

UC Berkeley

UC Berkeley Electronic Theses and Dissertations

Title

The Archaeology of Economic Systems in the Central Levant during the Middle Bronze Age:
A Case Study from Kamid el-Loz (Lebanon)

Permalink

<https://escholarship.org/uc/item/6wz322t9>

Author

Catanzariti, Antonietta

Publication Date

2015

Peer reviewed|Thesis/dissertation

The Archaeology of Economic Systems in the Central Levant during the Middle Bronze
Age: A Case Study from Kamid el-Loz (Lebanon)

By
Antonietta Catanzariti

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

Doctor of Philosophy

in

Near Eastern Studies in the

Graduate Division

of the

University of California, Berkeley

Committee in charge:

Professor Marian H. Feldman Co-chair

Professor Benjamin W. Porter Co-chair

Professor Carol Redmount

Professor Christine Hastorf

Summer 2015

Abstract

The Archaeology of Economic Systems in the Central Levant during the Middle Bronze Age: A Case study from Kamid el-Loz (Lebanon)

by

Antonietta Catanzariti

Doctor of Philosophy in Near Eastern Studies

University of California, Berkeley

Professor Marian H. Feldman and Benjamin W. Porter Co-Chairs

This dissertation investigates the economic systems operating during the Middle Bronze Age (2000-1600 BCE) at Kamid el-Loz, a decentralized settlement situated in the Beqa'a Valley of Lebanon. The scope is to examine trade structures that involved peripheral exchange centers found throughout the Beqa'a Valley and their interaction with the commercial hubs of the Lebanese coast and the hinterland settlements of southwestern Syria. During this time, settlements throughout the ancient Near East witnessed a process of regeneration that followed the collapse of Early Bronze Age IV (c. 2200-2000 BCE) societies. The development of more complex economic networks and political relationships, as well as the arrival of new ethnic groups, characterized this renewal.

This dissertation sets forth two main research questions: How can the material culture and the geographical setting of Kamid el-Loz shed light on the economic systems of the central Levant and southwestern Syria? And, to what degree was the Beqa'a Valley integrated into the cultural milieu of the Eastern Mediterranean during the Middle Bronze Age? To answer these queries, the ceramic vessels found in the storage rooms of the Kamid el-Loz palace were analyzed and thematic maps using Geographic Information System (GIS) software were created to reconstruct the commercial paths through which materials circulated.

The results from this study indicate that Kamid el-Loz had a well structured palatial organization that shared the same international exchange networks that involved the coastal Middle Bronze Age centers. The Beqa'a Valley was linked to this greater system of trade through paths used to surmount the obstacles posed to circulation by the mountain ranges that border this area. Interactions between these different regions are visible in the material culture recovered at Kamid el-Loz, which evidences a process of adaptation and selection of non-local motifs.

One contribution of this project to the archaeology of the Middle Bronze Age Levant is the reconstruction of the ceramic vessel economy of Kamid el-Loz. In addition, the recreation of ancient networking trails in the Beqa'a Valley will provide a model useful for the understanding of exchange systems across the region, especially in the central Levant. Finally, determining the level of foreign interaction among settlements belonging to three different geographic areas will contribute to the social sciences by providing insight into how ancient societies received and reacted to external cultural influences.

Ad Olga Lemus, una meravigliosa mamma ed amica. Che mi ha sempre incoraggiato e sostenuto nelle mie scelte. Senza di lei questa ricerca non sarebbe stata possibile.

TABLE OF CONTENTS

CHAPTER I

Middle Bronze Age Exchange and Trade Networks in the Central Levant

Introduction	1
1. Theories on Ancient Economies: Trade and Exchange Theory	2
2. The Development of Trade Routes in the Bronze Age Levant	9
3. Trade and Exchange during the Middle Bronze Age Levant	12
4. Kamid el-Loz: A Brief History of Research	21
5. An Overview of the Dissertation Research	22

