⁶⁶

In the final section of this chapter, I trace the ways in which Charlot's indigenizing animation of geological matter testifies to conditions on both sides of the border which also read the Mexican subsoil as a racialized reserve of latent potential. This iteration of vitalist animism bestowed life, in part, through an understanding of Indigenous heritage as a biological condition that was located in the interior, vital bodily viscera of blood and organs and yet paradoxically present in inanimate earthly matter, as well. The perception of this biological definition of race within inorganic matter speaks to the ways in which the Mexican subsoil was imagined as a metaphor for Mexico's own Indigenous heritage. Ultimately, however, it was also just one of many efforts to depict Mexico's subsoil through a vocabulary of atavistic regression, thus characterizing it as a latent, undeveloped reserve of primordial energy.

Race, Latency, and the Indigenous Subsoil

A number of scholars have discussed the ways in which the phenomenon of modernist primitivism was inevitably informed by perceptions about race. But what exactly did race mean for Charlot? Until now, I have traced the artistic affiliation between Indigeneity and stone through different, largely inconsistent conceptions of race. If Charlot's lithographs mobilized external phenotype to suggest a visual relationship between Indigenous bodies and stone, his material methods and theoretical framework connected a generalized sense of Indigenous animism to a Primitive unconscious, located at the recesses of both mind and stone. Finally, however, it is worth discussing the ways in which Charlot and his contemporaries mobilized Charlot's own Indigenous ancestry— by most accounts neither externally visible nor culturally aligned with Indigenous practices — to animate geological matter.

²⁶⁴ Against such thinkers as Jane Bennett, the profession of liveliness within all (but especially geological) matter becomes for Povinelli a central, telling device in the extractive apparatus of settler liberalism. The animist of the Western imagination, Povinelli points out, is informed by the very European belief in the superiority of life over nonlife, or of being over nonbeing. Ultimately, universalizing animisms like Bennett's (and, for that matter, Charlot's)— which assimilate all things to our own sense of worthy, animate, beingness— overlook a more sophisticated recognition of nonlife's unique capacities. In the Karrabing aboriginal epistemologies that Povinelli elucidates, for instance, geological matter is assigned the ability to shift forms, turn its back on mutual recognition, and extinguish life altogether.

²⁶⁵ Povinelli makes a similar point. For her, the desire to see a vitalist potential in everything shares a guiding structural logic with capitalism. "Capitalism," Povinelli writes, "sees all things as having the potential to create profit; that is, nothing is inherently inert, everything is vital from the point of view of capitalization, and anything can become something more with the right innovative angle. Indeed, capitalists can be said to be the purest of the Animists." Assimilating everything to the political bias towards life means assimilating it also to the concept of potentiality. Povinelli, *Geontologies*, 20.

²⁶⁶ Indeed, the recognition of lively potential within apparently inert geological matter, Povinelli points out, was precisely the thing that allowed European-American industry to replace human labor, massively accelerating the growth of capital. Refusing to see geological matter as inert, industry turned to the fossilized remains of primordial organisms in things like petroleum and coal. In facilitating the mechanization and replacement of human labor, the extraction and combustion of fossil fuels mark a shift, from the extraction of life from other lives (via human labor), towards the extraction of life from nonlife.

Exhibited at John Levy Galleries in New York in 1933, the oil painting *La Montagne* iconographically demonstrates Charlot's primitivist animation of geological matter in the body of a massive reclining woman (fig. 38). It is telling that viewers compared it to the direct carvings of the 1930s that had resulted from the modernist encounter with Pre-Columbian archaeology. Despite its realization in an entirely different medium, the painting was immediately castigated for its conformity to Henry Moore's stone sculpture. As the critic Edward Allen Jewell pointed out, the British artist had also recently exhibited a recumbent female nude (fig. 39) and titled the work "mountains."²⁶⁷ The observation was not entirely unwarranted: the two works share the proposition, through exaggerated figuration and mineral substance, of parallels between the undulating silhouette of a woman's body and the rocky slopes of an elevated landscape. Jewell made such a comparison on the basis of a shared tendency towards metaphysical imprecision: condemning what he saw as a "bludgeoning sort of mysticism" and "too obvious a desire to bring human figures into a mood of identification with earth forms," he insisted that *La Montagne* was "neither woman nor mountain, but a muddy attempt at fusion."²⁶⁸ It was a refrain that was echoed by other critics, as well: "animism!" Maurice Valency exclaimed in his review of the exhibition, before concluding that *La Montagne* was nevertheless "dissatisfied, craggy and crevassed."²⁶⁹

The commentary surrounding this painting, however, also highlights the ways in which race was observable within this primitivist animation of geological matter. While Jewell had disparaged the nebulous lack of distinction between flesh and mountain, others such as Frank E. W. Freund lauded the "primeval power" of Charlot's "mountains." The critic Edwina Spencer likewise praised the "primitive force of the elemental" in "the massive earth forms of *La Montagne*."²⁷⁰ To be sure, these reviewers' perception of a Primitive, primeval force might be attributed to the immense magnitude of time indexed by massive geological formations, rather than race. So too might it refer to the implication of embodied existence woven into a geological formation, which, though it suggested a mindset many characterized as pre-modern, could not be attributed to any single racial category. It is worth pointing out, however, that the figure in *La Montagne* was identified as "Mayanesque" by observers, even as they positioned it as a geomorphology which had "evolved from the elements of sea, sky, and earth."²⁷¹ Indeed, the reclining nude's face bears the same sloped forehead, wide nose, and single-fold eyelids that Charlot had elsewhere used to identify figures as Mayan.

Still, such a focus on external markers of Indigeneity was also, in some ways, surprising for someone who himself identified "a taste for primitive art" as the "strongest influence" in his work on the basis of the "aztec ascendancy" and "blood legacy of a great grandmother."²⁷²

²⁶⁷ Edward Allen Jewell wrote that *La Montagne* represented "too obvious a desire to bring human figures into a mood of identification with earth form... 'La Montagne' is neither woman nor mountain, but a muddy attempt at fusion." He continued to point out that Henry Moore had done the same: "Somewhat the same deliberate effort seems to have been made by two contemporary British sculptors, Henry Moore and Richard Bedford. Mr. Moore calls his recumbent nude 'mountains'" Edward Allen Jewell, "Jean Charlot Proves Himself a Poet of New Idioms in Work at Levy Galleries, 11-1-1933, *The New York Times*."

²⁶⁸ Jewell, "Jean Charlot Proves Himself a Poet of New Idioms."

²⁶⁹ Maurice J. Valency, "The Art World" *Atlantica* Vol. XIV, No. 5 (Feb. 1933): 219. JCC.

²⁷⁰ Edwina Spencer, "Recent Work of Jean Charlot" *Creative Art: A Magazine of Fine & Applied Art*. Vol. 12 No. 2 (February 1933), 157; Frank E. W. Freund, "When In New York" *Cincinnati Enquirer*, January 15, 1933.

²⁷¹ *Art News*, "Exhibitions in New York: Jean Charlot, John Levy Galleries" Saturday, January 7, 1933.

²⁷² In an unpublished typed manuscript from 2007, Charlot's son John claims that "at the end of his life, in a shaky hand on a slip of paper, he wrote down guidelines for any student of his work." "Jean Charlot Biography I: Family

Indeed, to highlight the importance of Indigeneity in his work, Charlot would frequently remind newspapers and critics of his ancestry, championing a biological sense of racial authenticity that had little authority in coeval constructions of Indigeneity outside the elite artists with whom he associated.²⁷³ Perhaps for this reason, Freund's discussion of *La Montagne* was attended by a similar discussion of race. The critic's recognition of "primeval power" within the racialized sierra was prefaced by another analogy between body and earth, as Freund compared the "digging" Charlot did at Chichén-Itzá with an excavation into the artist's bodily interior. Freund wrote that while the purpose of Charlot's excavation had been to learn about Maya history, "this study was, in fact, more in the nature of finding himself, a digging deep down into his heart, and as it were, liberating the stowed-up flood of his blood and making it pulse in the rhythm according to nature."²⁷⁴ Freund's turn of phrase here speaks to a racial framework in which the Primitive authenticity supposedly afforded by Indigeneity could be accessed by way of a psychic and bodily interior, without recourse to an externally visible epidermal schema. Moreover, it mobilizes such bodily interiority to paint a lucid image of subterranean excavation, an impression which was also inevitably invoked in Freund's discussion of *La Montagne*: were the jagged edges framing the contours of the Mayan woman's body also her exterior?

This paradigm of interiority was expressed also in Charlot's personal reflections of Pre-Columbian sculpture, which located the traces of his own racial ancestry in the internal geological fabric of stone. In a meditation on Brancusi and the significance of direct carving throughout his career, Charlot wrote that the raw, Brancusian directness of Pre-Columbian sculpture felt like a way to commune with his biological connection to Indigeneity. Recalling that archaeological digs had "stirred what percentage of Indian blood I owed to an Aztec great-grandmother," he ventured that such incitement happened primarily by way of the stony materiality of Pre-Columbian sculpture.²⁷⁵ As he engaged with "crested plume snakes, hacked out of black lava stone, its grain porous as a sponge, its hardness that of jade," he wrote, he felt as if "I had in my hand the long lost key to a closed gallery of ancestor portraits."²⁷⁶ Recounting vividly the porous and firm qualities of the black lava stone, Charlot recognizes in it a visual representation of his ancestors and, ultimately, his own "Indian blood."²⁷⁷

Indeed, just as Indigeneity was, for him, a matter of internal blood content and buried psychic impulse rather than external phenotype, so too was stone sculpture to be judged by its internal geological fabric rather than by its surface features. Many years after he first condemned the use of a sculpture's "skin" in 1927, Charlot wrote an article entitled "the Indian beneath the skin," in which he argued that the "Amerindian" sense of self was represented in sculpture not

Background" January 30, 2007, Jean Charlot Collection at the University of Hawaii (heretofore referred to as JCC), also online at: https://jeancharlot.org/books-on-jc/2003-2017_john-charlot_jc-lw_vol-1_version-2_2-family-background.pdf

²⁷³ Despite the widespread post-revolutionary efforts to associate mestizaje with Indigenous culture, Charlot, like other mestizo artists, would not have been considered Indigenous in any significant way. Variable definitions of Indigeneity are helpfully outlined in Mayei Blackwell, "Indigeneity," *Keywords for Latina/o Studies* (New York: NYU Press, 2017), 100-104

²⁷⁴ Freund, "When in New York."

²⁷⁵ Charlot, "A Man for Four Seasons [On Brancusi]" 1977. Original English. Previously unpublished. <https://vault.jeancharlot.org/english-texts/BrancusiORIGeng.htm>

²⁷⁶ Charlot, "A Man for Four Seasons."

²⁷⁷ Charlot, "A Man for Four Seasons."

through faithfulness to one's skin but rather through "the inner cogs of man turned inside out."²⁷⁸ As opposed to a Classical Greek tendency to "loiter on outer form" through a focus on flesh and surface, "the Indian," Charlot wrote, "preferred to probe surgically into the self," representing the body through its "inner organs" and "palpitating heart." Such a focus on bodily interiority mapped also onto a wider visual regime he identified which aimed to grasp the supersensory essence of the material world by looking beyond its surfaces: for Charlot, the sculptor in Pre-Columbian Mexico was a "spiritual animal" whose visual framework recalled the modernist artists of the 1930s who "bravely tackled the impalpable psyche behind the carved volumes." In turn, this observed "Indian aesthetic" of interiority necessitated the use of "hard stone," so that the enduring nature of one's biological and psychological interior could be "in tune with the dense material he chose to carve it in."²⁷⁹ Here, Charlot yoked bodily interiority not only to race by locating "the Indian Beneath the Skin," but also to a broader, spiritual sensitivity for the internal logic of stone material.

As Freund's assessment of *La Montagne* has already begun to make clear, a biological sense of Charlot's Indigenous heritage was the focus of much of his critical evaluation. The conflation between the expression of latent, interior force of material, and the expression of a latent, interior racial heritage – informed the reception of Charlot's work. His heritage was imagined to take shape as a psychic, unconscious, impulse that could be discerned in the materiality with which he interacted. Elizabeth Luther Cary, for instance, wrote that "one element predominated" within the "mingled strain of his race," which showed up in a "rude force that emanates as much from his own soul as from the material of his pictures."²⁸⁰ Verbalized through Cary's colorful language, a biological sense of Indigeneity takes shape as a "rude," untrained creative impulse, which appears not just in his "soul" but also in the materiality of his pictures.

Freund's language was also one which scaled race from the individual body to the larger Mexican landscape. He was just one of several to describe the process of unearthing archaeological treasures as an avenue into a suppressed, internal impulse transmitted by racial ancestry. Charlot himself recalled that archaeological digs had "stirred what percentage of Indian blood I owed to an Aztec great-grandmother."²⁸¹ But critics made the connection more vivid: Freund's characterization of Charlot as "digging deep down into his heart" and "liberating the stowed-up flood of his blood," for instance, suffuse the Mexican earth with the bodily viscera to impart the genealogical transmission of race. José Juan Tablada likewise wrote of Charlot's relationship to archaeology as an exhumation of both earth and race, writing that Charlot, "as a member of the Carnegie archaeological expedition in Chichen-Itza, [has] dug deeply into the vein of Mayan aesthetic tradition."²⁸²

There are several different parallelisms happening here. That archaeological excavation ("digging") would be tantamount to unearthing a "vein," or Charlot's own "blood," of course, trains our attention on bodily interiority by way of archaeology's subterranean dimensions. This

²⁷⁸ Jean Charlot, "The Indian beneath the skin." Review of *Pre-Columbian Art*, by S. K. Lothrop, W. F. Foshag, and Joy Mahler; and *Indian Art of Mexico and Central America*, by Miguel Covarrubias. *Art News* 57, no. 3 (May 1958): 43, 55.

²⁷⁹ Charlot, "The Indian beneath the skin." 43, 55.

²⁸⁰ Elizabeth Luther Cary, "Charlots Latest Work: Unites Characteristics that are Classic and Modern- his Show at the Art Centre" *New York Times*, August 17, 1930.

²⁸¹ Charlot, "A Man for Four Seasons."

²⁸² José Juan Tablada, "Recent Activities in Mexican Art." *Parnassus* 2, no. 4 (April 1, 1930): 16–48.

metaphor suggests that, by way of archaeology, Charlot might have access to an Indigenous heritage that is not accessible by way of any exterior surface, bodily or terrestrial. There is, then, the sense that this biological construction of Indigeneity, reimagined as heritage, carries a historical dimension, much like archaeology. Given the historical context of post-revolutionary Mexico, which formulated its national identity around its Indigenous ancestry as much through national discourses of *mestizaje* as through aesthetic regimes of *indigenismo* and Pre-Columbian archaeology, these shared meanings of heritage are perhaps to be expected. Yet there is, finally, also the evocation of subterranean excavation within this conception of heritage. To dig into a “vein,” after all, can refer to a buried reserve of mineral wealth as much as an internal conduit for blood, that corporeal channel for genetic makeup and life itself. And when considered alongside post-revolutionary discourses about Mexico’s subsoil, these paradigms of heritage and interiority have as much to say about the way we view earthly materiality as they do the way we view race.

It was not the first time Tablada had deliberately positioned archaeological excavation as the site of rhetorical convergence for Mexico’s racial and mineral heritage.²⁸³ The conceptual fusion between archaeology and minerals, as the previous chapter discussed, was a cultural and political phenomenon which hinged upon the Mexican constitution’s Article 27, an article which aimed to assert Mexican sovereignty over the subsoil. As Elizabeth Emma Ferry has written, Article 27’s understanding of the subsoil as a place of “patrimony” was an attempt to extend control of the nation in time as well as in space.²⁸⁴ Yet as Lisa Breglia stresses more forcefully, this insistence upon the political significance of a state’s temporal lineage — what she calls a “heritage assemblage” — was deeply connected not just to Mexico’s minerals, but also to its post-revolutionary efforts to fashion its self-image around an Indigenous past.²⁸⁵ While this post-revolutionary construction of Indigenous heritage was largely a matter of shifting aesthetic and cultural iconography, it was often rhetorically identified with national discourses of *mestizaje*, which idealized racial mixture between Indigenous and white Mexicans.²⁸⁶ The “heritage assemblage” of the subsoil, in other words, latches it firmly to a genealogical construction of Indigeneity. It is worth pointing out, moreover, that terms such as “patrimony” and “heritage” conjure the unit of a family and its reproductive lineage, with the latter especially connoting something that is endowed by birth and reproductive descent. The subsoil is animated, then, by a notion of Indigeneity conceived not just through disembodied archaeological specimens, but also as a biological thing to be bequeathed by way of sexual reproduction.

Charlot’s racialization of geological matter can be situated more broadly within a context that characterized the Mexican subsoil as racially Indigenous. This association extended beyond legal definitions: As Jorge Quintana-Navarrete has argued, geologists in nineteenth-century Mexico staged an understanding of subterranean geological formations as racially Indigenous, positioning both the underground and Indigenous bodies as a “standing reserve of resources waiting to be appropriated by Western civilization.”²⁸⁷ And as Analisa Taylor has written, post-revolutionary Mexican intellectual thinkers such as José Vasconcelos and Octavio Paz associated Indigeneity with the subsoil through an image of a social psyche or through a substitution of its

²⁸³ Tablada, “La Exposición en Nueva York” *El Universal*, 7 nov 1930.

²⁸⁴ Elizabeth Emma Ferry, *Not Ours Alone*, 211.

²⁸⁵ Breglia, *Monumental Ambivalence*, 54.

²⁸⁶ See, for instance, Ana María Alonso, “Conforming Disconformity: ‘Mestizaje,’ Hybridity, and the Aesthetics of Mexican Nationalism.” *Cultural Anthropology* 19, no. 4 (2004): 459–90.

²⁸⁷ Jorge Quintana-Navarrete, “Reading Race in Rocks: Political Geology in Nineteenth-Century Mexico.” *Journal of Latin American Cultural Studies* 30, no. 4 (October 2, 2021): 525–43.

primordial, earthly, and lower associations.²⁸⁸ U.S. intellectuals, too, conceived of a “racial Indian substratum” of Mexico.²⁸⁹ And as the previous chapter outlined, this metaphor is woven throughout dialogues surrounding the geography of American art in the 1930s. To one reviewer, for instance, Anita Brenner’s book suggested the influence of American culture’s Indigenous roots, which arose from the “subterranean springs” of the continent.²⁹⁰ We might also recall that Rivera himself asserted that Mesoamerican art was the “substratum into which plunge the roots of our continental culture.”²⁹¹ This collective imaginary is significant for many reasons, not least of which was an expansive geography of American heritage guided more by invisible, internal endowments rather than externally visible demarcations, such as political borders.

More importantly, however, Charlot’s work can be situated within a context which animated the inorganic matter of the subterrain through the pointedly biological concepts of Indigenous heritage. It is no coincidence, for instance, that national discourses of mestizaje took shape through the language of minerals. Geological imagery is woven throughout Manuel Gamio’s *Forjando Patria* (1916), a title that roughly translates to “welding,” or “forging,” the nation. The book was written by the Mexican anthropologist, archaeologist, and leader of the indigenismo movement itself, with whom Charlot had developed a close relationship in the 1920s, and of whom Charlot had even contributed a portrait for a 1925 issue of *Mexican Folkways* (fig. 40). The book’s geological vocabulary of race is germane: from the beginning, minerals and their development become a metaphor for racial Indigeneity and their assimilation into the Mexican nation by way of interracial reproductive mixing with White Mexicans.²⁹² Indeed his very first pages begin by comparing the Americas to a forge, and comparing the mixing of various racial groups within the Americas to the melding of metallic alloys.²⁹³ If progress was represented by an effort to smelt and refine these metals, however, a lack of intermixing in the colonial period had left one race crude and unrefined. Of racial segregation brought about by Spain’s colonization of Mexico, Gamio writes that “they valued only the steel of the Latin race, leaving the crude Indigenous bronze on the slag heap.”²⁹⁴ Here, Europeans are the refined, developed “steel” while Indigenous people are the “crude” and darker metal of steel. Relegated to the “slag” heap, they represent wasted geological potential for the nascent nation.²⁹⁵

Gamio’s mineralogical idealization of mestizaje is instructive of the biological conceptions of race that characterized the way geological matter was handled by both Charlot and the Mexican state. Yet it also highlights the ways in which a latent, atavistic energy was imagined to be a shared feature of both racial Indigeneity as well as mineral resources. Gamio

²⁸⁸ Analisa Taylor, *Indigeneity in the Mexican Cultural Imagination: Thresholds of Belonging*, (Tucson: University of Arizona Press, 2009), 93.

²⁸⁹ Carleton Beals, “Obregon, bold master of Mexico.” *New York Times*. (July 22, 1928)

²⁹⁰ Isabel Paterson, “BOOKS and OTHER THINGS,” *New York Herald Tribune* (1926-1962); New York, N.Y. 24 Sep 1929: 19.

²⁹¹ Rivera, “Dynamic Detroit,” 293.

²⁹² Manuel Gamio, *Forjando Patria*. Translated by Fernando Armstrong Fumero, (Boulder: University Press of Colorado. 2010).

²⁹³ “in the great forge of America,” Gamio Begins, “on the anvil of the Andes, the bronze and iron of virile races have been alloyed for centuries and centuries.” Gamio, *Forjando Patria*, 39-41.

²⁹⁴ Gamio, *Forjando Patria*, 39-41.

²⁹⁵ Like many post-revolutionary notions of Mestizaje, Gamio’s conspicuously erased the existence of other Mexican racial identities. Gamio completely ignores, for instance, the place of Black and Asian Mexicans within the nation. See Theodore W Cohen, “Black Disappearance.” In *Finding Afro-Mexico: Race and Nation after the Revolution*, 27–55. (New York: Cambridge University Press, 2020).

suggests a burning, eruptive energy in describing the “blood [that] swelled [in] the veins” of the Indigenous Americans, and uses his mineralogical metaphor to give that genealogy material form as a “crude,” metal, left untapped and undeveloped.²⁹⁶ It is not unlike the description of Charlot’s “stowed up blood” which was waiting to be “liberated” and made to “pulse in the rhythm according to nature.” It was, after all, a description of Charlot’s genetic makeup as much as of the subterranean excavation of archaeology he was undertaking. Like the “rude force” which came as much from the “mingled strain of his race” as from the “material of his pictures,” this description highlights the ways in which Indigenous ancestry was imagined as a suppressed, unrealized power.

While this final section has focused primarily on a specific, genealogical construction of Indigenous heritage that colored both aesthetic theories about materiality and ways of seeing the subsoil, the shape of that construction here shared many characteristics with a broader understanding of primitivism. Indeed Indigenous “blood” is figured, much like more culturalized paradigms of the Primitive, as the residue of an ancient past within contemporary society, which has failed to develop. Figured here as a repressed but otherwise unmediated interior force of instinct, “blood” equally stands in for the supposedly illogical, Primitive “subconscious” which, consistent with Indigenous epistemologies, animates the inanimate. Charlot’s conviction that the “indian beneath the skin” (or his own “indian blood” for that matter), could be expressed through a deference to the material qualities of stone was not so different from his other descriptions of the Pre-Columbian engagement with stone. That same sculpture, after all, would have also fit into his paradigm of Indigenous intuition for the “geological fierceness” or “subconscious” at the “innermost core of the rock.”

Indeed, beyond the subterranean excavation of “stowed-up blood” that colored Freund’s interpretation of *La Montagne* and its “primeval power,” the painting was interpreted in equal measure through the vitalist vocabulary of animism and a modernist direct carving.²⁹⁷ On the one hand, the fact that the painting was perceived as expressing an obvious, “bludgeoning sort of mysticism” by some critics stands in contrast to reviews of Charlot’s lithography, which apparently expressed a more convincing metaphysical treatise on stone.²⁹⁸ On the other hand, that an oil painting was imagined to reflect modes of perception which refused the inanimacy of geological matter at all can be attributed to a broader cultural imaginary surrounding the Mexican landscape.

Charlot’s sense of a latent, racially Indigenous vitality within the materiality of stone was part of a broader discourse that not only perceived Mexico’s subsoil as racially Indigenous, but also which mobilized this conceptual fusion to imagine that geological matter as in possession of a Primitive animacy which characterized it as *undeveloped*. When Anita Brenner asserted that Charlot’s artwork conveyed Mexico “as it essentially is, with its volcanic topography and its structures of lava rock,” she implicitly placed him alongside countless other artists from the interwar period who had been captivated by Mexico’s geological landscape.²⁹⁹ It is not unreasonable to imagine that Charlot might have crossed paths with the U.S. painter Marsden

²⁹⁶ Gamio, *Forjando Patria*, 39-41.

²⁹⁷ Here, we might turn again to Anne Wagner’s discussion of modernist direct carving in relation to discourses of eugenics and sexual reproduction. Wagner, *Mother Stone*.

²⁹⁸ Jewell, “Jean Charlot Proves Himself a Poet of New Idioms.”

²⁹⁹ Brenner continues: “he devoted himself to painting the silent man of the soil, portraying his enormous potentiality by accentuating the massive quality which is not so much physical as spiritual.” Anita Brenner, Unpublished manuscript, “Jean Charlot,” 1926. Jean Charlot Foundation.

Hartley, for instance, who found himself compelled by the volcano as a symbol of Mexico's "mystic nature," and by the "lava crusts that form the surrounding earth surface" as "the best kind of geologic theater" (fig. 41).³⁰⁰ Here, "geologic theater" refers not to the dynamism of volcanoes themselves, but rather a drama that he imagined as emanating from beneath the surface of the igneous rocks that made up the wider landscape. His notes reveal a sense of place that merged the "splendor of race" with the energy of its "smoldering volcanoes."³⁰¹ For Hartley, these landscapes were the culmination of a year he had spent looking into "the heart of Mexico," "the soul of the Indian," and its supposedly "unfinished" culture.³⁰² While it is unclear if the two artists ever met, Hartley's thinking can help us locate Charlot alongside other primitivist perspectives born of U.S.-Mexican artistic exchanges in the 1930s, which coded the space of the Mexican subsoil and the geological matter as animated by a Primitive Indigenous essence.³⁰³

In one of the more vivid illustrations of this conceptual framework, D.H. Lawrence's *The Plumed Serpent* imagines a living connection between what he and his protagonist describe as "old, heavy, resistant Indian blood" and the geological substance of the Mexican landscape, lucidly painted as "black, porous, absorptive lava rock."³⁰⁴ The overt racism of Lawrence's language stems partially from his depiction of stone's inert lifelessness. He identifies, for instance, a "lava rock Indian nature" as the product of a place that "seemed made of dead stone."³⁰⁵ Yet he also discerns a more animate vitality, as well: one Indigenous character

³⁰⁰ The painter Marsden Hartley had traveled to Mexico in 1932 and 1933 under the auspices of a Guggenheim fellowship. There, he was taken with what he saw as the "geologic theater" of the volcanoes, painting several canvases of Popocatepetl. Elizabeth McCausland Papers, Series 6: Marsden Hartley, 1900-1964, Box 12, Folder 39, page 9. Hartley was in good company: in 1929, the poet Witter Bynner wrote *Indian Earth*, writing of a "smoky mountain" which was "throbbing from its earthen heart." Witter Bynner, *Indian Earth*. (New York: A.A. Knopf, 1929.)

³⁰¹ Elizabeth McCausland Papers, Series 6: Marsden Hartley, 1900-1964, Box 12, Folder 39, page 9.

³⁰² Donna Cassidy is one of many who have described Hartley's organizing (and often racist) theories of race. As Cassidy notes, Hartley's navigation of racial indigeneity as a spiritual impulse was an organizing concept for his time in Mexico. Donna Cassidy, *Marsden Hartley: Race, Region, and Nation* (Hanover: University Press of New England, 2005), 255.

³⁰³ The Charlot-championing journalist and politician Ernest Gruening, for instance, wrote an article titled "The Mexican renaissance: Beneath the Battle of Politics," in which he made precisely such an association. In it, he identified "the soul of the Indian" as a defining feature of Mexico, but also the Americas more broadly. For Gruening, this "race and culture" was associated with "geologic time" and the "cosmic upheaval that linked our continents with one real mountain backbone." So too was this quality physically located in subterrain: "the archaeologist's spade uncovers layer after another of different prehistoric cycles as it cuts the earth, so in Mexico, beneath the evident surface are layers, rich and unexplored, waiting only the turn of the spade of investigation to uncover them in profusion." See Ernest Gruening, "The Mexican Renaissance: Beneath the Battle of Politics." *The Century Illustrated Monthly Magazine*, Volume 107, No. 4, February 1924. 520-536.

³⁰⁴ D.H. Lawrence, *The Plumed Serpent*, (London: Penguin Books, 1926, 1955). Lawrence writes: "Perhaps something came out of the earth, the dragon of the earth, some effluence, some vibration which militated against the very composition of the blood and nerves in human beings. Perhaps it came from the volcanoes. Or perhaps even from the silent, serpent-like dark resistance of those masses of ponderous natives whose blood was principally the old, heavy, resistant Indian blood:" Lawrence, *The Plumed Serpent*, 61. He frequently describes the landscape by way of "the black, porous, absorptive lava rock," Lawrence, *The Plumed Serpent*, 37. This confluence of race and inorganic materiality is described in Aidan Tynan, *Desert in Modern Literature and Philosophy: Wasteland Aesthetics*. (Edinburgh University Press, 2020) 116-125.

³⁰⁵ Lawrence describes a "slow, powerful, corrosive Indian mockery, issuing from the lava-rock Indian nature, against anything which strives to be above the grey, lava-rock level." Lawrence, *The Plumed Serpent*, 225. Elsewhere, he writes: "the stones seemed dead, the town seemed made of dead stone." Lawrence, *The Plumed Serpent*, 225.

possesses the “intensity and the crudity of the semi-savage,” which is “undeveloped yet vital,” and which corresponds to, and even emerges from, the very “volcanic earth” he had elsewhere described as dead.³⁰⁶ That Hartley had read and enjoyed D.H. Lawrence’s *The Plumed Serpent* is important: both artists, it seems, saw volcanic geology as representative of a kind of essential, Indigenous animacy.³⁰⁷

These vitalist, primitivist characterizations of the Mexican landscape were attended by a specific, primitivist temporality which equated to an abiding conviction in its lack of development. Writers in Charlot’s milieu frequently described the Mexican landscape as the atavistic remnants of a primordial past, at the same time as it was also in possession of an energy that was rudimentary, raw, and immature. Anita Brenner summarized this perspective when she declared that “the land,” which she had described as having an “animal vitality,” also “seems unfinished and at the same time forever fixed.”³⁰⁸ So too were Brenner’s comments paralleled in those of the writer and economist Stuart Chase, whose articles Charlot illustrated and who in 1931 referred to the Mexican geomorphology as raw, young, and in possession of an atmospheric, Pre-Columbian spirit:

“The mountains are raw and violent; not old, tired mountains like the Appalachians, folded in their armchairs. On any fine morning smoke may be rising from the sulphur-lined crater of Popo; ten days after I left the city of Oaxaca an earthquake split again its massive jade-green walls. It is a land more strange, more remote, than any I have visited. The mystery of the Mayas and the Aztecs is in the Air, any symmetrical mound of earth may hide a ruined pyramid, the mountains leap and shout to one another athwart fantastic crags.”³⁰⁹

Here, Chase conjures the erratic, subterranean strength of volcanoes and earthquakes, the geological splendor of “jade green walls” and leaping mountains, and a hidden, mysterious spirit that is at once very, very old (the air is charged, Chase tells us, with the ancient mystery of Pre-Columbian civilizations) and immature (the mountains, after all, are “raw and violent,” a lability which Chase ascribes to their youth). Both Chase and Brenner repurpose the temporality of the Primitive, describing Mexico’s landscape as fixed, motionless, in the primordial elsewhere of a world at once ancient yet undeveloped.

³⁰⁶ Lawrence wrote: “there was something undeveloped and intense in him, the intensity and the crudity of the semi-savage. She could well understand the potency of the snake upon the Aztec and Maya imagination. Something smooth, undeveloped, yet vital in this man suggested the heavy-ebbing blood of reptiles in his veins.” Lawrence, *The Plumed Serpent*, 74. Given the significance of distinctions between life and nonlife in this essay, it is important to note that the imagery of stony death in *The Plumed Serpent* is tempered by the notion that “A certain dead, heavy strength and beauty seemed there, unable to pass away, unable to liberate itself and decompose.” Lawrence, *The Plumed Serpent*, 37. Finally, Lawrence writes of the “the black and magnificent pride of will which comes out of the volcanic earth of Mexico” Lawrence, *The Plumed Serpent*, 402.

³⁰⁷ Cassidy, *Marsden Hartley*, 253. D.H. Lawrence’s *The Plumed Serpent* is illustrative of the primitivist tendency to equate volcanic rock with “Indian blood.” This tendency is demonstrated most clearly in Tynan, *Wasteland Aesthetics*, 116-125.

³⁰⁸ Brenner, *Idols Behind Altars*, 13.

³⁰⁹ Stuart Chase, “The Miracle of Mexico,” *New York Herald Tribune* (1926-1962); May 31, 1931, J1. Charlot illustrated an article entitled “Mexican Side-Lights” by Stuart Chase for *Wings* magazine in August 1931. JCC Box 1 Folder 9.

The characterization of Mexico's geological landscape as vitally charged with an ambient, metaphysical force that translated to a "raw" or "unfinished" temporality was, finally, underwritten by extractive industries that saw themselves as developing the undeveloped. If, as Povinelli tells us, the imputation of vitality onto the defiantly inert serves to accommodate an extractive logic, the conditions of post-revolutionary Mexico suggest that that accommodation was enabled through the primitivist language of resources ancient, hidden, and most of all, undeveloped. Indeed, the characterization of Mexico's landscape as in possession of a latent, raw, spiritual force was used also to invite extraction in an area rich in mineral reserves but devoid of much economic competition. The journalist A. Guyot Cameron, for instance, described Mexico in 1922 as a "land of enchantment," characterized by "mystery," "prehistoric peoples," and "stupendous volcanoes," in which one was "seized by the feeling of latent power and endless opportunity."³¹⁰ Indeed, for Cameron, Mexico's topography portended a nation that was ready for development, with its "top wide open to pour its riches into the United States" and "mineral resources inexhaustible and of the finest kind."³¹¹ The mystery and people who seemed prehistoric, were, to Cameron, part of a larger, "latent power" which would refuse the inertness of geological matter, instead announcing its productive capacity.

Cameron was just one of many journalists in the interwar period to characterize Mexico's topography as a hidden reserve of undeveloped geological resources.³¹² Routed through a discussion of "enchantment," "mystery," and "prehistoric people," however, his words point to a larger intellectual association between Indigeneity, the subsoil, and the primordial, uncultivated potential that was apparently shared by both. This racialization of the subsoil, as this final section has argued, was grounded in both biological discussions of Indigenous "heritage" and more culturalized paradigms which yoked Indigeneity to a Primitive unconscious. Moreover, this political and intellectual train of thought shared a guiding set of assumptions with primitivist ideas expressed by Charlot, those who viewed his work, and many others who traveled within the world of U.S.-Mexican artistic and literary exchanges in the 1930s. Ultimately, this aesthetic milieu endorsed an extractive cultural and intellectual logic which also saw a latent, racialized animacy deep at the core of geological matter.

Conclusion

Charlot's engagement with the materiality of stone fit into a larger, 1930s modernist engagement with Pre-Columbian archaeology, which evinced a belief in an unconscious impulse towards abstract form that was buried deep within geological matter. Like most primitivist ideas about form, Charlot and his contemporaries were seduced by the idea of racially endowed access to a more spontaneous, intuitive creative process. What has interested me throughout this chapter are the ways in which this aesthetic approach took shape in a redistribution of agency between artist and stone, in particular. This conceptual fusion between Indigeneity and stone certainly has something to say about racist tropes which saw Indigenous people as ancient, unchanging, and absent of the agentive power assigned to cartesian consciousness. Yet Charlot's work also raises questions about an artistic reframing of geological matter, as well. Typically cast as inert, insensate, and impervious to life, stone within Charlot's modernist primitivist perceptual regime

³¹⁰ A. Guyot Cameron, "Mexico - Economic Eldorado," *Forbes* Vol. 8, March 4, 1922. 355.

³¹¹ Cameron, "Economic Eldorado."

³¹² Terry's *Guide to Mexico*, for instance, reported that "the writer hopes that Americans will not be negligent in securing their share of the great wealth of this land of opportunity. Practically everything awaits development." Thomas Philip Terry, *Terry's Guide to Mexico*, (New York: Houghton Mifflin, 1933), 62.

of the 1930s was imagined not only as racialized but as in possession of a latent, ancient, impulse.

As this chapter has begun to outline and as the next chapter probes further, this aesthetic approach reflected a larger context which sought not only to racialize Mexico's geological matter, but to reframe it as an unrealized supply of productive potential. Whether used to suspend the subsoil in the tragic, pre-modern past of Indigenous epistemologies or to analogize it to an eruptive earthly interior, concepts of Indigeneity were mobilized to primitivize Mexico's geological matter as a latent, undeveloped source to the modern. The following chapter, in particular, shows how this sense of Primitive, Pre-Columbian form— as part and parcel of the dormant, racialized, primordial potential of Mexico's geological wealth— was a captivating fantasy for U.S. artists seeking to profit from both. As the jewelry designer William Spratling revived a colonial-era silver mine in Taxco, Mexico in order to construct silver jewelry based on Pre-Columbian designs, he did so in the name of development and modernization - of Indigenous labor, of silver resources, and of Pre-Columbian form. Woven through the institutional history of cultural diplomacy, this next chapter shows how the sense of Primitive form described in this chapter not only reflected ways of perceiving the subsoil, but actively intervened in them.

When Charlot referred to Maya archaeology as a “mine” for abstraction that was “still waiting to become a part of our common aesthetic heritage,” he conjured a very specific image. The appeal to a common heritage was, of course, loaded language for a context that had defined both minerals and archaeology as the exclusive and politically charged heritage of the Mexican nation. Moreover, Charlot described a formal approach to abstraction using terms that borrowed from the vocabulary of processing raw geological matter and extracting a simplified, modern product. As this chapter has shown, such terms cannot be separated from the raced nature of extraction, which was not only buttressed by the dispossession of Indigenous people, but was also actively enmeshed with the rhetorical constructions of a latent Indigenous animacy.

Chapter Three

Developing Abstraction: Spratling Silver's Aesthetics of Extraction & Exchange, 1932-1945

During a brief trip back to Mexico City in the summer of 1931, Charlot spent several days traveling 100 miles west through the Sierra Madre mountains, where he would eventually reach a small, sleepy village tucked away in the mountainside.³¹³ His destination was Taxco, a place which offered an artist like Charlot the authenticity of a Native population, the nostalgia of a colonial mining town, and, perhaps most importantly, a high concentration of his modernist interlocutors. In 1931 alone, Taxco had attracted visits from Charlot's Mexican colleagues, such as Roberto Montenegro and Diego Rivera, and from international artists, such as Sergei Eisenstein and Marsden Hartley. If the brief scribbles in the printmaker's diary entries are any indication, Charlot planned to meet with the Mexican muralist David Alfaro Siqueiros, who spent a year in Taxco between 1930 and 1931 while exiled for his radical politics, and with Moises Saenz, the prominent Mexican intellectual who had recently built a weekend house there.³¹⁴

Charlot's diaries also mention William Spratling, an architect from New Orleans who had settled in Taxco just two years prior, in 1929.³¹⁵ Even in the absence of any overt documentation, it is reasonable to assume that the two would have met. Like Charlot, Spratling was a draftsman who was interested in Mexico's Pre-Columbian antiquities and who professed a racialized understanding of their formal qualities. Moreover, Spratling was rapidly developing a reputation as an important intermediary in Taxco's international social circles. By 1931, he had already brokered a number of deals between many of Charlot's Mexican colleagues and the U.S. patrons who admired their work. As Taxco evolved into a hub of artistic internationalism in the 1930s, Spratling stood firmly in its center.³¹⁶ With some financial help from U.S. ambassador to Mexico, Dwight Morrow, the designer opened a popular silver jewelry workshop in 1932 that would link Taxco inextricably with Spratling's name. In the decade that followed, Spratling was credited with catalyzing the town's growth as a booming cultural hub, attracting increasing numbers of global moderns such as Yasuo Kuniyoshi, Wolfgang Paalen, and Robert Motherwell.³¹⁷

³¹³ That Charlot visited Taxco during this trip is recorded in his diaries from Friday, July 17 - Tuesday, July 21 1931. Jean Charlot Diaries, Friday, July 17, 1931. University of Hawai'i, Manoa. <https://scholarspace.manoa.hawaii.edu/items/fe01f086-e30d-45b4-af8e-270df3588eb8>.

³¹⁴ Their names are listed on the entry for Friday, July 17, 1931. Jean Charlot Diaries, Friday, July 17, 1931. University of Hawai'i, Manoa.

³¹⁵ "Spratling" is jotted just below "Siqueiros" and "Saenz" on the entry for Friday, July 17, 1931. Jean Charlot Diaries, Friday, July 17, 1931. University of Hawai'i, Manoa.

³¹⁶ Joan Saab has located Spratling at the center of what she has termed the "modernist network" instantiated by Taxco. Analyzing a photograph of Spratling, Siqueiros, and Eisenstein, Saab argues that the convergence of these characters speaks to the ways in which artists were using new media and technology to project an image of Mexico to an international audience. A. Joan Saab, "Modernist Networks: Taxco, 1931." *Modernism/Modernity* 18, no. 2 (2011): 289-307. Likewise, Alicia Azuela has called Spratling "one of the most important bridges between the Mexican intelligentsia and the U.S. American cultural and political elite" Alicia Azuela, *Arte y Poder: Renacimiento Artístico y Revolución Social: México, 1910-1945*. (Zamora, Michoacán : Mexico D.F: El Colegio de Michoacán : Fondo de Cultura Económica, 2005), 119.