CHAPTER II

The Ceramic Vessel Economy of Middle Bronze Age Kamid el-Loz

Introduction	25
1. Research Design: Chaîne Opératoire in the Study of the Ceramic Economy of the Beqa'a Valley	26
2. The Archaeological Context of the Ceramic Vessels from the Middle Bronze Age Palace	31
2.1 Phase 1	32
2.1.1 Room/Court 4	33
2.1.2 Room 5	33
2.2 Phase 2	33
2.2.1 Room 6	33
2.2.2 Room 7	34
2.2.3 Room 8	34
2.2.4 Room 9	35
2.2.5 Hall 10/Room 10	35
2.2.6 Room 11	35
2.3 Phase 3	36
3. Kamid el-Loz Ceramic Typology	36
3.1 Ceramic Inventories from Rooms 7 and 8	37
3.1.1 Bowls	38
3.1.2 Platters	39
3.1.3 Juglets	40
3.1.4 Jars	40
3.1.5 Cooking pots	41
4. Ceramic Production and Consumption in Kamid el-Loz	41
4.1 Ceramic Production in Kamid el-Loz	41
4.2 Consumption Practices in the Palace of Kamid el-Loz	46
4.2.1 Ceramic Consumption and the Preservation of Goods	47

4.2.2 Ceramic Consumption and the Preparation of Food	48
4.2.3 Feasting Activities in the Middle Bronze Age Palace of Kamid el-Loz	49
4.2.4 Symbolic Acts of Consumption in the Afterlife	51
Conclusions	54

CHAPTER III

Reconstructing Circulation Paths between South Lebanon and Southwest Syria: A Case Study from the Beqa'a Valley

Introduction	56
1. Research Design	56
2. Landscape of Lebanon and the Beqa'a Valley	63
3. Previous Studies on the Beqa'a	65
4. Reconstruction of the Beqa'a Valley Routes	68
4.1. Resource Demand and the Development of Trade Paths	69
4.1.1 Raw Material	70
4.1.2. Processed Goods	72
4.2 Identification of Levantine Cities	74
4.3 Trading Paths Based on Written Sources	78
5. Reconstruction of the Paths Crossing the Beqa'a Based on Topographic Analysis	79
5.1 Impact of the Environment on the Viability of the Paths: Seasonality	81
5.2 The Beqa'a Valley - Beirut Routes	81
5.3 The Beqa'a Valley - Damascus Route	83
5.4 The Beqa'a Valley - North and Southern Routes	84
Conclusions	85

CHAPTER IV

The Material Culture from Kamid el-Loz: Evidence of Interactions

Introduction	88
1. Research Design: Identifying Signs of Interactions	88
2. Local Interaction of the Beqa'a Valley	91
3. Interregional Interaction of the Beqa'a Valley	92
3.1a The Tell Yahudeya Ware at Kamid el-Loz and in the Neighboring Regions	93
3.1b Levantine Painted Ware at Kamid el-Loz and in the Southern and Eastern Neighboring Regions	96
3.1c Discussion	98
4. Interregional Interactions of the Beqa'a Valley	100
4.1 Interregional Interaction with the West Coast: The Painted Ware	100
4.2 Interregional Interaction with the South and the East: The Carinated Bowls	101
4.3 Interregional Interaction with the South: Kamid el-Loz Scarabs and Scarab Impressions	102

4.4 Interregional Interaction with the North: Kamid e-Loz Cylinder Seal Impressions	104
5. International Interactions of the Beqa'a Valley	107
5.1 The Interactions of the Beqa'a Valley and Kamid el Loz with the West: Painted Ware, Cypriot Ware and Minoan Ware	107
5.2 The Interactions of the Beqa'a Valley and Kamid el Loz with Egypt: The Construction of an East-West Route	111
5.2a The Wall Paintings from Tell Sakka, Syria and Tell el-Burak	111
5.2b Seal Impressions of Kamid el-Loz with Egyptianizing Motifs	113
5.2c Discussion	114
Conclusions	115
CHAPTER V	117
BIBLIOGRAPHY	123