³¹⁷ By 1940, Carleton Beals, the esteemed writer of *Mexican Maze*, wrote that it was because of Spratling that Taxco had become "the haunt of Bohemian American artists and literati." Beals 1940, 323. Quoted in P.C. Morrill, W. Spratling, and San Antonio Museum of Art, *William Spratling and the Mexican Silver Renaissance: Maestros de Plata* (Harry N. Abrams, 2002), 107.

Called the *Taller de las Delicias*, the workshop is often portrayed as a revival of past glories. Taxco had been one of the oldest mining cities in the Americas during the colonial period, but had closed its mines in the early nineteenth century. By the mid-1930s, however, Spratling Silver had almost single-handedly rekindled the town's erstwhile mining industry. At the same time, the workshop has been framed as a *cultural* revival that resurrected not only the town's dormant mines but also its Native aesthetic traditions. Consumers of Spratling Silver in the 1930s flocked to the workshop as tourists, eager to witness the goodwill of U.S. economic developmentalism taking shape in Indigenous artisanal labor and design. A visitor in the 1930s might have bought, for instance, a remarkable double-jaguar necklace, after watching Native artisans smelt, mold, and hammer the silver directly in front of them (fig. 42). Made of high-grade Mexican silver and amethyst, it sold at more reasonable prices than luxury jewelry back home in the United States.³¹⁸ But buyers were also drawn to the Primitive authenticity promised by both the spectacle of its fabrication and the ancient autochthony of its design. Like most of the silver designs from the *Taller de las Delicias*, the clean, rounded jaguar motif was identified readily for visitors as distinctly Pre-Columbian.

Works like this jaguar necklace are, in many ways, representative of the modernist dialogue that took place between Mexico and the United States in the 1930s. Not only was the piece made in an important geocultural center, it also instantiated many of the formal concepts that had been circulating during this Pan-American modernist moment. The motif was lifted from Mesoamerican archaeology, a category of art that embodied Spratling's taste for the "purity and simplicity" of Native form, and assimilated into a flattened, linear modernist design.³¹⁹ His aesthetics were thus not unlike those of Charlot and others, in which the supposed racial purity and formal practices of Mesoamerican archaeology were viewed as a "source" for distinctly American modernist abstraction. Moreover, this object literalizes the specter of extraction that suffused the moment's modernist principles: this jaguar necklace mobilized not only the motifs of Pre-Columbian antiquities, but also the many other riches of the Mexican underground, such as the silver and amethyst that comprise it. The subterranean specter of Spratling's aesthetics would ultimately be absorbed into the Pan-Americanist geography of shared values analyzed in Chapter One. And like Charlot's art, Spratling Silver drew homologies between Mexico's geological resources and Pre-Columbian form, insinuating both as racially Indigenous categories that were in need of development. As part of the "revival" narrative, Spratling often took advantage of a visual vocabulary that depicted the Mexican subsoil as a latent, undeveloped store of riches. Indeed, Spratling has been characterized as having benevolently modernized Mexico's ancient aesthetic heritage as well as its dormant stores of underground resources.

If the previous chapter directed our attention to the ways in which perceptions of Indigenous form registered ideas about Mexico's dormant geological wealth, this chapter reveals the ways in which such an understanding actively intervened in transforming the Mexican subsoil. Deeply embedded with cultural diplomacy efforts, Spratling's project reveals a framework of mutually beneficial developmentalism, in which the institutions of U.S. industry promised the efficiency, modernity, and expertise that could help Mexico (and other Latin American countries) better extract geological resources.³²⁰ Mineral developmentalism shaped

³¹⁸ Journalists frequently commented on the price, referring to them for instance as "surprisingly cheap." "Taxco Quaint Medieval Town that Attracts Many Visitors" *Cincinnati Enquirer* (1923-2009) March 3 1940: 74.

³¹⁹ William Spratling, "Some Impressions of Mexico," *Architectural Forum*, 47: 1 (July 1927), 7

³²⁰ This chapter draws on a body of literature which has critiqued U.S. developmentalism as a position which relies on the supposedly ideologically neutral values of U.S. modernity and its teleologies of progress to advance the

some of the most visible effects of Spratling Silver— from the spectacles of labor that produced it to the jewelry itself. So too, however, did mineral developmentalism shape a logic of modernist primitivism that infused Spratling’s design practice, in which his perception of abstraction was responsible for resurrecting “latent values.” In turn, Spratling’s formalist aesthetics enacted the sort of modernization that could refine an undeveloped “source” into an abstract store of value that could be possessed or exchanged.

Rethinking Spratling Silver: Origins, Social Worlds, and “Undreamed of Possibilities”

Studies of Spratling Silver tend to emphasize the remarkable social world that surrounded its production. Even connoisseurial collectors’ guides have highlighted the impressive mix of artists from Mexico, Europe, and the United States that would interact with Spratling’s workshop.³²¹ In describing Taxco’s development into a hub of transnational contact, however, scholars frequently position Spratling as a benevolent facilitator of balanced exchange, who promoted “a climate of understanding” among the diverse nationalities that came into contact with one another in Taxco.³²² Even recent scholarly monographs have characterized Spratling as “an attractive link” between Mexicans and foreigners, who was perceived “more as amigo than gringo.”³²³ Such a depiction is not completely off base: the designer maintained close relationships with many prominent Mexican artists, and his jewelry was worn by Frida Kahlo and supported actively by Miguel Covarrubias. In 1940, Roberto Montenegro painted a portrait of the makeup tycoon Helena Rubenstein donning a dramatic Spratling Silver necklace that invoked the rays of the sun or a star. (fig. 43). It is no wonder, then, that by 1934, Spratling was referred to as the United States’ “ambassador extraordinary of the arts.”³²⁴

Still, this narrative is somewhat surprising, as Spratling’s resurrection of Taxco’s silver mining industry readily suggests uneasy parallels with more exploitative histories of colonial extraction. Most famous for having one of the first silver mines in the Americas, Taxco had long been associated with the consequences of foreign settlement and empire.³²⁵ Moreover, as we

project of U.S. global hegemony. As historians have shown, notions of “development” and “modernization” have been an influential premise for U.S. intervention abroad. See David Ekbladh, *Great American Mission: Modernization and the Construction of an American World Order* (Princeton: Princeton University Press, 2010).

³²¹ Spratling Silver and the story that surrounds it has been the subject of several well-researched collectors’ guides, exhibition catalogs, and several scholarly monographs. See Penny Morrill, *William Spratling and the Mexican Silver Renaissance*; Penny Morrill and Carole Berk, *Mexican Silver: Modern Handwrought Jewelry and Metalwork. A Schiffer Book for Collectors*. (Schiffer Publishing, Limited, 2007); Other scholarly studies include Joan Mark, *The Silver Gringo: William Spratling and Taxco*, (Albuquerque: University of New Mexico Press, 2000); and Taylor Littleton, *The Color of Silver: William Spratling, His Life and Art*. (Louisiana State University Press, 2000).

³²² René D’Hannoncourt, 1961. Quoted in Morrill, *William Spratling and the Mexican Silver Renaissance*, p. 14.

³²³ Littleton, *The Color of Silver*, p. 2

³²⁴ “Tourists Follow Artists to Nature’s Hideouts,” *Literary Digest*, December 15, 1934.

³²⁵ Travel guides, for instance, insisted that “No Visit to Mexico would be complete without including the birthplace of silver mining in the New World” Union of American Republics, and International Union of American Republics. Bulletin of the Pan American Union. Bulletin of the Pan American Union, v. 67.1934., p. 280. Likewise, *Real Mexico* recounted cheerily that “in colonial times [Taxco] was an important mining center; the first silver shipped to Spain from Mexico came from the mines of Taxco, which began to be worked in 1522. *Real Mexico*. v. 2, no. 7, 1933, 19. Finally, Spratling’s own account of Taxco as a travel journalist immediately moved from a romantic description of Taxco, a city “forgotten even by the Mexicans and practically unknown to the world for half a century,” to a description of Jose de la Borda, a French-born-Spaniard who “is said to have extracted some twelve millions in silver.” William Spratling, “Indo Hispanic Mexico, Some Notes on the Manner in Which Indian Form and Impulse Has Persisted and Continued through an Imposed Culture,” *Architecture*, February 1929. P. 77

have seen, incursions of U.S. capital into the Mexican subsoil were, in the 1930s, the subject of bitter geopolitical conflict. At the same time, however, the arts had also begun to represent a meaningful method for diplomats to reframe the asymmetries of the mineral frontier in terms of shared values and even-handed cooperation. The origins of Spratling Silver and its social worlds were situated firmly in the context of mineral diplomacy.

This story begins, however, with a different bohemian cohort that encouraged Spratling to visit Mexico in the first place. In New Orleans, he had been an adjunct professor of architecture at Tulane University, where he developed a close friendship with archaeologists Oliver la Farge and Franz Blom. These two U.S. archaeologists had, along with Spratling, formed part of a vibrant social world of artists and intellectuals that included fellow modernists William Faulkner and Sherwood Anderson.³²⁶ Through Blom and la Farge, Spratling cultivated an interest in Mesoamerican design.³²⁷ Their intrepid archaeological missions in Mexico and sensitivity to aesthetics inspired Spratling to secure a contract as a travel writer with *Architectural Forum*, which was the impetus for his first trip to Mexico in 1926.

Upon his arrival, Spratling encountered a world that had begun developing a taste for Mexican Indigenous craft. He was quickly introduced to members of Mexico City's cultural elite, who were overseeing a post-revolutionary elevation of Indigenous craft into a nationalist definition of authentic art and culture. Artists such as Gerardo Murillo (also known as Dr. Atl,) Jorge Enciso, and Roberto Montenegro aimed to inaugurate an era of renewed appreciation for everyday objects made by Mexican Indigenous hands.³²⁸ With these figures, Spratling shared a paternalistic, romantic understanding of Indigenous labor and creativity, as well as a structural reliance on the growing tourism industry from the United States. These were the artists that first encouraged Spratling to visit Taxco. Captivated by the region's Indigenous population, relative isolation, and its remarkable, mountainous landscape, they stimulated Spratling's interest in the small, sleepy mining town about 100 miles outside of Mexico City.

At the same time, Spratling also engaged a coterie of expatriates in Mexico with a markedly different political utility for Mexican arts and Indigenous craft. Perhaps most important within this sphere was his relationship with René D'Harnoncourt, Spratling's first and most enduring friendship in Mexico. Born in Austria (1901) and briefly residing in Paris (1924-1933) before moving to Mexico for seven years (1926-1933), D'Harnoncourt would go on to become director of MoMA in 1944 and to represent the modernist eye for Indigenous crafts that took shape in the United States in the 1930s and 1940s.³²⁹ In the late 20s, however, D'Harnoncourt

³²⁶ Along with Faulkner, Spratling wrote, illustrated, and published a book which recorded both Blom and la Farge within their social circle, entitled *Sherwood Anderson and other Famous Creoles: A Gallery of Contemporary New Orleans* (New Orleans: Pelican, 1926).

³²⁷ As Morrill writes, "the two had a greater impact upon Spratling's life than either Sherwood Anderson or William Faulkner... by introducing Spratling and [his good friend Natalie] Scott to Mexico's past, La Farge and Blom changed their lives." Morrill, *William Spratling and the Mexican Silver Renaissance*, 80-83.

³²⁸ For a history of the meaning of Indigenous craft and "Artes Populares" in the Mexican post-revolutionary state, see Rick A López, *Crafting Mexico: Intellectuals, Artisans, and the State after the Revolution*, (Durham: Duke University Press, 2010). López also briefly situates Spratling both within and in contradistinction to the political ideals of popular arts movements promoted by Atl, Enciso, and Montenegro, "Foreign-Mexican Collaboration, 1920-1940" *Crafting Mexico*, 95-126.

³²⁹ Harper Montgomery contrasts D'Harnoncourt's exhibition of *Indian Art for Modern Living* at MoMA in 1941, as well as the exhibition of Mexican *Artesanía* at MoMA in 1940, with Mexican popular arts movements which stressed the importance of Indigenous labor as a way of highlighting the successes of the Mexican revolution, by casting the handmade objects they made as proof of resistance to U.S. imperialism and mechanization. Many shared

had found a role in the nascent world of cultural diplomacy, in which Mexican arts and artesanía were symbols of balanced exchange and shared values. It was through D'Harnoncourt that Spratling met Dwight Morrow, the U.S. ambassador to Mexico who had developed a reputation for a new model of cultural diplomacy. Morrow mobilized Mexican art and handicraft to shift the tenor surrounding the U.S.-Mexican mineral negotiations.³³⁰ Alongside D'Harnoncourt, Spratling assisted Morrow in organizing the enormous 1930 exhibition of Mexican Arts, which traveled to thirteen cities and which was imagined, in part, as “a means of international understanding.”³³¹ The next year, Spratling brokered Morrow’s commission of a Rivera fresco at the Palacio de Cortés in Cuernavaca. Indeed, Spratling’s close relationship with Morrow is clear in the intimate portrait he drew of the ambassador in 1928; the portrait was reproduced in a 1931 obituary for Morrow which recounted his important role in the arts (fig. 44).³³²

It was in this context that the plan for Spratling Silver was first born: during one of the designer’s outings with Dwight Morrow, the idea supposedly came to the ambassador as he spotted a silver mine. “Isn’t it a pity” Morrow apparently exclaimed, that “the mines which produced all this wealth from these hills are abandoned, and the native silversmiths who could make such miracles are gone forever?”³³³ Articulated through a language of extinction and revival, Morrow’s observation pressed the sensitive matter of Mexican mineral development into the supposedly apolitical sphere of native crafts.

Historians of Spratling Silver frequently acknowledge Morrow’s role in the formation of this workshop.³³⁴ The involvement of a literal ambassador has no doubt contributed to the image of Spratling as the facilitator of an even-handed exchange. Yet this image fails to acknowledge the ways in which Morrow’s motivations might have shaped the story of Spratling Silver.

a suspicion of the notion that crafts would become export commodities to the United States, thus diminishing their authenticity. For the Mexican educator Manuel Gamio, Indigenous handicrafts were a sign of the industrious character of the Mexican people, a quality he mobilized to advocate for Mexican laborers in the United States. As Montgomery points out, Mexican labor was especially politicized as the 1929 stock market crash and anxieties about Mexican labor gave new and indeed violent significance to a border that had, until that moment, hardly existed. Unlike the motivations of Gamio or Atl, D'Harnoncourt’s distinctly modernist framework for these goods presented them as objects of formal beauty and rustic authenticity, as a way of “subsuming conflict under aesthetic form.” Harper Montgomery, “From Aesthetics to Work: Displaying Indian Labor as Modernist Form in Mexico City and New York,” *Modernism/Modernity* 21, no. 1 (January 2014): 231–51; As other scholars have pointed out, D'Harnoncourt also had an important role from the mid-1930s onward with the Indian Arts and Crafts Board. See Jennifer McLerran, *A New Deal for Native Art: Indian Arts and Federal Policy, 1933-1943*. (University of Arizona Press, 2012).

³³⁰ While Spratling’s autobiography relates that it was he who introduced D'Harnoncourt to Morrow, the timeline of D'Harnoncourt’s relationship with the Morrows dates back much further, making Spratling’s account improbable. Morrow’s promotion of Mexican crafts has been outlined in Susan Danly, Ilan Stavans, and Mead Art Museum (Amherst College), *Casa Mañana: The Morrow Collection of Mexican Popular Arts*. Mead Art Museum, Amherst College, 2002). And Anna Indych-López, “Mexican Curios.” In *Muralism Without Walls: Rivera, Orozco, and Siqueiros in the United States, 1927-1940* (Pittsburgh, Pa: University of Pittsburgh Press, 2009).

³³¹ D'Harnoncourt, quoted in Indych-López, *Muralism Without Walls*, 84.

³³² Morrow faced an untimely death in 1931. Even afterwards, however, his wife Elizabeth Morrow would provide financial support to Spratling. The portrait of Morrow can be reprinted in Garrison Oswald, “Dwight Morrow: A very American Story: Understandingly Told by Harold Nicolson, Englishman.” *New York Herald Tribune* (1926-1962) Oct 06 1935: 2.

³³³ Spratling’s exchange was recounted to Joseph Patrick McEvoy in “Silver Bill, Practical Good Neighbor.” *Reader’s Digest* 47 (September 1945): 19–22.

³³⁴ Morrill, *William Spratling and the Mexican Silver Renaissance*, 148; Joan Mark, *The Silver Gringo*, 19. Taylor D. Littleton, *The Color of Silver*, 142-181.

Morrow, after all, had been dispatched to defend the oil rights of U.S. companies in a political environment that threatened their control of the Mexican subsoil. He did so by foregrounding shared values and cooperation, while minimizing the political valence of minerals. Morrow's silver proposal, then, was wholly in line with this strategy: here, a foreigner resurrecting a Mexican mining industry would be understood not in the language of imperialism or dispossession, but rather through the prism of apolitical artistic collaboration. Moreover, his appeal to the shared obsolescence of both craft (in which silversmiths were "gone forever") and abandoned mineral reserves points to a developmentalist framework that would become central to the U.S. pursuit of foreign minerals.³³⁵ Accusations of imperialism could be warded off with claims of mutually beneficial developmentalism, in which the U.S. apparatus of capitalist modernity offered the tools with which to more efficiently measure, manage, and extract the geological resources of foreign countries that would otherwise stay undeveloped.³³⁶

This chapter treats Spratling Silver not as the product of an even-handed intermediary, but rather as an active functionary within the far more unbalanced context of the U.S. mineral frontier. There is no shortage of material from which one might arrive at such an interpretive angle. Even before he began the workshop, for instance, Spratling's writing indicated an interest in mineral developmentalism. As he surveyed the region for *Travel* magazine in 1929, he declared to his audience that although the people in Taxco may be poor, the surrounding state of

Guerrero is rich. There is silver and gold there and in unlimited quantities. And archaeologically, too, the whole state is one vast mine. The surface has hardly been scratched. Perhaps here between Taxco and the Pacific will someday be unearthed "new" secrets about the sources of ancient civilization in Mexico. These mountains hold undreamed of possibilities, things of which I myself caught but the slightest hint.³³⁷

There are several layers of meaning in this passage that are worthy of discussion. First, Spratling's words align him with the developmentalist position that informed the U.S. pursuit of foreign minerals. Stressing the economic potential of the region, he draws attention to its supposedly unlimited reserve of subterranean resources. Like Morrow's dissatisfaction at the abandonment of the mines that once "produced all this wealth," Spratling, too, lamented that the mines today were worked "only in a desultory way."³³⁸ Captivated by Taxco's bygone splendor, Spratling recounted the town's rise and fall as a mining center of the Spanish empire. After the discovery of silver in 1522, Taxco's mines were filled with the forced labor that injected silver

³³⁵ Despite presumptions of ideological innocence, developmentalism is a thoroughly neocolonialist discourse that relies on linear notions of progress and universalizing assumptions about European superiority. For definitions and critiques of developmentalist philosophy, see Jan Nederveen Pieterse, "Dilemmas of Development Discourse: The Crisis of Developmentalism and the Comparative Method." *Development and Change* 22, no. 1 (January 1991): 5–29. And Arif Dirlik, "Developmentalism: A Critique." *Interventions* 16, no. 1 (January 2, 2014): 30–48.

³³⁶ The State Department, for instance, insisted in 1929 that "friendship and American solidarity" of American States might be achieved through "development and colonization of their respective territories, as well as the establishment of new and permanent channels of spiritual and material interchange." the report continued that "promote the colonization and exploitation of those regions possessing undeveloped natural wealth and resources." United States Department of State, Department of State Publication: Conference Series. Conference Series, v. 19. U.S. Government Printing Office, 1929. 277.

³³⁷ William Spratling, "The Silver City of the Clouds: Taxco, a Forgotten Gem of Colonial Spain." *Travel*, July 1929, p. 22.

³³⁸ Spratling, "The Silver City of the Clouds," 23

into the sprawling Spanish empire. In the eighteenth century, a Spaniard named José de la Borda established an ambitious mining operation in Taxco, which would briefly become the primary site of silver extraction in Mexico before the wars of independence left the mines destroyed in 1820. Weaving a story of “former glories,” present inactivity, and financial promise, Spratling’s narrative focused his readers on resources that lay tragically undeveloped, which both invited and foreshadowed the sort of cultural mediation that his workshop would go on to represent.³³⁹

Spratling’s assessment of Taxco also extended its developmentalist outlook to Indigenous aesthetics and Pre-Columbian inspiration, positioning them, too, as untapped resources which could be developed in much the same way as minerals. Indeed, a strategic ambiguity suffuses Spratling’s reference to the “undreamed of possibilities” buried within the Sierra Madre mountains. Was he referring to the “unlimited quantities” of precious metal he had just discussed, or to the “vast mine” of archaeological treasures that he brings into focus directly afterwards as a related but separate prize to be “unearthed?” Merging archaeology with gold and silver as “one vast mine,” Spratling understood the diverse contents of the subsoil as part of the same history. His language suggests a conceptual synthesis between archaeology and minerals that was, as discussed in Chapter One, both legally enshrined and artistically accepted. So too do his words indicate the ways in which, as described in Chapter Two, such a Pre-Columbian artistic essence was perceived as a hidden, potent, and undeveloped source.

These expansive cultural meanings of the subsoil are significant, as Spratling Silver would go on to capitalize on both the geological and artistic possibilities that had captured Spratling’s imagination as a travel writer. From the beginning, his work was defined by its assimilation of Mexico’s pre-Hispanic material past. Early designs were almost direct copies of designs from ancient codices, sculptures, or pottery stamps.³⁴⁰ This serpent pin, for instance, was based on an ancient clay pottery stamp from Michoacán, likely made in the postclassic period (fig. 45). Even by 1932, he had already amassed a sizable collection of antiquities, which drew the attention of his interlocutors. The original, Pre-Columbian stamp was reproduced a decade later as a specimen of modernist design for Jorge Enciso’s *Design Motifs of Ancient Mexico* (fig. 46).³⁴¹ The two share an almost identical crown-like border ornamentation, and dual rectangular, geometric spirals, each of which culminates in a simplified head of a snake. Over the course of the decade, some of Spratling’s designs adapted different aspects from different ancient motifs. The double jaguar necklace, for instance, shares the binary framework of a mirrored image and backward-facing heads with the flattened form of another pottery stamp of a deer (fig. 47). But it also may have drawn inspiration from the design on a Cholulteca plate, which shares the jaguar’s lithe, sinuous limbs, round bulbous marks at the extremities, and protruding fangs (fig. 48).

In its materiality as well, Spratling Silver seized upon affiliations between Mexico’s pre-Hispanic past and the sumptuous metals and stones that were associated with Mexico’s unrealized abundance. By the mid 1930s Spratling had begun using locally mined amethyst and turquoise to ornament the silver. The introduction of turquoise, for instance, can be seen in this frog necklace with silver and turquoise beads separating each of the frogs (fig. 49). Eventually,

³³⁹ Spratling, “The Silver City of the Clouds,” 23

³⁴⁰ Spratling himself later recalled that “design ideas in those days were almost literal copies” of their Mesoamerican models. William Spratling, “25 Years of Mexican Silverware” *Artes de México*, no. 10 (1955): 87–90.

³⁴¹ First published in 1947 as *Sellos de Antiguo Mexico*, Enciso’s volume of the imprints of ancient pottery stamps was reprinted in English in 1953. Jorge Enciso, *Design Motifs of Ancient Mexico*. (New York: Dover Publications, 1953).

he incorporated obsidian and jade. The sheer diversity of local colorful gemstones in Spratling's jewelry had the ability to conjure the magnificence of Mexico's subsoil. In the United States, exhibitions of opulent archaeological objects made of gold, jade, obsidian, and turquoise from ancient Mexico were easily equated with evidence of Mexico's dormant mineral wealth. This wealth was perhaps best exemplified by the unprecedented volume and importance of Mixtec treasures at Monte Albán, which were widely exhibited in the United States in 1932 and drew record-breaking crowds, including Spratling himself.

Although it is unclear when, exactly, Spratling attended the exhibition, it has been generally established that the Mixtec jewelry from Monte Albán served as source material for many of Spratling's early designs.³⁴² One of his earliest necklaces, a prototype from the first years of the workshop's existence, mirrored a gold butterfly nose pendant from the postclassic period (fig. 50 and 51). Its tripartite wings and spiral appendages, which flank the equally similar ring and angle shapes at the top and bottom, are all drawn almost exactly from its original. Even as his work gained in popularity throughout the course of the 1930s and drew from more diverse sources of inspiration, the Mixtec's legendary metallurgy maintained a prominent place in Spratling's jewelry. The turquoise frog necklace, for instance, shares an organizing concept with a strand of beads from the 15th century, also made of lustrous metal shaped into squat, flattened frogs which repeat around the circumference of the wearer's collarbone (fig. 52).

Journalists covering the archaeological spectacle of Monte Albán rarely failed to make the logical leap to natural resources. *The Chicago Daily Tribune* wrote that the tomb "turns attention to a region already known for its antiquities and for its potential modern wealth," pivoting quickly from the excavated treasures to the many mines that lay undeveloped.³⁴³ One review in *The New York Times* indicated that the extravagant objects in the tombs immediately suggested the country's "buried wealth," giving the visitor a sense that a "smiling fortune is beckoning just around the corner."³⁴⁴ Yet the author continued by explaining that the real buried treasure was actually the minerals that could be mined today. "[T]he wealth is there," he concluded. "In oil, in ore, in veins of precious metals and stones, and not in hidden caches of ancient treasure. It will be recovered by modern science, by capital, by some of that toil which in olden centuries must have been expended to fill the vaults of the Montezumas with great heaps of gold and turquoise."³⁴⁵ Here, the author implies that the extravagant materials of Monte Albán suggested Mexico's real bounty, of oil and ore. Like Spratling, this author also relies on the image of archaeology to suggest the dormant potential of the Mexican subsoil. A Spratling Silver necklace thus allowed its wearer to perform a resurrection not only of the ancient past, but also of the latent mineral wealth that had characterized its effects.

Until now, I have argued that the origins of Spratling Silver are best understood in a context which saw the U.S. pursuit of foreign minerals as a mutually beneficial collaboration, which justified the presence of foreign capital in the first place. Moreover, the materiality and design of Spratling's objects demand to be read against the designer's own characterization of Taxco's subterranean as Primitive and undeveloped. But part of the argument of this chapter is that Spratling not only parroted the rhetoric of mineral developmentalism, he actively enacted its

³⁴² See, for example, Morrill, *Mexican Silver*, 38.

³⁴³ "Prehistoric Tomb Is Found in Old Mexico: Gold and Works of Art Unearthed Near Oaxaca Have Vast Wealth." *Chicago Daily Tribune* (1923-1963). February 21, 1932.

³⁴⁴ Carleton Beals, "Treasure Trove of Lost Mexican Races: Despoiled of Most of their Ancient Indian Relics, the People Still Cherish the Dream of Hidden Caches." *New York Times*, February 7, 1932.

³⁴⁵ Beals, "Treasure Trove of Los Mexican Races."

guiding principles. He did so, as the following section examines more thoroughly, by projecting an ability to successfully modernize and manage the Primitive. Spratling Silver existed in a world of larger cultural diplomacy projects, so that over the course of two decades, it promised to assimilate Indigenous labor to uniquely U.S.-American principles of capitalist production. The tasks of mineral developmentalism were enacted far beyond the workshop's origin story, shaping its spectacles of Indigenous labor, the objects it produced, and ultimately, its modernist paradigms.

Modernizing Spratling Silver: Development, Labor, and Cultural Diplomacy

The assumptions behind the State Department's developmentalist strategy in Mexico had been percolating since at least 1924, when *Time Magazine* reported on a summit of U.S. industrialists in Mexico that was aimed at promoting "good will" between the two countries through a "marriage between [Mexico's] undeveloped resources and American capital."³⁴⁶ In a U.S. political landscape that had soured on the most visible shape of interventionist imperialism, this perspective represented an attractive strategy for Morrow, who would soon become known for a successful model of diplomacy that respected Mexican sovereignty but nevertheless ensured the continued control of U.S. mining operations in Mexico. And in a country like Mexico, where even figures like Diego Rivera were captivated by the cutting-edge machinery and unprecedented efficiency of U.S.-American industry, the logic of developmentalism was particularly dexterous. The article in *Time* summed up the approach neatly: "Mexico needs us," the leader of the summit reportedly declared, "and we need Mexico."³⁴⁷

This developmentalist paradigm made its way into a method of cultural diplomacy which had begun to put its faith in art as an effective representation of shared values and balanced exchange. In non-governmental organizations such as the Committee on Cultural Relations with Latin America, discourse surrounding a country's artistic "resources" shaded easily into arguments about the nationalization of natural resources, which, they argued, obstructed both international trade and the establishment of cross-cultural understanding.³⁴⁸ In an address to the Committee in 1935, the organization's leader, Hubert Herring, emphasized raw materials and culture as shared hemispheric bounties that had been wrongly subjected to nationalist greed. More trade, he suggested, could ease international conflict, but so too could the "storehouses of old civilization."³⁴⁹ Thus he wrote that "there are untapped reservoirs of cultural wealth waiting to be shared. Rival and ardent nationalism defeat the sharing." Development, he suggested, meant the freeing up of "untapped reservoirs" for the "sharing" of capitalist exchange.

Herring's language of "untapped reservoirs" and "storehouses of old civilization" relate a posture within U.S. foreign diplomacy, in which the Indigenous art of Latin America acted as a metonym for actual raw materials, which were depicted as untapped reservoirs in need of modernizing intervention. René D'Harnoncourt, for instance, would go on to represent an important face of more official, state-sanctioned cultural diplomacy as an appointee to the Office

³⁴⁶ "Mexico Needs Us," *TIME Magazine*. 9/8/1924, Vol. 4 Issue 10, p24-24. 1/3p.

³⁴⁷ "Mexico Needs Us." *TIME Magazine*. 9/8/1924, Vol. 4 Issue 10, p24-24. 1/3p.

³⁴⁸ Beginning in 1928, The Committee on Cultural Relations with Latin America was an important precursor to the more official sorts of intercultural committees that would be enshrined by the U.S. government. To see how private organizations like Herring's CCRL became models for the State Department, see Justin Hart, "Down with Imperialism: The Latin American Origins of U.S. Cultural Diplomacy," *Empire of Ideas: The Origins of Public Diplomacy and the Transformation of U. S. Foreign Policy*, 15–41. (New York: Oxford University Press, 2013).

³⁴⁹ Herring, *Renascent Mexico*, 293.

of Inter-American Affairs in the early 1940s.³⁵⁰ Presenting himself as an international ambassador of goodwill, he spoke of Indigenous craft as a latent natural resource, evenly distributed amongst American nations, which could be squandered or developed. “[E]very one of the American Republics,” he declared, “has within its borders some of this wealth that is waiting to be developed.”³⁵¹ Seeing Indigenous art as a raw material in need of modernization, refinement, and cultural legitimacy, D’Harnoncourt advocated for the cultural intervention of U.S. institutions.

These attitudes towards developmentalism, cultural diplomacy, and Indigenous craft are important to the story of Spratling Silver’s growth for a number of reasons, not least because both Herring and D’Harnoncourt were, as we will see, key figures in the workshop’s trajectory. But they also trace a widespread approach towards Indigenous craft and developmentalism that were, by the time Spratling began his workshop in 1932, well underway. In response to Morrow’s successful use of the arts as a tool with which to negotiate mineral rights in the late 1920s, a number of other enterprising intellectuals had begun to highlight the possibility of craft programs and the arts to facilitate foreign trade. In 1931, for example, the director of Pomona College’s Inter-American Foundation declared that cultural forces might best aid U.S. mineral operations, identifying “some of the natural resources of Mexico which should be tapped by *American culture* just as fully as in the past we have tapped commercially the oil and mineral deposits of that country.”³⁵² On the one hand, the context of the statement suggests that Mexico’s cultural enterprises ought to be developed in much the same way as the country’s natural resources. On the other hand, the author implies that the forces of “American culture” could be applied to underground resources, inviting interrogation about what that culture might be.

The rise of Spratling’s workshop and its expansion through the postwar period enacted such a model of developmentalism. As we shall see, Spratling’s “modernization” of a silver industry was defined specifically through the administration of Indigenous labor. Indeed, Spratling gained a reputation for his introduction of uniquely U.S.-American managerial systems, which promised to make more efficient use of both Mexico’s workforce and its minerals. Thus Spratling Silver was not only shaped by, but actively intervened in, U.S. mineral developmentalism. Analyzing this process can help us reframe some of Spratling Silver’s most visible effects: both the spectacle of artisanal, Indigenous labor for which the workshop became known, as well as the jewelry itself. As a result, Spratling Silver registered a geography of U.S. foreign extraction, through objects which themselves elicit questions about the assumptions of modernist primitivism that guided Spratling’s work. How did this development play out?

To begin, we return to the early days of Spratling Silver, when Spratling’s silver business ambitions were first initiated. By 1931, at Morrow’s encouragement, Spratling had begun to seriously consider the economic prospects of a small silver business based in Taxco. The venture would, Spratling imagined, mobilize his skills in design to afford him the income he needed to continue writing *Little Mexico*, a travel book that he hoped would satisfy a booming appetite in the United States for Mexican culture and tourism. To Spratling, the idea seemed financially sound; he had amassed the capital he needed to start a business from Morrow, who had paid

³⁵⁰ For a history of the Office of Inter-American Affairs, see Gisela Cramer and Ursula Prutsch, *¡Américas Unidas!: Nelson A. Rockefeller’s Office of Inter-American Affairs (1940-46)*, (Madrid: Iberoamericana Vervuert, 2012).

³⁵¹ René D’Harnoncourt “Indian Arts and Crafts and their Place in the Modern World” April 5, 1940. Archives of American Art, René D’Harnoncourt Papers, Microfilm.

³⁵² Emphasis mine. James Hoffman Batten, in *Proceedings of the Institute of International Relations*, ed. Institute of International Relations, vol. 7, 1931, 49.

Spratling to broker the commission of a Rivera mural at the ambassador's home in Cuernavaca. Moreover, Spratling had identified a potentially profitable sales venue: through René D'Harnoncourt, in 1926, Spratling met Fred Davis, who owned a gallery and antique shop in Mexico City. Davis was himself experimenting with designing and selling silver jewelry, and thus could, Spratling thought, sell a line of Spratling Silver as well.³⁵³

Spratling brought a few preliminary designs to Iguala, a town not far from Taxco, which was known for its gold-working. There, he encountered Artemio Navarrete, a young artisan who agreed to be trained as a silversmith, and who would become Spratling's first employee. After Spratling offered him increased wages, Navarrete moved to Taxco, where he began melting silver coins and hammering belt buckles, pins, and jewelry at Spratling's kitchen table. The results were a hit amongst Spratling's friends, who came from Mexico City on the weekends, and along with other tourists, had been arriving in greater numbers following the completion of a highway between Cuernavaca and Taxco in 1931. Within a few months, Spratling had hired three additional apprentices, rented an old building nearby, and given his workshop a name. The *Taller de las Delicias* opened officially on June 27, 1932.

The workshop saw rapid success. By 1934, newspapers were eager to report that Spratling had hired "more than sixty Indians."³⁵⁴ Over the course of the decade, *The Taller de las Delicias* experienced enormous growth in the size of both his consumer market and the workshop itself. Spratling stopped selling in Mexico City, citing the "commission charged by the shops" as a reason, and insisted that "anyone who wants Taxco silver must come out here and get it."³⁵⁵ Soon, however, Spratling Silver began to attract the attention of U.S. Americans outside of Mexico. By 1937, his work was showcased at the Brooklyn Museum's exhibition of Contemporary American Silverware, generating attention for both their "ancient Aztec symbols" and their "essentially modern aspect."³⁵⁶ In 1938, his designs were sold for the first time in the United States, in the department store Marshall Field & Company.³⁵⁷ When the outbreak of World War II limited U.S. access to European luxury goods, Spratling's workshop expanded rapidly, and his work was sold at large retailers like Montgomery Ward and Saks Fifth Avenue. By 1945, Spratling had over 400 artisans in his employ.³⁵⁸

From the beginning, visitors were captivated by the workshop's narrative of modernization, effected largely by the introduction of capitalist managerial systems. Early features cheerily described the ways in which, upon being confronted by unemployed Mexicans, Spratling was "forced to become the capitalist of Taxco," devising a solution to the poverty he witnessed.³⁵⁹ Headlines such as "American Puts Big Business in Indian Art" rehearsed a fantasy in which the Indigenous artisans "learn[ed] what pay day means" and did a "land office business" while simultaneously speaking the "language of Mexico 400 years ago."³⁶⁰ Reviews

³⁵³ Joan Mark, *The Silver Gringo*, 47.

³⁵⁴ "Tourists Follow Artists to Nature's Hideouts," *Literary Digest*, December 15, 1934;

³⁵⁵ Beatrice W. Jones, "Spratling Brings Modern Methods to Indian Artists: Craftsmen of Taxco React Favorably to New Orleanian's Supervision." *New Orleans Times-Picayune*, July 8, 1934.

³⁵⁶ Walter Rendell Story, "Modern Silver Reflects an Old Craftsmanship: Pieces Made by Machine and by Hand Adapt the Successful Technique of Colonial Ware" *New York Times* (1923-), Nov 28, 1937.

³⁵⁷ *Chicago Daily Tribune*, "Back to the Mines," Thursday October 13, 1938, p. 10.

³⁵⁸ Joan Mark

³⁵⁹ "Books of the Times," by John Chamberlain, *New York Times*, August 15, 1934.

³⁶⁰ "American Puts Big Business in Indian Art: Mexicans in Sierra Madre Village Learn What Pay Day Means" *The Washington Post*, July 15 1934.

made sure to clarify that Spratling was retaining traditional artistic forms, merely applying “American business methods” to a skill derived “from their Aztec ancestors.”³⁶¹ In these accounts, U.S. conventions of labor productivity and their generation of profit were neatly reconciled with ancient, pre-capitalist artisanal creation, borne out in a mutually beneficial, modernizing arrangement.

The spectacle of labor was an important part of the workshop’s success. Early customers of Spratling’s work were tourists who participated in travel seminars on Mexican culture led by Hubert Herring, the aforementioned director of the United States’ Committee on Cultural Relations in Latin America. Herring brought participants to the workshop not only to purchase goods, but also to watch the workers: Artemio Navarrete recalled the ways in which the labor and smelting process, particularly in the early stages, attracted the curiosity of the seminar attendees. He related that tourists would “stop by to watch the molten silver being poured into the crucibles. To see the artisans working right there was very interesting to most of them, and many would buy something.”³⁶² It was, in many ways, a fitting selling point for a man who had appealed to “untapped reservoirs of cultural wealth” as a pretext for U.S. developmentalism. Here, an enterprising U.S. expatriate was applying his method of pursuing profit not only to Indigenous art, but also Indigenous labor, all while incorporating a spectacle of refining silver ore.

Spratling had long seen economic opportunity in Taxco’s labor force. Before he even settled in the region, the designer lamented that while Taxco “lies in one of the richest and most beautiful mineral regions in Mexico,” it lacked the “habits of a capitalistic system— where there is not only no capital produced but also a relatively small group capable of applying it.”³⁶³ Without such a “capable” party, Taxco was framed as a place of unrealized potential. Spratling’s view of Taxco’s urgent need for “capitalistic habits” undoubtedly shaped the formation of his workshop. If, by 1934, the workshop had grown large enough that it had begun to resemble a factory, it also had begun to adopt a clear managerial philosophy. A photographic chart from 1934 depicts the workshop’s labor organization, with Spratling at the center, as the owner and the helm of a clear hierarchy of bosses, sub bosses, helpers, and apprentices (fig. 53). The labels within the photographic plan suggests not only the ways in which Spratling pressed the local population into a stratified workforce, but also the ways in which Spratling trained them, too, as managers. At the top, flanking Spratling himself, are two vignettes of Alfonso Ruiz Mondragon and Artemnio Navarete, respectively labeled as “jefe,” or boss, and “sub-jefe,” or deputy boss.

The story of the cultural conversion of Indigenous Mexican workers, through managerial efficiency and capitalist productivity, proved to be enormously seductive for U.S. audiences. Journalists fawned approvingly over the visibility of such a spectacle, praising a consumer experience in which you could “wander back through the workrooms and see every process.”³⁶⁴ When discussing how he managed to cultivate such industrious behavior, Spratling suggested a Ford-like approach in which he “convinced them to come into a shop” through increased pay: “when I suggested to them that they might work eight hours a day and I would pay them from two or four pesos for their labor they seized on the idea with enthusiasm. Indians aren't so

³⁶¹ Beatrice W. Jones, “Spratling Brings Modern Methods to Indian Artists: Craftsmen of Taxco React Favorably to New Orleanian’s Supervision.” *New Orleans Times-Picayune*, July 8, 1934

³⁶² Morill, *Mexican Silver*, 37.

³⁶³ William Spratling, “Indo Hispanic Mexico, Some Notes on the Manner in Which Indian Form and Impulse Has Persisted and Continued through an Imposed Culture,” *Architecture*, February 1929. P. 77.

³⁶⁴ “Come with Me to Mexico: Spratling's Taxco.” *The Christian Science Monitor*, July 20, 1937: 19.

different from the rest of us. The idea of a steady salary looks good to them, too.”³⁶⁵ Seduced by what they saw as a kind of mutually beneficial arrangement, interested journalists rarely failed to mention the fortune Spratling himself had made. They did so in the entrepreneurial language of self-transformation, describing the ways in which Spratling “convert[ed] himself into [a] Mexican millionaire.”³⁶⁶ One article, entitled “Yankee Revives Town and Builds Fortune,” described how Spratling had transformed himself from a “penniless traveler” into a wealthy empresario with “homes in three cities and a small yacht.”³⁶⁷ The fixtures of capitalist production were presented as simultaneously a benevolent contribution and as a naturalized, inevitable course of futurity.