Appendix
Ceramic Vessels Tables

Bowls	155
Platters	166
Juglets	178
Jars	184
Cooking Pots	195

List of Figures, Tables, Maps and Profiles

Fig. 1 Middle Bronze Age Palace Phases	205
Fig. 2 Comparative Ceramic Vessels Table of Kamid el-Loz	212
Fig. 3 Selection of Ceramic Vessels Room 7	213
Fig. 4 Goblet	214
Fig. 5 Interior surface of a platter from Kamid el-Loz Palace room 7	214
Fig. 6 Painted Ware and Levantine Painted Ware	215
Fig. 7 Painted Sherd with Animal Motif	216
Fig. 8 Painted Juglet	216
Fig. 9 TYW sherd from Kamid el-Loz	217
Fig. 10 TYW Kamid el-Loz	217
Fig. 11 TYW from Tell Hizzin	217
Fig. 12 TYW from Tell el-Ghassil	217
Fig. 13 LPW Geometrical Style	217
Fig. 14 LPW Spiral Motif	217
Fig. 15 LPW Wavy Motifs	217
Fig. 16 Painted Ware	218
Fig. 17 Scarab Impressions	218
Fig. 18 KL 72:270	218
Fig. 19 KL 72:188	218
Fig. 20 KL 67:239	218
Fig. 21 Seal Impression Palace Area	219
Fig. 22 Seal Impression Administrative Area	219
Fig. 23a Tell el-Burak Wall Paintings	220
Fig. 23b Drawing of the Paintings of Tell el-Burak	220
Fig. 24 Young Male with Atef Crown, <i>niveau IV</i> Middle Bronze Age II, Tell Sakka, Syria	221
Fig. 25 Goat eating from a bush	221
Fig. 26 Bearded Males	222
Fig. 27 KL 67:144	222
Fig. 28 KL 72:271	222
Table 1 Chronology	223
Table 2.1 Middle Bronze Age Sites	224
Table 2.2 Middle Bronze Age Sites	225
Table 2.3 Middle Bronze Age Sites	226
Table 3 Painted Ware and Tell Yahudeya Ware	227
Table 4 Minoan ware present in Lebanon	228
Table 5 Cypriot Imports in Lebanon	228
Map 1 Middle Bronze Age sites distribution	206
Map 2 The Beqa'a Valley – Beirut Routes	207
Map 3 The Beqa'a Valley-Damascus Routes	208
Map 4 The Beqa'a Valley-North-South Routes	209
Profile Elevations P.1 – P.3	210
Profile Elevations P.4 – P.6	211

Acknowledgements

I would like to thank my family for their continual support. Heartfelt thanks go to all my committee members: To my Co-Chairs: Professor Marian H. Feldman, for always being there for me when I needed her guidance, and Professor Benjamin Porter, for his valuable feedback, and Professors Carol Redmount and Christine Hastorf, for their precious advice. A special thanks goes also to Professor Dr. Marlies Heinz, Director of the excavation at Kamid el-Loz, for allowing me to study the ceramic vessels from Kamid el-Loz. Working with her and the entire team from the University of Freiburg, Germany, was a great pleasure. Thanks are due also to the staff of the National Museum of Beirut for facilitating my work during the weeks spent in Beirut at the museum. And last but not least, I wish to thank all my friends, who, in various ways, offered their help when I needed it.

CURRICULUM VITAE

ANTONIETTA CATANZARITI

86 W 53rd Street

Bayonne, NJ 07002

E-mail: catanzaritantonietta@gmail.com

Cell. Phone: (510-990-4864)

EDUCATION

- August 2015** **University of California, Berkeley, USA**
Ph.D. in Near Eastern Art and Archaeology
Dissertation: “Economic Systems in Lebanon and Southwestern Syria during the Middle Bronze Age: A Case Study from Kamid el-Loz”
Advisors: Marian Feldman and Benjamin Porter
- Spring 2015** **Johns Hopkins University, USA**
Visiting Graduate Scholar
- Fall 2011** **Università Iuav di Venezia**
Visiting Scholar, period of training at the “Laboratorio di Analisi Materiali Antichi”
- 2008** **Università Ca’ Foscari di Venezia, Italy**
Master of Arts in Near Eastern Art and Archaeology
Dissertation: “The Relations Between the Northern Levant and Egypt during the III Millennium B.C.E.”
Advisors: Elena Rova and Emanuele Ciampini
- Fall 2005** **Ludwig-Maximilian Universität, München**
Institut für Vorderasiatische Archäologie
Erasmus Exchange Student
- 2004** **Università Cà Foscari di Venezia, Italy**
Bachelor of Arts in Near Eastern Art and Archaeology
Dissertation: “Byblos, Ebla and Egypt in the III Millennium B.C.E.”
Advisors: Elena Rova and Emanuele Ciampini

GRANTS AND FELLOWSHIPS

- 2008-2015** **Near Eastern Studies Department Grant**, University of California Berkeley, Berkeley CA, USA
- 2014-2015** **Mesopotamian Fellowship**, American Schools of Oriental Research
- 2014** **Outstanding Graduate Student Instructor Award**, University of California Berkeley, Berkeley CA, USA
- 2013-2014** **Dean Normative Time Fellowship**, University of California Berkeley
- 2013, 2014** **Sacramento Archeological Society**, Sacramento CA

- 2013** **Graduate Division Summer Grant**, University of California Berkeley, Berkeley CA, USA
- 2012** **Graduate Division Conference Travel Grant**, University of California Berkeley, Berkeley CA, USA
- 2012** **Mellon Conference Travel Grant**, University of California Berkeley, Berkeley CA, USA
- 2011** **Heritage Fellowship**, American Schools of Oriental Research
- 2011, 2012** **Near Eastern Studies Department Summer Fellowship**, University of California Berkeley, Berkeley CA, USA
- 2009, 2012** **Archeological Research Facility**, Stahl Endowment Grant, University of California Berkeley, Berkeley CA, USA
- 2002-2003** **European Social Fund Fellowship**, University of Venice, Ca' Foscari. Italy
- Expert in Archaeological Methods

TEACHING EXPERIENCE

University of California, Berkeley, Department of Near Eastern Studies
Graduate Student Instructor

- Fall 2014** **Introduction to the Near East - NES 10**
Instructor: Professor John Hayes
Led section discussions, prepared exams, graded papers and exams
- Spring 2014** **Introduction to Near Eastern Art and Archaeology - NES 15**
Instructor: Professor Benjamin Porter
Lectured and led section discussions, prepared exams, graded papers and exams
- Spring 2013** **Introduction to Near Eastern Art and Archaeology - NES 15**
Instructor: Dr. Dana DePietro
Led section discussions, prepared exams, graded papers and exams
- Summer 2012** **Archaeological Field School in Jordan - NES 193**
Instructor: Professor Benjamin Porter
Taught archaeological methods and excavation techniques
- Spring 2012** **Introduction to Near Eastern Art and Archaeology - NES 15**
Instructor: Professor Marian Feldman
Led section discussions, graded papers and exams
- Fall 2010** **Introduction to Ancient Egypt - NES 18**
Instructor: Professor Carol Redmount
Led section discussions, graded papers and exams

Istituto Italiano Scuola, San Francisco, CA
Instructor

- 2011- 2015** **Italian Language: Intermediate and Advanced levels**
Taught grammar, writing and conversation

PUBLICATIONS

In preparation “The Qara Dagħ Regional Archaeological Project in Kurdistan,” in *Archaeology of Kurdistan and the Adjacent Regions*. Proceedings of the Conference held in Athens in November 2013. *Archeopress Archaeology*.

Journal Articles

In press “Middle Bronze Age Ceramic Vessels from Kamid el-Loz, Excavation Season 2010-2011.” *Bulletin d’Archéologie et d’Architecture Libanaise*.

2011 “Middle Bronze Age Chronology in the Levant: Identifying an Adequate Chronology for Kamid el-Loz.” *Bulletin d’Archéologie et d’Architecture Libanaise*, 14: 2011.

2011 “Middle Bronze Age Ceramic Vessels from Kamid el-Loz.” *Berytus* 53-54:2010-2011, pp. 47-80.

Museum Exhibition Book

2008 “The Incense Road,” in *Faces of Ancient Arabia, the Giraud and Carolyn Foster Collection of South Arabian Art*. Edited by Regine Schulz and Giraud V. Foster. Man and Lion Press and Walters Art Museum Baltimore, 2008, pp. 30-33.

CONFERENCE SESSION ORGANIZED

2011 “Contemporary Theory in the Ancient Near East,” Theoretical Archaeological Group 2011, University of California, Berkeley, USA

CONFERENCE PRESENTATIONS AND POSTERS

Presented Papers

2015 “Landscape of Movements: Reconstructing the Economic Pathways of the Middle Bronze Age Beqa'a Valley.” University of California, Berkeley. Brown Bag Series 2015, USA.

2014 “Ceramic Production and Consumption in Middle Bronze Age Kamid el-Loz: Lebanon.” Annual Meeting of the American Schools of Oriental Research, San Diego, USA.