Of course, these narratives eclipse the ways in which Spratling’s schemas of labor were hardly a matter of happy consensus and goodwill. As I describe more fully in the final section of this chapter, Spratling’s insistence that he had raised wages and offered a “steady salary” for an eight-hour day was far from the reality of his model of pay, which compensated workers in a piece-work model that offered little security.³⁶⁸ One need only read Spratling’s numerous criticisms of unions and labor protection laws to understand the nature of the conflicts that arose. Prizing himself as a disciplinarian, Spratling often complained of “Mexican labor laws” which made it “practically impossible to fire anyone.”³⁶⁹ In 1939, when the workers attempted to unionize, Spratling refused to negotiate and stymied the effort. He later recalled the ways in which he appealed to a small group of non-strikers (“the Whites”) to convince the strikers (“the Reds”) that the strike was “unjust.”³⁷⁰ That year, in an interview, Spratling declared that “I have done much for Mexican labor by raising wages, but already the unions are after my people to demand more. The Mexicans are after my business! You know - ‘Mexico for the Mexicans?’”³⁷¹ Recounted in the late 1930s for a book entitled *New Designs for Old Mexico*, his statement is telling. By his own account, anti-imperial politics and the demands of organized labor threatened the progress promised by his business.

Still, the wartime climate of hemispheric unity and the United States’ ascendant image of benevolent, global leadership only intensified the interest in Spratling’s workshop. A photograph from the late 1930s captures Spratling’s relationship with Nelson Rockefeller, whose vision of cultural diplomacy in Latin America would become increasingly important as the United States entered World War II, running the Office of Inter-American Affairs and organizing an exhibition of Mexican art at MoMA (fig. 54). Spratling worked with Rockefeller to lower tariffs for Mexican silver, enabling wholesale export to the United States and facilitating the growth of

³⁶⁵ Beatrice W. Jones, “Spratling Brings Modern Methods to Indian Artists”

³⁶⁶ Former Prof, Penniless, Converts himself into Mexican Millionaire by Reviving old Industry *The Austin American* 29 Sep 1940.

³⁶⁷ Yankee revives Town and Builds Fortune *The Windsor Daily Star* (1935-1959); Windsor, Ontario [Windsor, Ontario] 28 Sep 1940: 19.

³⁶⁸ Spratling’s model of labor organization is detailed more fully in Gobi Stromberg, *El Juego de Coyote: Platería y Arte en Taxco*, (Mexico City: Fondo de Cultura Económica, México, 1985), 40-45.

³⁶⁹ Spratling to Joseph Patrick McEvoy, in “Silver Bill, Practical Good Neighbor.” 20. He also complained about “labor laws” in his autobiography, stating that they were “practically unilateral and totally favoring the worker” and “provoked problems which might occur overnight.” Spratling, *File on Spratling*, 77.

³⁷⁰ Spratling, *File on Spratling*, 77.

³⁷¹ H.A. Phillips, *New Designs for Old Mexico* (R. M. McBride, 1939), 251

Spratling's workshop in the early 1940s.³⁷² His workshop was a model of the sort of hemispheric leadership that Rockefeller aimed to cultivate. One article in *Reader's Digest* glowingly characterized Spratling as a "shrewd businessman," who was "building a prosperous community and transmuting Good Neighbor words into Good Neighbor deeds."³⁷³ Another article, published in *Harper's Bazaar* in 1943, credited Spratling with the "third wave of activity" in Taxco, after the eighteenth-century tycoon José de la Borda and the nineteenth-century positivist dictator Porfirio Díaz.³⁷⁴ The spread was illustrated by a photograph which documented Spratling overseeing the work of three shirtless Indigenous workers (fig. 55). The workers are astutely focused on their objects, while Spratling, hands behind his back, sustains a watchful eye fixated on the workers' bare shoulders. Bifurcating the photograph, the workbench recalls at once the pre-industrial methods of artisanal labor and the repetition of the assembly line. The clear visual hierarchy presented by Spratling's fully clothed, upright figure, looking downwards upon the three figures seated below him, suggests the boss-like persona that he had come to represent.

Within these developmentalist narratives, the image of Mexico's dormant mineral wealth was never far away. Journalists from the U.S. seemed to share Spratling's aspirations for the ways in which the "habits of a capitalistic system" might take advantage of "one of the richest... mineral regions in Mexico." One article even drew a comparison between Spratling's modernizing import of "lights and telephones" within his "seven-story factory" to the lack of adequate mining machinery in other nearby mines where U.S. capital had not been allowed to enter.³⁷⁵ Often, the potential of Mexico's largely Indigenous workforce was anchored to the reference of the country's underground resources. In Spratling's words, the designer simply took advantage of the region's abundant, but underdeveloped, resources. "The only thing I have done is capitalize this gift... Instead of leaving all this precious metal and graceful workmanship to lie around loose, I persuade them to come into a shop."³⁷⁶ Spratling thus draws an analogy between dormant reserves of silver and the largely Indigenous population he had hired. Moreover, he assigns the same profligate proclivity towards dormancy to "precious metal," uniting it with labor as a reserve of hidden promise. Just as he capitalized the available reserves of labor, then, so too did he capitalize upon the available reserves of minerals.

This homology between labor and minerals would prove to be an immensely persuasive political tool. In fact, the stunning managerial efficiency that defined U.S. capitalism in the 1930s would become the single most important maneuver in walking back Mexico's subsoil nationalism. Beginning in the late 1930s, U.S. cooperative minerals programs sent geologists and engineers to Latin American countries to more efficiently measure, manage, and extract

³⁷² Spratling himself recounts this negotiation in his memoir of Taxco's growth. Spratling, "El Renacimiento de Taxco (por un taxqueño nacido en Nueva York)," *Revista de la Universidad de México*, vol. XXII, núm. II, UNAM, July 1968. Reprint by the State of Guerrero, Secretaría de Desarrollo Social, Instituto Guerrerense de la Cultura, April 1988.

³⁷³ McEvoy, "Silver Bill"

³⁷⁴ "Two Americans" *Harper's Bazaar* Volume 77, October 1943

³⁷⁵ "A New Hotel and a Taller Feature Mexican Silver Town," *Christian Science Monitor*, February 2, 1945.

"Then for many years the silver mines rested, and only when the road to Acapulco was put through did the town come into its own again. Today about 100 mines are being reworked with Mexican, American, and French capital, but around Taxco the emphasis is on zinc and lead necessary for war materials, besides the machinery is lacking for mining silver which is low grade. To keep the silver high grade, for the past two years the Bank of Mexico takes all silver mined in Mexico and then allots it. Generally 94 percent goes to the United States, but the rest to native industry, but as Mr. Spratling says, the silversmiths always receive the amount necessary for their work."

³⁷⁶ Beatrice W. Jones, "Spratling Brings Modern Methods to Indian Artists."

geological resources under the neutralizing pretense of cultural and scientific exchange.³⁷⁷ Positioned as a collaboration and the mutually beneficial facilitation of modernization, these policies in Mexico resulted in a reversal of earlier nationalism, and encouraged the introduction of new foreign mining companies that would endure far beyond the war. Throughout Mexico, copper and iron ore were unearthed at the dizzying paces best achieved by U.S. companies. In Taxco, new mines were opened to firms that had long made their fortunes from Mexican minerals. Both the Guggenheim's American Smelting and Refining Company and the Eagle Picher Lead company had made themselves ideal candidates for the expeditious extraction of Mexican lead and zinc in Taxco.³⁷⁸ With the help of U.S. geologists, nearby mines were likewise opened up for the removal of fluorospar and manganese.

The term cooperative is key here. This logic of collaborative, developmentalist exchange was instrumental in disseminating the image of a unified hemisphere, which was geologically unified and absent of any borders that might threaten U.S. economic interests. This message assumed perhaps its most literal visual form, however, in *Spratling Silver*: in 1942, as Mexico joined the allied forces, Spratling created thousands of pins that depicted two shaking hands above the silhouette of North and South America (fig. 56). The piece suggests no outsized role for the United States, instead depicting the hemisphere as a bilateral alliance between two land masses. The handshake covers both Mexico and the United States, and furthermore obscures the break between the two continents at the Panama Canal, instead suggesting a continuous stretch of earth.³⁷⁹ Their grip is informal yet firm, as if to showcase the businesslike agreement between two sites of commerce. The metal materiality and spare enumeration of contours suggest a kind of timeless durability to the sections of continental crust they represent. So too does the geography charted by this pin suggest the expansive scope of the United States' ascendant international power, and the ways in which minerals not only motivated, but also facilitated such a reach. The focus on a unified hemisphere, after all, was a particular objective of a soft-power mineral mission in which minerals and fuel were cast as apolitical elements of nature, exempt from ownership by any single country.

A glimpse into Spratling's postwar endeavors reveals the aims and contours of this expansionism more clearly. In 1945, Spratling was invited by the Department of the Interior to replicate the success of his workshop in the Territory of Alaska. Though a workshop in Alaska was never permanently established, Spratling drafted an elaborate plan and produced nearly 200 prototypes, inspired by Alaskan raw materials and the traditional designs of Alaska Natives. This mask necklace, for instance, is made of Alaskan silver and abalone shell, and is based on the representational logic of a Tlingit bear (fig. 57). The location of this project is instructive. Not yet officially a state, Alaska occupied that liminal space at the extremity of U.S. borderlands, with both enormous natural resources and political status that had yet to be fully Americanized.

³⁷⁷In the wake of Mexico's oil expropriation in 1938, the United States sought "strategic minerals" like tin, manganese, uranium, and tungsten in Latin America. Mexico thus became a focus of a "cooperative minerals" program, which happened under the guise of "cultural and scientific cooperation." As Megan Black has argued, the objective was rapid, efficient availability of minerals, a task for which U.S. corporations were particularly equipped. Officially a project of cultural exchange, it was "the neighborly way to do extraction." Black, *The Global Interior*, 86.

³⁷⁸"Reopen Mexican Mines." *Wall Street Journal*, July 3, 1942.

³⁷⁹Darcy Grimaldo Grigsby has examined the ways in which the Panama Canal itself functioned to undermine the visibility of U.S. imperialism. Darcy Grimaldo Grigsby, *Colossal: Engineering the Suez Canal, Statue of Liberty, Eiffel Tower, and Panama Canal*, (New York: Periscope, 2012).

Tellingly, Spratling at one point suggested a similar expedition in Puerto Rico.³⁸⁰ Situated conspicuously at the edges of American empire, both places could easily be imagined as an appropriate venue for the business of U.S. design.

Primitivism: Developing Form

That Native art and geological formations would be the vectors through which such a geography was traced is perhaps, at this point, unsurprising. These specimens fit neatly within the modernist aesthetics outlined in Chapter One, which defined the art of “larger America” through a supposedly shared “Indian inheritance” as well as through a vague notion of geological unity, registered in the “thousands of mountains in the single range that, from Alaska to Southern Chile, makes the backbone of the continent.”³⁸¹ Just as Rivera hinged the modernism of Greater America to a Pre-Columbian “substratum,” critics such as Walter Pach and Spratling’s close interlocutor René D’Harnoncourt advocated a transnational geocultural category of American art based on the “solidarity of a common past,” which included both Indigenous aesthetics and the formation of the American Cordillera mountain ranges 100 million years ago.³⁸² In doing so, they responded directly to the cultural imaginary in which minerals, like archaeology, were seen as part of a history that far preceded the foundation of the Mexican state, extending not only into a Pre-Columbian classical past but also through geological time.

Like the two preceding case-studies in this dissertation, the modernism of Spratling Silver is perhaps most legible within the context of modernist primitivism. The Alaska venture was part of a larger framework in which Spratling’s method of design was allied most forcefully with the “purity and simplicity of primitive art.”³⁸³ Spratling’s infatuation with “native form” drew him to Pre-Columbian art, which in turn formed the basis for the designs discussed in this chapter.³⁸⁴ As established in Chapter One, there was widespread reinforcement for such a visual practice in the 1930s United States, which itself shared uneasy parallels with the logic of U.S. mineral extraction in Mexico. In positioning the design characteristics of Mesoamerican archaeology as inspiration for the modernist rejection of illusionism, exhibitions such as *American Sources of Modern Art* traced a geocultural category that conflicted with the one proposed by the Mexican state. While the Mexican state delimited access to the country’s subterranean cultural heritage around the grooves of its geopolitical borders, U.S. modernists in the 1930s used Mexico’s ancient material past to chart an entirely different geography.

Likewise, Spratling’s approach to aesthetics enacted many of the borderless, hemispheric conceptual axioms that attended the 1930s remapping of American form. As his travel writing and reference to Guerrero’s “vast mine” of archaeological treasures reveals, the designer clearly

³⁸⁰ In 1949, Spratling wrote to a lawyer that “I hope to be able to set up shops in Puerto Rico and Alaska in the very near future.” Cited in Morrill, *William Spratling and the Mexican Silver Renaissance*, 260.

³⁸¹ In an article on the art of “larger America,” the art critic Walter Pach appealed not only to a vague notion of “Indian inheritance,” but also to geological unity. Pointing to the “thousands of mountains in the single range that, from Alaska to southern Chile, makes the backbone of the continent,” Pach argued that “with all its varieties of aspect, climate, and men, it is one country, really.” Pach, “Our Ancestors of the Soil,” 426.

³⁸² As part of a crusade for hemispheric cooperation, René D’Harnoncourt told Pan-American “solidarity of a common past” through the lens of a bicontinental geomorphology in which “the same backbone of mountains runs through this hemisphere from Alaska to Patagonia. The powers of nature have made us neighbors in the physical sense.” René D’Harnoncourt, Speech at Denver, Colorado, July 1, 1942, at Meeting of National Education Association. Archives of American Art, René D’Harnoncourt papers, microfilm.

³⁸³ Spratling, “Some Impressions of Mexico,” July 1927 *Architectural Forum*, Volume XLVII, Number 1. P. 7

³⁸⁴ Spratling, “Some Impressions of Mexico.”

understood the ways in which archaeological inspiration might be merged with Mexico's subterranean wealth. Still, he insisted in his own writing about Mexican archaeology that art and aesthetic values did not "respect frontiers," a point he used to contest the notion that Mexican archaeological objects ought to stay in their home country.³⁸⁵ "Art is a universal and timeless element," Spratling continued, "which interpenetrates all ages and countries."³⁸⁶ His primitivist aesthetics allowed him to shape a geography united by the "backbone of the continent" and that which was hidden within it.³⁸⁷ Indeed, Spratling himself used his sense that there was "something savage here that lies just beneath the surface" to insist that Mexico was "more of the American continent" than of Europe.³⁸⁸ Legitimized by the expansive reach of high modernism, Mesoamerican form answered to continents over countries.

As pointed out in Chapter Two, however, the parallels between this Pre-Columbian primitivism and extraction also extended to an artistic method in which both geological matter and Pre-Columbian form was constructed as racially Indigenous and thus crude and undeveloped. But as we have seen, such an understanding was politically meaningful: Spratling's own faith in Mexico's "untapped resources" not only suffused the meaning of his archaeologically inspired jewelry, but also his larger mission of development and modernization of Mexican minerals and Indigenous labor. Where Charlot's art rested on the fantasy of primordial, undeveloped potential, Spratling's work spoke to the process of modernization. If anything, Spratling's work most forcefully shows us what happens when that Primitive, undeveloped resource is literally extracted and pressed into the service of the modern. How, his work asks us to consider, are the precepts of developmentalist extraction born out in the logic of modernist form?

In order to answer that question, we need to analyze how Spratling's formalism enacted a logic derived from mineral developmentalism in which latent, undeveloped form was refined into an abstract store of value that could be possessed or exchanged. By Spratling's own admission, his visual regime was indebted to Clive Bell, the influential modernist critic who defined high art along lines of "significant form" rather than literary content. Bell's criticism positions Spratling's work amidst a rather lofty set of modernist implications: Bell had not only situated design, rather than painting, at the heart of his notion of "significant form," but had also proclaimed "primitive art" the best example of such an achievement.³⁸⁹ In doing so, Bell lauded "that mysterious and majestic art that flourished in Central and South America before the coming of the white men," an instance of "sublimely impressive form" because, he wrote, "formal significance loses itself in preoccupation with exact representation and ostentatious cunning."³⁹⁰ In other words, the ancient art of Mesoamerica embodied "significant form" in its refusal to

³⁸⁵ In his autobiography, he began a chapter on his collection of antiquities by recounting a conversation with Diego Rivera, in which the muralist declared that "art does not recognize chronology." Spratling dramatically recalled amending this conclusion, responding, "neither does it respect frontiers." This anecdote served as an introduction to a broader meditation on the aesthetic philosophies he associated with Mesoamerican art. "Art is a universal and timeless element," he mused, "which interpenetrates all ages and countries." Spratling, *File on Spratling: An Autobiography* (Little, Brown, 1967), 161.

³⁸⁶ Spratling, *File on Spratling*, 161.

³⁸⁷ Spratling, *Little Mexico* (New York: Jonathan Cape & Harrison Smith, 1932), 46.

³⁸⁸ Spratling "Mansions of the Conquistadors" *Travel*, August 1929.

³⁸⁹ "As a rule, primitive art is good... for, as a rule, it is also free from descriptive qualities. In primitive art you will find no accurate representation, you will find only significant form... no other art moves us so profoundly." Clive Bell, *Art* (New York: Frederick A. Stokes, 1914), 22.

³⁹⁰ Bell, *Art*, 23.

adhere to illusionistic representation. Even before Spratling arrived in Mexico, Bell had been an important intellectual authority for the designer's modernist escapades. Spratling had been the one to recommend Bell's work to William Faulkner on a trip to Europe, where the two eagerly digested currents of representational innovation.³⁹¹ Given the language of "significant" and "pure" form that pervades Spraling's writing and art criticism in Mexico, it is hardly surprising that his memoir names Bell's ideas, specifically, as a defining doctrine for his approach to Pre-Columbian aesthetics.³⁹²

As a draftsman who saw himself as "utilizing modernistic principles," Spratling had taken an interest in the simplification of subject matter into two-dimensional design, particularly as a representational mode that was universally legible.³⁹³ He wrote frequently about the significance of drawing in his approach towards design, highlighting the medium's capacity for "simplification of form" in 1929 and later, in his memoir, the ways in which it taught him to "think in terms of masses, lines, and planes."³⁹⁴ Line, in particular, formed the central basis not just of Spratling's designs, but also his method of aesthetic inquiry, which aspired to the "simple and pure" formal qualities of Pre-Columbian art.³⁹⁵ Even as he examined, in his travel writing, "the purity of Indian design" in the contemporary objects of Indigenous Mexico, he frequently suggested that it was part of a stable, continuity of tradition, that "continue[s] ancient, probably pre-conquest traditions."³⁹⁶ His formalist approach certainly informed his collection of Pre-Columbian antiquities, which he began to acquire voraciously almost immediately upon his arrival in Mexico. Recalling his collection, he adjusted the readers' eyes to the "simple, powerful forms" of Guerrero archaeology in particular, drawing attention to its "flatness, surface qualities, and certain juxtapositions unknown and unused anywhere else in Middle America."³⁹⁷

From the earliest prototypes of Spratling Silver, the simplified forms of animals or patterns in Mesoamerican archaeology offered the sort of non-illusionistic abstraction that would be most appealing to Spratling. Fred Davis, who inspired Spratling's workshop, was himself experimenting with silver design inspired by ancient Mexican motifs. Davis' work represents a precursor to the visual strategy that would define Spratling's designs: like Spratling, Davis found inspiration in ancient clay stamps from Mexico, which exemplified the abridged, geometric logic

³⁹¹ Hironori Hayase, "Faulkner's Contact with Cubism." *Journal of the Faculty of Culture and Education* 4, no. 1 (2000): 67–73.

³⁹² See, for instance, the "Purity of Indian Design" identified by Spratling, "Indo-Hispanic Mexico II," *Architecture*, March 1929, p. 144. Or Spratling's recognition of the "deep significance" of a pre-conquest "ovoid" object. *File on Spratling*, 152.

³⁹³ William Spratling, "The Expressive Pencil," *Pencil Points*, June 1929, 372. Spratling in this article goes on to say a number of things that elaborate his modernist perspective: "I believe the importance of simplification of form is rarely deeply realized among architects and illustrative draftsmen. The primitive, and in the same tradition some few modernists, gain much power by this means." ... For the pencil draftsman form, and line as expressing form, must remain the most obvious necessity and its most logical medium of expression." "The Expressive Pencil," 372.

³⁹⁴ "Simplification of form" Spratling, "The Expressive Pencil," 367. "Masses, lines, and planes:" *File on Spratling*, 8.

³⁹⁵ In an interview, Spratling asserted that "I believe that one should apply an aesthetic critique to this art. The well-defined line in Pre-Columbian sculpture, the rigid expression, all have enthralled me. This is what I have tried to express in my silverwork." Reyes Navares interview with William Spratling, quoted in Morrill, *William Spratling and the Mexican Silver Renaissance*, 59.

³⁹⁶ Spratling, William. "Some New Discoveries in Mexican Clay." *International Studio* 98 (1931): 23.

³⁹⁷ Here, Spratling is quoting Dr. Daniel Rubin de la Borbolla, whose work on archaeology was influential for Spratling. Spratling, *File on Spratling*, 169.

of representation to which Spratling would be most drawn. A bird pin made by Davis in the early 1930s showcases the declarative edges and lines, as well as the formal, generalized economy of symbols that would make such clay stamps an enduring inspiration for Spratling (fig. 58 and 59). Indeed, Spratling's first designs, such as the serpent pin, were similarly imagined in the abstract, geometric treatment afforded to a snake by a pottery stamp from Michoacan (fig 46).

Spratling would go on to be fascinated with Pre-Columbian clay stamps, captivated by their apparent adherence to modernist principles. By 1937, he had collected nearly 100, and sent their imprints to the Tulane archaeologist Franz Blom, whose archaeological digs in Mexico had stimulated Spratling's interest in Mesoamerican aesthetics in the first place.³⁹⁸ Spratling's collection and use of these stamps attracted the attention of Jorge Enciso, who published them eventually as specimens of modernist design. They were, Enciso wrote in the introduction to *Design Motifs of Ancient Mexico*, an "invaluable source" of "inspiration for our modern plastic arts."³⁹⁹ Published originally in Spanish in 1947, the volume shared a number of qualities with other, similar projects undertaken by modernist Latin American artists from decades earlier. The Mexican intellectual Adolfo Best Maugard, for instance, had published his influential *Método de Dibujo* in 1922, which was credited with establishing a modernist aesthetic for Mexican art by introducing elements of pre-Hispanic art as universally legible symbols that adhered to principles of formal abstraction (fig. 60).⁴⁰⁰ In Peru, the designer Elena Izcue had published a similarly didactic guide to modernist design entitled *El Arte Peruano en la Escuela* in 1926, which translated iconography lifted from ancient Nazca, Paracas, and Chavín objects into neat geometric units on a coordinate plane, inviting student transcription onto various surfaces (fig. 61).⁴⁰¹ Like Enciso's *Design Motifs*, both Maugard's *Método de Dibujo* and Izcue's *El Arte Peruano en la Escuela* were translated from Spanish into English and distributed internationally, promising nationalist aesthetics that were simultaneously legible within the more universal framework of modernist formalism.

The formalist commitments of *Design Motifs* and its predecessors underscore the modernist ambitions registered in Spratling's work. A number of the stamps published by Enciso in 1947 can be traced to Spratling's designs: this monkey from pre-conquest Chiapas, for instance, is nearly identical to the design of a monkey pin Spratling would make in later decades (fig. 62 and 63). Here, Spratling's rendition of a monkey shares with the stamp not only the spiked crown, spiral tail, and long toes, but also a semiotic pattern which privileges the depthless, bold linearity of form over its referent. The planar shapes and lines reject any effort to replicate the real, offering us only a generalized symbol of a monkey. If Clive Bell had taught Spratling to look towards "primitive art" to understand representation "as an abstract" phenomenon, these clay stamps were a model illustration. It was, in other words, not far off from modernist signifying practices which privileged form over the thing represented. So too did these stamps project a universality of meaning: reproduced as flattened, monochrome logotypes, their imprints recalled the sort of formalist isomorphism that undergirded modernist primitivism from its earliest legitimation (fig. 64).

³⁹⁸ The records of this correspondence are at the Sutherland-Taxco Collection, Latin American Library at Tulane University, Box 4 Item 3.

³⁹⁹ Enciso, *Design Motifs of Ancient Mexico*, iii.

⁴⁰⁰ Adolfo Best Maugard, *Método de Dibujo: Tradición, Resurgimiento y Evolución del Arte Mexicano* (Mexico City: Secretaría de Educación Pública, 1923)

⁴⁰¹ Elena Izcue, *El Arte Peruano en la Escuela*. (Paris: Excelsior, 1926).

For Spratling, however, it was not the designs on specimens of Mesoamerican archaeology, but rather his own recognition and reuse of their abstract values that instantiated their modernist faculties. When discussing his use of Pre-Columbian form, Spratling used a framework of latency. He positioned his adaptation of ancient motifs as a deed that finally made productive use of this dormant, undeveloped reserve of ancient modernism. He was motivated by a conviction that the flattened, non-illusionistic forms of Mesoamerican animals were themselves unwitting examples of modernist form, in wait of his legitimizing gaze. In an interview, he recalled that

I felt myself drawn with great force to pre-Columbian art... In this art, I find a series of values that until now have remained latent, waiting for the eye that can bring them to life. I believe that one should apply an aesthetic critique to this art. The well-defined line in Pre-Columbian sculpture, the rigid expression, all have enthralled me. This is what I have tried to express in my silverwork. You can see them for yourself, produced here in the workshop. They are pieces that recall indigenous art and have nothing to do with the baroque style. My drawings, which are later translated by the silversmiths into metal, are simple and pure. I believe that if one were to speak of my success, it would be in this light.⁴⁰²

To his mind, the original designs did not become modern, and did not occupy their intended futurity, until they were absorbed by his redeeming gaze. Here, abstraction itself assumes the temporal features of developmentalism. If the aesthetic values of the original motifs were “latent,” languishing in wait for “the eye that could bring them to life,” here was Spratling, duly isolating those values from their original matrix of meaning and in doing so, situating them in the order of modern life.

This temporal structure of latency fit into a developmentalist narrative in which Spratling was animating both the silver industry and the native arts, rehabilitating them as primordial relics of the past by identifying their potential and adapting them to modern economies and modernist sensibilities. Latency was specifically underscored in the foreword to Spratling’s autobiography, which characterized the designer as “the pioneer silversmith of Taxco,” a place in turn described as “a community that had lost touch with its own materials and its own inspiration in the shaping of those materials. It took a southern gringo to reinspire the hearts and minds of the latent Indian artists and artisans of Guerrero.”⁴⁰³ That Pre-Columbian designs would be perceived as a specific, 20th century ethnoracial group’s “own inspiration” was part of Spratling’s message: while many figures of the Mexican Indigenous craft movement derided Pre-Columbian design as an elitist and misguided displacement of focus away from the post-revolutionary elevation of contemporary Indigenous communities, Spratling imagined an innate, heritable tendency towards formal beauty that connected the two.⁴⁰⁴ In his writing about Tuliman, Huapa, and Tixtla pottery for instance, Spratling suggested that the methods he observed likely “continue ancient, probably

⁴⁰² Reyes Navares interview with William Spratling, quoted in Morrill, *William Spratling and the Mexican Silver Renaissance*, 59.

⁴⁰³ Budd Schulberg, “Introduction.” In *File on Spratling*, by William Spratling, (Boston: Little Brown, 1966), x.

⁴⁰⁴ Esther Acevedo, “Las Decoraciones Que Pasaron a Ser Revolucionarias.” In *El Nacionalismo y El Arte Mexicano*. IX Coloquio de Historia Del Arte. México: Instituto de Investigaciones Estéticas, 1986. This position is described also in López, *Crafting Mexico*, 2-3.

pre-conquest traditions.”⁴⁰⁵ As he disseminated this sort of ancestralist paradigm, Spratling’s words again assumed the tenor of latent, combustible potential. In his travel writing, the designer mythologized the “enduring [aesthetic] qualities of the indigenous race,” insisting that “as a people the Indians reveal a most amazingly fertile sense of form and color,” and highlighting the “possibilities” of the “vigorous impulse” suggested by “all their forms of art expression.”⁴⁰⁶ In other words, Spratling saw himself as developing Indigenous form by harnessing a latent, combustible racial characteristic that was inherited from the ancient past, and assimilating it to both the methods of modern production and modernist abstraction.

The conceit of an inherent, racialized, ever-present impulse towards aesthetic modernism made its way into Spratling’s workshop, where he purported to “capitalize” upon artistic sensibilities that were “inborn.”⁴⁰⁷ Despite (or perhaps because of) such an implication, Spratling maintained control of the design work. The artisans, by contrast, were responsible for the “technique” and “craftsmanship,” overseeing the various stages of production, from cutting, to hammering, to engraving, to polishing.⁴⁰⁸ To be sure, the marks of the workshop’s Indigenous labor were important parts of a work’s visual identity: they were left visible, at least in the early years, perhaps to signal a work’s rustic authenticity. As Harper Montgomery has argued, the 1930s saw figures such as René D’Harnoncourt proliferate discourses which positioned the marks of Indigenous labor as formal achievements of modernism, neatly reconciling oppositions between tradition and modernity, or Mexico and the United States.⁴⁰⁹ Indeed early specimens of Spratling Silver, such as this footed bowl, inflect the silver materiality with countless marks of the hand that hammered them (fig. 65). Even then, however, the rough, handmade quality of the silver was nevertheless defined by the clear lines and geometric simplicity of the design in which it is shaped. Here, the coarse, indented sense of the object’s rough-hewn materiality is restrained by the clean simplicity of its polished, tubular edges and their pared-down, angular regularity.

To Spratling, the simplified, geometric grammar of modernism represented a new development. His designs for silverware stood in stark visual contrast to the tradition of silverware he saw himself adapting. Traditional treatments of Mexican silverware, inherited from the colonial period, had been characterized by the ornate tracery of decorative filigree, scalloped rims and complex dimensionality. This nineteenth-century bowl, for instance, is defined by its dramatic, decorative eagle flourish, itself embellished with the curling baroque adornment, and delicate, embossed lines which shape the depth and protrusions that encrust its surface (fig. 66). By contrast, Spratling’s bowl rejects such ornamental complexity; artisans at Spratling’s workshop recalled the designer’s training and the ways in which it privileged the simplified

⁴⁰⁵ William Spratling, “Some New Discoveries in Mexican Clay.” *International Studio* 98 (1931): 23.

⁴⁰⁶ William Spratling, “Some Impressions of Mexico,” July 1927 *Architectural Forum*, Volume XLVII, no. 1, 7.

⁴⁰⁷ Beatrice W. Jones, “Spratling Brings Modern Methods to Indian Artists.”

⁴⁰⁸ Spratling insisted that “I have never taught my silversmiths or attempted to instruct them in techniques— only in design and efficiency.” *File on Spratling*, 75. Gobi Stromberg has also conducted an in-depth study of Spratling’s labor organization. She notes that while the workshop incorporated some pre-capitalist elements, it also differed from artisanal workshops in the sense that an item was not the product of a single person, but rather the jewelry passed through many different hands: “A la vez, el taller de platería difiere de una industria artesanal “clásica” en la que cada pieza sería el producto de un solo hombre, puesto que en el taller la mano de obra es especializada y las piezas de joyería pasan a través de muchas manos, desde las de los forjadores hasta las del pulidor.” Stromberg, *El Juego de Coyote*, 40.

⁴⁰⁹ Harper Montgomery, “From Aesthetics to Work.”

designs of high modernism, encouraging workers to “reject trivial decoration.”⁴¹⁰ In his own accounts, Spratling clarified that his designs aimed at “simplifying and improving on the old,” distinguished by “the greatest simplicity and surface in silverware, and the achievement of a refined line.”⁴¹¹ Such simplicity of surface is perhaps clearest towards the end of the decade. By 1940, Spratling had embraced the polished metallic exteriors and die-cut shapes that reflected a new, streamlined approach for a wholesale market (fig. 67). This bird pin, for instance, is marked by spare, bold lines and a smooth, high-shine surface. Beyond the simple surface quality, however, so too does this pin speak to the representational claims made by Spratling Silver: if the eagle in the traditional silverwork bowl made an effort to convince us of the feathered texture, volume, musculature, and dimension of a real eagle, Spratling’s bird has abandoned any such pretenses. In its place is not simply a cursory reduction of the bird’s representational sign but also a pronounced emphasis on the method of description at work; it is the drawing, and its hard, bold, dark lines, that capture our attention.

Critics met Spratling’s formal exercise with familiarity, identifying a method of design that submitted Pre-Columbian motifs to the abstract language of modernism. Throughout his career, Spratling’s jewelry would be described as having given “ancient designs.. modern treatment,” or “primitive designs of the Mexican Indian” which were “translated into lovely pieces of modern inspiration.”⁴¹² As early as 1935, *Vogue* reported that Spratling Silver expressed “motifs derived from pre-Conquest influence— all done with an effortless sophistication that merges with the modern.”⁴¹³ Likewise, the catalog for Macy’s Latin American fair described his designs as a mix of “traditional forms and many modern designs.”⁴¹⁴ *The Chicago Daily Tribune* portrayed Spratling as modifying “native and traditional designs” to the “formalized, staid designs of the North,” or as recalling the “chaste simplicity of design reminiscent of those done by Georg Jensen and his Norse school.”⁴¹⁵ According to this assessment, the “formalized” appearance of Spratling Silver was supplied as a product of its Northern counterpart.

As they described such a formal adaptation, however, these same critics also relied on geological metaphors. The commentary in the *Chicago Daily Tribune*, focusing on the translation of “native designs” to the “formalized, staid designs of the North,” relied on the language of industrially processing geological matter, suggesting that Spratling Silver represented “a happy welding of an old world craft with a later art.”⁴¹⁶ Likewise, as the *Christian Science Monitor* reported on Spratling and Mexico’s “new place as an important source of design,” it drew on the combustible potentiality of volcanoes:

⁴¹⁰ Joan Mark, *the Silver Gringo*, 52. Mark relates the ways in which he would instruct his workers: “I want it *feo* (ugly) like this,” he would tell his workers. “Don’t make it more beautiful.” Antonio Castillo quoted in Spratling, *Mexico Tras Lomita* (Mexico: Editorial Diana, 1991), 52, quoted in Mark, *The Silver Gringo*, 51.

⁴¹¹ Spratling, “El Renacimiento de Taxco.” Also: New Designs for Old Mexico.

⁴¹² Herbert Cerwin lauded the “ancient designs” which were given “modern treatment” in *These Are the Mexicans* (New York: Reynal & Hitchcock, 1947), 126. Joan Gardner wrote approvingly of the translation from “primitive designs of the Mexican Indian” to “lovely pieces of modern inspiration” in “Mexico is Now Finding Her Place as Important Source of Design: Hands Across the Border--no. 2 Jewelry Best Known Maintains Tradition.” *The Christian Science Monitor*, July 14 1944: 8.

⁴¹³ Tom White, “Features: Mexican Idyll.” *Vogue* June 1 1935: 117, 118.

⁴¹⁴ “Macy’s Latin American Fair” brochure, January 17-February 7, 1942.

⁴¹⁵ “Back to the Mines,” *Chicago Daily Tribune*, Thursday October 13, 1938, p. 10

⁴¹⁶ “Back to the Mines.”

Almost as rapidly as a smoking crevice in the ground became paracutin, the new volcano on this hemisphere, has Mexico emerged as an important source of design. In the crucible of World War II, the bold, primitive art formerly native to the land of the Aztecs has acquired a sophistication which makes it highly appealing to the North American taste... here the primitive designs of the Mexican Indian are translated into lovely pieces of modern inspiration.⁴¹⁷

Consumers were invited to imagine the ways in which both the geological matter and the designs at work in Spratling Silver were grounded in raw, unmediated energy of Primitive potential. So too, however, were they invited to imagine the ways in which Spratling seized upon this faculty and disciplined it for the “sophistication” of “North American taste.”

It is not difficult to imagine the provenance of these metaphors. In Spratling’s workshop, the analogy between artistic modernism and geological productivity was readily presented. If tourists came away with a sense that Spratling was modernizing Indigenous art and labor, they were often keenly aware of the ways in which Taxco’s veins of raw silver ore, too, were being transformed. It was no coincidence that alongside a gallery display which exhibited archaeological specimens and the designs to which they were adapted, part of the performance at his workshop involved the smelting of minerals, exhibiting to consumers the process of extracting molten silver from its ore in a nearby foundry. Spratling himself compared the procedure of training artisans in both “design and efficiency” to the process of effecting geological purity, in which minerals were “exposed to certain temperatures and the exact necessary pressure is applied.”⁴¹⁸ Likewise, the allegories of dormant, Indigenous, artistic source material that are woven throughout Spratling’s writing are frequently refracted through parallel descriptions of abundant yet undeveloped mineral wealth. Recorded as part of a larger statement about the ways in which “Indians... have an artistic sense that is inborn,” Spratling asserted that he merely “capitalized” the “precious metal and graceful workmanship” that would otherwise be left to “lie around loose.”⁴¹⁹ Here, he bound Indigenous creativity and minerals together as squandered reservoirs of wasted potential, which only became manifest and active with the introduction of his disciplined practice of modern design.

So too might we recall his identification of an archaeological “mine,” of which the “surface ha[d] hardly been scratched.”⁴²⁰ Considered against a modernist aesthetics of “latent values,” his vocabulary of hidden mineral potential appears not unlike the extractive language of U.S. modernist primitivism to which Spratling was inextricably bound. This understanding of formal translation recalls Walter Pach’s comparison of ancient Mexican sculpture to oil reserves, or Charlot’s identification of Maya bas reliefs as a “mine” for “plastic abstraction.” As a precursor to his modernist treatment of Mesoamerican sculpture, Spratling’s invocation of an archaeological “mine” was in good company.

Discourses surrounding abstraction have intersected with histories of mineral developmentalism in other contexts. As scholars of Latin American Art Rachel Price and Sean Moncada have both argued, the midcentury abstraction of certain Latin American artists can be tied to the developmentalist extraction of petroleum in countries such as Venezuela and Cuba

⁴¹⁷ Joan Gardner, “Mexico is Now Finding Her Place as Important Source of Design: Hands Across the Border--no. 2 Jewelry Best Known Maintains Tradition.” *The Christian Science Monitor* (1908-) Jul 14 1944: 8.

⁴¹⁸ Spratling, “El Renacimiento de Taxco,” 16.

⁴¹⁹ Beatrice W. Jones, “Spratling Brings Modern Methods to Indian Artists.”

⁴²⁰ Spratling, “The Silver City of the Clouds: Taxco, a Forgotten Gem of Colonial Spain.” *Travel*, July 1929, p. 22.

and the infatuation, within both artistic and extractive spheres, with technological modernity.⁴²¹ For Price, the 1960s abstraction of Cuban artist Dolores Soldevilla is best understood in the context of energy developmentalism and a classical understanding of energy and potentiality. If energy can be understood through a temporality that positions resting potential as the precursor to actualized energy, might the dilemmas of visual representation be understood in a similar relationship? Abstraction, Price tells us, represents the fully realized, autonomous conclusion to such latent potential. The context of Spratling Silver is, of course, different from one of Cuban petroleum developmentalism, not least because silver cannot be so obviously tied to energy (although it was, by the 1930s, used increasingly in U.S. industry for its superlative conductivity of electricity).⁴²² Still, Price's analysis is undoubtedly relevant. Spratling's understanding of form as a translation of "latent" values was tied up in a developmentalist temporality of potential and the fully effectuated, in which his recognition of Native abstraction represented the process of the former becoming the latter.

How, then, might we understand mineral developmentalism more generally in Spratling's understanding of modernist form and the "mine" of inspiration from which it emerged? Spratling's modernism is exciting because it also suggests the ways in which such a "mine" might be transmuted into an abstract store of value, which could be possessed or exchanged. Indeed, the U.S. developmentalism of the Mexican subsoil in the 1930s and 1940s set its sights not just on the transformation of minerals into energy, but the transformation of subterranean minerals into capital in general. Seen within a larger intellectual history, this developmentalist impulse might be understood as a drive towards abstraction. The environmental philosopher Michael Marder, for example, has argued that the framework of extraction, and its transformation from latent potential to realized actuality, is guided by the "ontological subtext of capital," which "forges abstract equivalences among heterogeneities" according to "universal relations of value."⁴²³ And there is no shortage of analyses within the history of art which link representational modernism to the system of signs and symbols that uphold economic transactions. If Spratling's mineral developmentalism has asked us to examine his transformation of supposedly racialized, latent aesthetic qualities into the systematic, abstract grammar of modernist form, so too does it ask us to analyze his repositioning of that potential within a capitalist axiom of equivalence and exchange.

Abstraction, Ownership, Exchange

One did not have to go too far to find any sort of marriage between abstract form and economic value in Spratling Silver. It was, after all, made from a material that was known primarily as a medium of economic exchange. Silver's status as an authoritative representation of economic value and accordingly as a vector for stable exchange had become particularly pronounced in the 1930s, when Roosevelt ended the gold standard in 1933 and implemented the Silver Purchase Act of 1934, thereby restoring the monetary status of silver as a remedy to a

⁴²¹ Rachel Price, "Energy and Abstraction in the Work of Dolores Soldevilla." *Revista Hispánica Moderna* 72, no. 2 (2019): 161–81. Sean Nesselrode Moncada, *Refined Material: Petroculture and Modernity in Venezuela*. (Berkeley: University of California Press, 2023.)