2014 “Economic Systems in the Beqa'a Valley during the Middle Bronze Age.” Archaeological Institute of America. San Francisco, USA.

- 2014** “Traveling Images from Southern Lebanon and Southwestern Syria: A Study on the Perception and Use of Extrinsic Motifs.” 9ICAANE, University of Basel, Switzerland.
- 2014** “Middle Bronze Age Trading Routes in the Beqa’a Valley, Lebanon.” Archaeological Society Annual Meeting, Sacramento, USA.
- 2012** “Amid the Mountains: The Impact of Natural Landscape on Middle Bronze Age Kamid el-Loz.” Annual Meeting of the American Schools of Oriental Research, Chicago, USA.
- 2011** “The Study of the Material Culture of the Obelisk Temple at Byblos: An Insight into the Social Customs of Middle Bronze Age Byblos.” Annual Meeting of the American Schools of Oriental Research. San Francisco, USA.
- 2010** “An Analysis of the Middle Bronze Age Pottery of Kamid el-Loz.” The American University of Beirut, Lebanon.
- 2008** “The Incense Road.” The Walters Art Museum’s series of lectures for *Faces of Ancient Arabia* exhibition, Baltimore, USA.

Posters

- 2014** Baccarin, Cristina and Catanzariti, Antonietta. “The Qara Dagh Survey Project (Iraqi-Kurdistan).” 9ICAANE, University of Basel, Switzerland.

INTERNSHIPS

University of California, Berkeley, CA Graduate Student Researcher

- 2010** Conducted provenance research of Near Eastern, Mexican and European seals and seal impressions from the Gans Collection
- 2008-2009** In charge of book cataloguing for the Near Eastern Studies Department library

Assistant Curator Ancient Art Department, Walters Art Museum, Baltimore, MD

- 2007** Performed provenance research of South Arabian Artifacts, was in charge of data collection, provided description of the artifact installations, worked on the promotion of the exhibition “Faces of Ancient Arabia” of Walters Art Museum

MUSEUM EXHIBITIONS

- 2010** “The Conservator’s Art: Preserving Egypt’s Past.” The Phoebe Hearst Museum of Anthropology, UC Berkeley, CA
- 2008** “Faces of Ancient Arabia.” The Walters Art Museum, Baltimore, MD

FIELDWORK

Excavations and Surveys

- 2013 - present** **Qara Dagh Regional Archaeological Project (QDRAP), Iraqi-Kurdistan**
Directors: Antonietta Catanzariti and Cristina Baccarin
- 2015** **Qara Dagh Regional Archaeological Project (QDRAP), Iraqi-Kurdistan**
Survey Season 1: Area survey, landscape analysis and ceramic analysis
Director: Antonietta Catanzariti
- 2009 - present** **Kamid el-Loz, Lebanon**, Ceramic Analyst
Director: Marleis Heinz, University of Freiburg, Germany
- 2009, 2012** **Tell Dhiban, Jordan**, Trench supervisor
Director: Benjamin Porter, University of California, Berkeley. USA
- 2009, 2011** **Kamid el-Loz, Lebanon**, Trench supervisor
Director: Marleis Heinz, University of Freiburg, Germany
- 2006, 2008** **Umm el-Marra, Syria**, Trench supervisor
Director: Glenn Schwartz, Johns Hopkins University, USA
- 2005** **Tell Ahmar, Syria** Trench supervisor
Director: Guy Bunnens, Leige University, Belgium
- 2004** **Castelmonte, Aquila**
Director: P. Redi, Università degli Studi dell’Aquila, Italy
- 2003** **Gorgo del Ciliegio, San Sepolcro, Arezzo**
Director: A. Moroni, Università degli Studi di Siena, Italy
- 2003** **San Giacomo in Paludo, Venice**
Director: Sauro Gelichi, Ca’ Foscari University, Italy

Underwater Excavations

- 2005, 2006** **The Mercure Shipwreck at Lignano, Venice**
Director: Carlo Beltrame, Ca’ Foscari University, Italy

ADDITIONAL SKILLS

Knowledgeable in the use of the Geographical Information System and related software
Skilled in the use of the Portable XR-F analyzer
Experienced in underwater archaeological methods and techniques

ORGANIZATION MEMBERSHIP

American Schools of Oriental Research
Archaeological Institute of America
The American Research Centre in Egypt

MODERN AND ANCIENT LANGUAGES

Italian (fluent professional reading, writing, and speaking)
French (proficient reading, functional writing and speaking)
Spanish (proficient reading, functional writing and speaking)
German (proficient reading)
Arabic (basic)
Akkadian (functional reading and translation)

CHAPTER I

Middle Bronze Age Exchange and Trade Networks in the Central Levant

Introduction

Ancient economy and trade systems have been the subject of several scholarly works which have approached the topic from a historical, anthropological or archaeological standpoint to attempt a systematic investigation of ancient forms of exchange systems from their earliest stages to their complex development. Often, ancient economy studies have concentrated on data collected from the Roman and Greek period. However, the ancient Near East has also attracted the interest of scholars, such as Karl Polanyi,¹ who contributed to this field by stressing the importance of the social factor in the growth of economic systems. Recent works on the economy of the ancient Near East have led specialists to call for an approach that incorporates the use of multiple lines of research to better grasp ancient economic systems.

During the Middle Bronze Age period, the Near East witnessed the expansion of exchange networks along the Eastern Mediterranean basin. The main trading hubs were established in coastal settlements along the Levant and in major city centers. Chief examples of centers that were crucial to the complex networking systems that developed in this area are Tell Sukas and Tell Tweini in the northern Levant, Byblos in the central Levant and Ashkelon in the southern Levant. The extension of trade network systems during the Middle Bronze Age (2000-1550 BCE) and the role played by marginalized sites located in inner valleys in the development of trade routes has been mostly disregarded. This research aims to fill this gap.

Researchers have concentrated most of their attention on the coastal areas of the Levant and delineated trading patterns based on the data available from the coastal sites where there is abundant documentation related to the international exchange trade that emerged during the Middle Bronze Age.² This absorption on the coastline centers has obscured the importance of marginal trading regions that nonetheless contributed in varying degrees to the development of the internal trading systems of the Levant. The goal of this dissertation is to update the information on trading systems in the Middle Bronze Age Levant by analyzing the archaeological material recovered in the site of Kamid el-Loz and its surrounding environment and to discuss the mechanism of trade in non-centralized centers that were located in challenging landscapes.

¹Karl Polanyi, Conrad Maynadier Arensburg, and Harry W Pearson, *Trade and Market in the Early Empires*, Economies in History and Theory. (Glencoe: Ill. : Free press, 1957); Karl Polanyi, "Ports of Trade in Early Societies," *The Journal of Economic History* 23, no. 1 (1963): 30–45; Karl Polanyi, "Traders and Trade," in *Ancient Civilization and Trade*, ed. Jeremy A Sabloff, C. C Lamberg-Karlovsky, and School of American Research (Santa Fe (Albuquerque: University of New Mexico Press, 1975), 133–54; Karl Polanyi and Harry W Pearson, *The Livelihood of Man* (New York: Academic Press, 1977).

²Claude Doumet-Serhal et al., eds., *Networking patterns of the Bronze and Iron Age Levant: the Lebanon and its Mediterranean connections* ([London, England]; Beirut: Lebanese British Friends of the National Museum ; Printed ACP, 2008); Claude Doumet-Serhal, "Tracing Sidon's Mediterranean Networks in the Second Millennium B.C.: Receiving, Transmitting, and Assimilating. Twelve Years of British Museum Excavations," in *Cultures in Contact: From Mesopotamia to the Mediterranean in the Second Millennium BC*, ed. Joan Aruz, Sarah B Graff, and Yelena Rakic (Yale University Press, 2013), 132–41.

In this chapter, I will present scholarly theories on the subject of trade, discuss views on trade networking systems during the Middle Bronze Age and provide an assessment of the remote centers that had a secondary but essential function in the establishment of communications and relationships with distant areas. Additionally, I will present the state of research on trade in the Beqa'a Valley to indicate how little has been done on the study of trade since the major survey conducted by Marfoe in the 1970's. Finally, I will provide a brief outline of the chapters that contain the data adopted to discuss trade in the Beqa'a Valley during the Middle Bronze Age.