⁴²² William Silber, *The Story of Silver: How the White Metal Shaped America and the Modern World*. (Princeton: Princeton University Press, 2021), 56

⁴²³ Price also relies on Michael Marder to build her argument. Michael Marder, *Energy Dreams: Of Actuality* (New York: Columbia University Press, 2017), 81.

deflated, cash-poor economy.⁴²⁴ The attendant questions about representation and value also, however, made their way into modernist debates about the stability of their own visual practices and modes of perception. The silver materiality of Spratling's work, its reliance on abstraction, and its status as a consumer object must all be considered in relation to a 1930s vocabulary of modernist exchange. As Jennifer Jane Marshall has pointed out, the neoplatonic understanding of form at work in MoMA's 1934 *Machine Art* exhibition shared a structural logic with the one at work in depression-era desires to maintain the gold standard, which found stability in the evaluation of commodities as both formally and materially valuable.⁴²⁵ Like gold, silver was imagined to both physically embody and conceptually represent value.⁴²⁶ Depression-era formal evaluations, Marshall shows, borrowed from these metallic monetary standards in order to present functional commodities as exemplars of both inherent and formal value, thus offering abstract qualities the stability and universality of the absolute. In turn, exhibitions such as *Machine Art* trained viewers to see economic value as part and parcel of the value of abstraction; both, they implied, assessed worth through the durable signs and signifiers that facilitated stable exchange.

At this point, it seems worthwhile to establish that Spratling's recognition of abstract values can be appropriately contextualized through U.S. modernist institutions in the first place. Although he did not specify the circumstances, Spratling claimed that his work had been shown at the Museum of Modern Art, suggesting at a minimum his awareness of the high modernist rubrics that might have evaluated his designs.⁴²⁷ Indeed, his aesthetics should also be analyzed in light of his close relationship with René D'Harnoncourt, who positioned the modernist eye for Indigenous crafts in a developmentalist framework not unlike the one espoused by Spratling. D'Harnoncourt was, we have seen, actively involved in the economic development of Indian Crafts, both in his capacity as head of the Department of the Interior's Indian Arts and Crafts Board, and also as an agent of the Office of Inter-American Affairs. But he was also engaged in stimulating the modernist perception of such crafts, as a curator for the Museum of Modern Art's *Indian Art* exhibition in 1941, and eventually as director of the museum. D'Harnoncourt's lectures on behalf of the Office of Inter-American Affairs are telling. As he spoke at the Inter-American Conference on Indian Life in Patzcuaro, Mexico in 1940, he insisted that form represented a vehicle through which Indian craft might secure its "place in the modern world."⁴²⁸ To his mind, a focus on the "form [and] design" of the objects— as opposed to merely utility —

⁴²⁴ Silber, *The Story of Silver*, 45. It is also worth noting that Silver was especially valued as a secure medium for international transactions in particular. The re-monetization of silver in 1933 was, in other words, promoted by FDR not just to expand available cash but also to "restore international trade and facilitate exchange," particularly outside of Western Europe, with poorer countries whose economy was oriented more around silver than gold. "Nothing could do more," Roosevelt insisted at a Democratic convention, "to create stable relations in which high trade could once more be resumed." As exchange rates fluctuated, silver offered not just stability but also a way of expanding international trade with the nearly one billion people in the world who operated with silver-based currencies, principally Mexico and China. Silber, *The Story of Silver*, 46.

⁴²⁵ Jennifer Jane Marshall, "In Form We Trust: Neoplatonism, the Gold Standard, and the *Machine Art* Show, 1934." *The Art Bulletin* 90, no. 4 (December 2008): 597–615.

⁴²⁶ For an analysis of the representational complexities of money and the adoption of paper money, see Darcy Grimaldo Grigsby, "Negative-Positive Truths." *Representations* 113, no. 1 (February 1, 2011): 16–38.

⁴²⁷ Spratling claimed that his silver was exhibited at the Museum of Modern Art in New York, although this claim is difficult to verify from MoMA's exhibition records. *File on Spratling*, 141.

⁴²⁸ René D'Harnoncourt "Indian Arts and Crafts and their Place in the Modern World" April 5, 1940. Archives of American Art, René D'Harnoncourt Papers, Microfilm.

represented a possible source of “real value,” which would attract buyers and give it meaning in a global economy.

D'Harnoncourt had most explicitly outlined this position in the early 1930s, when he published an approach to representation that designated abstraction as part of a teleology of modern progress and, furthermore, within an order of stable, economic value and exchange. In a series of articles, he troubled the notion that illusionism had anything to do with artistic value, identifying “children and primitives” as similar to a “sophisticated connoisseur” in their ability to appreciate more significant, abstract qualities of a work.⁴²⁹ In contrast to the connoisseur, however, “the child who goes to school and the primitive who becomes incorporated in our civilization” would begin to value illusionism, losing their abilities to aptly recognize the “aesthetic merit” of a picture.⁴³⁰ Because the recognition of abstract values was central to progress, D'Harnoncourt insisted, it was necessary to “go back to more primitive men and children,” identify their values and “keep them pure,” and “try to develop in them that conscious but genuine appreciation that distinguishes a truly cultured person.”⁴³¹

If, in this first article, abstraction represents merely a paternalistic product of modernity, it was, by the second article, also the basis for stable reserve of value: the depression, D'Harnoncourt wrote, highlighted the “instability of [the] purely material,” causing people to “search for abstract values,” leading them to recognize the “unchangeable value of aesthetic and intellectual attainments.”⁴³² Finally, D'Harnoncourt brought this visual economy together with his linear notion of artistic development by insisting that such an awareness of aesthetic values was, in modern civilized society, more important than in places yet to achieve such a level of modernity. Where “the village potter who decorates his own products charges little, if anything, for decoration,” this was different from a system that had achieved a division of labor where “artist and manufacturer were not the same person.”⁴³³ In that instance, the artist “adds considerably to the price of the finished article.”⁴³⁴ Moreover, a sensitivity to form adds not just financial worth but a *stability* of meaning, so that “an object that is aesthetically sound will keep its value forever.”⁴³⁵ In turn, the ability to recognize and identify such abstract values was “indispensable for all development.”⁴³⁶

In other words, D'Harnoncourt outlined an understanding of aesthetic advancement that tied abstraction to the sort of economic developmentalism being undertaken simultaneously by his friend in Taxco. In part, this aesthetic philosophy maps neatly onto Spratling's own discussions of abstract form as an achievement of developmentalism, despite the designer's repeated insistence that it was an ever-present racialized impulse or inherent quality of the ancient. But it also suggests the ways in which the formal translations enacted by Spratling dovetailed with an effort to convert such a latent impulse into a store of abstract value. Not only

⁴²⁹ René D'Harnoncourt. “Art and the People: First Steps of Approach.” *The American Magazine of Art* 25, no. 5 (November 1932), 263.

⁴³⁰ D'Harnoncourt. “Art and the People: First Steps of Approach.” 264.

⁴³¹ D'Harnoncourt. “Art and the People: First Steps of Approach.” 266.

⁴³² René D'Harnoncourt. “Art and the People: Knowledge and Appreciation.” *The American Magazine of Art* 26, no. 6 (December 1932): 322.

⁴³³ René D'Harnoncourt, “Art and the People: Value to the Community.” *The American Magazine of Art* 26, no. 1 (1933): 13.

⁴³⁴ D'Harnoncourt, “Art and the People: Value to the Community.” 13.

⁴³⁵ D'Harnoncourt, “Art and the People: Value to the Community.” 14.

⁴³⁶ D'Harnoncourt, “Art and the People: Value to the Community.” 15.

did D'Harnoncourt liken values of money to the “abstract values” that guided aesthetics, he also insisted that such a capacity for aesthetic recognition might represent literal economic value, “add[ing] considerably to the price” of an object. Ultimately, a maker’s familiarity with abstract sensibilities determined the possibility that an object might “keep its value forever.”

Spratling’s commitment to these aesthetic goals manifested most clearly in his designs, which instantiated the designer’s supposed activation of “latent values,” bringing an inert and unrealized artistic essence into the realm of the modern and abstract. It was, after all, his “simple and pure” drawings, which he called out specifically as activating those values and that he had identified as his primary source of inspiration. In doing so, however, Spratling drew attention to his own understanding that those designs had assimilated a racialized, Primitive “source” and its material incarnation into this world of abstract universals, of exchange value and its representations. Spratling had not only adapted Pre-Columbian motifs to an abstract regime of geometric designs, but those designs were conceived as de-materialized abstractions which could be possessed, sold, or exchanged. Consider, for instance, Spratling’s own description of his formulation of a style:

When faced with the problem of style, I feared that my articles would follow in the footsteps of Mexican traditionalism, and I went back to pre-Columbian clay seals for ideas. Even though it was an improper application, to take a clay design and execute it in a completely different material, the public liked it, and they sold.

Actually, in Mexico there has not been a continuous tradition in silverware, except in colonial objects: vessels, candlesticks, and especially articles for use by the Church. These styles come from the past; consequently, they could not properly be applied to the needs of a modern apartment nor modern commerce.⁴³⁷

This statement is worth considering for several reasons. For one, Spratling’s description of his design process highlights a sense of de-materialized transferability, in which a design was lifted from its clay incarnation and translated in a “completely different material.” As we will see, Spratling’s identification of latent, abstract values happened in the space between materials; it was an adaptation that worked by eliminating dimensionality in favor of flat values and scalar planes that could shift between contexts. Moreover, this passage suggests the ways in which the modern designs that resulted could, more easily than colonial styles, be applied to a context of “modern commerce.” Here, it is the modernity of his abstract designs which allowed for silver to become consumer objects in a global economy.

Part of Spratling’s effort to put “big business in Indian Art,” then, was his transmutation of archaeological motifs into transferrable designs. Indeed, he insisted that while he never “attempted to instruct [silversmiths] in techniques,” the faculties of “efficiency and design” were his prerogatives—propensities which, he might have told us, trafficked in the benefits of modernization and an ability to accrue surplus value.⁴³⁸ His designs certainly connote a level of efficiency: supposedly inspired by the radial form of Pre-Hispanic bracelets in Spratling’s collection, a starburst brooch from the early 1940s adapts the rough, textural irregularity of the originals to the geometric uniformity and mechanical, linear edges of a modern commodity (fig.

⁴³⁷ Spratling, “El Renacimiento de Taxco,” 13. Also in *File on Spratling*, 73.

⁴³⁸ Spratling, *El Renacimiento de Taxco (por un taxqueño nacido en Nueva York)*, 16. Also in *File on Spratling*, 75.

68-70). So too did his claims of “simplifying and improving on the old” unfold as part of a method of abstraction which rationalized multiple, specific efforts at representation into a more standardized, fixed, and fungible typology. Like the jaguar necklace, this design for a snake pendant (fig. 71) cannot be traced to any single Pre-Columbian object or image. Almost certainly a composite of a number of different images, Spratling here subsumes the particularity of various images into a disembodied symbol, legible within the wider circulation of signifiers that might be apprehended by a diverse group of consumers.

On a literal level, Spratling saw his designs and attendant sense of authorship as the primary source of economic value for the company. According to both Spratling and his workers, the designs were responsible for the workshop’s high margins, which allowed the silver products to be sold for far more than it cost to make them. To wit, Joan Mark has argued that Spratling marketed his work as “fine art,” an aesthetic stature that added surplus value, so that “a bracelet that cost nine pesos of labor and three of silver would be sold for one hundred pesos.”⁴³⁹ As in fine art, the name that accompanied those designs was significant. One worker recalled his boss’ rage upon noticing that an apprentice had finished work without stamping it: “do you think that these fucking objects you are making can be sold like this? Why aren’t you putting the stamp on them? What’s valuable is the name!”⁴⁴⁰

If his de-materialized designs were what added exchange value to the object, they were also what allowed Spratling to see the designs as his own. His sense of ownership over the designs thus galvanized the conflict that materialized in the late 1930s. Several years after the workshop’s inception, the workers at the *Taller de las Delicias* began to recognize that Spratling’s assignment of economic value to the designs alone allowed him to make huge profits from the objects he sold, while offloading the risks of production. Although Spratling advertised a standardized “eight hour day” and all its associations with Fordist modernity and stable pay, the reality was not quite so neatly aligned. Even as his workshop broadcast “modern methods,” which introduced the sort of specialization and division of labor that would divorce an artisan from the element of design, it also publicized the preservation of artisanal tradition. This selective appeal to pre-capitalist, artisanal labor meant that Spratling paid his workers by the piece, compensating them only for what he could sell. When workers noticed Spratling was selling each item for twelve times more than it cost to make in many cases, they began to organize, coordinating a strike to demand better pay and conditions.

Spratling’s sense of ownership over the designs— and the abstract aesthetic values they embodied— is reflected in the designer’s anxieties about plagiarism, which were also unfolding over the course of the 1930s. Spratling may have claimed he was simply tapping the possibilities of the Indigenous workers’ inherent racialized creativity and that he was “reviving” forms that were essentially native, but as disgruntled workers left to start their own workshops, Spratling became increasingly agitated about the threat of competition. With little self-consciousness about his own appropriations, he accused former workers of copying him, registered his designs, and even filed legal charges against one particularly brazen entrepreneur. The *Auburn Alumnus* resolved these contradictions in an article from 1936 by suggesting that the aesthetic innovation represented by the designs was the product of Spratling’s own, individual authorship: “it’s queer about this native handicraft business. Spratling copies a design from an Aztec relic, and shows the Indians how to make it. They’re just copyists. They don’t have any ideas themselves.

⁴³⁹ Mark, *The Silver Gringo*, 60.

⁴⁴⁰ Iturriaga, Prologo to William Spratling, *Mexico tras Lomita*, interview with Tomas Vega, 59, translated by author. Cited in Joan Mark, 60

Nothing has been handed down in the way of design tradition. If he turned them loose, they'd copy something out of a magazine."⁴⁴¹ Spratling's protective stance is ironic given his vociferous insistence that artistic authenticity was located not in any one person but in the racial identity of his workers. And his proprietary defense is rendered even more unstable by the understanding that many of his designs were direct or close copies of objects that were originally made by now-anonymous makers over half a century ago. Still, Spratling saw these imitations as threatening the stability of value promised by his design and made efforts to legally enshrine his designs as his own.

Soon after the attempted unionization, Spratling patented his designs, licensing them to be recreated in the United States in other materials. He did so through a company called Victor Silson Company, which reproduced his designs for retailers like Bonwit Teller, Neiman Marcus, Filene's, and other department stores in the United States.⁴⁴² These separate iterations speak to the economic value and fungibility of his designs outside of their silver materiality: although he had already begun selling wholesale jewelry made of high-grade silver in the United States, here he was selling the representational promise of those objects, reproduced, as the advertisements proclaimed, in "silver-color jewelry."⁴⁴³ Magazine inserts advertised these products by highlighting the "simplicity" and formal innovation of Spratling design, brought about by a "rediscovery of traditional Mexican motifs," an encounter which was itself now "world-famous."⁴⁴⁴

The patent drawings register multiple levels of abstraction. At their most basic, the designs are figurative interpretations of animals, plants, and other observable things, with their own representational claims. This owl pin, for instance, identifies a type of bird through its most recognizable attributes, which are rendered in turn through their most simple shapes and lines (fig. 72). The design gives us two enormous circles for the eyes, two basic equilateral triangles for the horn-like plumicorns at the top of an owl's head, and a straightforward diamond to stand in for its beak. The patent is also intimately bound up with Spratling's encounter with Pre-Columbian objects, abstracted from the bowl or stamp from which he might have encountered such a representational logic (fig. 73). Lifted from the original object, the motif is modified and pressed into a two-dimensional plane of lines and shapes that communicates no sense of its material origin. Finally, however, these patents are abstracted from the three-dimensional commodity from which they actually came; they incarnate a Spratling Silver owl pin not as an object with weight or context but as an isolated vertical slice of linear data. It is in this dimension that Spratling Silver accrues value, as a fungible abstraction that can be endlessly bought and sold, transferred between mediums, reproduced, or exchanged.

⁴⁴¹ Ernie Pyle, "William Spratling, Auburn Alumnus, Revives Native Crafts in Mexico," *The Auburn Alumnus*, July 1936. For an analysis of the European, universalizing assumptions that underwrite the modernist myth of originality, see Winnie Won Yin Wong, *Van Gogh on Demand: China and the Readymade*, (Chicago: University of Chicago Press, 2014).

⁴⁴² This history is helpfully detailed in Penny Morrill and Carole Berk, *Mexican Silver: Modern Handwrought Jewelry and Metalwork. A Schiffer Book for Collectors*, 42-43

⁴⁴³ *The San Francisco Examiner*, August 20, 1941.

⁴⁴⁴ *The San Francisco Examiner*, August 20, 1941.

Numerous scholars of modernism have analyzed the relationship between representational abstraction and exchange-value.⁴⁴⁵ These arguments typically maintain that formalism's effort to forge equivalences and codify common denominators between diverse aesthetic practices through universally recognizable, abstract qualities mirrors the capitalist inclination to understand the world through its own commodity logics of exchange and equivalence. How do minerals fit into this analysis? This semiotic economy was the end goal of a developmentalist visual regime that aimed to rationalize subterranean matter deemed raw or undeveloped, isolating aesthetic data and transmuting it into an abstract store of value. Spratling's abstraction, after all, unfolded in the 1930s, as thinkers such as Lewis Mumford were identifying the "carboniferous capitalism" that upheld modernity, and, in the same breath, holding it responsible for modernist aesthetics.⁴⁴⁶ Mumford's work is instructive. In *Technics and Civilization* (1934), the theorist placed extraction at the center of his history of industrial modernity, capitalism, and their cultural effects. "The miner's notion of value," Mumford wrote, "like the financier's, tends to be a purely abstract and quantitative one."⁴⁴⁷ Such a "simplification of the environment" was, according to Mumford, not unlike the "esthetic standardization" that characterized the work of cubists, who "extracted from the organic environment just those elements that could be stated in abstract geometrical symbols."⁴⁴⁸

In some ways, Mumford's understanding of mining anticipated the flurry of contemporary scholarship surrounding the ways in which extractive capitalism relies on abstraction as a visual method. As scholars such as Mark Anderson and others have argued, capitalist epistemologies depend on (and enact) a mode of perception that reduces the ecological and volumetric complexity of the subterrain into isolated parts that can successfully be understood and assigned value within a semiotic economy.⁴⁴⁹ For Anderson, extractive capitalism can be seen as a literal flattening process, which collapses the systems and dimensions of geological matter into independent scalar units. This flattening process occurs, he argues, in

⁴⁴⁵ Beyond Jennifer James Marshall's excellent analysis of 1930s neoplatonic formalism at the Museum of Modern Art and its relationship to economic questions, other scholars have also drawn links between modernist abstraction, its formalist underpinnings, and a capitalist economy in which, to quote Timothy J. Clark, "money is the root form of representation" *Farewell to an Idea: Episodes from a History of Modernism*. (New Haven: Yale University Press, 1999), 10. Fredric Jameson, for instance, has reminded us of Simmel's analysis of the capacity of "abstract flows of money" to "determine a whole new and more abstract way of thinking." In turn, these systems of "exchange value and monetary equivalence" also "had as one significant offshoot the emergence of what we call modernism in all the arts" see Jameson, "Culture and Finance Capital." *Critical Inquiry* 24, no. 1 (1997), 252. Perhaps anticipating such an analysis, Theodor Adorno's posthumous 1970 volume *Aesthetic Theory* insisted that "if in monopoly capitalism it is primarily exchange value, not use value that is consumed, in the modern artwork it is abstractness, that irritating indeterminateness of what it is and to what purpose it is, that becomes a cipher of what the work is." Translated by Robert Hullot-Kentor. (Minneapolis: University of Minnesota Press, 1997), 69. While these instances are perhaps more oblique than Marshall in their reference to specific, institutionalized formalism, even off-handed remarks seem to bring the formalist search for abstract qualities together with the dominance of exchange value: in his recent writing about the German philosopher Max Raphael, the art historian Christopher Wood argued that Raphael "stressed the ethnographic use value of the paintings rather than the exchange value of aesthetics and formalism." *A History of Art History*. (Princeton: Princeton University Press, 2021), 355. See also Marshall, "In Form We Trust."

⁴⁴⁶ Lewis Mumford, *Technics and Civilization*, 176.

⁴⁴⁷ Mumford, *Technics and Civilization*, 77.

⁴⁴⁸ Mumford 335-357.

⁴⁴⁹ See Mark Anderson, "The Grounds of Crisis and the Geopolitics of Depth." In *Ecological Crisis and Cultural Representation in Latin America: Ecocritical Perspectives on Art, Film, and Literature*, 99-125. (New York: Lexington Books, 2016).

order to apprehend the environment as discrete, usable raw materials within the “homogenizing hegemony of the market.”⁴⁵⁰ Indeed, the abstractions at work in Spratling’s patent drawings were not quite so different from those marshaled by mineral developmentalists to chart the ultimate economic value of a subterranean region. We might compare, for instance, the declarative lines and cross-sectional perspective of the Silson owl to, say, the stratigraphic plans of orebodies identified in Zacatecas in 1932 (fig. 74).⁴⁵¹ The graph charts an “assay value,” or the dimensions and percentage of economically valuable elements within a larger volume of earthly matter. Just as the patent record subordinates a network of meaning that involved archaeological objects, “mines” of inspiration, silver materiality, and Indigenous labor to a detached symbol of proprietary worth, so too does the mineral map scale out circumstance and surroundings in favor of financial equivalence.

The map was produced by the Bureau of Mines, an arm of the U.S. Department of the Interior, which is now known for developmentalist foreign mineral initiatives such as the Cooperative Minerals Programs. But it was also the department that hired René D’Harnoncourt as head of its Indian Arts and Crafts board in the mid-1930s and finally, which offered official patronage and a place of exhibition to Spratling Silver. We return, then, to what is at stake here—a developmentalist language of abstraction which subsumed the asymmetrical encounter between Spratling’s modernism and its Primitive “source,” like the space between Mexican minerals and U.S. industrial modernity, into a representational economy of equilibrium and symmetrical transaction. This premise of art and developmentalism’s shared ideological innocence had been at work since at least 1926, when Dwight Morrow initially proposed the arts—and especially crafts—as offering a promising paradigm for negotiating meaning across borders. After all, the universalizing formalism at work in *American Sources of Modern Art* found common aesthetic ground between the representational modes of ancient stele and the abstract shapes of Max Weber and Carlos Mérida. Imagined as an equalizing force for art from different countries and times, these understandings of form promised a shared system of meaning between the United States and Mexico.

Conclusion

To be sure, comparisons between the Silson Patent and the Department of the Interior’s stratigraphic charts suggest the ways in which the syntaxes of modernist abstraction in this context might tell us something about the structures of meaning within the extractive projects that were unfolding simultaneously. But these parallels also represent a crucial counterpoint to contemporaneous exercises in subterranean representation. For all the geopolitical cooperation and exchange supposedly generated in Taxco’s artistic circles, Mexican artists who visited often captured a more ambivalent experience. David Alfaro Siqueiros’s *Accident in the Mine*, which he painted in Taxco in 1931, is one example (fig. 75). Although Spratling apparently became close friends with the Mexican artist during Siqueiros’ banishment to Taxco in 1931, the differing political allegiances of the two artists rendered their friendship deeply precarious. In some ways, the rift was so predictable that it is difficult to imagine that the two had ever been friends in the first place. Where Siqueiros’ outspoken allegiance to communism had once led him to organize silver miners in Jalisco, Spratling was described as the “capitalist of Taxco,” compared with Porfirio Díaz himself in his generation of wealth from Mexican minerals, and characterized as

⁴⁵⁰ Enrique Leff, “Pensar la Complejidad Ambiental,” cited in Anderson, “The Grounds of Crisis,” 103.

⁴⁵¹ A Livingston and United States Bureau of Mines. *Mining Methods and Costs at Fresnillo, Zacatecas, Mexico. Information Circular*. (Department of Commerce, United States Bureau of Mines, 1932).

“vehemently anti-Marxist” by subsequent historians who studied him.⁴⁵² By late 1931, their friendship had fallen apart. Of Siqueiros, Spratling wrote that he “renounced any friendship with him,” calling the painter one of several Mexican artists who were “incomplete, envious, poisonous people.”⁴⁵³ For his part, Siqueiros lambasted the “yankee imperialis[m]” of Mexican crafts during a speech he made at the closing of the exhibition of the work he had created during his year in Taxco.⁴⁵⁴

At first glance, the exhibition of Siqueiros’ work from Taxco records the strong start to their friendship: Spratling, who had encouraged Siqueiros to exhibit his exile work, was featured in the exhibition in the form of a lithographic portrait by Siqueiros (fig. 76). In view of Siqueiros’ condemnation of “folk art for export,” however, which he pointedly labeled as a product of “yankee imperialist penetration,” the exhibition called Spratling to mind in its depiction of Taxco’s mineral extraction. Alongside the portrait of Spratling, Siqueiros exhibited *Mine Drillers*, *Taxco Landscape*, and *Accident in the Mine*. *Accident in the Mine* (fig. 75), in particular, highlighted the exploitation and dangerous working conditions of Mexican silver mines. Three men huddle over their co-worker in solemn solidarity, removing debris from his dead body. One cradles the fallen worker’s head in concern while the other two hunch to lift the enormous, solid blocks of ore from his body. The work was a touching depiction of working-class comradery and the perils of labor, and would go on to be replicated in format by a number of artists in the United States.⁴⁵⁵ In the context of Siqueiros’ rift with Spratling, however, the picture summons the image of labor exploitation in the extractive economy Spratling had come to embrace.

Likewise, Rivera’s *Symbolic Landscape* (1939), also painted in Taxco, dramatizes a sense of unease within the picturesque mountain town (fig. 77). In fiery hallucinatory hues of red and orange, Rivera depicts a twisting, gnarled branch against a rocky landscape. The jagged ore that makes up the surrounding terrain forms a face at bottom left and two hands on either side of the branch, which contract to form fists. Atop the clenched teeth lies a workman’s glove; between the furrowed brow and adjacent to the nose rests a dagger. Both are bloodied in smooth flashes of crimson. The rocky hands arising from the ground recall other Rivera works, such as *Detroit Industry* (1931-32) and *Song of the Earth* (1926), each of which depict fists rising from the earth. The knife is left strewn over the landscape’s eye, highlighting the rocky figure’s impotence to remove the obstruction itself, despite the raised position of its hands.

The work’s title, *Symbolic Landscape*, enlists the viewer in deciphering the nature of this cryptic conflict. We might direct our attention, then, to the narrative drama of the bloodstained blade, and the single, polished ring that dangles from its tip. The ring has been attributed to Rivera’s ongoing marital conflict with his wife, the Mexican painter Frida Kahlo, with whom he reconciled in December of that year. As a jewelry object painted in a town known for its silver production, however, it calls to mind other questions. What, we might wonder, is the metal band’s relationship to the agitated, anthropomorphic geological matter that encompasses it, the

⁴⁵² Rick López characterized Spratling as “vehemently anti-Marxist” in *Crafting Mexico*, 113.

⁴⁵³ W.S. to Carl Zigrosser, December 26, 1931. Carl Zigrosser Papers, University of Pennsylvania: Kislak Center for Special Collections, Rare Books and Manuscripts. Folder 1607.

⁴⁵⁴ David Alfaro Siqueiros, “New Thoughts on the Plastic Arts in Mexico,” lecture, Mexico City, February 10, 1933, in Vicario, *Hemispheric Integration*, 1.

⁴⁵⁵ This point was illustrated by the exhibition at the Whitney’s 2020 exhibition, *Vida Americana: Mexican Muralists Remake American Art, 1925-1945* in New York City.

workman's glove beside it, or the bloody dagger which suspends it? Was it, perhaps, violently ripped from the hands of the earth? Left behind as a spiteful statement of value?

The painting declines to answer any of these questions directly, leaving us instead with the sort of ambiguity that we might expect from an artist who condemned mineral imperialism, yet worked closely with figures such as Nelson Rockefeller and Dwight Morrow. But both of these paintings, I think, speak to a quiet texture of dissent, which was eclipsed by the narratives of progress, modernization, and neutral exchange that had come to characterize both Taxco and Spratling Silver. Certainly, the specters of struggle and tragedy that are related in *Symbolic Landscape* and *Accident in the Mine* suggest an entirely different visual relationship to Taxco's geological environment than the one embodied in Spratling's commodified modernism. As we will see in the case of Rivera, both he and Siqueiros were artists whose anti-capitalist and anti-imperialist sensitivities converged not just in a critique of foreign mineral extraction, but also in a skepticism surrounding the practices of generalized, fungible flatness and abstraction that had come to define European modernism and its inheritors. As the next chapter details, Rivera's situation of the subsoil within a multiplicity of spatial, ecological, and social dimensions differed sharply from the representational politics embraced by Spratling. Spratling's jewelry, registered a visual regime that married capitalist mineral developmentalism with primitivist ideas of undeveloped, latent form, and a modernist formalism which subsumed that latent form into a flattened, de-materialized logic of exchange and equivalence.

Chapter Four

Common Underground: *Detroit Industry*, the Commons, and Diego Rivera's Ecological Modernism

In May of 1933, two months after Diego Rivera's *Detroit Industry* was unveiled to the public, the New York-based Communist newspaper *The Daily Worker* published an editorial that condemned the artist's work as a vehicle for U.S. imperialism in Mexico. Citing Rivera's commissions with Rockefeller, Morrow, and Ford, the radical journalist and cartoonist Robert Minor concluded that the Mexican muralist had become a "political symbol of the 'new relationship' between the United States and Mexico."⁴⁵⁶ That is, the writer continued, Rivera had grown into the "symbol of 'understanding' behind which the corruption and strangling of the national resistance of Mexico against the imperialist conquest by Wall Street is concealed." It was not unlike the statement released by the Communist Party of Mexico at around the same time, which asserted that Rivera's recent artistic endeavors served as a "mask to hide [his] service to imperialism."⁴⁵⁷ To many on the left, works like *Detroit Industry* represented the sort of cultural diplomacy and polite gestures of goodwill that camouflaged the asymmetries of U.S. capital in Mexico.

In some ways, Minor's judgment represented a natural conclusion for a leftist with any understanding of U.S.-Mexican relations over the previous decade. As my first chapter pointed out, Rivera was all too familiar with the diplomatic campaigns of U.S. imperialism. By the time he arrived in Detroit, Rivera had developed close relationships with influential figures such as Nelson Rockefeller and Dwight Morrow, who had worked dutifully at securing the continued existence of U.S. mining companies in Mexico. At a moment when Article 27 was proclaiming the Mexican subsoil as the property of the Mexican nation, Morrow and Rockefeller mobilized Rivera's art as a way to stress common values and neutralize the rancor that had begun to take shape in subsoil nationalism and narratives of coercion and exploitation.

Detroit Industry would appear to be a successful vehicle for such an operation. As I pointed out in Chapter One, the unusually prominent subterranean cross-sections in the series were situated within Rivera's geography of "Greater America," emerging from the volcanoes and pyramids of Mexico while sustaining the quintessentially U.S. American factory (fig. 1 and 2). Much of the series, in fact, can be read as a testament to Pan-American interdependence, not least the grisaille panel on the West wall, which was literally named after the "Interdependence of North and South" (fig. 4). For a series that gestured towards the relationship between Mexico and the U.S. at a time of unprecedented strain, *Detroit Industry* reflects a surprising sense of balance: laid out in 27 panels on the four walls of the Detroit Institute of Art's garden court, the space's many reciprocal dualisms and symmetrical correspondences evoke internal stability and parity more than inequality and domination (fig. 78).

We might, then, easily dismiss *Detroit Industry* as the straightforward product of political manipulation, which recast the U.S. mineral frontier as a geography of harmonious interdependence. But as many scholars have argued, Rivera's work in the U.S. was not so easily

⁴⁵⁶ Robert Minor, "Rockefeller, Hitler, Against Worker, Soldier and Negro," *The Daily Worker*, May 11, 1933. Bertram Wolfe Papers, Box 114, folder 5, Hoover Institution Archives, Stanford, California.

⁴⁵⁷ "Statement on Rivera by Mexican Communists" *The Daily Worker*, July 7, 1933. Bertram Wolfe Papers, Box 114, folder 5, Hoover Institution Archives, Stanford, California.

stripped of its radicalism.⁴⁵⁸ As he worked with wealthy patrons in the United States, Rivera elaborated a sophisticated historical dialectics of Greater America and its post-capitalist future, which allowed him to retain the spirit of anti-capitalist critique for the conservative U.S. audiences who paid him. He frequently positioned himself as a “guerilla fighter” who never lost sight of the revolutionary cause, even if material necessity required him to collaborate with the enemy.⁴⁵⁹ While a number of scholars have discussed the ways in which *Detroit Industry* might be read for its anti-capitalist valences, Rivera’s strategic deployment of his own politics also invites us to consider the ways in which *Detroit Industry*’s treatment of minerals simultaneously undermined the extractive assumptions of the U.S. patronage network that supported him. Examining *Detroit Industry* alongside Rivera’s other frescoes, for instance, allows us to see the ways in which minerals operated within Rivera’s larger revolutionary ideology and its visual expression. This chapter thus considers *Detroit Industry* as part of the artists’ larger interest in minerals and mining.

In particular, Rivera’s murals at Chapingo, Mexico, were an important aesthetic precedent for *Detroit Industry* in both its iconography and spatial organization. By studying these earlier murals, we can see not only Rivera’s explicit critique of mineral imperialism, but also an enduring commitment to community-owned mines.⁴⁶⁰ At Chapingo, Rivera depicted the subsoil by issuing a clear endorsement of the ejido system, a framework of property that combined collective ownership with individual use rights. While these earlier murals might be understood as evidence of the political messaging that he discarded in the United States, Rivera’s writing on the matter of collective use rights for natural resources suggests a continuity that remained consistent throughout his career.

The revolutionary ideal of community-owned mines can help us understand *Detroit Industry* anew in a number of ways. It adds the perspective of the Mexican Left to U.S. scholarship, which has mostly interpreted the series from the standpoint of the U.S. Left. By bookending this dissertation with alternative perspectives on the same subject matter, I offer a complexity that is often eclipsed by overdetermined accounts of Rivera and 1930s U.S.-Mexican artistic exchanges more broadly, which remain tethered to binaristic evaluations of cultural hegemony or recuperative, resistant agency. More specifically, incorporating Mexican appeals for communal ownership can complicate this dissertation’s initial assertion that Rivera’s borderless, Greater American geographies and their shared “substratum” colluded with extractive, imperialist ideas about the Mexican subsoil. Indeed, Rivera’s commitment to community-owned mines changes the way we think about *Detroit Industry*’s puzzling Pan-Americanism, as one aspect of a potential world-historical future which did not challenge the premises of nationalization so much as ownership in general. This chapter thus argues that *Detroit Industry* troubled mineral imperialism at least as much as it accommodated it.

Finally, these comparisons with Chapingo can also help us understand the implications of Rivera’s formal treatment of space. The previous chapter alerted us to the ways in which

⁴⁵⁸ See, for example, Anna Indyk-López, “Mural Gambits: Mexican Muralism in the United States and the ‘Portable’ Fresco.” *The Art Bulletin* 89, no. 2 (June 1, 2007): 287–305. Jeffrey Belnap, “Diego Rivera’s Greater America.”

⁴⁵⁹ Diego Rivera, “The Revolutionary Spirit in Modern Art.” *The Modern Quarterly* (Baltimore) 6, no.3 (Fall 1932): 56.

⁴⁶⁰ Parts of this chapter have been revised from previously published material in the 2021 issue of *React/Review: a Responsive Journal for Art and Architecture*. Grace Kuipers, “Revolution, Renewable: Subsoil Political Ecologies in Rivera’s *Song of the Earth*,” *React/Review: a Responsive Journal for Art and Architecture* 1 (2021): 15-23.

abstraction supported the aim of ownership and exchange, viewing the subsoil in a two-dimensional slice. Here, I argue that Rivera's sense of space aligns with his commitment to community-owned mines by posing a new way of perceiving the subsoil, which contests capitalist epistemologies and foregrounds the subsoil's ecological role by presenting the subsoil as a commons. If extractive capitalism tends to view the subsoil as an abstract storehouse of inert value, Rivera's kaleidoscopic, holistic treatment of space decentralizes our point of view, rendering the subsoil as a volumetrically complex world that leaves us unable to fully perceive the subterrain in any single frame.

The Shared Subterrain, Reconsidered

Scholarly analyses of *Detroit Industry* have focused on the series' apparent "glorification of industry."⁴⁶¹ This assessment is understandable. The result of nearly two months observing Ford's River Rouge factory in Dearborn, Michigan, the two largest panels on the North and South wall shy away from the sort of overt critique one might expect from a Communist artist, especially one whose murals had once caricatured Ford himself. Anthony Lee, for instance, has noted the sense of equilibrium that suffuses this complex, myriad world of the U.S. factory worker.⁴⁶² While the finished automobile is hardly visible, Rivera foregrounds the life cycle of the V-8 engine through an endless array of pipes and gears and the smooth, steel edges of large machinery which connect with one another, forming an intricate labyrinth of interaction. Situated opposite from one another, the panels are positioned as an interconnected pair, replicating the symmetrical duality implied between worker and machine. The lower register of the North Wall shows the production of steel and the stages of engine manufacturing, while the lower register of the South wall depicts the assembly of the component parts (fig. 1 and 2). The panels advance an equivalence between man and machine, in which a rhythmic chorus of workers, rendered in the same hues and solid, cylindrical volumes as the devices they operate, become indistinguishable from the machinery and the larger, poetic movement of the factory. A prismatic montage of intersecting conveyor belts describes a number of interdependent relationships, indicating separate processes at the same time as they facilitate motion and connection between them. In a move that has been characterized as either a conformist concession to capitalist patrons or as "fundamentally Marxist" commentary on industry, Rivera's factory is a kind of self-contained organism that tends towards homeostasis.⁴⁶³

Beyond these two undoubtedly central panels, this sense of balance is afforded throughout the entire series by the multivalent complexity of the surrounding panels, which situate the factory in a larger world of related industries, earthly materials, and the biological, chemical processes that govern the universe. This experience of comprehensive wholeness was important to Rivera from the very beginning. When he was originally approached in 1931 to complete a fresco series for the Detroit Institute of Arts' garden court on the subject of Detroit's "development of industry," he was offered only the two major panels on the North and South

⁴⁶¹ Smith, *Making the Modern*, 209. See also David Craven, *Diego Rivera as Epic Modernist* (New York: G.K. Hall & Co, 1997), 139-146.

⁴⁶² Anthony Lee, "Workers and Painters."

⁴⁶³ Smith, *Making the Modern*, 210. See also Alicia Azuela, "Rivera and the Concept of Proletarian Art," *Diego Rivera* (Detroit, MI: 1986); Max Kozloff, "The Rivera Frescoes of Modern Industry at the Detroit Institute of Arts: Proletarian Art Under Capitalist Patronage" *Art and Architecture in the Service of Politics*, ed. Henry A. Millon and Linda Nochlin, (Cambridge, MA: MIT Press, 1978); David Craven, *Diego Rivera as Epic Modernist*.

wall.⁴⁶⁴ Despite the original precepts of this more limited commission, Rivera quickly secured the space and resources from Edsel Ford to paint an additional 25 panels, which would adorn all four walls and add narrative multiplicity to the series.⁴⁶⁵ The surrounding panels describe a series of diverse relationships between one another, implying chains of interaction that are more reciprocal than linear and which have ultimately been described as articulating the “interdependence of all living and nonliving things.”⁴⁶⁶ In turn, the series extends the particular scope of the Ford factory to a larger, harmonious life-world of the earth more broadly.

For an artistic project that Rivera once described as organized around “the union of man and earth and the machine,” the series is unusual given the prominence it affords the subsoil.⁴⁶⁷ Indeed, Rivera articulates this earthly interconnectedness not primarily through typical natural world-signifiers of flora and fauna, but rather the more representationally resistant stuff of the earth’s interior. The subterrain has a significant equalizing effect on the entire series. In paradoxically elevated upper registers of subterranean cross-sections and racialized mineral figures, Rivera positions the manufacturing process on the North and South Wall in equilibrium with the geological materials which sustain that process. The middle registers show the stratigraphic cross section of the four minerals which enabled the production of steel: iron ore and coal on the North wall, sand and limestone on the South wall (fig. 79 and 80). Allegorized above these sections as symbolic, nude female archetypes of the “four races,” minerals in these upper registers furnish spatial as well as social balance.⁴⁶⁸ The (admittedly tenuous) femininity of their bodily signifiers serve to contrast with and complement the lower registers’ more masculine sphere of labor and machinery.⁴⁶⁹ Embodied through the phenotypic signifiers of four racial types—supposedly representative of the world’s basic racial categories— they furthermore endow this microcosm with the image of evenly-distributed racial diversity. Even outside of the North and South walls, the balancing function of the subterrain extends to the East wall, where the embryonic origin story of a below-ground fetus represents the ancient pole to its modern

⁴⁶⁴ Letter from Valentiner to Rivera, May 27, 1931. Bertram Wolfe Papers, Box 115, Folder 16, Hoover Institution Archives, Stanford, California.

⁴⁶⁵ “Rivera Maps Extra Panels,” *Detroit Free Press*, June 1, 1932. Detroit Institute of Art Archives, Scrapbooks 1931-32 “Rivera, Budget, Wight, Hastings” scrapbook, 91. See also Laurance P. Hurlburt, *The Mexican Muralists in the United States*. (Albuquerque: University of New Mexico Press, 1991), 128-129.

⁴⁶⁶ Dorothy McMeekin, *Diego Rivera: Science and Creativity in the Detroit Murals* (East Lansing: Michigan State University Press, 1986), 21.

⁴⁶⁷ Diego Rivera, “Industrial Detroit,” *Fortune Magazine*, Volume VII, Number 6; October 1933, p. 52.