1. Theories on Ancient Economies: Trade and Exchange

Scholars interested in the study of ancient economic systems have adopted different approaches to explain these early economic organisms. Indeed, there is a long standing debate among researchers who see similarities with modern capitalist economies (modernists and formalists) and those who see ancient economies as radically different from their modern counterparts (primitivists and substantivists). The Near East and the Classical world have copious and detailed economic data, but most of the work achieved in these areas remains highly particularistic. Anthropological archaeologists have much relevant information and a comparative anthropological perspective, but interest in the study of economy has waned since the 1980s.³

Most studies on ancient economy have focused on the data assembled from ancient Egypt, Greece and Rome and have been greatly influenced by Marxist, primitivist and modernists theories. These theories have also become influential for scholars interested in the exploration of economy in the ancient Near East and, in particular, where ancient Mesopotamia is concerned. Karl Marx's theories were of great inspiration to researchers of the economy of the ancient Near East as his contribution stands on his emphasis that economy is based on production relationships.⁴ Of particular importance was his discussion on classes in reference to one's ability to depend on her or his social class to have access to means of production⁵ as well as his notion of the Asiatic Mode of Production. The latter was so called by Marx because it was detected in the Indian, Chinese, Persian, Indonesian and other Asian empires.⁶ Marx thought that the Asiatic Mode of Production could help explain and be applied to the economic systems of the Egyptians in Egypt, the Incas in Peru and Aztecs in Mexico. The basic notion of Marx's Asiatic Mode of Production implies that such past societies were based on centralized despotism, bureaucratic administration, public ownership of land and large-scale public works, especially irrigation. A centralized power, often represented by a despotic ruler, is at the head of this system

³Michael E. Smith, "The Archaeology of Ancient State Economies," *Annual Review of Anthropology* 33, no. 1 (2004): 73–102.

⁴Roger S. Nam, *Portrayals of Economic Exchange in the Book of Kings*, vol. 112, Biblical Interpretation Series (Leiden ; Boston : Brill, 2012), 35.

⁵In the ancient Near East and in pre-industrial societies, the issue of land ownership was important. Three types of landownership were identified: communal, private and institutional. On this matter see: Johannes M. Renger, "Institutional, Communal, and Individual Ownership or Possession of Arable in Ancient Mesopotamia from the End of the Fourth to the End of the First Millennium B.C.," *Chicago-Kent Law Review* 71, no. 1 (1995): 269–319.

⁶Karl Marx, *Grundrisse. Foundations of the Critique of Political Economy* (New York: Vintage Books, 1973); Carlo Zaccagnini, "Modo di Produzione Asiatico e Vicino Oriente Antico: Appunti per una Discussione" *DialArch*, no. 3/3 (1981): 3–65.

in which the ruling class owns the means of production and its appropriated surplus labor, cities are subordinate to the countryside and surpluses are concentrated in the hands of the State.⁷ Another concept that was also often used is Marx's four stages of evolution: primitive communism, slave-owning society, feudalism and capitalism. Finally, although certain of Marx's theories were later abandoned, his concepts were essential to stress the importance of economic history and they forced us to see production as an essential aspect of economy.⁸

Along with Karl Marx, Marx Weber was also influential in the study of ancient Near Eastern economies. His works were used to analyze treaties and ancient economies and, in Near Eastern studies, to consider slavery or the economic functions and legal terminology of slavery. His most influential book was "The Agrarian Sociology Of Ancient Civilizations,"⁹ where he stresses the importance of identifying the individuality of each development. As stated by Weber, each society develops differently, according to their environmental and cultural characteristics.

A common approach used by historians in trying to tackle issues on economy is that of applying Marxist theories. These theories were influential in the studies of the economy of the ancient Near East and scholars, such as D.C. Snell¹⁰ and Marc Van De Mieroop,¹¹ contributed to the study of ancient economies by underlining the importance of understanding the mechanisms of early production and exchange systems.¹² Other scholars in ancient Near Eastern studies that have taken inspiration from Marxist theories are Igor M. Diakonoff, Morgen Larsen,¹³ Mario Liverani and Carlo Zaccagnini.¹⁴

Of particular interest for this chapter is the development of the concept of trade and exchange in the ancient Near East. Karl Polanyi's works, *The Great Transformation*, published in 1944, *Trade and Markets in the Early Empires*, 1957, and *Livelihood of a Man*, 1977, have greatly influenced the studies of ancient exchange systems. Although he was often criticized, he contributed to this field with his proposition that ancient economies were social processes. In *The Great Transformation*, he states that in constructing economic systems, a person "does not act so to safeguard his individual interest in the possession of material goods; he acts to safeguard his social standing, his social claim and social assets." Additionally, he stressed that every process involved in production and distribution is geared to social interests and the economic system runs on noneconomic motives.¹⁵ This aspect of his work was very much influenced by

⁷María Eugenia Aubet, *Commerce and Colonization in the Ancient Near East* (Cambridge; New York: Cambridge University Press, 2013), 13.