⁴⁶⁸ People’s Museum Association, Detroit, G. Pierrot, and E.P. Richardson. “They represent the four races that have helped to build the distinctly American civilization.” *The Diego Rivera Frescoes: A Guide to the Murals of the Garden Court* (Detroit: People’s Museum Association, 1933), 8. As Rivera himself explained to Florence Davies in 1933: “the figures represent the four elements most important in making steel. They are coal, iron ore, sand, and lime. Here there is a plastic as well as a literary analogy in making the black race represent coal; the yellow race, sand; the red race, iron, and the white race, lime, though each element, like each race, fulfills its part and plays its own role.” Florence Davies, “Rivera tells the meaning of Art Institute Murals” *The Detroit News*, January 19, 1933. DIA scrapbooks.

⁴⁶⁹ As Mary Coffey points out the figures’ “gender ambiguity, as they do not conform to period ideals of female beauty. While they all bear the secondary sex traits associated with women, they are oddly masculine in appearance, more angular than curvy, with stern visages and strange proportions that challenge the nude’s conventional role in eliciting desire.” Coffey, *Orozco’s American Epic*, 177. People in fact objected to the figures’ gender ambiguity, taking offense to their “hard, masculine, unsexed face[s]” or calling them “huge, strange, and.... ugly.” see “Objectors Plan protests against Rivera Frescoes,” *The Detroit News*, March 21, 1933. See also Clifford Epstein, “Rivera Mural Proves Puzzle,” *The Detroit News*, March 17, 1933. DIA scrapbooks.

equivalent on the West wall, in its representation of transportation and the cutting-edge aerospace industry (fig. 3 and 81).

Beyond their role in projecting a harmony of race and gender, however, the subterranean upper registers also promise geopolitical balance, suggesting a carefully calibrated Greater American system. Emerging from—and otherwise defined by—the distinctly Mexican symbols of the volcano and stepped pyramid, the minerals equalize U.S. industry against the foreign resources that many on the political Left viewed as unfairly extracted. Indeed, the minerals are positioned within a larger world of balanced homeostasis, which is itself punctuated with symbols that situate it geographically within the circuits of “Greater America” that had recently captured the artist’s imagination.⁴⁷⁰ Even in his earliest sketches for the frescoes, Rivera had aimed to highlight the transnational demands of U.S. industry: though he would later claim that the stratigraphic-cross sections represented “the geological composition of the soil of Michigan,” his original drawings indicated plans for the North wall’s upper registers to depict mining and “raw products arriving at the factory by boat.”⁴⁷¹ Ultimately, this image would take shape in a monochromatic, neoclassical frieze on the West wall that depicted the U.S. dependence on Latin American raw materials (fig. 3). Although Rivera described the panel as an image of “commerce between the industrial city and the far distant lands which produce the raw materials and consume the finished products,” the title frames this relationship as the far more balanced “interdependence of North and South.”⁴⁷² Here, a commercial ore freighter moves between a dockworker pulling a chain against a cityscape presumably meant to represent Detroit, and an opposite side in which four men carve grooves into a tree. A sign of rubber extraction, it was likely a reference to Ford’s utopian rubber plantation in Brazil, which had been established in 1928 in order to produce automobile tires.⁴⁷³ But this image of hemispheric trade was also likely a reference to Ford’s expanding international empire, which had recently begun to operate in Mexico.⁴⁷⁴ And as commodities that relied on (and rapidly increased the demand for) abundant, cheap petroleum, Ford automobiles certainly had no reason to condemn the Pan-American ecosystem on view.

When it comes to the cycle’s Pan-Americanism, even recuperative scholars such as Terry Smith have found it difficult to reconcile what he has called the “astonishing” nature of the series’ “apolitical assumptions of equality.”⁴⁷⁵ Likewise, Mary Coffey has examined the series as one of many works in the 1930s to address a Boltonian “Greater America.”⁴⁷⁶ Coffey recuperates the political ambition of series through an analysis of the fresco’s use of gender and race as

⁴⁷⁰ Rivera used the Boltonian phrase “Greater America” in his description of Detroit Industry in *Creative Art* in 1933 (see footnote 28 in Chapter One); In general, the series corresponded with a moment when Rivera became interested in what Bertram Wolfe referred to as the “union of the...factories of the United States with the raw materials of Latin America, of the utilitarian aesthetic of the machine with the plastic sense that still inhered in the Amerindian peoples.” Bertram Wolfe, *Diego Rivera: His Life and Times*, (New York: Knopf, 1939), 314.

⁴⁷¹ Rivera, “Dynamic Detroit,” 291. Rivera’s original plans are helpfully detailed in Hurlburt, *The Mexican Muralists in the United States*, 128.

⁴⁷² Hurlburt, *The Mexican Muralists in the United States*, 147.

⁴⁷³ See Greg Grandin, *Fordlandia* (New York: Metropolitan, 2009).

⁴⁷⁴ “Ford to Expand in Mexico,” *New York Times*, November 17, 1930. Proquest.

⁴⁷⁵ Smith, *Making the Modern*, 213.

⁴⁷⁶ Rivera’s use of the phrase “Greater America” in his description of Detroit Industry comes from the U.S. historian Herbert Bolton, who in 1932 famously proposed an “Epic of Greater America” as part of a campaign for a more hemispheric understanding of American history. This framework was influential for a number of artists who were negotiating the meaning of American art in the 1930s.

ultimately critical of mestizaje. Yet she also juxtaposes the Detroit cycle against Orozco's more critical depictions of Pan-Americanism. Orozco, she argues, rejects the "ambivalent but accommodating representation of hemispheric interdependence in [Rivera's] Detroit Industry murals."⁴⁷⁷ As both Coffey and Smith briefly suggest, such an image of geopolitical interdependence was particularly favorable to someone like Nelson Rockefeller, with whom Rivera had worked closely and whose oil empire stood to be financially injured by Mexico's nationalization of its subsoil. In other words, the reason this sense of interdependence is so perplexing in the first place was because of asymmetries that were playing out most acutely in conflicts surrounding the Mexican subsoil. In this case, it is especially meaningful that the subterrain, in particular, performs much of the balancing work at *Detroit Industry*.

Detroit Industry's resource globalism is especially surprising given the apparently conflicting view registered by much of Rivera's earlier work. In the decade that preceded *Detroit Industry*, Rivera had been drawn to minerals and mining as especially potent allegories of U.S. imperialism.⁴⁷⁸ In stark contrast to *Detroit Industry's* borderless subterrain, Rivera's frequent representations of extraction in Mexico in the decade prior denounced foreign penetration into the Mexican subsoil. Consider, for instance, Rivera's famous murals for the Ministry of Education in Mexico City in 1923. There, the East patio "Court of Labor" explored the plight of the Mexican worker with three panels depicting the mining and smelting of Mexican metals (fig. 82 and 83). The narrative begins with a shirtless worker, who enters into the mines with a pickaxe and lantern. The next panel, entitled "Salida de la Mina," shows a worker patted down as he exits the mine, to prevent theft. In a motif that Rivera would recreate many times (both before and after *Detroit Industry*), this latter panel articulates the humiliation and surveillance of Mexican miners at the hands of foreign mining companies. Balanced precariously atop the mouth of a mine, the man appears as an Italian fresco of Christ at the cross, his dark head bowed and arms outstretched as the foreman's conspicuously white hands inspect him for stolen minerals. The recurring motif of mineral surveillance in Rivera's work underscored the absurdity of a U.S. company policing the "theft" of Mexican minerals at a moment when the subsoil had been declared the property of the Mexican nation.

The post-revolutionary significance of the subsoil for Rivera was most clearly expressed in his exhaustive, 41-panel treatment of the former baroque chapel of Chapingo's Autonomous University (fig. 5). Completed in 1927, Rivera's *Song of the Earth and Those who Till and Liberate It* unfolds parallel narratives of nature and revolution, both of which are rooted thoroughly in the subsoil. Rivera's five-part parable of revolution on the West wall is rooted in the unequal distribution of Mexico's mineral wealth, leading exploited miners to organize for revolution. As we enter the former chapel, the first panel on the left depicts the bitter inequality that first led to the revolution through a dyad between white miners and Indigenous or mestizo insurgents (fig. 6). Entitled "The Agitator," the frame is split in two. On one side, several brawny white men drill against the walls of a mine, wearing very little in the way of clothing but donning

⁴⁷⁷ Coffey, *Orozco's American Epic*, 155.

⁴⁷⁸ Rivera referred frequently to the importance of mining in his upbringing in Guanajuato; His father, at one point, owned two mines. See, for instance, Diego Rivera, *Das Werk des Malers Diego Rivera*, Never Deutscher, Verlag, Berlin, 1928; Florence Davies, "Rivera tells the meaning of Art Institute Murals;" Diego Rivera and R. Pliego. *Diego Rivera: Illustrious Words, 1886-1921*. (Instituto Nacional de Bellas Artes, 2007): 79. Diego Rivera and Bertram Wolfe, *Portrait of America*, (New York: Covici, Friede, 1934): 14. See also Mari-Tere Álvarez and Charlene Villaseñor Black. "Diego Rivera's 'California Miners' Sketchbook (1931): New Research on the Artist in California during the Great Depression." *Getty Research Journal*, no. 7 (2015): 185–96.

electronically equipped hard hats and power drills. The whiteness of their skin is conspicuous against the darkness of their subterranean backdrop, but also in comparison to the crowd of brown farmers gazing indignantly towards them. The following panel, “Formation in Leadership,” borrows a motif from “Exit from the Mine:” there, a foreman (wearing the same fatigue-like jumpsuit, belt and boots) searches a Mexican worker for minerals, who stands with his arms extended horizontally and head bowed. Using imagery from the Ministry of Education, Rivera mounted an analogous critique of imperialist mining operations and their systems of ownership (fig. 7).

We might think of works such as “Formation in Leadership” or “Exit from the Mine” as declarations of support for nationalization, which lapsed in the presence of U.S. industrialists.⁴⁷⁹ Alongside “the Agitator,” these panels can at the very least be understood as critiques of the inequality of foreign mine ownership in Mexico, which had been an important motivation for both the revolution but also for post-revolutionary efforts to ban foreign mine ownership. And in their defamiliarization of mineral “theft,” the images of the cruciform Mexican miner seemed to be referencing Article 27 of the Mexican constitution, the provision which had recently claimed Mexico’s mineral wealth as the property of the Mexican nation. Moreover, Rivera repurposed the same imagery for an article on the subject of Cárdenas’ expropriation of petroleum for *Fortune Magazine* in 1938.⁴⁸⁰ Invited to illustrate the grievances that led to the measure, Rivera returned to the symbol of a man emerging from a subterranean portal, arms raised as a man in a khaki jumpsuit searches him (fig. 84). It would be easy to align these images, then, with the post-revolutionary efforts of some members of the Mexican Left who aimed to fight anti-imperialism through national ownership and rigid, subterranean borders. Compared to images like “Exit from the Mine,” *Detroit Industry* would seem to represent an entirely contradictory perspective which aimed to present the subsoil as a shared bounty, divorced of geopolitical borders and questions of inequality.

More than expressions of Article 27’s subsoil nationalism, however, Rivera’s images of mining can also be read as endorsements of the *ejido* system, the name given to the redistribution of mines and land for collective use under the same article. Originally based on Aztec systems of land tenure, the *ejido* became a representative feature of Emiliano Zapata’s demands for land reform which was written into the constitution of 1917.⁴⁸¹ Ultimately, Article 27 articulated an understanding of *ejido* defined through collective use rights for surface land rather than the subsoil, whose ownership was conferred to the Mexican nation.⁴⁸² But as Elizabeth Emma Ferry has written, the *ejido* also represented a broader framework of property rights which shaped the

⁴⁷⁹ Raquel Tibol, for instance, has described the frescoes at Chapingo as “denunciando así el incumplimiento de la constitución de 1917, que en artículo 27 señala: “corresponde a la nación el dominio directo de todos los minerales o substancias que en vetas, mantos, masas o yacimientos constituyan depósitos cuya naturaleza sea distinta a los componentes de los terrenos, tales como los minerales de los que se extraigan metales y metaloides utilizados en la industria.” translation: “thus denouncing the breach of the 1917 constitution, which in article 27 states: “the direct domain of all minerals or substances that in veins, mantles, masses or deposits constitute deposits whose nature is different from the components of the land, such as ores from which metals and metalloids used in industry are extracted.”” Raquel Tibol, *Los Murales de Diego Rivera, Universidad Autónoma de Chapingo*. (México: Editorial RM, 2002), 102.

⁴⁸⁰ “Mexico in Revolution” *Fortune Magazine*, Vol 18 issue 4, October 1938. 74-86; 124-135.

⁴⁸¹ David Barton Bray, “When the State Supplies the Commons: Origins, Changes, and Design of Mexico’s Common Property Regime.” *Journal of Latin American Geography* 12, no. 1 (2013): 38.

⁴⁸² Eric P Perramond, “The Rise, Fall, and Reconfiguration of the Mexican ‘Ejido.’” *Geographical Review* 98, no. 3 (2008): 356–71.

emergence of cooperative mines in the 1920s and 1930s.⁴⁸³ Drawing on the constitutional understanding of an ejido, the cooperative mine movement separated use rights from rights of alienation (which would treat the mine as property to be bought and sold).⁴⁸⁴ In other words, the ejido was more than just a concrete policy measure. While nearly half of Mexico's land base was transferred to the ejido sector between the 1930s and the late 1970s, the implementation of this framework was not always egalitarian, and often reinscribed the dominance of the state over Indigenous communities. Earlier, however, the ejido and its paradigm of collective use rights for both land and the subsoil represented a powerful ideal of Indigenous socialism that captured the artistic and intellectual imagination of the post-revolutionary period. Poems and articles from the 1920s and early 1930s, for instance, reflect a romantic image of the ejido based around generalized ideals of Indigenous communal land use, which did not always align with the assumptions of the state.⁴⁸⁵

An allegiance to community-owned mines was a position which shaped Rivera's muralism from the very beginning. As he painted "Exit from the Mine" at the Ministry of Education in 1923, Rivera provoked controversy after he included incendiary lines from a political poem about mine ownership in the foreground.⁴⁸⁶ The original verse, by the revolutionary poet Carlos Gutiérrez Cruz, advocated the extraction of metal not for profit but for the weaponry of the revolutionary cause: "fellow miner / bent by the weight of the earth / your hand mistaken / when you extract metal for money. / Make daggers / with all these metals, / and in this manner / you will see that the metal, / is then for you."⁴⁸⁷ With the inclusion of this poem, the panel appeared to encourage miners to make daggers with the metal they extracted, urging violence to support the takeover of the mines. The words, understood by conservative figures as a call for a violent insurrection and a threat to the very state which had commissioned the project, were eventually removed and replaced with a less offensive line by the same author.⁴⁸⁸ Rivera, however, understood the poem as controversial not just because of its call to violence, but also because of its proposal of a different form of ownership. In his own retelling, the commotion resulted from his inclusion of a poem which "exhorted the miners to seize the mines for themselves."⁴⁸⁹ While this account eclipses more general anxieties about a new, fragile state

⁴⁸³ Elizabeth Emma Ferry, *Not Ours Alone: Patrimony, Value, and Collectivity in Contemporary Mexico*. (New York: Columbia University Press, 2005), 12, 200-215.

⁴⁸⁴ Ferry, *Not Ours Alone*, 58-62, 141.

⁴⁸⁵ See, for instance, Enrique Othon Díaz, *Madre Tierra: Poemas al Ejido* (Oaxaca: n.p., 1933); Gilberto Loyo, "Poema del Ejido," *CROM*, August 15 1925, p. 13; Antonio Hidalgo, "La Tierra debe Trabajarse en Común," *El Machete* 25 Sept-2 Oct, 1924, 2. Ferry discusses the ways in which the ejido system often conflicted with the ambitions of the Mexican state in *Not Ours Alone*, 200-210.

⁴⁸⁶ Alberto Híjar Serrano has written about this event in "The Latin American Left and the Contribution of Diego Rivera to National Liberation." *Third text* 19, no. 6 (2005): 640.

⁴⁸⁷ Translation from Híjar Serrano, "The Latin American Left and the Contribution of Diego Rivera to National Liberation," 640.

⁴⁸⁸ Now, in front of the *abrazo del obrero y el campesino* panel, the poem reads: "Jornaleros del campo y la ciudad / desheredados de la libertad / hagan más fuerte el lazo / que los une en la lucha y el dolor / y la fecunda tierra florecerá/ un abrazo de fuerza y de amor./ ya después de ese abrazo no pagarán tributos / ni mercedes, y el potrero y la máquina / darán a todos sus frutos para ustedes" The translation is: "Day laborers from the countryside and the city / disinherited from freedom / strengthen the bond / that unites them in struggle and pain / and the fertile land will blossom / a hug of strength and love / after that hug they will not pay tributes / nor mercedes, and the paddock and the machine / will give all their fruits for you."

⁴⁸⁹ Gladys March and Diego Rivera, *My Art, My Life: An Autobiography* (New York: Dover, 1991 [1960]):

recovering from a decade of revolutionary violence, it also demonstrates Rivera's own interpretation of the poem as a declaration of support for community owned mines.

As we will see, Rivera signaled his support for the ejido system on several occasions. His not-infrequent writing on the matter sheds some light on the ways in which the otherwise accommodationist perspective of a shared subterrain might also be an anti-imperialist one. In 1927, just as he was finishing his fresco series at Chapingo, he published a lengthy article for the anti-imperialist magazine *El Libertador* concerning the ever-encroaching appetite for minerals in the United States and the Mexican government's relaxed enforcement of Article 27.⁴⁹⁰ While he acknowledged the reasoning behind nationalization efforts, he expressed concern about its impact on ejidal lands, and ultimately contended that nationalization would fail to liberate Mexico from foreign capital. Moreover, he framed the ejido system as preferable to nationalization, because it could "challenge the capitalist concept of property" more than efforts to claim that land for the Mexican state.⁴⁹¹ To be sure, Rivera celebrated the eventual oil expropriation in the late 1930s as a decisive blow to foreign capital. In 1938, he published several articles which recognized that Cárdenas' expropriation, claiming "the popular enthusiasm for the 'confiscation' of oil companies is well justified."⁴⁹² But so too did he later suggest that, despite Mexico's nationalization of petroleum, "Anglo American imperialists" nevertheless managed to reach "under the border" and drain Mexico's mines to the "verge of exhaustion."⁴⁹³ The solution, he proposed in an unpublished 1946 essay, was a "Yankee Mexican treaty" which would provide "for the exploitation in usufruct by both parties" of mineral deposits.⁴⁹⁴ Here, Rivera employed the social-ecological notion of usufruct use, which referred to the right to use and benefit from property held in common rather than own it or sell it. In doing so, he advocated a paradigm of subsoil ownership based on communalism, in opposition to the current capitalist system of ownership, production, and consumption. Across several decades, then, Rivera demonstrated a remarkably consistent allegiance to an ideal that would situate the subsoil as communally stewarded.

What would it mean to see *Detroit Industry* as contesting not nationalization, but rather ownership in general? The promise of a communally stewarded subterrain represents an important complexity in Rivera's work. It can help us understand the apparent contradiction between the anti-imperialism that shaped Mexico's post-revolutionary subsoil nationalism and the mineral frontier's more borderless perspective. *Detroit Industry* invites multiple interpretations, and can hardly be understood to offer easy, straightforward platitudes. As Chapter One pointed out, *Detroit Industry*'s "astonishing" Pan Americanism and its vision of a common underground might just as easily be seen as the result of Morrow and Rockefeller's influence. With this collectivist commitment in mind, however, the notion of a shared subterrain troubles the assumptions of the mineral frontier at least as much as it accommodates them.

Of course, *Detroit Industry*'s common underground did not reflect any sort of extant reality. In the 1930s as now, the establishment of a communally stewarded subterrain between the United States and Mexico was an unlikely proposal. But as many have pointed out, *Detroit Industry* pictured not the reality Rivera saw in front of him, but rather his own persistent belief in

⁴⁹⁰ Diego Rivera, "La Situación Actual de México," *El Libertador* vol. II No. 12 (June 1, 1927): 20.

⁴⁹¹ Diego Rivera, "La Situación Actual de México," 21.

⁴⁹² Diego Rivera, "Petróleo en el Café," *Novedades*, March 27, 1938. CENIDIAP Fondo Diego Rivera, Microfilm.

⁴⁹³ Diego Rivera, Unpublished essay on anti-imperialism, dated 1946. CENIDIAP Fondo Diego Rivera, Box 2, Folder 19, Mexico City. DR-C2-E19-D689-D95 /5.2.2. Document INU.0694

⁴⁹⁴ Diego Rivera, Unpublished essay on anti-imperialism.

the possibility of an alternative to that reality.⁴⁹⁵ The North wall's multiracial shop floor, for instance, could hardly be understood as an accurate representation of the factory's deeply segregated workforce.⁴⁹⁶ Rather, it more closely reflected what Elie Faure described as Rivera's promise, to the world's "underdogs," of a "future less terrible" than the one they currently faced.⁴⁹⁷ This framework was certainly instrumental in Rivera's Pan-Americanism in general: as Jeffrey Belnap has written, Rivera's work in the United States was shaped by a vision of a post-capitalist, Greater American lifeworld, in which a continental Indigenous tradition appropriated U.S. industrial modernity for its own benefit.⁴⁹⁸ Likewise, Rivera's own unpublished writings about Pan-Americanism suggest a sense of responsibility towards the potential of an America broadly constituted, whose equilibrium was contingent on the even distribution of natural wealth.⁴⁹⁹ *Detroit Industry's* simulation of the two countries within a world of balanced homeostasis reflected Pan-Americanism not as it was, but as it could be.

Rivera's commitment to imaginatively refiguring the precepts of his present moment has been linked to his close relationship throughout the 1930s with the Russian revolutionary intellectual Leon Trotsky, who argued that art's purpose was to "look at the world with new eyes."⁵⁰⁰ For Trotsky, Rivera's muralism represented a pioneering vision of socialism's aspirations that frustrated the cynical "instinct of self preservation" and "spirit of conformity" that characterized Stalinism and communist authoritarianism more broadly.⁵⁰¹ But Trotsky's appeal to new perspectives also pertains to recent entreaties from within the field of environmental humanities, which have encouraged the study of new, more sustainable epistemologies, envisioning alternatives as much as they critique the seemingly inescapable terms of our present paradigms.⁵⁰² Indeed, Rivera's idealized, reimagined future not only reframed industrial modernity, but it also altered the way we look at the subsoil. This is particularly clear when *Detroit Industry* is placed in conversation with Rivera's frescoes at Chapingo, which represent Rivera's most inventive exploration of the subterrain and the possibilities of the ejido system. At Chapingo, as at Detroit, Rivera foregrounds the subsoil in a critique of its both capitalist ownership and the capitalist epistemologies that enable that

⁴⁹⁵ As David Craven has argued, studying Rivera's identification with the Russian revolutionary Leon Trotsky throughout the 1930s can shed light on the artist's persistent commitment to imaginatively refiguring the precepts of his present moment. To Craven, the affiliation between the two socialists sheds light on the ways in which Rivera "spoke more eloquently of the present re-imagined, or even "idealized," in the future than he did of the past or present in mere "realistic" terms." Craven, *Diego Rivera as Epic Modernist*, 3, 146.

⁴⁹⁶ Anthony Lee makes this point in "Workers and Painters."

⁴⁹⁷ Elie Faure, "Diego Rivera," *The Modern Monthly* vol. 8, no. 9, October 1934, 547.

⁴⁹⁸ Belnap, "Diego Rivera's Greater America"

⁴⁹⁹ Diego Rivera, "America Must Discover Her Own Beauty," September 8, 1931. Unpublished manuscript, Bertram Wolfe Papers, Box 117, folder 5. Stanford University, Stanford, California. Rivera writes of a "new world under a new organization" in which "harmony of men with the earth."... against the "individualism of particles of the earth." "minerals will function as minerals" and "there will be no need to further destroy the marvel of our vegetals."

⁵⁰⁰ Trotsky, "Art and Politics in Our Epoch," *Partisan Review*, 18 June 1938.

⁵⁰¹ Trotsky, "Art and Politics in Our Epoch."

⁵⁰² As the Mexican environmental philosopher Enrique Leff has pointed out, our current environmental crisis demands "new paths of knowledge," which can build a more sustainable future that accounts for environmental complexity. Enrique Leff, "Pensar la Complejidad Ambiental," in Leff, Funtowicz, de Marchi, et al, *La Complejidad Ambiental* (Mexico City: Siglo Veintiuno, 2003), 7. See also Morton, *Being Ecological*, xxi-xxxiv, Dianne Rocheleau and Padini Nirmal, "Culture" in *Keywords for Environmental Studies*, 50-55.

ownership. Both spaces render underground relationships with a narrative complexity that plays out across the exhaustive, multi-surround treatment of the space's interior. Ultimately, this comparison highlights an alternative visual regime in Rivera's modernism, in which the viewer does not experience the subterranean and its matter as a vertical slice or as an inert, abstract object that can be possessed or exchanged, but rather as volumetrically complex and interconnected with other life forms.

Subterranean Perspectives

Nowhere was Rivera's commitment to the ideal of community-owned mines more clear than at Chapingo. The chapel's two central themes— of (1) the natural world and (2) the political liberation that unfolds in relation to that natural world— culminate in triumph at the apse, where a pregnant nude emerges from a hollow in the soil, surrounded by male figures who convert wind, fire, and water into the modern industrial commodity of electricity (fig. 85). As the successful conclusion of a story that began with mineral imperialism, this picture of victory and abundance is crowned with a ceiling vault, which looks upwards at the floating bodies of two dark-skinned men, pressing together a hammer and sickle (fig. 86). Surrounding figures look on from the trompe-l'oeil recessions of the architectural molding, clutching emblems of agricultural abundance. Entitled "The Gifts of the Earth Rightfully Possessed," the bay leaves little doubt about the identity of the rightful owners of the resources on display at the chapel: the indigeneity of its two central bodies is thrust into high relief in comparison with the previous two bays, which centered first on white and then mestizo bodies. The reference to collective land use was especially appropriate at Chapingo. Itself the product of revolutionary land distribution, the university had only recently been established when Rivera received the commission in 1924. Moreover, as an agricultural school tasked with educating rural farmers on innovative practices of farming and land stewardship, it was a suitable backdrop for a fresco series which dealt unambiguously with the rights of rural workers to Mexico's subsoil and agricultural land.

A closer analysis of Rivera's frescoes at Chapingo can help us untangle the multiplicity of meaning that characterizes *Detroit Industry's* subterranean iconography. As numerous scholars have pointed out, *The Song of the Earth* represents perhaps the clearest artistic precedent to Rivera's frescoes at Detroit.⁵⁰³ The two share many similarities, not least of which is an unsubtle gender binary that represents the subsoil through the powerful bodies of nude women (although they are far more voluptuous and full-breasted at Chapingo).⁵⁰⁴ If Chapingo's West Wall refracts its revolutionary tale through the image of the subsoil, its parallel, East wall trajectory of natural forces similarly adjusts our eyes to the importance of the subterranean, illustrating earthly processes through the geological and biological forces that happen below ground. At Chapingo, the narrative begins with "Subterranean Forces," in which a muscular woman crouches amidst a fiery canal of molten minerals, representing the powerful energy of subterranean material (fig. 87). Such anthropomorphism is not unlike the upper register

⁵⁰³ See Linda Banks Downs, *Diego Rivera: The Detroit Industry Murals* (New York: W.W. Norton & Company, 1999), 92; Xavier Moysén wrote that "the group of Detroit paintings closely resembles, due to its unity, the assembly hall of the Chapingo National School of Agriculture, which is also, on the other hand, a compliment." "El Retrato de Detroit Por Diego Rivera," *Anales del Instituto de Investigaciones Estéticas* 13(47): 58. 1977.

⁵⁰⁴ The program follows well-worn tropes which equate women to the earth. Dina Mirkin complicates this argument by suggesting that the female allegorical figures on the east wall are represented as forceful and central to the cause of revolution on the west wall. See Dina Mirkin, "Women, Agriculture, and Civilization in Diego Rivera's Murals of Chapingo." *Aurora: The Journal of the History of Art* 9 (2008): 101–15.

“goddesses” at Detroit Industry, whose blocky, monumental female bodies allegorize the force of geological matter. Furthermore, the scenes that succeed “Subterranean Forces” on *Song of the Earth*’s East wall reveal the germination and birth of seedlings rendered as humans, their bodies incubating in a fleshy pink womb below ground and sprouting, like plants, above the surface (fig. 88 & 89). Here, the image of subterranean gestation represents a clear visual precedent for *Detroit Industry*’s east wall, and its depiction of a human fetus incubating beneath the roots of a tree.

Moreover, *The Song of the Earth* also speaks to the ways we might read a commitment to communal ownership at *Detroit Industry*. For this, we turn our attention again to the upper registers of *Detroit Industry*’s North and South Walls, in which fists form, grabbing minerals, from both the volcano and a stepped temple (fig. 79 and 80). Rivera referred to these hands as “the hands of the miners taking the hard metals out of the earth.”⁵⁰⁵ Holding jagged nuggets of gray rock, the gestural, disembodied form of the hands again recall Chapingo, where various contortions of fists, fingers, and palms had served to symbolize the stages of rebellion and transformation. There, hands had also emerged from the ground: they were positioned in lunettes above the narrative of the Mexican revolution, illustrated as a conflict over the ownership of the subsoil (fig. 90, 91, 92). This particular precedent was even acknowledged by Rivera himself in an article on his Detroit murals for *Fortune Magazine* in 1933, in which the artist offered that “human hands breaking through the earth behind [the mineral nudes] suggest, as they suggest in the magnificent frescoes at Chapingo, the passion and labor and desire and rebellion of men.”⁵⁰⁶ The violent implication of their truncation only dramatizes the uprising they serve to suggest, not only through Rivera’s own association between hands and what he called the “strength of the workers” and “terrestrial energy,” but also through the very form of the fist, which by 1932 had been increasingly associated with striking workers, unions, and communists.⁵⁰⁷ As abstract symbols, the fists are more cautious than, say, Rivera’s ill-fated instruction to workers in 1923 that they “seize the mines” for themselves and make daggers. Nevertheless, what Rivera identifies as the worker’s “desire” and “rebellion” is manifested by a seizure of valuable ore.

Given Rivera’s well-documented dedication to communism, his sympathy for a model of collective ownership over resources is hardly surprising. The frescoes at Chapingo clearly connect both the origin of the revolution, and its promise of land and mineral redistribution, with the communist movement. A hammer and sickle can be found at the tip of the Agitator’s fingers in the first panel on the west wall, where the revolution starts (fig. 6). The symbol appears again

⁵⁰⁵ Davies, “Rivera Tells Meaning of Art Institute Murals.”

⁵⁰⁶ Diego Rivera, “Industrial Detroit,” *Fortune Magazine*, Volume VII, Number 6; October 1933, p. 52.

⁵⁰⁷ Diego Rivera, “Dynamic Detroit,” 293. A flurry of newspaper articles reported on objections (or objected themselves) to the symbol of the closed fist, protesting that it indicated the artist’s allegiance with communism. One article, for instance, reported that an English teacher named Eugene Paulus publicly called the work “communist propaganda,” warning listeners at the Review club that “On your tax paid walls you have the sign of the Third Internationale—the raised fist.” “Former Jesuit Teacher Joins in Attack,” *Detroit Times*, March 20, 1933. Likewise, councilman William P. Bradley took to the city’s Arts council to declare: “There are symbols on our walls which refer to Communism. These are the symbols of a raised fist.” “Ford Insists Paintings Are Good Art,” *Detroit Times*, March 20 1933. The president of Marygrove College, Dr. George Herman Derry, gave a similarly public condemnation, “Rivera has painted the communist symbol of the clenched fist and the black hand, which again every communist the world over will tell you means revolution by force and violence.” Helen Bower, “Curtains for Rivera Murals Suggested as Compromise,” *The Detroit Free Press*, Friday March 24, 1933. In response, a citizen wrote to the *Detroit Free Press* to insist that “while “some people seem to think that the fists protruding in the frescoes are symbols of communism... it is certain that Rivera could not possibly intend to symbolize communism.” Boris Ganapol, “No Threats Found in Clenched Fist,” *Detroit Free Press*, March 26, 1933. DIA scrapbooks.

in “The Gifts of the Earth Rightfully Possessed,” legibly honoring the framework behind the ejido system (fig. 86). And although Rivera’s work in the United States was far more constricted in terms of the ideological content he was allowed to include, the enduring presence of mining in his frescoes there can easily be linked to his economic doctrine. Rivera’s sketchbook of miners and mines in California, for instance, has been linked to his labor politics.⁵⁰⁸ And in Detroit, debates raged almost immediately about the meaning of the fists, provoked by critics who read them, probably correctly, as a symbol of the artist’s allegiance to the communist movement.⁵⁰⁹

The socialist framework of Rivera’s muralism has been thoroughly analyzed by leading Rivera scholars. Less recognized, however, are the ways in which his political allegiances included a complex engagement with environmental justice. Studying Rivera’s frescoes at Chapingo reveals an important aspect of his muralism: his art frequently bridged a condemnation of capitalism’s unequal distribution of natural resources amongst humans with a condemnation of capitalism’s effect on the environment itself. The chapel’s title, for instance, *The Song of the Earth and Those who Till and Liberate It*, positions the earth as the leading figure and immediate subject of a liberation orchestrated by agricultural workers. Here, Rivera’s anthropomorphized earth solicits moral outrage for an environment enslaved by capitalist exploitation but nevertheless animate and conscious of its own captivity. In perhaps the most obvious denouncement of capitalism’s effect on the natural world, a nude woman turns her head and body away from us in shame, surrounded by a leafy tree and shards of glass (fig. 93). Titled “The Oppressed Earth,” the panel sits above “Formation in Leadership,” clearly excoriating the effects of imperialist mining. A shirtless man, wearing flashy gold jewelry and standing in front of a bag of money, trains his ugly gaze outward at us, hands on his paunch, as if to guard her. The military and the clergy guard her from other angles, suggesting the tripartite forces of liberal imprisonment and wrongful objectification of the land.

The environmental devastation wrought by capitalist mining operations would become a recurring theme for Rivera. His 1931 mural, *Allegory of California*, is marked by an unsettling interpretation of California’s ecosystem which serves to critique California’s industrial extraction of minerals (fig. 94). As Anthony Lee has pointed out, Rivera’s California differs sharply from the arcadian scenery of lush forests and verdant valleys that typically characterize depictions of the state.⁵¹⁰ Instead, the backdrop is one punctuated by oil tanks on one side, and the vertical metal frameworks of the derricks used to fill those tanks on the other. A disembodied hand lifts up the surface of the earth, revealing two miners who drill at a mound of rock, much like the depiction in “The Agitator.” Above them, the dead remnants of a severed tree point to the destruction of California’s woodlands, once known for thick, ancient forests of monumental redwoods. It was a theme to which he returned in *Pan American Unity*, a mural painted for the Golden Gate exposition in 1939 to depict the merging of Anglo and Latin America. In the upper register of the fifth panel, at the extremity of the industrial, U.S.-American world, numerous

⁵⁰⁸ Mari-Tere Álvarez and Charlene Villaseñor Black’s article on Rivera’s *California Miners* sketchbook, for instance, contextualizes Rivera’s interest in mining by discussing his interest in labor politics. See Mari-Tere Álvarez, and Charlene Villaseñor Black, “Diego Rivera’s ‘California Miners’ Sketchbook.”

⁵⁰⁹ Helen Bower, “Curtains for Rivera Murals Suggested as Compromise,” *Detroit Free Press*, . “Ford Insists Paintings Are Good Art,” *Detroit Times*, March 20 1933. “No Threats Found in Clenched Fist,” *Detroit Free Press*, March 26. “Former Jesuit Teacher Joins in Attack,” *Detroit Free Press* March 24, 1933. “Hotter Waxes the Warfare Over the Murals of Diego,” *Detroit Free Press* March 23, 1933.

⁵¹⁰ Anthony Lee, *Painting on the Left: Diego Rivera, Radical Politics, and San Francisco’s Public Murals*, (Berkeley: University of California Press, 1999) 67-72.

mining operations extract from the landscape (fig. 95). The landscape itself is almost entirely devoid of trees or other plant life, save for a team of people chopping down a tree in the distance. Here, capitalism has rendered the earth a barren wasteland, marked by the spiral grooves of an open pit mine.

At Chapingo, however, Rivera traces the possibility of an alternative to such destruction. In the final bay, where the gifts of the earth are “rightfully possessed,” Rivera shows us the *liberation* of the earth, emerging from its state of oppression into a bountiful Eden (fig. 85). On the West wall, the revolution is shown as having an abundant conclusion in the final panel, “Triumph of the Revolution,” in which a group of men, women, and children share a meal beneath a fruit-bearing tree (fig. 96). The foliage mirrors the leaves of the panel opposite it, “The Abundant Earth,” in which nude women and children eat round fruit from an almost identical tree, the result of the east wall’s natural evolution (fig. 97). These two panels lead to the series’ culmination in the apsidal mural, “The Liberated Earth,” in which a pregnant, recumbent nude holds a seedling surrounded by men who make effective use of the earth’s resources: electricity comes not from finite minerals, but rather from a forceful waterfall or a steel pinwheel, harnessing the power of water and wind (fig. 85). Here, Rivera suggests a clear link between successful revolutionary land reform and the prosperity offered by a specific relationship with the land.

Moreover, the Chapingo murals reveal a complex revolutionary ideology which highlights the *mutual dependence* between environmental sustainability and the equitable distribution and control of resources. As I discuss further at the end of this essay, in *The Song of the Earth and Those who Till and Liberate It*, the liberation of both people and the earth are cast not as linear teleologies with fixed endpoints, but rather as part of a larger, cyclical temporality of constant renewal.⁵¹¹ The deaths resulting from the revolution, which are depicted on the West wall, are figured as the genesis of the cycle of organic life depicted on the East wall. In the panel that represents the death and violence of revolution, three grieving, cloaked women bury a body, wrapped in crimson cloth, beneath the roots of a tree (fig. 98). The same red cloaks of slain revolutionaries reappear on the East wall’s antechamber, preceding “Subterranean Forces” and the subsequent scenes of gestation and growth. There, the dead bodies of Emiliano Zapata and Otilio Montana rest in the soil below a crop of corn which grows above them, their bodies situated dually as a conclusion and yet also a source of life, fertilizing the organisms around them (fig. 99). Death and martyrdom at Chapingo are not positioned as endpoints, but as beginnings, directly related to cycles of life, and as requisites for renewability. The revolution thus becomes part of a larger cycle of mutually sustaining forces. A robust, thriving subterranean and the development of life enable the abundant, post-revolutionary Mexico on view at the apse. But their continued use is also enabled *by* the revolution; the casualties of its triumph set in motion a chain of bountiful, fertile regeneration.

Taken together, the frescoes at Chapingo issue a statement on the environmental significance of the revolutionary ideal of communal ownership. As a model of land and subsoil tenure, which both dated back to Pre-Columbian times and marked a defining proposal of Emiliano Zapata’s agrarian movement, the ejido system fit neatly within Rivera’s broader re-

⁵¹¹ Rivera’s rejection of linear, Marxist teleologies of liberation in favor of cyclical frameworks at Chapingo has been discussed by other scholars. Héctor Jaimes, for instance, focuses on this aspect of these murals in “El Espíritu Vanguardista de Diego Rivera: Los Murales de Chapingo.” *Revista Iberoamericana*, no. 250 (2015): 255–276. Likewise David Craven devotes several pages to this series, making a similar argument, in *Art and Revolution in Latin America, 1910-1990*. (New Haven: Yale University Press, 2002), 51.

imagining of socialism in the image of Mexican Indigenous culture. Yet it was also a more sustainable way of looking at the subsoil. As numerous scholars have argued, the ejido system functioned to limit the overexploitation or misuse of the land and natural resources.⁵¹² The ejido system presented the land and subsoil as a *commons*—a framework of community stewardship in which resources are held in common and managed for the collective good, rather than privately owned.⁵¹³ Significantly, this structure of ownership is one which has been promoted in recent decades as a more stable, self-sustaining paradigm for the natural environment.⁵¹⁴ The environmental significance of the ejidal commons was rendered especially clear in the 1980s, as Mexico began to privatize the tracts of land they had expropriated earlier for communal use, leading to protests from environmentalists as well as Indigenous groups.⁵¹⁵ In *Song of the Earth*, Rivera signals his awareness of such an implication: the successful implementation of the revolution’s anti-capitalist ideals results in an earth that is liberated, fertile, abundant, and sustainable.

Admittedly, *Detroit Industry* is largely absent of the explicit condemnations of capitalist mining practices on view in *Song of the Earth* and *Allegory of California*. Until now, we have considered at length the ways in which one might understand the *Detroit Industry*’s Pan-American subterrain as a convenient fantasy, which displaced environmental asymmetries, like geopolitical inequalities between the U.S. and Mexico, onto a spatial grammar of balance and homeostasis. But Rivera’s frescoes at Chapingo suggest the ways in which we might reframe the sense of equilibrium that suffuses the subterrain at *Detroit Industry*, as part of a balanced political ecology in a post-capitalist future, where resources would be equitably distributed.

Indeed, the former chapel at Chapingo represents the most recognizable predecessor to *Detroit Industry* not just because of its iconography of bodies and fists, but also because of the way it represents the subsoil. Typical representations of the land have struggled to represent the subsoil, often treating the earth as a surface which is entirely disconnected from the matter beneath it.⁵¹⁶ When visualizations of earthly depth do exist, they generally render the subterrain as an isolated “store house” for raw materials and waste, positioned as an abstract value in terms of its future use for humans. Rivera resists these conventions at Detroit and Chapingo, positioning the subsoil within an intricate constellation of earthly and political systems. We experience this multifaceted view of the subsoil as an immersive, contiguous space, where we

⁵¹² José Martínez-Reyes outlines this argument in *The Moral Ecology of a Forest: The Nature Industry and Maya Post-Conservation* (University of Arizona Press, 2016)

⁵¹³ Bray, “When the State Supplies the Commons”

⁵¹⁴ Most famously, Elinor Ostrom’s Nobel-prize winning research has refuted the “tragedy of the commons,” demonstrating instead that resources are best managed by those who live nearby, and that external intervention by corporations and governments leads to faster depletion. *Governing the Commons: The Evolution of Institutions for Collective Action. The Political Economy of Institutions and Decisions*. (New York: Cambridge University Press, 1990)

⁵¹⁵ See Jozelin María Soto-Alarcón, and Diana Xóchitl González-Gómez. “Collective Rural Women Access, Use, and Control Over Communal Land in Mexico: A Post-Capitalist Feminist Political Ecology Approach.” *Frontiers in Sustainable Food Systems* 5 (2021): 297. See also Lynn Stephens, “Between Nafta and Zapata” in *Privatizing Nature: Political Struggles for the Global Commons* (London: Pluto Press, 1998).

⁵¹⁶ Mark Anderson discusses the need for more volumetrically complex understandings of the earth in his chapter on depth, the subterrain, and geopolitics. He discusses the ways in which traditional cartographic renderings of the earth render it as both a surface and an abstraction, which obfuscates possibilities of ecological, interconnected relationships. See Mark Anderson, “The Grounds of Crisis and the Geopolitics of Depth.” In *Ecological Crisis and Cultural Representation in Latin America: Ecocritical Perspectives on Art, Film, and Literature*, 99–125. New York: Lexington Books, 2016.

are invited to draw connections between the subsoil's political and ecological importance. What if we were to understand *Detroit Industry*, then, as positing an entirely separate model for perceiving the subsoil, which contests capitalist epistemologies and foregrounds the subsoil's ecological role?

Under liberal regimes of private property, subterranean material is frequently rendered as an isolated, inert object that can be easily appropriated and exchanged. This schema has environmental consequences: as many scholars have argued, to conceive of nature as private property is to ontologically alienate it from larger ecosystems.⁵¹⁷ Extractive capitalism, in particular, isolates subterranean minerals, fossil fuels, and soil from other organic life cycles.⁵¹⁸ To accommodate the pursuit of profit, the subterranean becomes a discrete, vertical slice of abstract value, commodified and divorced from all other networks of life.

By contrast, Rivera's muralism positions the subsoil not as a singular *object* that can be fully possessed but rather as a heterogeneous, decentralized *space* with a series of dynamic, relationally interwoven nodes. We can see this early on at Chapingo, where the West Wall's parable of revolution is interwoven with subterranean geological and biological forces on the East Wall. Figured on both walls as simultaneously a resting place for the revolution's dead and as a life-giving space, the chapel's twin subterranean sequences are not just parallel, they are interconnected parts of a complex ecosystem. The powerful, spirited force of geological wealth becomes a multidirectional source, supplying the material for the human economies on the west wall at the same time that it sustains the plasmic subterranean womb, in which life germinates, in the next two scenes. Reinforced by the tessellated connections of the vaulted ceiling, which abandon gravity to move vertically as well as horizontally, the chapel renders the *Song of the Earth* as a complex web, at once autonomous and interconnected with human life.

Similarly, at *Detroit Industry* the viewer experiences the subsoil not as an isolated commodity but rather as part of a holistic system of interaction, in which no panel or life form can exist independently. The central mineral cross-sections on the North and South wall offer the basic spatial continuity between all the panels, with connections that move in all directions: the heat from the formation of coal and hematite creates a vertical connection between the volcano's molten interior and the lower register's blast furnace. On the North Wall, the grid of limestone slabs parallel the geometric blocks of the Mesoamerican pyramid above it, at the same time as they suggest also the acts of construction that occur on the assembly line directly below.

Beyond these inorganic functions, Rivera locates minerals within an ecology that acknowledges their relationship to plants and non-human animals, as well. The far corners of the North and South wall depict the role of geological matter within other, related biological functions. On the East sides of the North and South walls, for instance, we see the role of minerals within medical processes. At the far right edge of the North wall's middle register,

⁵¹⁷ Ecocritics have highlighted the anthropocentrism of liberal concepts of private property, which construct nature as an *object* whose ontological status is defined by the property relationships of human *subjects*. See Jason W. Moore *Capitalism in the Web of Life: Ecology and the Accumulation of Capital*. (New York: Verso, 2015), Helena R. Howe, "Making Wild Law Work—The Role of 'Connection with Nature' and Education in Developing an Ecocentric Property Law." *Journal of Environmental Law* 29, no. 1 (March 1, 2017): 19–45.

⁵¹⁸ In his study of Mexican subway and hydrology systems, Mark Anderson has critiqued the human-centric models of private property which "diminish ecologically complex volumes to schematic areas" and which exist under regimes of extractive capitalism: "In the neoliberal conceptualization of space... mining is not viewed in terms of vertical depth or geological time, but rather as a question of retrieving elements that are proper to the surface and crystallizing them into the configurations of the present." Anderson, "The Grounds of Crisis and the Geopolitics of Depth: Mexico City in the Anthropocene," 110.

geological material and crystals offer nutrients to an embryo through an umbilical cord (fig. 100). Opposite it, in the far left corner of the South wall's middle register, a jagged formation of minerals joins organs and medical scissors to surround the process of brain surgery, in a testament to the interdependency of biological, mineral, and technological worlds (fig. 101). On the West sides of the North and South Walls, Rivera calls attention to both the life-giving and deadly potential of minerals. The South wall's far right corner depicts sulfur and salt crystals, coming together to form the origins of life itself (fig. 102).⁵¹⁹ Across from this, the far left, middle register of the North wall puts forth a microscopic image of cells being suffocated by the gaseous byproducts of coal combustion (fig. 103). In its acknowledgement of such a consequence, this panel comes closest to the sorts of ecosocial critiques that he mounted in other murals, reminding us at the very least of industry's effects on interdependent ecological factors. Even here, however, this recognition is balanced against the life-giving properties across from it, which reveal minerals as the fundamental building blocks for life itself.

The subterrain and its minerals at *Detroit Industry* are part of an integrated biosphere, which refuses conventions that might segregate minerals and the underground from the earth's diverse trophic chains. Just as geological strata enable life on the North and South walls, so too do they supply nutrients to both human and plant life on the East wall. They enrich the subterranean fetus and the roots of a tree alike, suggesting the alluvial womb from which the plant life and crop bounty in the far corners came. A preparatory sketch at the Detroit Institute of Arts reveals that Rivera had intended at least one of the middle register panels initially as a scene of agriculture, with scenes of fruits and vegetables growing below ground before their cultivation (fig. 104). Instead, however, the abundance of the earth is expressed through the two, round nude women in the upper registers, and the panels of North American produce below them, which Rivera explained as representing the "growth of the vegetable life from the soil."⁵²⁰ Minerals are afforded a surprising centrality to this labyrinthine circuitry of biotic processes. Rivera himself clarified in an interview about the series that he saw minerals as the unifying elements of life, explaining that "these same chemical elements which go into the making of steel, we also find in animal and vegetable elements."⁵²¹ His purpose, he continued, was to show "the unity of all life as it is derived from the earth."⁵²² Here, the subterrain is not divorced from nonhuman life, but is central to it.

The polyvalent, interdependent, life-world that circumscribes the subsoil at *Detroit Industry* has been frequently described as reflecting a sort of cosmology.⁵²³ This analysis is certainly not incorrect- Rivera was fascinated by a number of diverse frameworks for understanding the universe and its biogeochemical processes, drawing on everything from Maya codices to recent developments in the field of physics. But Rivera's long-standing commitment to the ejido system- and his involvement within the interwar Mexican Left more broadly- suggest a perspective that was also informed by contemporary questions about the relationship between conservation, private property, and the subsoil's ecological importance. Indeed, as Christopher Boyer and Emily Wakild have pointed out, land reform in post-revolutionary

⁵¹⁹ Downs and McMeekin have made this argument, citing Rivera's interest in the spontaneous emergence of life from nonlife, and Darwin's hypothesis that life emerged from a "warm little pond, with all sorts of ammonia and phosphoric salts, light, heat, electricity." Downs, *Diego Rivera: The Detroit Industry Murals*, 118.

⁵²⁰ Downs, *Diego Rivera: The Detroit Industry Murals*, 69.

⁵²¹ Davies, "Rivera Tells Meaning of Art Institute Murals."

⁵²² Davies, "Rivera Tells Meaning of Art Institute Murals."

⁵²³ See, for instance, Downs, *Diego Rivera: The Detroit Industry Murals*.

Mexico saw also the emergent articulation of the environment as a living system which was inextricably bound with frameworks of socialist equity.⁵²⁴ And as the Mexican environmental philosopher Enrique Leff has pointed out, sustainable epistemologies which account for ecological complexity are most compatible with frameworks that accommodate decentralized, collective rights to the environment.⁵²⁵ Such a question would have been front and center in the 1920s and 1930s, as Indigenous miners and oil workers agitated and staged massive labor strikes in response to the persistence of foreign mining operations, but also, radically, the devastation wrought by extraction on entire ecosystems.⁵²⁶ Rather than simply warning of the ephemerality of geological reserves, Huastec leaders and workers decried the effects of extraction on interdependent mechanisms of soil, water, and forests. For theorists such as Neff, these acts of resistance might be understood to reflect an inchoate, anti-capitalist epistemology, which positioned the natural world not just as a resource but as part of a carefully calibrated network with independent causal nexuses.

The sense of space at *Detroit Industry* offers us a similarly ecological way of seeing the subsoil. The subterrain is rendered not as an individual, fungible fragment but rather as part of a multi-dimensional maze of lifeforms and interactions which together become greater than the sum of each individual part. For one thing, this ecological perspective adds a dimensionality to representational modes that have viewed the subsoil, at best, through the two-dimensional abstraction of stratigraphy.⁵²⁷ Encountering this space as a web of simultaneous linkages, we are encouraged to discard a simple, linear understanding of the subsoil's ecological relationships and draw volumetrically complex connections that extend into the viewer's space. The parallel symmetry of the North and South walls solicit viewers to draw connections between them. The West sides of the North and South walls, for instance, prompt our curiosity about the ways minerals might generate life (as in the South wall's image of the heterotrophic origins of life) and destroy life (as in the panel directly across from it) (fig. 102 and 103). Similarly, the fossilized remains of living organisms (which appear in both the North wall's section of coal and the South wall's section of sand), suggest the ways that geological matter might be inextricably tied to organic cycles of life and death (fig 79 and 80). We are also invited to draw connections between the North and South wall's depictions of minerals and those on the East wall, where layers of limestone, water, and clay nourish the roots of a tree, in turn forming the womb of an infant (fig 3). Likewise, we might trace the relevance of the North and South wall's mineral sections to the West wall, where ore freighters transport raw materials between corners of the hemisphere (fig. 4).

What results, in other words, is an immersive space that affords its viewer the opportunity to place the subsoil within the multidimensional world around them. Like Chapingo, *Detroit*

⁵²⁴ Christopher Boyer and Emily Wakild, "Social Landscaping in the Forests of Mexico: An Environmental Interpretation of Cardenismo, 1934-1940." *Hispanic American Historical Review* 92, no. 1 (2012): 73-106.

⁵²⁵ Enrique Leff, *Political Ecology: Deconstructing Capital and Territorializing Life*, (Cham: Palgrave MacMillan, 2021).

⁵²⁶ Myrna Santiago, *The Ecology of Oil: Environment, Labor, and the Mexican Revolution, 1900-1938*. (New York: Cambridge University Press, 2006), 272-278.

⁵²⁷ Jason Weems, in his study of the role of subterranean cartography in landscape and visions of the American West, has traced the development of stratigraphy in the late nineteenth century as a solution for mapping an underground world that is inherently shrouded from view. Weems points out that stratigraphy is necessarily an abstraction: "Where the surface could (conceivably) be everywhere viewed and verified, the subterranean had to be extrapolated from limited samples." See Jason Weems. "Stratifying the West: Clarence King, Timothy O'Sullivan, and History." *American Art* 29:2 (2015): 38.

Industry renders the subsoil not as an isolated object with finite ontological contours, but rather, as a decentralized, multidimensional space made up of networks that unfold above, around, and behind the viewer, and which cannot be understood in full through any single, detached fragment.⁵²⁸ In escaping such perceptual wholeness, the subsoil in Rivera's muralism resists the knowability of a thing that can be possessed or sold.

Ecological Modernism

Rivera's preoccupation with dimensionality might be understood appropriately as the product of his experiments with cubism. Indeed, Rivera's own writing about the Chapingo frescoes explicitly credited Picasso's sense of "truth" with the "system of painting" at work in the chapel.⁵²⁹ The viewer's overall experience of the chapel is one which functions to defamiliarize the limits of human perception using multiple, intersecting planes of perspectival space, an effect that had been embraced by Rivera, Picasso, and their shared circle of artists in Paris during the 1910s.⁵³⁰ And as many scholars have pointed out, *Detroit Industry* employed a number of cubist techniques.⁵³¹ There, the River Rouge plant becomes a vehicle for the collage-like complexity and multiperspectival nature of Rivera's cubist legacy. Within individual panels, simultaneity is envisioned through a prismatic montage of different manufacturing processes, isolated in separate perspectival schemes. In the lower registers of the North and South Wall, conveyor belts suture together a pastiche of shifting perspectives. Yet the viewer also experiences the space overall as a pluriverse of simultaneous frames, each of which interrupts the visual continuum of the others. Together, the panels form a mosaic of convoluted, ever-shifting vantage points.

To write about Rivera's depiction of the subsoil as a function of modernist form is to return to the original claims of this dissertation. In Chapter One, I discussed the ways in which *Detroit Industry* might be understood as a treatise not just on modernity, but on modernism, as well. I argued that Rivera's representation of U.S. industrial production and its greater, Pan-American lifeworld of minerals spoke also to notions of continental modernist form. For Rivera, the formal aesthetics of hard-edged U.S. machinery arose from a larger "substratum" of Mesoamerican art, together forming a geocultural category of Greater American modernism which spanned the entire continent. The enormous stamping press on the South Wall, for instance, was modeled in the form of the Aztec goddess Coatlicue, whose own affiliations with hybridity led her to be understood as a symbol of merged, binational aesthetics. Rivera's proposal of a Mesoamerican aesthetic "substratum" undergirding a Greater American modernism was in good company: it was not unlike many claims being made at the time, such as the MoMA exhibition *American Sources of Modern Art*, which opened the same year as *Detroit Industry*,

⁵²⁸ The subsoil here more closely resembles what the ecocritical thinker Timothy Morton has termed a "hyperobject," entities so vast and complex that they challenge our very understanding of objecthood (think of all the carbon in the atmosphere, for instance, or a city). Timothy Morton, *Hyperobjects: Philosophy and Ecology after the End of the World* (Minneapolis: University of Minnesota Press, 2013).

⁵²⁹ Rivera, Diego. "La Escuela Nacional de Agricultura en Chapingo," *El Arquitecto (Órgano de la Sociedad de Arquitectos Mexicanos)*: Mexico City) 2, No. 5 (Sept. 1925): 30.

⁵³⁰ A number of scholars have analyzed the influence of Rivera's early cubist work on his later muralism. See David Craven, *Diego Rivera as Epic Modernist*; Olivier Debroye, *Diego de Montparnasse*, (Mexico City: Fondo de Cultura Económica, 1979); Ramón Favela, Phoenix Art Museum, and Instituto Nacional de Bellas Artes (Mexico). *Diego Rivera: The Cubist Years* (Phoenix Art Museum, 1984).

⁵³¹ Downs, *Diego Rivera: The Detroit Industry Murals*, 129-130; Hurlburt, *The Mexican Muralists in the United States*, 96; Kozloff, "The Rivera Frescoes of Modern Industry at the Detroit Institute of Arts," 217.

and which posited a basis for U.S. and Mexican modernist abstraction rooted in the supposedly shared formal qualities of Mesoamerican art.

In some ways, *Detroit Industry* was successful at reflecting the idea of formal common ground on view in *American Sources*. Elie Faure, for instance, wrote that compared to the work of other Mexican muralists, *Detroit Industry* revealed the ways in which Rivera “binds more closely the two Americas.”⁵³² And in response to nativist concerns about Ford’s commissioning of a foreign artist, critics stressed shared aesthetic values that transcended borders. The critic Walter Pach, for instance, listed *Detroit Industry* as one of several recent Rivera murals that reflected a uniquely American aesthetic, in turn born of a Pre-Columbian past that “stretches in space across the whole of America.”⁵³³ Others, such as the Detroit Curator Wilhelm Valentiner, attempted to divert anxieties away from the artist’s nationality and political radicalism by underscoring the series’ display of “common traits which are characteristic of a continent as a whole, without regard to its geographical boundary lines.”⁵³⁴ Just as at *American Sources of Modern Art*, critics relied on the border-crossing promise of abstract, formal qualities to expand the geographical constraints of American modernism and locate the shared values that united the two countries.

But where the formalism in exhibitions such as *American Sources of Modern Art* had trained viewers to see a universalizing tendency towards “simplification of form,” *Detroit Industry*’s Greater American modernism offers no such aesthetic approach.⁵³⁵ By contrast, Rivera disrupts European linear space not through a simplification of form but rather through a separate, complex version of space that goes beyond mimetic representations of three dimensions, suturing dissonant perspectives and concepts of the real. And as Terry Smith has pointed out, Rivera’s image of the factory departed from period conventions of a modernist “machine aesthetic.”⁵³⁶ In contrast to the cropped, rationalized images of unbroken surfaces or spare, generalized objects that captivated Sheeler, Demuth, or MoMA exhibitions, Rivera’s image of modern machinery showed a complex, multifaceted series of processes and interactions. Focusing more on the multiplex relationships that characterize industry-- its parts and functions, its history, workers, raw materials, and byproducts— than the singular, mystified commodities that industry produced, Rivera rejected the alienation and commodity fetishism that sustained modern consumer society. Yet his formal approach represented also a rejection of the flat, fungible abstractions that subtended both the machine aesthetic and the typical precepts of modernist primitivism. Instead, Rivera transmutes a cubist montage of different fragmented and divergent realities into a proprioceptive experience of the garden court’s three-dimensional space. The viewer is tasked with interpreting this multiplicity of panels and perspectives, their eyes challenged to look back and forth, navigating the disparate depths, environments, and scales that unfold on all sides of their person. Situated between this patchwork of vantage points rather than frontally (as one might approach a cubist easel painting), the viewer assumes an uncertain position as negotiator of meaning.

Rivera’s own appropriation of cubist techniques to create a sense of decentralized, multiperspectival simultaneity has been convincingly interpreted as a post-colonial language

⁵³² Elie Faure, “Diego Rivera,” *The Modern Monthly* vol. 8, no. 9, October 1934, 547.

⁵³³ Pach, “Rockefeller, Rivera, and Art,” 479.

⁵³⁴ W.R. Valentiner, “History Cited by Valentiner.”

⁵³⁵ Holger Cahill, *American Sources of Modern Art*. (New York, N.Y.: Museum of Modern Art, 1933.) 7.

⁵³⁶ Terry Smith, “The Resistant Other: Diego Rivera in Detroit” in *Making the Modern*, 199–246, especially 217.

which incorporated aspects of the artist's socialist and indigenist politics. Perhaps the most persuasive voice on this matter has come from the art historian David Craven, who has traced Rivera's continued reliance upon the effects of collage or montage in Rivera's murals, ultimately identifying an "alternative modernism" that traverses Rivera's oeuvre.⁵³⁷ As an artist whose national and racial background had been the basis for numerous dismissive, primitivizing evaluations in Parisian cubist circles, Rivera was acutely aware of the exclusions of Eurocentric modernism.⁵³⁸ Craven thus stresses Rivera's use of a formal approach which mobilized European artistic conventions but did not necessarily privilege them over more peripheral visual traditions which originated in Mexico. Collage, in particular, became for Rivera part of a method which aimed to constructively reassemble a vision of culture that accounted for the "radical heterogeneity" of modernism.⁵³⁹ Aligning Rivera with the vision of the Nicaraguan modernist poet Rubén Darío, Craven points to Rivera's creation of a nonlinear version of modernism that accounted for uneven historical development and moved simultaneously backwards and forwards in time.⁵⁴⁰

Such simultaneous, fragmented and multidirectional modernism can be read in Rivera's *Zapatista Landscape*, which he painted while still in Paris in 1915 (fig. 105). Painted four years after the Mexican revolutionary Emiliano Zapata laid out his influential vision of land reform in the Plan de Ayala, the work was inspired by a widely circulated photograph of Zapata, believed to have been taken by the Mexican photographer Augustin Victor Casasola (fig. 106). Like the photograph, *Zapatista Landscape* incorporates the gun, sombrero, and cartridge belts that had come to be understood as signifiers of Zapata's specific revolutionary identity. Yet in Rivera's reconstruction, these signifiers exist only in fragments, which are inserted into a collage of various other slivers of materials, including illusionistic renderings of wood, fabric, architectural fragments, and blank, white, negative space. At least, it *appears* as a collage—Rivera's mastery of trompe l'oeil is suggested through a blank, pinned note in the bottom right of the painting: here, he references Spanish colonial painters, such as Francisco de Zurbarán, who mobilized similarly illusionistic images of notes as an invitation to the viewer to consider the differences between illusion and the Real (fig. 107). Indeed, the painting functions also as a commentary on Mexican visual traditions more broadly, brought into conversation with one another but separated by hard-edged lines which suggest the constructedness of their juxtaposition. Alongside *Zapatista Landscape*'s inclusion of Spanish colonial visual tradition, the painting brings together fragments of pointillism with pieces of serape cloth, a form of brightly colored weaving that was born of both Spanish and Indigenous textile traditions, and which had come to be associated with the Mexican peasantry. These various vignettes appear to be pasted against a backdrop of a snow-capped volcano, referencing the nineteenth-century and distinctly Mexican tradition of landscape painting made famous by artists such as José María Velasco (fig. 108). It is, then, an image of Mexican modernity that references multiple visual traditions from across time at once, creating an intersection of various perspectives.

⁵³⁷ Craven, *Diego Rivera as Epic Modernist*, 26.

⁵³⁸ Laura Moure Cecchini, describes racism faced by Rivera, in which estimations of the artist as a "savage Indian" or "abstract Courbet of the Savannah" shaped also the view of Rivera's artwork as derivative. Cecchini, "Aztec Cubists between Paris and New York: Diego Rivera, Marius de Zayas, and the Reception of Mexican Antiquities in the 1910s." *Modernism/Modernity* 28, no. 2 (2021): 251–86.

⁵³⁹ Craven, *Diego Rivera as Epic Modernist*, 26-51.

⁵⁴⁰ Craven, *Diego Rivera as Epic Modernist*, 42-51.

Art historians have debated the ways in which paintings such as *Zapatista Landscape* might also be understood as incorporating elements of Rivera's nascent interest in Pre-Columbian sculpture. By 1916, Rivera's cubist work had come to be associated enough with his Mexican identity that it was shown in an exhibition at Stieglitz's 291 gallery alongside Mesoamerican sculpture. Curated by the Mexican critic Marius de Zayas, the exhibition proposed a connection between Rivera's cubism and a Pre-Columbian visual tradition as part of a larger primitivist discourse and self-conscious construction of what Mexican identity really meant. While de Zayas stressed a traditional, formalist approach not unlike the one that characterized Picasso's appropriations, the art historian Laura Moure Cecchini has argued that this aesthetic association for Rivera might be more appropriately understood as a product of Rivera's own negotiation of his national identity and marginal position within Cubist circles; As Cecchini writes, Rivera's self-identification with Mexican identity by way of Pre-Columbian sculpture becomes what Erik Camayd-Freixas called "the returning gaze," or a "form of cultural affirmation and a reformulation of identity starting from non-European autochthony."⁵⁴¹ Rivera's letters, however, seemed to embrace an aesthetic connection between cubism and Pre-Columbian art early on. In a letter to de Zayas from 1916, Rivera asserted that ancient Mexican sculpture was, like African sculpture, a prime example of the ways in which spatial relations could be represented not only as different from the way they are perceived to the human eye but also as relational to one another. We might, then, take seriously the ways in which Rivera's reappropriation of primitivist aesthetics shaped both his "alternative modernism" and his ecosystemic model of spatial organization.

As the art historian María Isabel Quintana Marín has highlighted, there is evidence that Rivera had, during his time in Paris, begun to associate Aztec sculpture not just with the multiperspectival features of cubism, but also a "collective mode of functioning" that was operative in modern-day Zapatista demands as much as ancient Aztec society.⁵⁴² Such a perspective was echoed by the former Mexican president Lázaro Cárdenas, when he referred to Rivera as an artist who "reclaimed the past like a campesino reclaiming his land."⁵⁴³ Indeed, Craven has argued the formal language of collage in Rivera's work reflects Rivera's ideological sympathy for land redistribution. For Craven, a painting such as *Zapatista Landscape* used cubist techniques to advance a way of thinking about Mexico that was "all-over [and] decentering," thus mirroring Zapata's own vision of land, which was "antihierarchical and decentralized, as well as radically democratic."⁵⁴⁴ Here, collage and the cubist refusal of a singular vantage point becomes the visual language of the ejido system, which was itself a vestige of Pre-Columbian society.

The post-colonial promise of collage as an aesthetic form has been highlighted by a number of scholars, as a modernist mode with the ability to critique the very terms of intercultural exchange.⁵⁴⁵ Gaining its meaning not through an ability to recognize sameness but

⁵⁴¹ Erik Camayd-Freixas, "Introduction: The Returning Gaze," in *Primitivism and Identity in Latin America: Essays on Art, Literature and Culture*, ed. Erik Camayd-Freixas and José Eduardo González (Tucson: University of Arizona Press, 2000), x, xiv. Cited in Cecchini, "Aztec Cubists," 274.

⁵⁴² María Isabel Quintana Marín, "Diego Rivera et Élie Faure : Contributions Du Peintre à La Critique Française Des Arts Du Mexique Ancien." *Arteologie*, no. 15 (2020).

⁵⁴³ Quoted in Craven, 3.

⁵⁴⁴ Craven, *Diego Rivera as Epic Modernist*, 40.

⁵⁴⁵ For Hal Foster, for instance, an understanding of collage as *bricolage* is presented as a "cultural counterpractice" to the "appropriative abstraction of primitivism." His definition is curiously similar to the one made by Rivera

rather a juxtaposition of difference, works like *Zapatista Landscape* might be understood to trouble the very act of construction. But Rivera's muralism, as a different but related inheritor of this tendency, might be also understood as representing the posthumanist approach of *assemblage*, or an arrangement of heterogeneous "processes with both human and non-human components."⁵⁴⁶ Understanding works like *Detroit Industry* and *Song of the Earth* in this way can help us see the ways in which Rivera's modernism was distinctly ecological: as thinkers from environmental studies have begun to emphasize, the concept of assemblage represents a powerful tool with which to conceptualize theories of ecology that could bring together human and nonhuman through a synthesis between human subjectivity, the environment, and political relationships, each of which is interconnected.

Assemblage theory has been brought to bear on studies of cubist and collage aesthetics in a number of contexts.⁵⁴⁷ But assemblage is a fitting framework for Rivera's muralism in part because of its emphasis on the event of interaction over essential elements; in other words, an assemblage is more of a series of heterogeneous relations than a collection of diverse but discrete components.⁵⁴⁸ *Detroit Industry* stages images of *processes*, which engage with and interrupt one another. On the South wall, for instance, the layer of coal in the middle register cannot be understood as an entity which is disconnected from the combustion which happens below it to create automobiles. Nor, however, can we separate it from the gaseous byproduct of this process, rendered in the far left corner as a simultaneous event, asphyxiating cells. It is perhaps because of this focus on mechanisms and functions over individual objects that assemblage theory has come to be such a useful paradigm for theorists of ecology, particularly cultural or political ecology that accounts for human-nonhuman interactions.⁵⁴⁹ Assemblage can describe the ways that species of plant interact with one another as well as the ways in which humans adapt to them and vice versa. Or it can represent food systems, waterways, and agricultural geographies within a framework that sees nature and culture as inextricable yet refuses to privilege one over the other. As the environmental theorist and anthropologist Anna Tsing has written, assemblage is a useful concept for understanding "multispecies worlds" and for allowing us to "notice the divergent, layered, and conjoined projects that make up [those] worlds."⁵⁵⁰ For Jane Bennett, the

himself. Foster defines bricolage as a practice "by which the other might appropriate the forms of the modern capitalist West and fragment them with indigenous ones in a reflexive, critical montage of synthetic contradictions." Foster, "The 'Primitive' Unconscious of Modern Art." Foster is not the only scholar to turn to the techniques of assemblage to highlight a modernist response to Primitivist discourses. Kobena Mercer, has highlighted the ways in which Romare Bearden's use of collage was a response to the "double bind" of abstraction facing Black artists. Kobena Mercer, "Romare Bearden, 1964: Collage as Kunstwollen," in *Cosmopolitan Modernisms* (Cambridge, MA: MIT Press, 2005).

⁵⁴⁶ J. MacGregor Wise, "Assemblage" in Ouellette, Laurie, and Jonathan Gray, eds. *Keywords for Media Studies* (New York: New York University Press, 2017), 16.

⁵⁴⁷ See, for instance, Bill Brown, "Re-Assemblage (Theory, Practice, Mode)." *Critical Inquiry* 46, no. 2 (January 1, 2020): 259–303.

⁵⁴⁸ Thomas Nail, "What is an Assemblage?" *Substance* 46, no. 1, (2017): 22.

⁵⁴⁹ Simon West, Jamila Haider, Sanna Stålhammar, and Stephen Woroniecki. "A Relational Turn for Sustainability Science? Relational Thinking, Leverage Points and Transformations." *Ecosystems and People* 16, no. 1 (January 1, 2020): 304–25. Michael Spies, and Henryk Alff. "Assemblages and Complex Adaptive Systems: A Conceptual Crossroads for Integrative Research?" *Geography Compass* 14, no. 10 (October 2020).

⁵⁵⁰ Anna Lowenhaupt Tsing, *The Mushroom at the End of the World: On the Possibility of Life in Capitalist Ruins* (Princeton: Princeton University Press, 2015), 35

notion of assemblage gets at the ways that “humans are always in composition with nonhumanity, never outside of a sticky web of connections or an ecology.”⁵⁵¹

We might, then, use the concept of assemblage to think of Rivera’s muralism as enacting a kind of ecological modernism. His writing about modernist aesthetics reveals an interest in capturing dynamic systems and relations rather than a substantialist view of fixed, ontologically concrete entities. Throughout his career, he asserted an entangled aesthetic theory, which rejected isolation and instead “grows out of a harmonious relationship between a whole and its parts, and out of the balanced functioning of the parts among themselves.”⁵⁵² Indeed, Rivera might be understood to have theorized a kind of assemblage aesthetics, in which divergent entities came together and formed polyphonic relationships within a provisional whole. He had expressed such a vision to José Vasconcelos in 1921, when he proclaimed his aspirations for muralism as a medium in which “one feels, sees, touches, and apprehends how the diverse materials manipulated by the different crafts unite, collaborating with, merging within, and exalting each other; until they make of the whole... a sum total that is the function and expression of life itself, a thing born of the soil, organically tied to life.”⁵⁵³ This theme continued to pervade Rivera’s work. In 1925 he decried paintings that were “only a small fragment of nature seen objectively,” and concluded that they would “never be true art.”⁵⁵⁴ Rather, ‘inner life’ could be captured through understanding “The dynamics of forces, actions, and resistances striving to balance each other in harmony with the laws of the visible universe.”⁵⁵⁵ Here, Rivera articulates a vision of assemblage modernism which stresses systems of ever-changing relations within the natural world, which are external to— and cannot be explained through— its individual component parts alone.

There are a number of ways we might see this modernism as ecological. For one thing, it was a perspective that refused the sort of “alienation” that Tsing condemns as “ovbiat[ing] living-space entanglement.”⁵⁵⁶ Moreover, where Rivera aimed to represent a sum total that amounted to nothing short of “life itself,” so too did he understand the component functions of that vision of life through a series of environmental forces. As a famously diligent student of science, Rivera explained his aesthetic interest in the nature of geological and biological relationships.⁵⁵⁷ In 1928, he wrote of his early interest in painting that “I felt that painting had to be an instrument for me to carry out this organization of life that was the main problem of my existence. But what to do, how should I approach it? Disturbed by this inner turmoil, I would look out the window and paint landscapes. My despair was transformed into a love for mineral

⁵⁵¹ Jane Bennett, *Vibrant Matter: A Political Ecology of Things*. (Durham: Duke University Press, 2010), 365.

⁵⁵² Diego Rivera, “Plastic Art in Pre-Conquest Mexico” in Herring, *Renascent Mexico*, 237.

⁵⁵³ Letter from Diego Rivera to José Vasconcelos, January 13, 1921, reproduced in Jean Charlot, *The Mexican Mural Renaissance, 1920-1925*. (New Haven: Yale University Press, 1963), 128.

⁵⁵⁴ Diego Rivera, translated by Katherine Anne Porter, “From a Mexican Painter’s Notebook,” *The Arts* VII, No. 1. (January 1925), 22.

⁵⁵⁵ Rivera, “Notes from a Mexican Painter’s Notebook,” 21.

⁵⁵⁶ Tsing, *The Mushroom at the End of the World*, 17-18.

⁵⁵⁷ As one author in *Así* magazine put it in 1944, “It may seem an exaggeration to say that Diego Rivera knows Mechanics, for having painted machines, or who knows about geology from having painted geological sections. But anyone who has been close to Diego knows that he does not paint a subject without knowing it broadly and deeply.” The author points to the fact that at Rivera’s murals at Detroit and Chapingo, he shows “knowledge of geology, botany, biology... astronomy [and] histology.” *Así*, July 1, 1944. P. 35 to 38. Fondo Diego Rivera, CENIDIAP microfilm archive, Mexico City.

and plant life, which in itself is very well organized.”⁵⁵⁸ It was a theme he expounded upon in unpublished writings that he shared with Bertram Wolfe. In one folder of truncated, handwritten notes—probably from the early 1930s—Rivera reflected on “peasant art” and the possibilities of an art of the “American worker,” in which “art is best adapted to the conditions of the typical environment, air, color, forms of animals, vegetables, minerals, light and shadow color, all life around man.”⁵⁵⁹ Here, Rivera explains his aesthetic vision in terms of the interconnected organization of different species and nonliving factors that form an ecosystem.

Assemblage as a mode for thinking about ecology, however, is also defined by a sense of historical indeterminacy. For thinkers of ecological assemblage such as Anna Tsing, such a rejection of finite, determined teleology makes it easier to think about the “open-ended” relationship between capitalism and ecology and divest from linear notions of progress that would tend to overlook multispecies collaborations and alternative “world-making projects, human and not human.”⁵⁶⁰ As a methodology which aims to make sense of the diversity of interspecies worlds as they exist within different, simultaneous economies, assemblage ecology offers a model of political ecology which accounts for different and uneven potential trajectories of history.⁵⁶¹ This framework for understanding the provisional nature of ecological assemblages is useful because it allows us to see the ways in which Rivera’s muralism, too, charts multidirectional ecological interactions which themselves reject singular notions of modernity. Here it is worth returning to Craven, who has highlighted the ways in which the sense of temporality in Rivera’s work is more of a question than a didactic commentary on linear trajectories. At Chapingo, for instance, Rivera merges an impressively original adaptation of Marxist historical determinism with the hybrid and Indigenous conditions of Mexico’s post-revolutionary socialism. He eschews the linear models of historical development based upon Western notions of progress that were shared by Porfirio Díaz and Karl Marx alike. Instead, the artist recasts time as cyclical: as I mentioned above, the dead bodies of martyrs are positioned as a conclusion of the revolution on the West wall, but on the antechamber’s East wall, they become the beginning of the course of geological and biological history. Entitled “Revolutionary Martyrs Fertilizing the Earth,” the panel shows a patch of corn growing above the dead bodies of Emiliano Zapata and Otilio Montana. In suggesting that they nourish the non-human world, Rivera highlights the ways in which political action influences both social and ecological worlds (fig. 99).

The panel suggests an unfinished, ever-changing quality to revolution: rather than the Marxist construction of the path from capitalist exploitation to proletarian uprising and communist utopia as a linear, teleological inevitability, Rivera positions the revolution as a dynamic process which is critical to a temporality of constant renewal. For Craven, this nonlinear

⁵⁵⁸ Diego Rivera, *Das Werk des Malers Diego Rivera*, Neuer Deutscher, Verlag, Berlin, 1928.

⁵⁵⁹ Unpublished writing by Diego Rivera, Bertram Wolfe Papers, Box 114, folder 3. Hoover Institution Archives, Stanford University, Stanford, California.

⁵⁶⁰ Tsing, *The Mushroom at the End of the World*, 34-35.

⁵⁶¹ Tsing, *The Mushroom at the End of the World*. Ecology itself, Tsing writes, is “never-settled;” rather, it is a series of interspecies interactions which are contingent upon one another and thus “show[s] us potential histories in the making.” (36) But ecological assemblages also account for “lifeways— and nonliving ways of being as well—coming together,” intersections which thus “shift historically.” (34-35) Moreover, assemblages “cannot hide from capital and the state; they are sites for watching how political economy works. If capitalism has no teleology, we need to see what comes together, not just by prefabrication, but by juxtaposition.” (23-24) Ultimately, Tsing uses these terms to trace an ethnography of mushroom ecologies which exist differently in the uneven landscape of the global economy.

construction proposes an understanding of historical development which “advances by means of cultural hybrids” and accounts for “reconfiguration in the face of an uneven development.”⁵⁶² Moreover, it frames political development not so much as running parallel to biological life cycles, but as part of a greater, more holistic ecosystem with a reciprocal, cyclical relationship to the unfolding of human history.

Likewise, *Detroit Industry* frames time as contingent. As at Chapingo, Rivera’s notion of modernity with *Detroit Industry* is interrupted by a cyclical sense of life and death: the East wall’s depiction of new life forms a narrative circuit with the West wall, where Rivera illustrates the coexistence of life and death. The inclusion of a half-face, half-skull Tlatilco mask in the middle register (fig. 4) gestures towards the artist’s fascination with Pre-Columbian cosmologies and their capacity to integrate the simultaneous interdependence of life, death, and rebirth. Bounding an open doorway, however, the West Wall’s lower register depiction of a worker, on the left, and a manager (who bears a strong resemblance to Henry Ford) on the right also suggests the continuous struggle between these various coexisting forces. This juxtaposition is mirrored in the upper registers, where Rivera depicts alternative visions of the aviation industry, which is mobilized for peace on the left, and for war on the right. It is a pairing that takes shape in the natural world, as well: in the far corners of the middle register, birds prey on insects on the right, and on their own kind on the left. Here, Rivera draws attention to food chains and life cycles, but highlights the opposing forces which literally frame the viewer’s experience as they exit and enter the space. Such an open-ended series of potential trajectories can be seen throughout the series: the corner panels of the North and South wall, as well, show the life-giving possibilities of minerals as well as their potential to be used for purposes of death and destruction.

Rivera himself described this series in a number of ways which gestured towards this multidirectionality, typically describing the series as depicting “the constant cycle of destruction and construction that is essential to all growth.”⁵⁶³ Here, Rivera’s notion of growth fits less with a linear model of narrative progress than with Craven’s idea of a trajectory “reconfigured and opened up to feature competing forces in history... open-ended in structure [and] yet to be fully defined or definitively told.”⁵⁶⁴ *Detroit Industry*, then, is not a didactic story of the modern but rather a contingent one. This was, we should recall, cubist in ideology: like many of his cubist contemporaries, Rivera seized upon the theories of the mathematician Henri Poincaré and the notion that time could actually be conceived as various and relative. It is not a static object, but rather a series of interruptions in time and space, movement, actions and processes that could intervene in reality, not simply reflect it.

Even as Rivera advanced an ecological modernism governed by the intersection of divergent animal, plant, and mineral forces, he acknowledged the ways in which such relations were dependent upon the open, multidirectional possibilities of historical development and of capitalism, in particular. Rivera’s Pan-American modernist aesthetics joined with his aesthetics of ecological assemblage most clearly in an unpublished article entitled “America Must Discover Her Own Beauty.”⁵⁶⁵ In a meandering essay, Rivera stressed the possibility of a “new order of beauty” which arose distinctly from an “America” that was both transnational and imagined in

⁵⁶² Craven, *Art and Revolution*, 51.

⁵⁶³ Davies, “Rivera tells the meaning of Art Institute Murals”

⁵⁶⁴ Craven, *Diego Rivera as Epic Modernist*, 59.

⁵⁶⁵ Diego Rivera, “America Must Discover Her Own Beauty,” September 8, 1931. Bertram Wolfe papers, Box 117, folder 5. Hoover Institution archives, Stanford University, Stanford, California.

express opposition to Europe. Positing the continent's "common interest" of "seeking new possibilities of life," Rivera imagined the "pure beauty of a superior reality" in which the hemisphere's diverse populations united to "produce a culture both good and beneficial for the world." He stressed the ways in which this alternative future entailed new perceptual modes rather than the falsely presumed "necessity of looking at reality through old eye glasses." Indeed, he rejected European modernism, which he deemed as "characterized by a generalization, or a language, containing the essentials of plastic and susceptible of being understood by the men of all nations." Rather, this alternative future was characterized by a "harmony of men...between themselves" and, significantly, "of men with the earth." It was not unlike possible futures he explained elsewhere, in which "men would possess the earth, the air and the sunlight as the common good of all and the property of none."⁵⁶⁶ In describing the new order of Greater American aesthetics, however, he stressed more clearly that within this "new organization," machinery would not "destroy the beauty of the world;" instead, "minerals will function as such," and "the vegetation which helps us to live will bloom and there will also live the animals that accompany us."⁵⁶⁷ Freed from the shackles of exploitation, men would become attune to the functions and "spontaneous life of the universe."⁵⁶⁸ It was to this possible future, of economic equilibrium and its attendant ecological homeostasis, that Greater American aesthetics would respond.

Rivera's own understanding of modernist aesthetics amounted not to an apprehension of fixed, stable, things with finite ontological contours but rather an imaginative construction of potential worlds. For him, "Cubism broke down forms as they had been seen for centuries and was creating out of the fragments new forms, new objects, new patterns, and ultimately, new worlds."⁵⁶⁹ Yet long before he shared such an evaluation with Gladys March, reviewers would sense a similar quality: writing about Rivera's murals in 1932, the art critic Philip Youtz wrote that they "give the story not only of a people, but of a land."⁵⁷⁰ Youtz stressed the context of Rivera's murals, speaking specifically to a revolution which aimed to "free itself from foreign aggrandizement of the land and assure it as a heritage of the people." Praising the way Rivera depicted the soil, the sun, the plentiful harvest, and the "varied life forms" of the planet, Youtz insisted that Rivera's murals were a "rival to Nature herself." Ultimately, he concluded, Rivera's murals "[prove] that man, too, can create a world."

Detroit Industry offers us the opportunity to see the subterrain not as an isolated commodity which can be bought or sold but as a *world*. Its variegated, networked connections to biological and political forces not only suggest a system which is bigger than the sum total of its discrete entities, replete with the ecological entanglements of the natural world, but also literally force the viewer to negotiate those connections as too large and complex to be fully apprehended in a singular or linear way. While its sense of equilibrium is contingent upon a reality in which the earth could be stewarded "as the common good of all and the property of none,"⁵⁷¹ Rivera

⁵⁶⁶ Unpublished typescript by Diego Rivera – no date. Bertram Wolfe papers, Box 117, folder 1. Hoover Institution archives, Stanford University, Stanford, California.

⁵⁶⁷ Diego Rivera, "America Must Discover Her Own Beauty," September 8, 1931. Bertram Wolfe papers, Box 117, folder 5. Hoover Institution archives, Stanford University, Stanford, California.

⁵⁶⁸ Rivera, "America Must Discover Her Own Beauty,"

⁵⁶⁹ Gladys March and Diego Rivera, *My Art, My Life: An Autobiography* (New York: Dover, 1991 [1960]): 58.

⁵⁷⁰ (1932) Youtz, Philip N. "Diego Rivera." *Bulletin of the Pennsylvania Museum* 27, no. 146 (1932): 101

⁵⁷¹ Unpublished typescript by Diego Rivera – no date. Bertram Wolfe papers, Box 117, folder 1. Hoover Institution archives, Stanford University, Stanford, California.

rejects the linear notions of development *and* the capitalist epistemologies that characterized much of the mineral frontier. The communal system of ejidal land was, after all, a framework employed not just as part of a Pre-Columbian cosmology or in Rivera's imagined post-capitalist future, but also in his present moment in parts of Mexico, as a possibility that was, like modernity itself, unevenly distributed.

Conclusion

Like the contradictory histories of Rivera's muralism in general, Rivera's vision for a Greater American modernism opens itself up to multiple inconsistent evaluations. His notion that there might be a shared, geocultural interior to American modernist form was in many ways aligned with the foundational premises of the U.S. mineral frontier, whose advocates saw promise in the Mexican muralist's work. Yet Rivera's allegiance to the commitment of community-owned mines reframes the concept of a shared continental underground as part of an anti-capitalist perspective which troubles the very notion of ownership that subtended the U.S. mineral frontier. Moreover, Rivera's ideas about modernist aesthetics in this context also bear important distinctions with the sorts of primitivist formalism that I have described in this dissertation as sharing many of the underlying assumptions of U.S. extractive imperialism. His rejection of a modernism which was "characterized by generalization" and which existed as a "language of plastic essentials" speaks to a fundamental distance from the formalist aesthetics that underpinned *American Sources of Modern Art*.

For one thing, Rivera's conviction in modernism's fragmented, multidirectional temporality stood in contrast to teleologies that aimed to develop a latent, racialized and ancient Primitive "source" by renovating the qualities of Pre-Columbian sculpture in the image of European abstraction. This alone separated him from the primitivist structural logic that guided Charlot and Spratling, who directed modernist lines of sight at an imagined reserve of unmodern, racialized potential energy. So too did he refuse the simplified, flat fungibility that was presumed to be the end product of such development, and which would reduce complex lifeworlds into an abstract object. Instead, Rivera created multiperspectival spaces which highlighted the subsoil's intersecting ecological functions, as part of an anti-capitalist rejection of alienation. Rivera's subsoil is not something that can be individually owned or exchanged or even fully ontologically apprehended, but rather a significant and multidimensional aspect of the complex political ecology that surrounds us. The subsoil, Rivera reminds us, is not ours alone.

Epilogue

In 1940, the Museum of Modern Art mounted *Twenty Centuries of Mexican Art*, an exhibition that promised a comprehensive view of Mexican art which stretched back two millennia. It traced a direct line from Olmec heads, to colonial portraits, to paintings by well-known contemporary artists such as Diego Rivera, Miguel Covarrubias, and Carlos Mérida. As the product of collaboration with the Mexican government, the exhibition has received significant scholarly attention for its overt orchestration of cultural diplomacy.⁵⁷² It took place amidst wartime efforts to stage hemispheric unity, and was overseen by Nelson Rockefeller, who hoped to negotiate with Mexican president Lázaro Cárdenas in the wake of the latter's expropriation of the petroleum industry. With the outbreak of World War II, the question of Mexican minerals assumed the urgency of wartime materials, which were crucial in the shared fight against fascism. Even in these new circumstances, the exhibition followed a familiar blueprint: the exhibition was modeled in many ways after earlier cultural diplomacy projects between the two countries, most notably the *Mexican Arts* exhibition organized by Dwight Morrow and René D'Harnoncourt in 1931.⁵⁷³ In a revealing hand-written note to the museum trustees, Rockefeller situated the exhibition in earlier mineral diplomacy by claiming, there was "nobody here to advise Cárdenas as Morrow advised Calles."⁵⁷⁴ Referring to Morrow's successful negotiation of oil rights for U.S. companies in Mexico in the late 1920s and attendant support for the arts as a vehicle for that negotiation, Rockefeller imagined *Twenty Centuries of Mexican Arts* as an extension of mineral diplomacy efforts from a decade prior.

In other ways, *Twenty Centuries of Mexican Arts* might be understood as a turning point. Set in 1940, it marked the close of a decade in which Mexican art's possibility for remaking a shared American modernism had already peaked. Thus Anna Indych-López argues that *Twenty Centuries of Mexican Arts* underscores new failures on the part of oil or diplomacy interests to shape aesthetic perception. From this perspective, works like Orozco's commissioned six-part portable fresco *Dive Bomber and Tank*, which dramatizes the fragmentation of both war and muralism itself, signal a departure from earlier, more apolitical visual regimes that dominated U.S. institutions in the decade prior.⁵⁷⁵ Indych-López also disputes the notion that *Twenty Centuries of Mexican Arts* instantiated a concerted effort to co-opt Mexican art as "American." As she rightly points out, the exhibition stressed important distinctions between Mexican and U.S. art, setting up a clear binary between the two countries. Indeed, the exhibition was accompanied by a counterpart of U.S. paintings, which would travel to different cities in Latin America.⁵⁷⁶ If I have argued throughout this dissertation that U.S. extractive interests in Mexico

⁵⁷² Vicario, *Hemispheric Integration*, 123-128; Indych-López, *Muralism Without Walls*, 157-186; Charity Mewburn, "Oil, Art, And Politics. The Feminization of Mexico." *Anales Del Instituto de Investigaciones Estéticas* 20, no. 72 (August 6, 1998): 73; Holly Barnett-Sanchez, "The Necessity of Pre-Columbian Art: U.S. Museums and The Role of Foreign Policy in the Appropriation and Transformation of Mexican Heritage, 1933-1944." (University of California, Los Angeles, 1993)110-134.

⁵⁷³ Indych-López, *Muralism Without Walls*, 158-160.

⁵⁷⁴ Folder 1354, box 138, Personal Projects: MoMA exhibition, Mexican 1939-1941, Record group 4, Nelson A. Rockefeller (NAR) papers, Rockefeller Family Archives, Rockefeller Center, Sleepy Hollow, NY. Cited in Indych-López, *Muralism Without Walls*, 159.

⁵⁷⁵ Indych-López, *Muralism Without Walls*, 167-174.

⁵⁷⁶ *La Pintura Contemporánea Norteamericana* (New York: Museum of Modern Art, 1941).

were crucial in constructing the image of a shared American modernism in the 1930s, MoMA's apparent adherence to strict geopolitical borders in 1940 appears to proclaim the end of mineral imperialism's role.

The scope of the U.S. mineral frontier, however, asks us to look carefully at the ways in which borders conceal their exemptions. The Pre-Columbian section of *Twenty Centuries of Mexican Art*, for example, represented a notable exception to the exhibition's binary configuration.⁵⁷⁷ Indeed, the catalog text articulated an optimism that the presentation of Mexico's Pre-Columbian sculpture would "give a new vision to the public, above all to the artists of the United States; we hope it may be translated into works of modern American art rooted in the older art of our own continent."⁵⁷⁸ In this respect, *Twenty Centuries*' proposal was not unlike arguments made in 1933 at *American Sources of Modern Art*, when Mexican and U.S. art were presented as distinct categories united formally by an emphatically American source. Outside of the museum, critics followed suit. As we have seen, wartime concerns over hemispheric unity placed a renewed emphasis on what Walter Pach referred to as the "solidarity of a common past" manifested by both Pre-Columbian art from Mexico and the "thousands of mountains in the single range that, from Alaska to southern Chile, makes the backbone of the continent."⁵⁷⁹ In the context of wartime mineral diplomacy, Pre-Columbian art, like geology, could cross borders.

There are, of course, reasons why one might understand this juncture as transformational, in which geographies of American art were beginning to be more carefully defined by both the geopolitical boundaries of the United States and its emerging identification with sovereignty over empire. I would argue, however, that this early 1940s moment was only an inflection point in a longer trajectory of U.S. empire that reached *beneath* borders: first to Mexico in the late 1920s and early 1930s, then into the greater hemisphere in the early 1940s, and finally towards a more global, subterranean empire in the postwar period. Extraction would continue to shape geographies of American modernism over the course of World War II and the postwar period. The war, after all, continued the Pan-Americanism of the 1930s, concomitant with more official support for mineral resource exploration in the Americas. In other ways, however, it was the beginning of what Henry Luce would call the "American century," and a period in which American art was defined by the distinctive association of the U.S. with liberal democracy, cohesive borders, and free trade amidst a more global terrain.

Numerous scholars have identified the 1940s as a pivotal moment in the emergence of the global, invisible empire of the United States that took shape throughout the second half of the twentieth century.⁵⁸⁰ For a country that was soon to become the worldwide champion of liberal democracy, the contradiction of U.S. colonies had presented a problem at least as far back as 1934, when Ernest Gruening and Franklin D. Roosevelt agreed that "a democracy shouldn't have any colonies."⁵⁸¹ The outbreak of World War II demanded closer military and economic ties with territories like Alaska and Hawai'i, bringing them deeper into the fold of U.S. sovereignty and

⁵⁷⁷ Indyeh-López herself acknowledges that this portion of the exhibition "promoted American values" as part of a wider effort which "conspicuously forged a hemispheric alliance." Indyeh-López, *Muralism Without Walls*, 160.

⁵⁷⁸ *Twenty Centuries of Mexican Art* (New York and Mexico City: Museum of Modern Art and Instituto Nacional de Antropología e Historia de México, 1940) 23.

⁵⁷⁹ Pach, "Our Ancestors of the Soil," 426.

⁵⁸⁰ Daniel Immerwahr, *How to Hide an Empire: A History of the Greater United States*. (New York: Farrar, Straus and Giroux, 2019)

⁵⁸¹ Immerwahr, *How to Hide an Empire*, 157.

eventually paving the way for statehood. Other, more conspicuous colonial spoils were relinquished. At the war's close, the United States abdicated its colonial authority over the Philippines, granting it the republican independence with which the U.S. had become newly aligned. As the Philippine flag rose in 1946, U.S. general Douglas MacArthur declared that "America has buried imperialism here today."⁵⁸² Soon, historians would observe a widespread belief on the part of their U.S. interlocutors that "there is no American empire."⁵⁸³

While this dissertation has primarily drawn its arguments from the ways in which minerals, in particular, formed the basis of the U.S. invisible empire, the context of wartime U.S. might be understood as a dominant backdrop of that story, too. Minerals became the medium for a rebranding of U.S. territories and of the expansion of U.S. power within the hemisphere. While the fight against the Axis powers began to situate expansionist imperialism as antithetical to U.S. values, it also added an immediacy to the search for "strategic minerals" in peripheral territories like Alaska.⁵⁸⁴ And even as the Good Neighbor Policy promised non-intervention, the hemispheric fight against fascism gave authority to cooperative minerals programs, which would extract valuable minerals and extend U.S. power where it would otherwise be seen as imperialism.⁵⁸⁵ Mexico, the U.S.' closest Latin American neighbor who had only recently expelled foreign oil companies, represented the possibility of a powerful new direction for U.S. expansionism within the hemisphere as the two countries united against a common enemy. One senator, addressing congress in 1941, saw the war as "the opportunity for which American capital has waited," adding, "Only the surface of Mexico's wealth has been scratched."⁵⁸⁶ These wartime incursions into Latin America, however, marked also the beginning of a more global reach. In 1943, as the United States' industrial complex rapidly expanded, it became a net importer of petroleum for the first time, signaling a global expansion of its mineral exploration and development operations. Indeed, as Megan Black has argued, this language of cooperationist developmentalism would continue to shape U.S. expansionism in the postwar period, through mineral pursuits in places across the Middle East, Africa, and Asia, ultimately modeling a more global frontier that set its sights on places fully outside of geopolitical borders, like the ocean and the moon.

Equally important, Black has articulated how the concept of "resource primitivism" developed in the middle of the century.⁵⁸⁷ She cites 1950s films disseminated by the department of the Interior that visually merged surveys of geological resources with longtime signifiers of the Primitive, which primarily included racial difference and traditional ways of life. What we see here, however, is that this model of resource primitivism was at work much earlier. Indeed, an early film from the 1930s bureau of mines interspersed views of oil camps with those of the ruins at Mitla and women in traditional Oaxacan dress, suggesting that like Mexican

⁵⁸² Immerwahr, *How to Hide an Empire*, 238.

⁵⁸³ William Appleman Williams, "The Frontier Thesis and American Foreign Policy." *Pacific Historical Review* 24, no. 4 (1955): 379.

⁵⁸⁴ Black, "New Jewels in the Crown of American Empire." In *The Global Interior*, 51–83.

⁵⁸⁵ Black, "The Treasure of the Western Hemisphere." In *The Global Interior*, 84–116.

⁵⁸⁶ "Mexico and the United States" extension of remarks of Hon. Carl A. Hatch of New Mexico. Congress, United States. *Congressional Record: Proceedings and Debates of the ... Congress*. v. 87, pt. 10. (Washington, D.C.: U.S. Government Printing Office, 1941), A 436.

⁵⁸⁷ Black, *The Global Interior*, 121, 127.

archaeology, the country's oil remained "hidden in a dim past" (fig. 109).⁵⁸⁸ And just as importantly, this primitivist logic of mineral developmentalism also shaped concepts of American art in the 1930s, in which Mexico's Pre-Columbian past became a Primitive "source" in wait of development by U.S. modernism.

The outbreak of World War II catalyzed more institutionalized efforts at cultural diplomacy, exemplified in organizations like the Office of Inter-American Affairs, which was established by the U.S. defense council and appointed Nelson Rockefeller as its leader.⁵⁸⁹ The office used public, as well as private funds to promote hemispheric economic cooperation through art and popular culture. These strategic gambits were successful in part because they converged with anti-Stalinist disillusionment on the part of the left, as well as with solidarity on the part of Latin American artists who saw the fight against fascism as a united one. Where the radical muralist David Alfaro Siqueiros had previously condemned Rivera's work with the Rockefellers as imperialist co-optation, for instance, he soon found himself painting frescoes for the OIAA to promote an "art of democracy."⁵⁹⁰ In one particularly telling example, the Mexican muralist painted *Dos Montañas de América*, a mural for the Cuban-American Cultural Institute in Havana, in 1943 (fig. 110). In it, the heads of Abraham Lincoln and José Martí appear atop volcanoes. While the mural might read as an allegory for a binational exchange between two countries, Niko Vicario reads the conjoined volcanoes as a testament that the U.S. and Latin America are connected through such a "Mexican geological element."⁵⁹¹ As Vicario writes, the OIAA and the period of the early 1940s more broadly was critical in framing the emergence of both U.S. American Art and Latin American art as distinct categories, formulated in dialectic opposition to one another. In this wartime moment, however, Mexico's geology became the route between Anglo and Latin America.

Rivera, Charlot, and Spratling followed a similar trajectory in the 1940s, navigating a complicated balance between the hemispheric unit and the consolidation of U.S. "America" as an anti-imperialist republic with defined boundaries. In 1939, Diego Rivera painted *Pan American Unity*, a fresco series for the San Francisco World's Fair, which rested on a firm binary between the United States and the rest of Latin America, united by the cyborgian Coatlicue at its center (fig. 111). In the years that followed, Rivera espoused a vision of Pan-Americanism in which he saw the aesthetic distinctions between Anglo and Latin American art as united by a geological "common backbone."⁵⁹² Spratling's jewelry workshop grew dramatically during this time, producing hemispheric solidarity pins and billing itself as a benevolent, developmentalist bearer of "good neighbor deeds."⁵⁹³ Yet it was also during the early 1940s that Spratling began formulating plans for a workshop in Alaska, at the invitation of Rene D'Harnoncourt and the U.S. Department of the Interior. And in the 1940s, Jean Charlot found his way to Hawai'i, another settler territory that would ultimately be absorbed within the official United States boundaries.

⁵⁸⁸ "Through the Oil Fields of Mexico," Department of the Interior, Bureau of Mines, Pittsburgh Experiment Station. 1930. National Archives Identifier 12466. <https://archive.org/details/70-137>

⁵⁸⁹ See Claire F. Fox, *Making Art Panamerican: Cultural Policy and the Cold War*. (Minneapolis: University of Minnesota Press, 2013) 45-62.

⁵⁹⁰ Vicario, *Hemispheric Integration*, 52.

⁵⁹¹ Vicario, *Hemispheric Integration*, 56.

⁵⁹² Diego Rivera, "El Arte, base del Panamericanismo." *Así* (Mexico City), (August 14, 1943): 8-9, 54.

⁵⁹³ Joseph Patrick McEvoy in "Silver Bill, Practical Good Neighbor.," *Reader's Digest* 47 (September 1945): 19-22.

As the United States became a more global presence in the postwar period, its geographies of abstraction followed suit. A significant body of scholarship has argued that in the context of the Cold War, Abstract Expressionism found promise as a “soft power” tool with which to disseminate the values of liberal democracy abroad.⁵⁹⁴ Modernist aesthetics more broadly came to be seen as a uniquely U.S.-American export, which spoke to “freedom” and a kind of “political apoliticism” which inscribed the values of the majority while concealing its political charge.⁵⁹⁵ As Pamela Lee has argued, the universalizing, modernist aesthetics of the Cold War were intimately linked with global networks and their fetishization of technological modernity that structures our world today.⁵⁹⁶ Here, too, we might observe parallels with the United States’ mineral frontier: as both Sean Nesselrode Moncada and Rachel Price have argued, mid-century abstraction and kinetic art in Venezuela and Cuba were closely associated with U.S. policies of oil developmentalism in both countries.⁵⁹⁷ Nesselrode Moncada, for instance, has described the ways in which *El Farol*, a magazine published by Standard Oil’s Creole Petroleum Corporation, ennobled images of artistic abstraction within its modernizing messages about petroleum discovery and refinement in the 1950s.⁵⁹⁸ This imbrication between abstraction and oil went beyond Latin America: in the 1950s, the Arabian American Oil Company (ARAMCO) joined forces with the CIA to fund exhibitions of modern art throughout the Middle East.⁵⁹⁹

These frameworks, in accounting for the “invisible imperialism” wrought by 20th century extraction, help us rethink the tensions within mid-century modernism’s global purview.⁶⁰⁰ So too, however, do they continue to raise questions about the imbrications between modernism and primitivism, as well. Like *El Farol*, *AramcoWorld* magazine highlighted currents of Arabian modernism as one of many innovative imports from the West, interspersed between its cropped, geometric photographs of mid century progress in oil development.⁶⁰¹ Even as it promoted modern art as a cosmopolitan ingress, it highlighted the ways in which this Arabian modernism “penetrate[d] into the ancient past,” borrowed from the “abstract” tendencies of more traditional art forms. Indeed, far more common on the pages of *AramcoWorld* are stories of the region’s archaeological heritage and its “primitive” past. Moreover, these parallels between modernist primitivism and extraction that I have described continue to shape the art world today: the Congolese artist Sammy Baloji, for instance, drew precisely such a comparison at his recent exhibition “K(C)ongo Fragments of Interlaced Dialogues. Subversive Classifications” at the

⁵⁹⁴ Serge Guilbaut, *How New York Stole Modern Art*; Greg Barnhisel, *Cold War Modernists: Art, Literature, and American Cultural Diplomacy*, (New York: Columbia University Press, 2015).

⁵⁹⁵ Guilbaut, 2.

⁵⁹⁶ Pamela Lee, *Think Tank Aesthetics: Midcentury Modernism, the Cold War, and the Neoliberal Present* (Cambridge: MIT Press, 2020).

⁵⁹⁷ Rachel Price, “Energy and Abstraction in the Work of Dolores Soldevilla.” *Revista Hispánica Moderna* 72, no. 2 (2019): 161–81. Sean Nesselrode Moncada, *Refined Material: Petroculture and Modernity in Venezuela* (Berkeley: University of California Press, 2023).

⁵⁹⁸ Sean Nesselrode Moncada, “Oil in the Abstract: Designing Venezuelan Modernity in *El Farol*.” *Hemisphere, Visual Cultures of the Americas*, vol. 8, 2015, pp. 56–79.

⁵⁹⁹ Sultan Sooud Al-Qassemi, “How the CIA Secretly Funded Arab Art to Fight Communism,” April 21, 2017. *Newsweek*. <https://www.newsweek.com/how-cia-funded-arab-art-help-win-cold-war-587218>

⁶⁰⁰ A prescient article by the Indian astrophysicist Meghnad Saha outlined this invisible empire in an article entitled “Oil and Invisible Imperialism” in 1942. See Meghnad Saha and S.N. Sen, “Oil and Invisible Imperialism” *Science and Culture* VII, 4, Oct 1942) cited in Jagdish Sinha, *War and Imperialism: India in the Second World War* (Boston: Brill, 2008), 118.

⁶⁰¹ See, for instance, “From the Artist’s Hand” *AramcoWorld* Magazine, March/April 1964, Vol. 15, no. 2, 11-16.

Palazzo Pitti in 2022 (fig. 112). There, he placed nineteenth-century wooden sculptures of the Luba Shakandi people— which had been displayed in the 1922 Venice Biennale’s *Scultura Negra* exhibition— in dialogue with recent geological and mining maps of the Democratic Republic of Congo.⁶⁰² Such visual comparisons remind us of the ways that histories of colonial appropriation, even (or especially) when viewed under the neutralizing, universalizing visual regime of modernist formalism, have guided contemporary geographies of exploitation, particularly of mineral resources.

Across the Global South, the planetary scope of contemporary mineral frontiers remains difficult to ignore. Although Mexico opened its state-owned petroleum industry to private investment in 2013, it has continued to resist the encroachment of other foreign mineral frontiers. In April 2022, the Mexican government announced plans to nationalize its lithium industry, a measure that was followed by Chile in April 2023. As in the 1930s, these resolutions speak to the tensions of sovereignty and ownership inscribed by minerals, a category of resources that is inextricably linked with the international framework of a globalizing world yet whose associated wealth, power, and environmental repercussions are asymmetrically distributed. Indeed, the image of minerals as beyond the boundaries of geopolitical sovereignty has brought mineral frontiers to extraterrestrial margins. The Mexican artist Romeo Gómez López’s *Space Miners*, 2022, for instance, speaks to contemporary efforts to mine in space (fig. 113). Pressed into a layer of concrete which simulates the geological surface they might have mined, men in space suits are rendered through imprints which decline to offer any specific cultural or temporal identity. Instead, these fossilized figures suggest only a vague, post-apocalyptic future, which looks back on the traces of humanity that remain. If mineral frontiers supersede the planetary scale, Gómez López seems to suggest, so too will the species-wide extinction event that they enabled.

This project began with a personal interest in the ways in which modes of extraction intersect with racism, and the ways in which the modernist tendency towards universalism, as a way of dealing with racial difference, presents both problems and possibilities for the planet-wide scope of our environmental challenges. Diego Rivera’s muralism confronts those promises with a utopian lens, reminding us that borders, too, can present their own sets of perils. In an era of increasingly militarized borders and heightened xenophobia, I am reminded of a work by the Huichol Chicana artist Consuelo Jiménez Underwood (fig 114). In *One Nation Underground*, 2013, Jiménez Underwood merges the flags of the two nations as part of a single, quilted layer of fabric. Although the borderline divides the piece in bright blue stitches which resemble barbed wire, the title of the work encourages us to see the soil beneath that border as shared. The native flora of the borderlands— a yucca plant, a California poppy, a Saguaro cactus— are embroidered below. These faded but resilient demonstrations of life seem to insist that while the earth beneath the border may not be entirely indifferent to questions of ownership, it also has the capacity to be our common ground.

⁶⁰² Agnieszka Gratza, “Sammy Baloji.” *Artforum*. <https://www.artforum.com/print/reviews/202302/sammy-baloji-90047>

Images

Figure 1. Diego Rivera, *Detroit Industry*, North Wall, 1932-33. Fresco, painted surface area: 1544 square feet. Detroit Institute of Arts.



Figure 2. Diego Rivera, *Detroit Industry*, South Wall, 1932-33. Fresco, painted surface area: 1544 square feet. Detroit Institute of Arts.



Figure 3. Diego Rivera, *Detroit Industry*, East Wall, 1932-33. Fresco, painted surface area: 259 square feet. Detroit Institute of Arts.



Figure 4. Diego Rivera, “The Interdependence of North and South,” panel from West Wall of *Detroit Industry*, 1933. Fresco, 52 ½ in × 26 feet, 1 ½ in. Detroit Institute of Arts.



Figure 5. Diego Rivera, *Song of the Earth and Those who Till and Liberate it* (*Canto a la tierra y a los que la trabajan y liberan*), 1923-1927, fresco. 14 main and 27 subsidiary wall areas, total painted surface: 2908 square feet. Nave and cupola of the chapel in the National School of Agriculture, Autonomous University of Chapingo.



Figure 6. Diego Rivera, “The Agitator,” (*El agitador o el nacimiento de la conciencia de clase*) within *Song of the Earth*, 1923-1927. Fresco, 8 feet x 18 feet 2 in. Autonomous University of Chapingo.



Figure 7. Diego Rivera, “Formation of Revolutionary Leadership” (Formación del liderazgo revolucionario), within *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 inches x 18 feet 2 ½ in. Autonomous University of Chapingo.



Figure 8. José Clemente Orozco, *Las Riquezas Nacionales*, 1941. Fresco, 38 feet 2 ⅓ in x 10 feet 8 in. Suprema Corte de Justicia de la Nación, Mexico City.



Figure 9. Frida Kahlo, *Self Portrait on the Borderline*, 1933. Oil on metal, 12 ¼ x 13 ¾ in. private collection.



Figure 10. Diego Rivera, Set design for scene four of the ballet *H.P. (Horsepower)* c.1927–32. Watercolor and pencil on paper, 12 1/8 x 18 5/8 in. Museum of Modern Art, New York City.



Figure 11. Detail of drill presses on North wall, *Detroit Industry*, 1932-33. Fresco, Detroit Institute of Arts.



Figure 12. Detail of Stamping Press on South Wall, of *Detroit Industry*, 1932-33. Fresco, Detroit Institute of Arts.

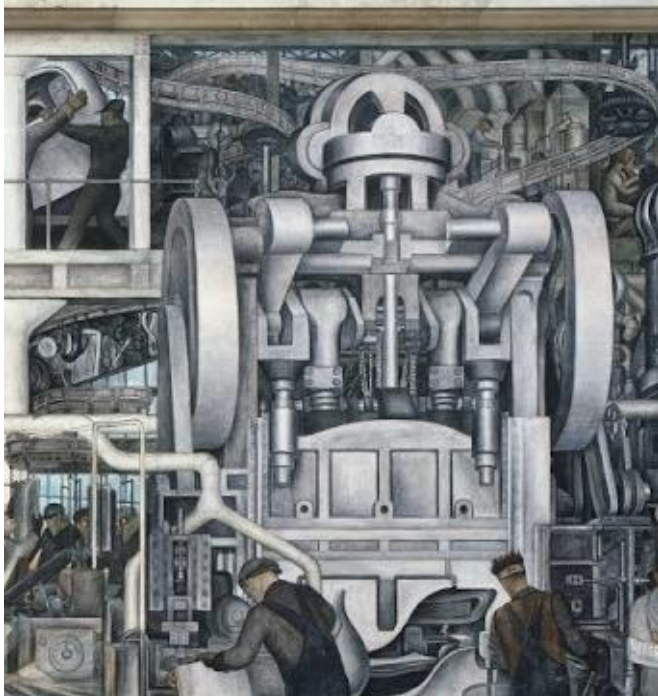


Figure 13. Diego Rivera, “The Plastification of Creative Power of the Northern Mechanism by Union with the Plastic Tradition of the South” or Panel 3 of *The Marriage of the Artistic Expression of the North and of the South on this Continent (Pan American Unity)*, 1939. Fresco, 22 feet x 14 feet 9 inches. City College of San Francisco.



Figure 14. José Clemente Orozco, *Lo Científico*, 1937-39. Fresco, Hospicio Cabañas, Guadalajara, Mexico.

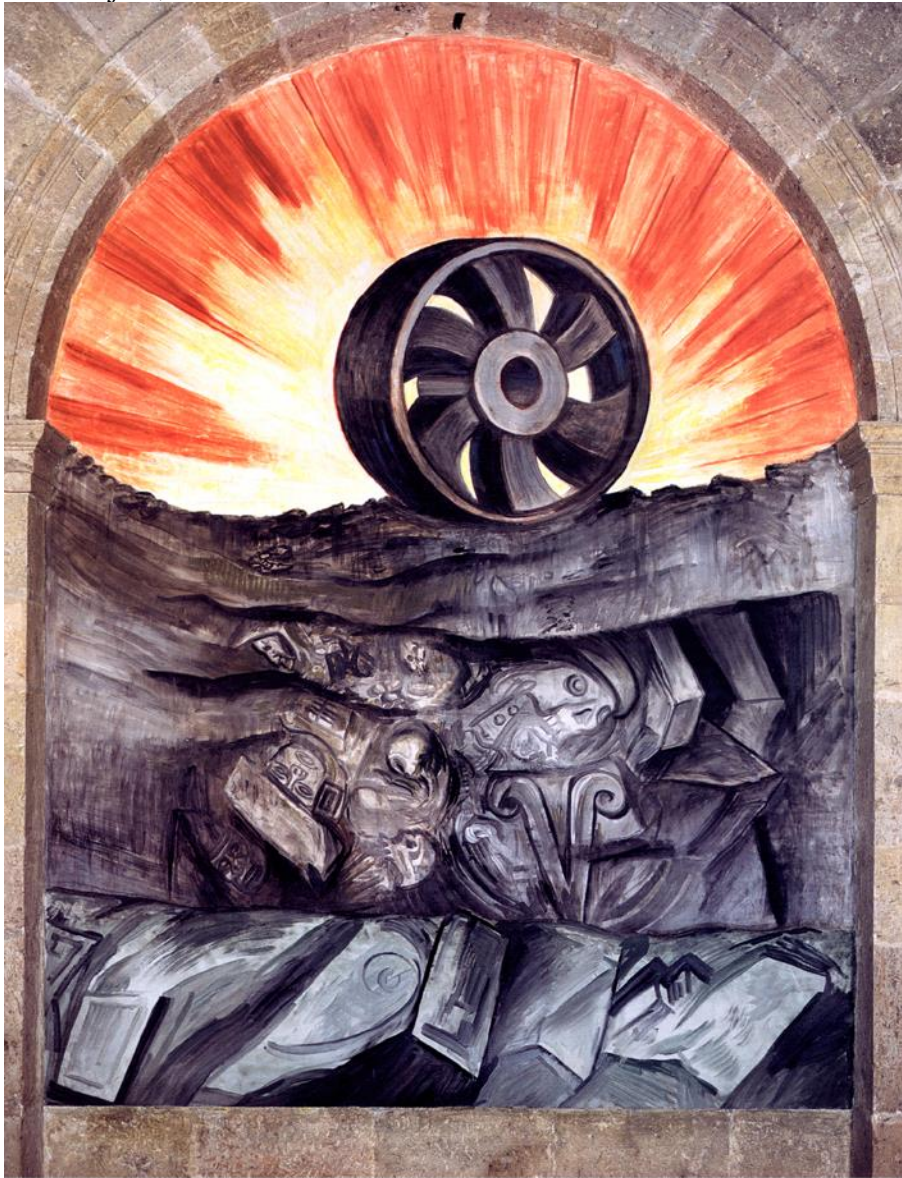


Figure 15. Max Weber, *Tranquility*, 1930. Oil on canvas, 30 ½ x 40 in. Collection Max Weber, Great Neck, Long Island, New York.



Figure 16. Aztec figure, previously called “Maize Goddess,” post-classic period, circa A.D. 1300 - 1500. Stone, American Museum of Natural History, New York.



Figure 17. Diego Rivera, *U.S. – Mexico Gold – Silver*. Costume designs for the ballet *H.P. (Horsepower)*, c.1927–32 Watercolor and pencil on paper, 16 $\frac{3}{8}$ x 12 $\frac{1}{4}$ in. Museum of Modern Art, New York City.



Figure 18. Diego Rivera, *Ventilator Pipe*. Set design for the ballet *H.P. (Horsepower)*, 1932. Watercolor and pencil on paper, 17 $\frac{5}{8}$ x 11 $\frac{1}{4}$ in..Museum of Modern Art, New York City.



Figure 19. Diego Rivera, *Gas Pump*. Set design for the ballet *H.P. (Horsepower)*, 1932. Watercolor and pencil on paper, 17 $\frac{7}{8}$ x 11 $\frac{3}{8}$ in. Museum of Modern Art, New York City.



Figure 20. Diego Rivera, *Tobacco – Cotton*. Costume design for the ballet *H.P. (Horsepower)*, c.1927–32. Watercolor and paper on pencil, 16 ⁵/₈ x 12 ¹/₂ in. Museum of Modern Art, New York City.



Figure 21. Charles Demuth, *Machinery*, 1920. Gouache and graphite on paperboard, 24 x 19 ⁷/₈ in. Metropolitan Museum of Art, New York City.



Figure 22. Gerald Murphy, *Cocktail*, 1927. Oil and pencil on linen, 29 1/16 × 29 15/16 in. Whitney Museum of American Art, New York City.



Figure 23. Stuart Davis, *Gas Pumps*, 1925. Watercolor on paper, 14 ½ x 12 ½ in. Rose Art Museum, Brandeis University, Waltham, MA.



Figure 24. Charles Sheeler, *American Landscape*, 1930. Oil on canvas, 24 x 31 in. Museum of Modern Art, New York City.



Figure 25. Charles Sheeler, *Obsidian Head (Aztec)*, 1916. Silver print. Museum of Fine Arts, Boston, MA.



Figure 26. Unknown photographer, photograph of Leo Eloesser, Frances Flynn Payne, Frida Kahlo, Jean Charlot, Elie Faure, Diego Rivera in Cuernavaca. 1931. Rockefeller Archive Center.



Figure 27. Diego Rivera, *Portrait of Elie Faure*, 1918. Oil on canvas, 48 x 35 in. Estate of Elie Faure.



Figure 28. Unknown Photographer, Aztec Coatlicue sculpture in Elie Faure, *Spirit of the Forms*, Translated by Walter Pach. New York: Harper & Brothers, 1930.



Figure 29. Jean Charlot, *The Three Pyramid Builders*, 1933. Lithograph, 16 ¾ × 12 5/16 in. The Metropolitan Museum of Art, New York City.

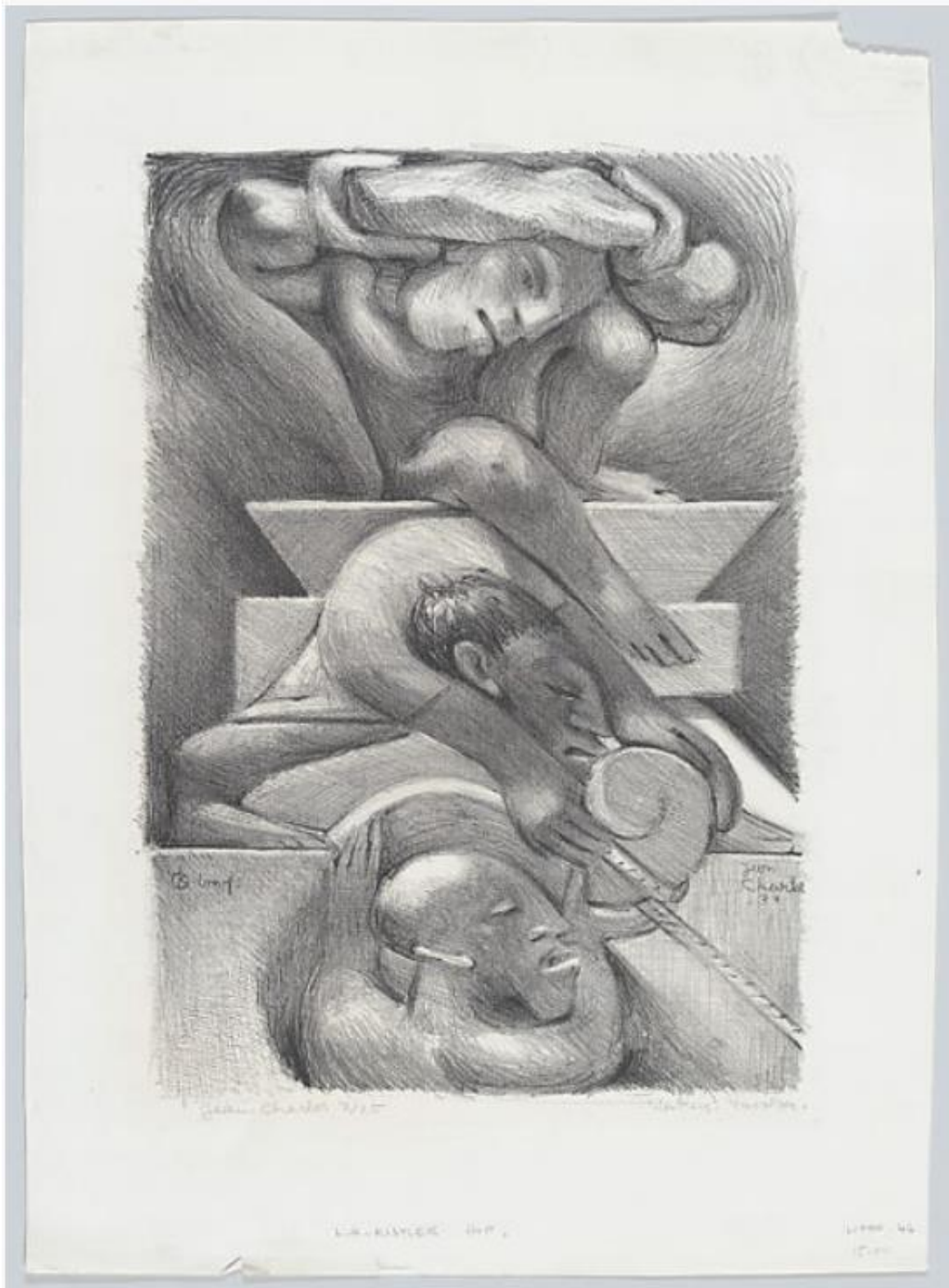


Figure 30. Jean Charlot, *Great Builders II*, 1930. Lithograph, 15 ¾ x 21 in. Metropolitan Museum of Art, New York City.

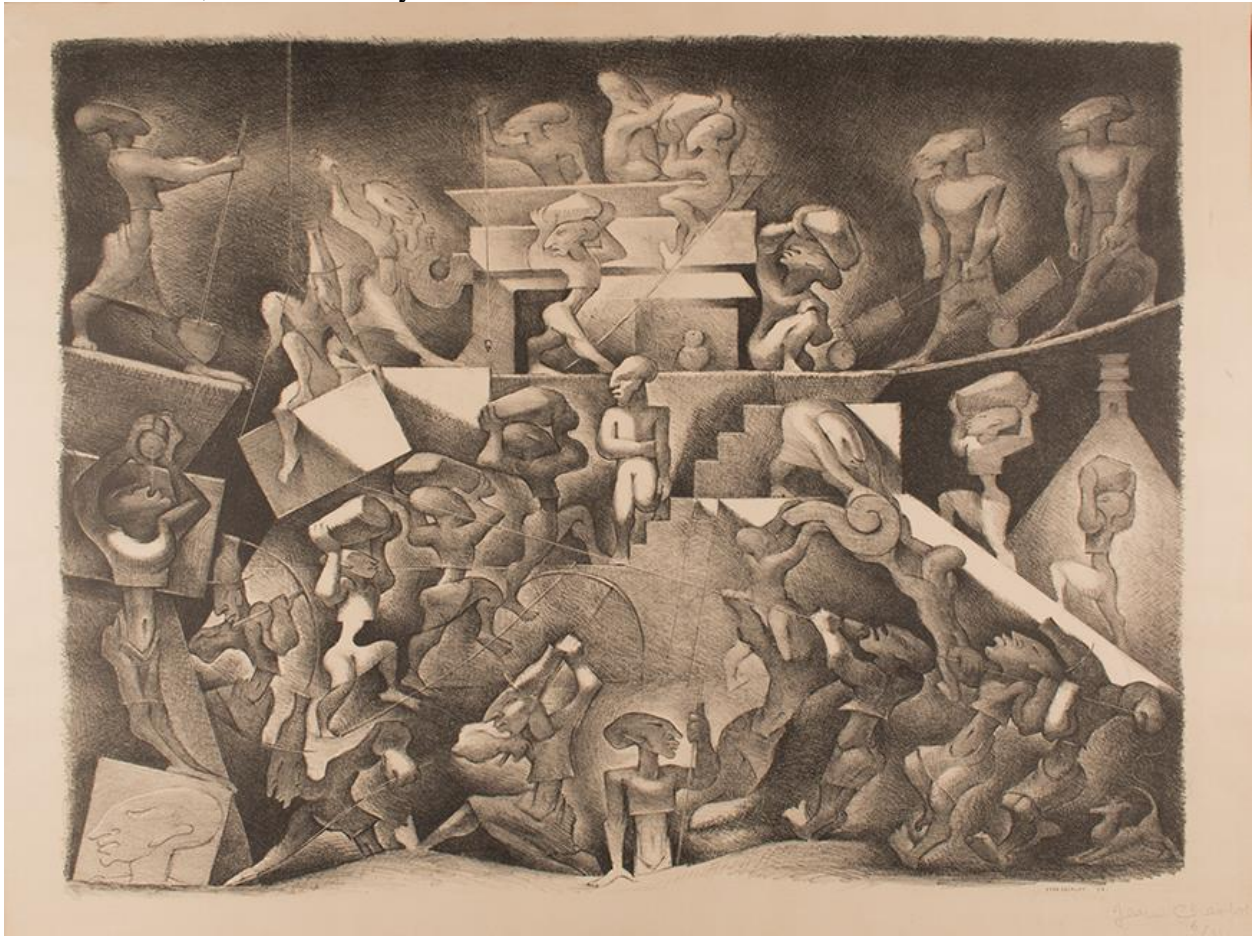


Figure 31. Jean Charlot, *Seated Nude*, 1934. Lithograph, 12 × 8 ⅜ in. Metropolitan Museum of Art, New York City.

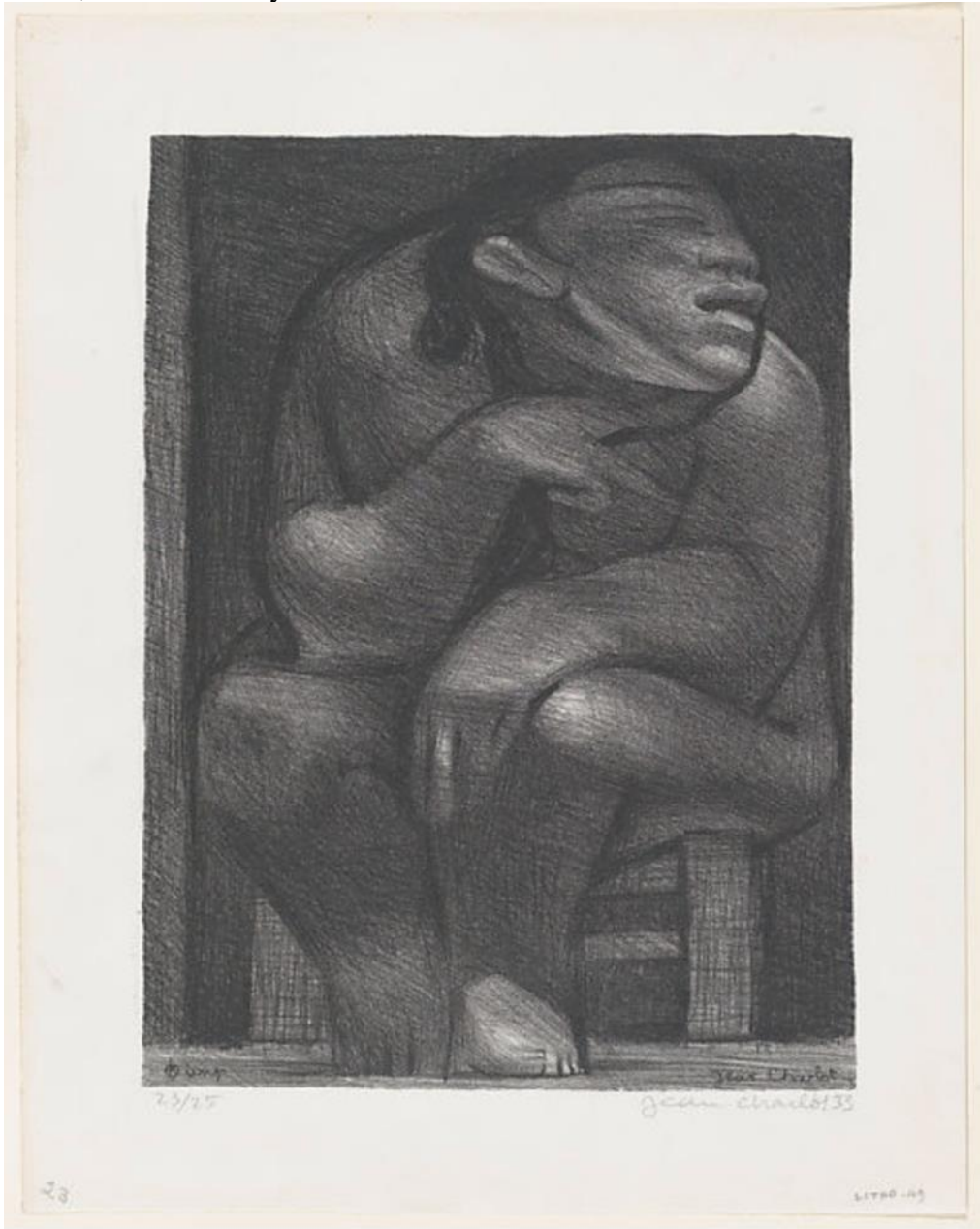


Figure 32. Jean Charlot, “human cathedral buttresses the uprising stone,” from *Picture Book*, 1933. Lithograph, 11 1/8 x 8 3/8 in. Jean Charlot Collection, Honolulu, Hawaii.

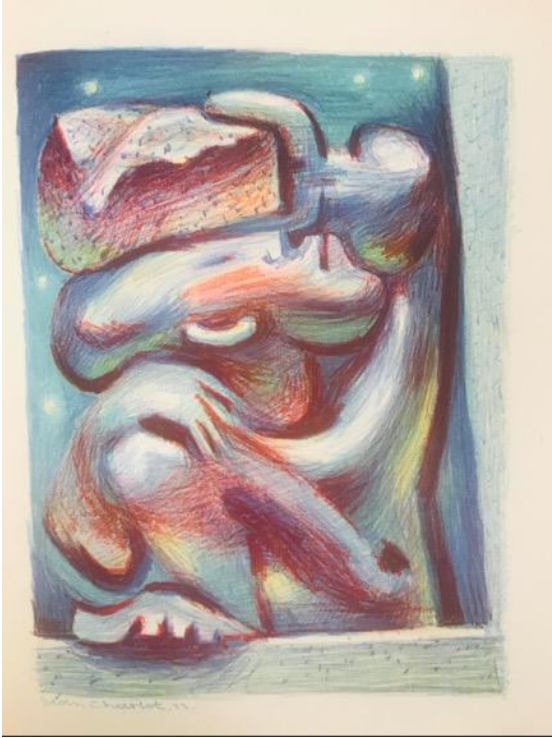


Figure 33. Jean Charlot, “Cargadores,” from the Secretaría de Educación Pública cycle, first floor, second court, North wall, 1923. Fresco, 7 2/3 feet × 16 1/3 feet. Secretaría de Educación Pública, Mexico City.



Figure 34. Jean Charlot, *Builder Carrying Stone*, 1930. Oil on canvas, 27 x 27 in.



Figure 35. Jean Charlot, *Builders, Blue Sky*, 1929. Oil on canvas, 36 x 29 in.



Figure 36. John Flannagan, *Snake*, c. 1929-30. Carved brown sandstone, 6 ½ x 8 ½ x 6 ½ in. Michael Rosenfeld Gallery.



Figure 37. José Clemente Orozco, "Rocks," 1935. Lithograph, 15 13/16 x 22 ¾ in. Portland Art Museum.



Figure 38. Jean Charlot, *La Montagne*, 1933. Oil on Canvas, 30 x 48 in. Collection John Charlot.



Figure 39. Henry Moore, *Reclining Woman (Mountains)*, 1930. Green Hornton stone, 23 ½ x 36 ½ x 16 ¼ in. National Gallery of Canada.



Figure 40. Jean Charlot, Portrait of Manuel Gamio “from a drawing by Jean Charlot” in *Mexican Folkways* 1.1 (June/July 1925): 6.

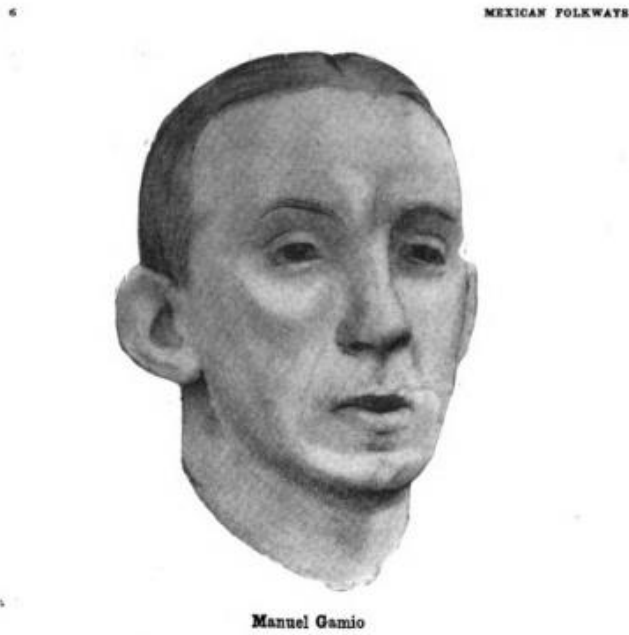


Figure 41. Marsden Hartley, *Yliaster*, 1932. Oil on paperboard mounted on particleboard, 25 ¼ x 28 ½ in. Smithsonian American Art Museum.



Figure 42. William Spratling, Double Jaguar Necklace, 1945 (first made 1937). Silver, amethyst, 5 ½ × 7 ¾ in. Los Angeles County Museum of Art.



Figure 43. Roberto Montenegro, *Helena Rubenstein*, 1941. Oil on canvas, 35 9/16 x 31 9/16 x 2 3/8 in. National Portrait Gallery, Smithsonian Institution.



Figure 44. William Spratling, Drawing of Dwight Morrow, 1928. Reprinted in Garrison Oswald, "Dwight Morrow: A very American Story: Understandingly Told by Harold Nicolson, Englishman." *New York Herald Tribune* (1926-1962) Oct 06 1935: 2.



Figure 45. William Spratling, Snake Pin, c. 1932. Silver, 2 x 1 ½ in. Private Collection.



Figure 46. Imprint of a clay pottery stamp from pre-Hispanic Michoacán, published in Jorge Enciso, *Design Motifs of Ancient Mexico*. Mexico City: Policolor, 1947.

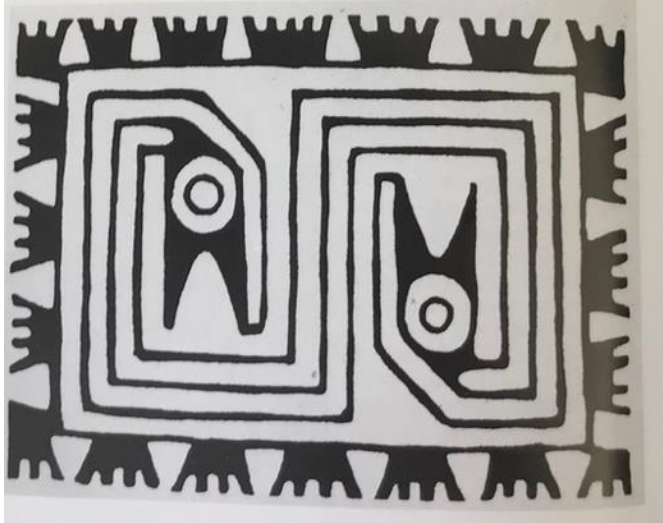


Figure 47. Imprint of a clay pottery stamp from pre-Hispanic Veracruz, published in Jorge Enciso, *Design Motifs of Ancient Mexico*. Mexico City: Policolor, 1947.



Figure 48. Cholulteca Plate from Puebla, Mexico, c. 1250-1521. 9" D x 1" H. Museo Nacional de Antropología, Mexico city.



Figure 49. William Spratling, Silver frog necklace with silver and turquoise beads separating each of the 11 frogs, c. 1938. Silver and turquoise, private collection.



Figure 50. William Spratling, Butterfly Necklace, c. 1931. Silver, Penny Morrill Collection.



Figure 51. Mixtec butterfly nose pendant, c. 900-1521. Gold, 2 ¼ x 1 ½ in. Museo Nacional de Antropología, Mexico City.



Figure 52. Mixtec Frog Necklace, c. 1000-1520. Gold, $\frac{7}{8} \times 6 \times 5 \frac{1}{2}$ in. Metropolitan Museum of Art.



Figure 53. Photographic chart depicting the organization of Spratling's silver workshop, 1934. Private Collection.



Figure 54. Nelson Rockefeller, Rosa Cobarrubias, William Spratling and Roberto Montenegro pose during a party at the Covarrubias home in the 1930s. Published in Sandraline Cederwall, *Spratling Silver*. (San Francisco: Chronicle Books, 2000.)



Figure 55. Unknown photographer, William Spratling and artisans at his workshop, c. 1943. Published in *Harper's Bazaar*, Volume 77, October 1943.



Figure 56. William Spratling Continental Solidarity Pin, 1942. Silver, 1 5/8 x 1 1/4 in. Private Collection.



Figure 57. William Spratling, Alaska Mask Necklace, 1949. Silver, baleen from either a bowhead or blue whale, Alaskan or pinto abalone. 3 1/4 x 4 1/2 in. Los Angeles County Museum of Art.



Figure 58. Frederick Davis, Stork Brooch, c. 1930. 1930-1935. Silver, 3 ½ x 2 ¾ in. Collection James Black.



Figure 59. Imprint of a clay pottery stamp of a heron from pre-Hispanic Veracruz, published in Jorge Enciso, *Design Motifs of Ancient Mexico*. Mexico City: Policolor, 1947.



Figure 60. Page from Adolfo Best-Maugard, *Método de Dibujo: Tradición, Resurgimiento y Evolución del Arte Mexicano*. Mexico City: Secretaría de Educación Pública, 1923.

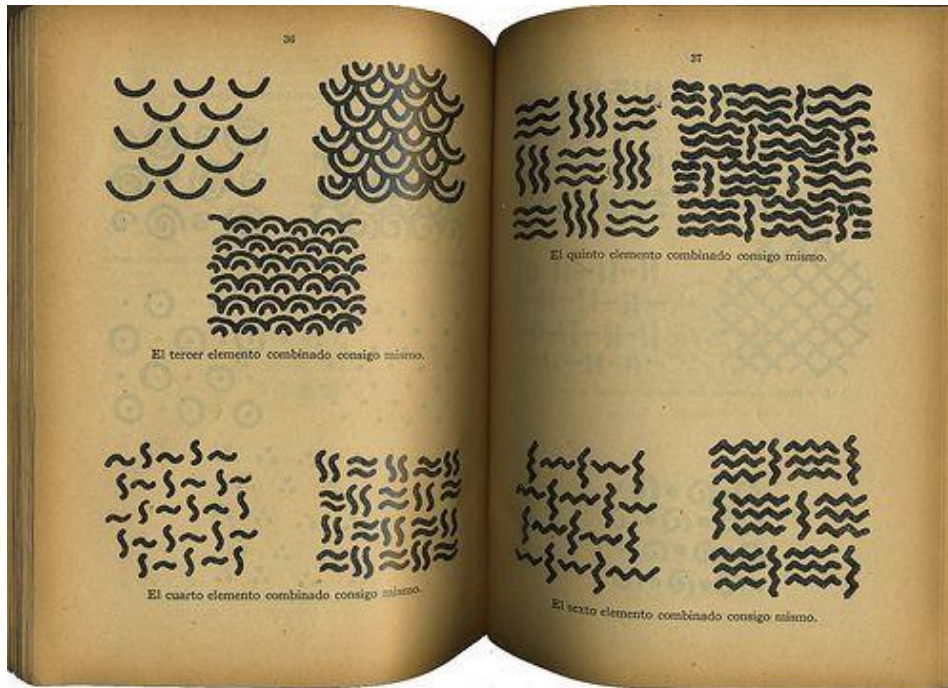


Figure 61. Elena Izcue, page from *El Arte Peruano en la Escuela*. Paris: Excelsior, 1926.

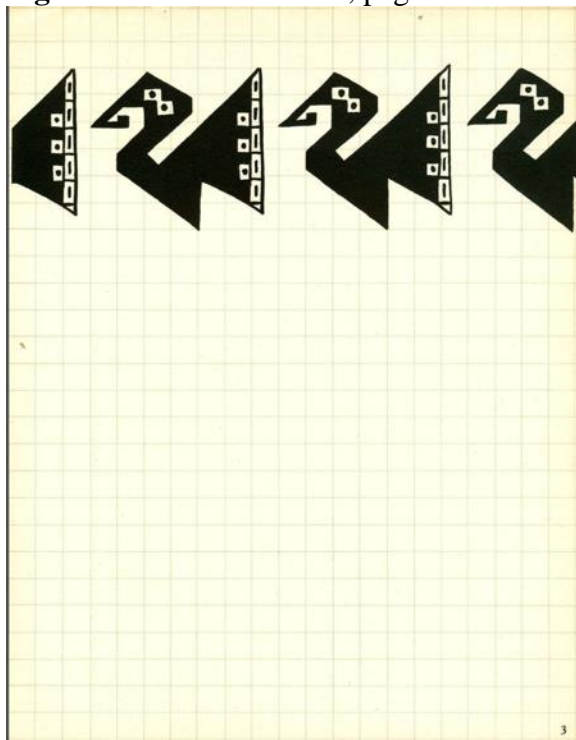


Figure 62. Imprint of clay pottery's stamp of monkeys from the valley of Mexico, published in Jorge Enciso, *Design Motifs of Ancient Mexico*. Mexico City: Policolor, 1947.



Figure 63. William Spratling, Facing Monkey Brooches, 1930/1965. Silver and Tortoiseshell, Private Collection.



Figure 64. William Spratling, imprints of Pre-Columbian clay pottery stamps sent to Franz Blom, 1937. Tulane University Archives, Taxco-Sutherland collection, New Orleans, Louisiana.

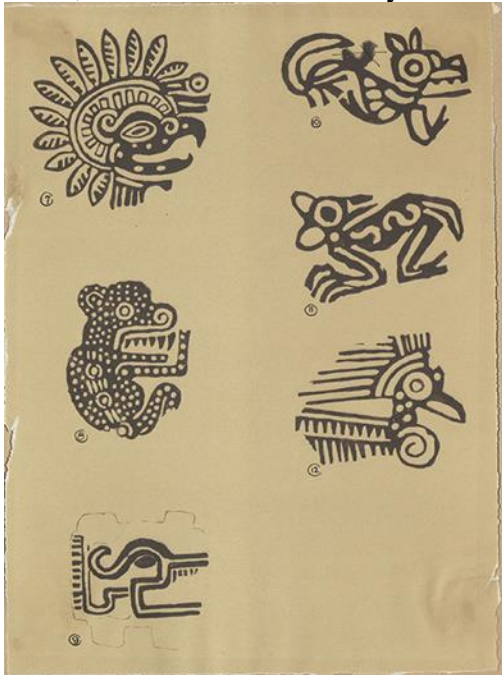


Figure 65. William Spratling, footed ashtray, c. 1935. Silver, 4 ¼" D. Private Collection.



Figure 66. Unknown artist, Silver dish with eagle, early 20th c. Forged, embossed and engraved silver, 6.5 x 12 x 13 in. Museo de Arte Popular, Mexico City.



Figure 67. William Spratling, Bird Pin, c. 1940. Amethyst and Silver, 4 ½ x 1 ¼ x ½ in. Private collection.



Figure 68. Unknown (probably Mixtec) artist, Ear Ornament, c. 1521. Museo Guillermo Spratling, Taxco, Mexico.



Figure 69. William Spratling, Drawing for Brooch, c. 1940. Museo Guillermo Spratling.



Figure 70. William Spratling, Brooch, c. 1940. Silver and Malachite, private collection.



Figure 71. William Spratling, Drawing for Serpent Pendant, Date Unknown. Tulane University Archives, Taxco-Sutherland collection, New Orleans, Louisiana.



Figure 72. William Spratling and Victor Silson, Patent for Owl Brooch, 1940.

Dec. 3, 1940.

V. SILSON

Des. 123,824

BROOCH OR SIMILAR ARTICLE

Filed Oct. 30, 1940



Figure 73. Aztec/Mexica, Sculpture of an owl, c.1350-1521 CE. Stone, Museum der Kulturen, Basel.



Figure 74. Cross-Sections of Orebodies from Zacatecas, Published in A Livingston and United States Bureau of Mines, Mining Methods and Costs at Fresnillo, Zacatecas, Mexico, 1932.

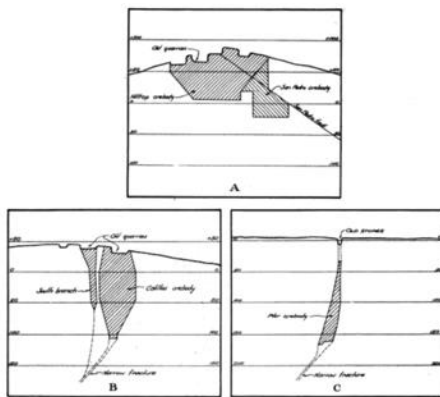


Figure 2.- Cross sections of orebodies: A, Hilltop and San Pedro, looking west; B, Castillos, looking north-west; C, Pilar, looking north-east

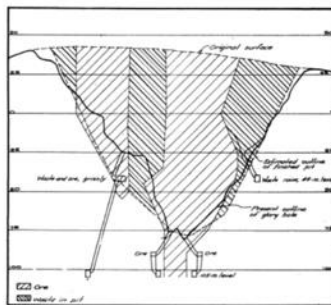


Figure 3.- Typical cross section, Castillos orebody

Figure 75. David Alfaro Siqueiros, *Accidente en La Mina*, 1931. Oil on Burlap, 55 x 88 in. Museo Nacional de Arte, Mexico City.



Figure 76. David Alfaro Siqueiros, *Portrait of William Spratling*, 1931. Lithograph, 22 x 15 in. Hood Museum of Art, Dartmouth, New Hampshire.

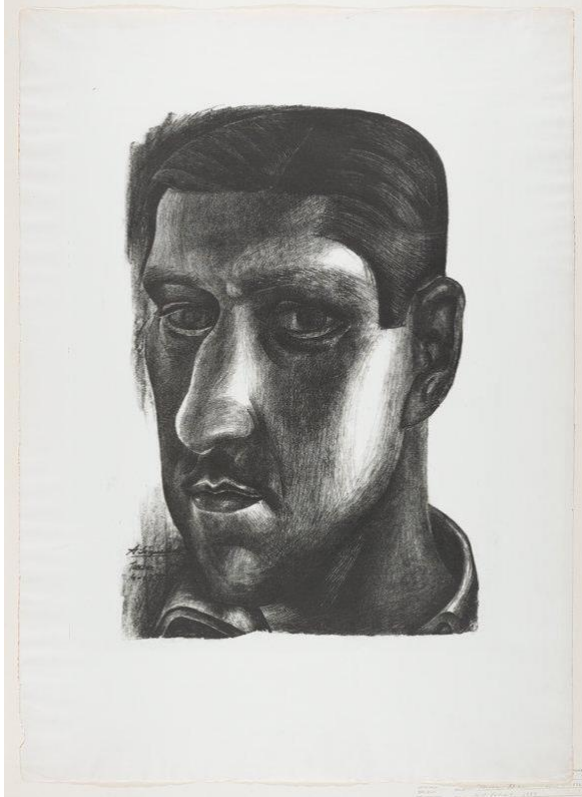


Figure 77. Diego Rivera, *Symbolic Landscape*, 1940. Oil on Canvas, 47 ⁷/₈ × 60 ¹/₈ in. San Francisco Museum of Modern Art.



Figure 78. Wide-Angle View of *Detroit Industry* East Wall



Figure 79. Diego Rivera, *Detroit Industry*, North Wall (detail of upper registers), 1932-33. Fresco, Detroit Institute of Arts.



Figure 80. Diego Rivera, *Detroit Industry*, South Wall (detail of upper registers), 1932-33. Fresco, Detroit Institute of Arts.



Figure 81. Diego Rivera, *Detroit Industry*, West Wall, 1932-33. Fresco, painted surface area: 670 square feet, Detroit Institute of Arts.



Figure 82. Diego Rivera, “Entry into the Mine” (Entrada a la mina) from the Secretaría de Educación Pública cycle, first floor, Court of Labor, East wall, 1923. Fresco, 15 feet 6 ½ in x 11 feet 5 ¼ in. Secretaría de Educación Pública, Mexico City.

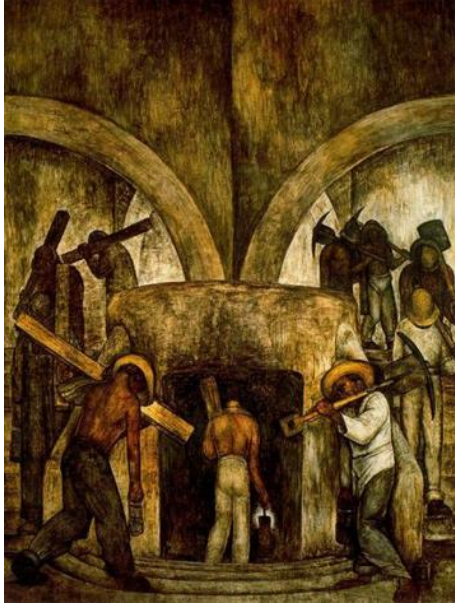


Figure 83. Diego Rivera, “Exit from the Mine” (Salida de la mina,) from the Secretaría de Educación Pública cycle, first floor, Court of Labor, East wall, 1923. Fresco, 15 feet 8 in x 7 feet. Secretaría de Educación Pública, Mexico City.

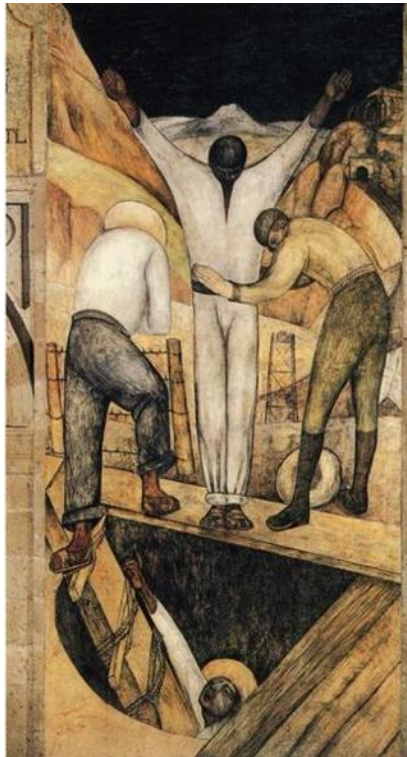


Figure 84. Diego Rivera, Illustration for “Mexico in Revolution” *Fortune Magazine*, Vol 18 issue 4, October 1938, 74.



Figure 85. Diego Rivera, “The Liberated Earth with the Powers of Nature Controlled by Man (La tierra liberada con las fuerzas naturales controladas por el hombre),” Apsidal Mural, *Song of the Earth*, 1923-1927. Fresco, 22 feet 8 in x 19 feet 7 in. Autonomous University of Chapingo.



Figure 86. Diego Rivera, “The Gifts of the Earth Rightfully Possessed” (Los dones de la tierra rectamente poseída), detail: final ceiling bay within *Song of the Earth*, 1923-1927. Fresco, Autonomous University of Chapingo.



Figure 87. Diego Rivera, “Subterranean Forces” (Las fuerzas subterráneas), East Wall detail, *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 18 feet 2 ½ in. Autonomous University of Chapingo.



Figure 88. Diego Rivera, “Germination” (Germinación), East Wall detail, *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 11 feet 5 in. Autonomous University of Chapingo.

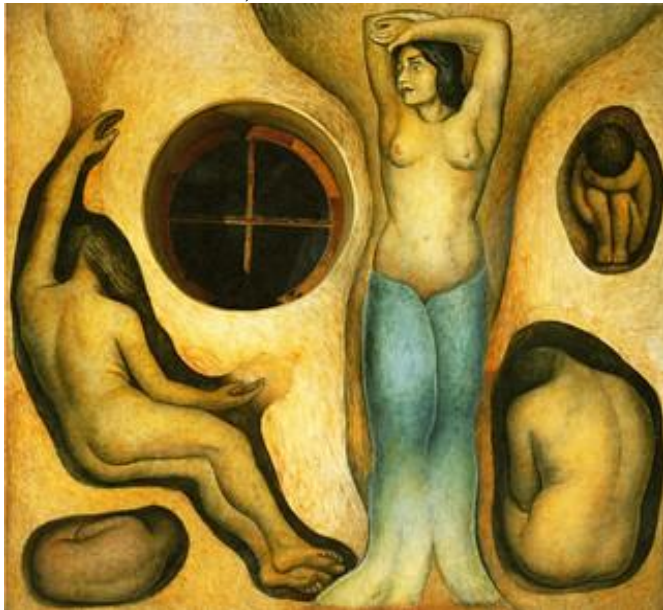


Figure 89. Diego Rivera, “Fertilization or Maturation,” (Fecundación o Maduración), East Wall detail, *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 12 feet. Autonomous University of Chapingo.

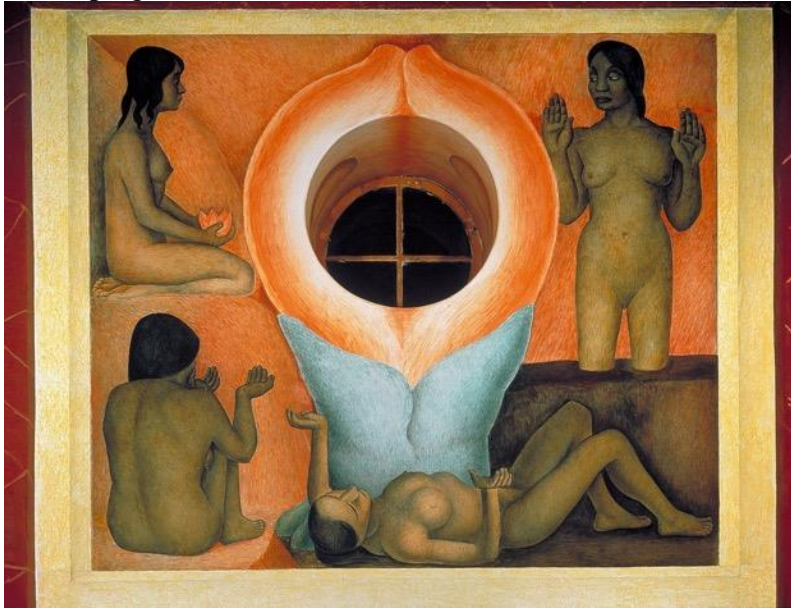


Figure 90. Diego Rivera, “The Start of Hostilities,” Detail of lunettes above West wall’s “Organization, Constant Renovation, and Triumph of Revolution” within *Song of the Earth*, 1923-1927. Fresco, 5 feet 5 in x 11 feet 5 in. Autonomous University of Chapingo.



Figure 91. Diego Rivera, “Purposes,” Detail of lunettes above West wall’s “Organization, Constant Renovation, and Triumph of Revolution” within *Song of the Earth*, 1923-1927. Fresco, 5 feet 5 in x 12 feet. Autonomous University of Chapingo.



Figure 92. Diego Rivera, “The Rightness of the New Order,” Detail of lunettes above West wall’s “Organization, Constant Renovation, and Triumph of Revolution” within *Song of the Earth*, 1923-1927. Fresco, 5 feet 5 in x 11 feet 7 in. Autonomous University of Chapingo.



Figure 93. Diego Rivera, “The Oppressed Earth” (La tierra oprimida), within *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 16 feet 3 in. Autonomous University of Chapingo.



Figure 94. Diego Rivera, *Allegory of California*, 1931-32. Fresco, painted surface: 472 square feet. City Lunch Club, San Francisco.



Figure 95. Diego Rivera, *Pan American Unity*, Upper Register, Panel 5, 1939. Fresco, 14 feet 9 in x 14 feet 9 in. City College of San Francisco.



Figure 96. Diego Rivera, “Triumph of the revolution / triunfo de la revolución,” West wall detail, *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 11 feet 7 in. Autonomous University of Chapingo.



Figure 97. Diego Rivera, “The Abundant Earth / Los Frutos de La Tierra,” East wall detail, *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 11 feet 7 in. Autonomous University of Chapingo.

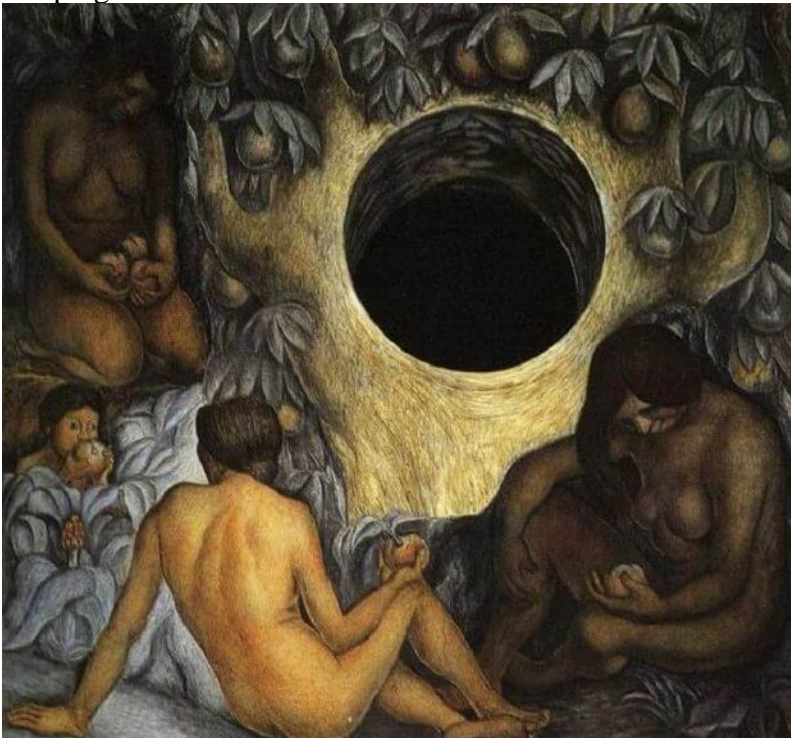


Figure 98. Diego Rivera, “The Constant Renovation of Revolutionary Struggle (La constante renovación de la lucha revolucionaria)” West wall detail, *Song of the Earth*, 1923-1927. Fresco, 11 feet 7 in x 11 feet 8 in. Autonomous University of Chapingo.



Figure 99. Diego Rivera, “The Blood of the Revolutionary Martyrs Fertilizing the Earth,” (La Sangre de los mártires revolucionarios fertilizando la tierra), East wall detail, *Song of the Earth*, 1923-1927. Fresco, 8 feet x 16 feet 1 in. Autonomous University of Chapingo.



Figure 100. Diego Rivera, “Healthy Human Embryo” North Wall detail, *Detroit Industry*, 1932-33. Fresco, 26 $\frac{3}{4}$ × 73 in. Detroit Institute of Arts.



Figure 101. Diego Rivera, “Surgery,” South Wall detail, *Detroit Industry*, 1932-33. Fresco, 26 $\frac{3}{4}$ × 73 in. Detroit Institute of Arts.



Figure 102. Diego Rivera, “Sulphur and Potash,” South Wall detail, *Detroit Industry*, 1932-33. Fresco, 26 $\frac{3}{4}$ × 73 in. Detroit Institute of Arts.



Figure 103. Diego Rivera, “Cells Suffocated by Poisonous Gas,” North Wall detail, *Detroit Industry*, 1932-33. Fresco, 26 $\frac{3}{4}$ × 73 in. Detroit Institute of Arts.



Figure 104. Diego Rivera, "Agricultural Scene," 1932. Charcoal on off-white wove paper, 4 feet 4 ½ in × 25 feet 11 ¾ in. Detroit Institute of Arts.



Figure 105. Diego Rivera, *Zapatista Landscape*, 1915. Oil on Canvas, 57 x 49 ¼ in. Museo Nacional de Arte, Mexico City, Mexico.



Figure 106. Agustín Victor Casasola (sometimes credited Hugo Brehme), Photo of Emiliano Zapata, 1911. Gelatin Silver Print, 10 x 8 in. The Museum of Fine Arts, Houston.



Figure 107. Francisco de Zurbarán, *Saint Serapion*, 1628. Oil on canvas, 47 ¼ x 44 ½ in. Wadsworth Atheneum, Hartford, Connecticut.



Figure 108. José María Velasco, *Mexican Landscape with Cone of a Volcano*, 1887. Oil on canvas, 30 × 42 ½ in, Národní Muzeum, Prague.



Figure 109. Still from “Through the Oil Fields of Mexico,” Department of the Interior, Bureau of Mines, Pittsburgh Experiment Station. 1930.



Figure 110. David Alfaro Siqueiros standing in front of *Dos Montañas de América*, 1943.

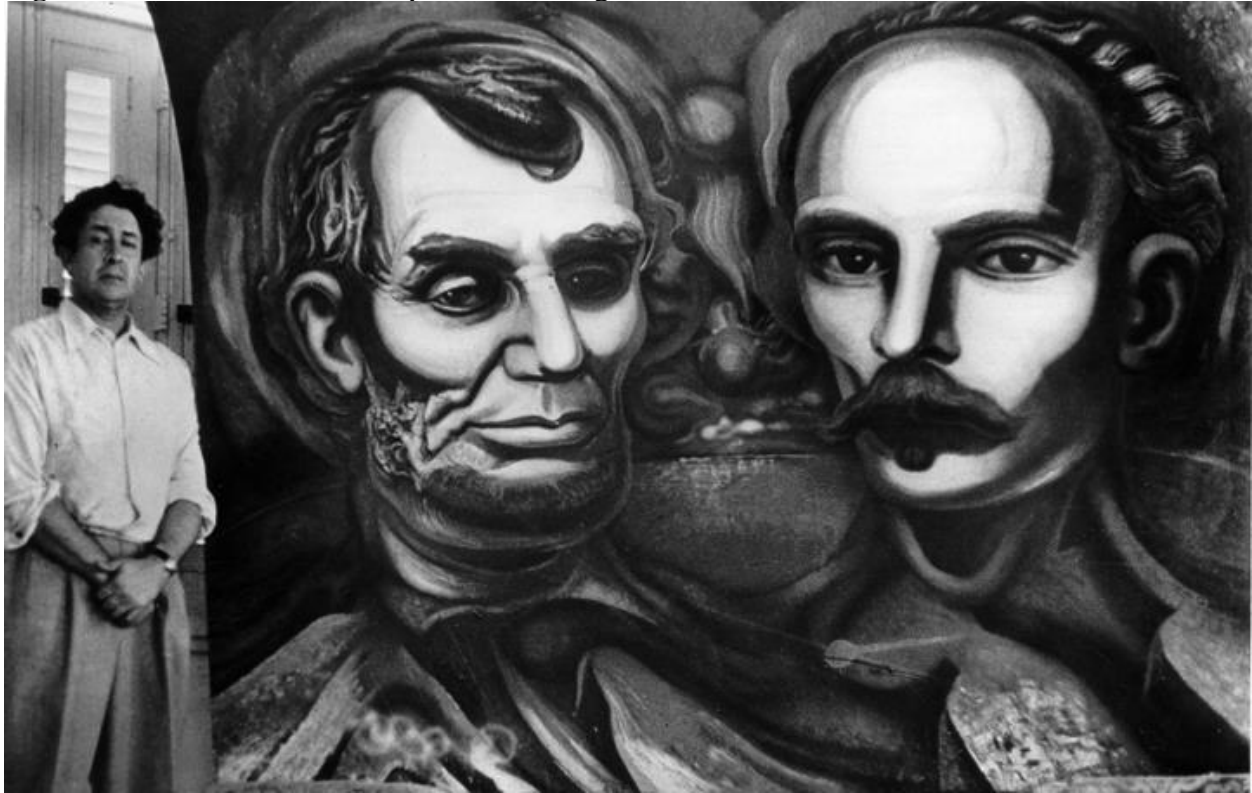


Figure 111. Diego Rivera, *The Marriage of the Artistic Expression of the North and of the South on this Continent (Pan-American Unity)*, 1939. Fresco, 22 feet x 74 feet. City College of San Francisco.



Figure 112. Installation View of Sammy Baloji, “K(C)ongo Fragments of Interlaced Dialogues. Subversive Classifications” at the Palazzo Pitti in 2022.



Figure 113. Romeo Gómez López, *Space Miners*, 2022. Concrete, acrylic, 14.9 x 12.1 x 2 in. Salón Silicón, Mexico City.



Figure 114. Consuelo Jiménez Underwood, *One Nation Underground*, 2013. Nylon, cotton, silk fabric; leather; cotton thread. 56 x 90 in. Ruiz-Healy Art, San Antonio, Texas.



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