⁸Marc Van De Mieroop, "Economic Theories and the Ancient Near East," in *Commerce and Monetary Systems in the Ancient World. Means of Transformation and Cultural Interaction. Proceeding of the Fifth Annual Symposium of the Assyrian and Babylonian Intellectual Heritage Project. Held in Innsbruck, Austria, October 3rd-8th, 2002*, ed. Robert Rollinger and Christoph Ulf, vol. 5, Menammu Symposia (Stuttgart: Franz Steiner Verlag, 2004), 54–64.

⁹Weber Max, *The Agrarian Sociology of Ancient Civilizations* (London: NLB, 1976).

¹⁰Daniel C. Snell, "The Activities of Some Merchants of Umma," *Iraq* 39, no. 1 (1977): 45–50.

¹¹Van De Mieroop, "Economic Theories and the Ancient Near East."

¹²Ibid.

¹³Mogens Trolle Larsen, *Old Assyrian Caravan Procedures* (Istanbul: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten, 1967).

¹⁴Carlo Zaccagnini, "La Circolazione Dei Beni," in *L'Alba Della Civiltà*. 2, ed. Sabatino Moscati and Frederick Mario Fales (Torino: Unione tip. ed. Torinese., 1976), 423–582.

¹⁵Polanyi *The Great Transformation*, 46.

Karl Bucher, Max Weber, Bronislaw Malinowski and Marcel Mauss, who also believed that economy should be viewed in its social context.¹⁶

Polanyi adopted a comparative analysis approach to identify different economic systems in use in different times and places. This approach led him to analyze economies that stretched in time from the Old Babylonian period in Mesopotamia to the capitalist economy of the nineteenth century in order to discuss forms of organization in place of a market and the social relations in economic and non-economic institutions.¹⁷ According to Polanyi, a market did not exist in the ancient Near East and he also believed that Babylon used a redistributive system through administrative means¹⁸ In one of his major works, *The Great Transformation*,¹⁹ he defines market as “an economy directed by market prices and nothing but market prices.”²⁰ His endeavor to identify a better economic system for the past can be retained to be his main contribution to this field. The organization of forms and the evolution of economic life have been his principal points of interest.²¹ Polanyi provided scholars with the theoretical framework to approach ancient economic systems and adopted a *substantive* notion of economy, which he laid out in his work, *Livelihood of a Man*. Here, he states that there are two levels of substantive economy: “the interaction between man and his surrounding and the institutionalization of the process.”²² A view of the social whole was, according to Polanyi, a necessary element to understand social dynamics.

In *Market and Trade*, Polanyi’s studies on the ancient Near East’s economy led him to state that self-regulating markets were absent in the ancient Near East. In *Ports of Trade*, Polanyi defines a port of trade as a universal institution of overseas trade preceding the establishment of international markets situated on the coast or rivers in order to facilitate transportation. In his paper he examines the site of al-Mina, located a few km away from Ugarit. Al-Mina, in Turkey, was taken as an example of an independent port.²³ By using the data of the Old Babylonian period, he reached the conclusion that Babylon had no market but he recognized the presence of market places, which, however, did not have a price system as is present in the modern market.²⁴ Because Polanyi believed that economies were part of an institutional process, he indicated that these economies were organized in three systems: reciprocity, redistribution and exchange.²⁵ Finally, he theorizes that the cohesive kinship structures of the ancient Near East used reciprocity

¹⁶Marc Van De Mierop, “Economic Theories and the Ancient Near East,” in *Commerce and Monetary Systems in the Ancient World. Means of Transformation and Cultural Interaction. Proceeding of the Fifth Annual Symposium of the Assyrian and Babylonian Intellectual Heritage Project. Held in Innsbruck, Austria, October 3rd-8th, 2002*, ed. Robert Rollinger and Christoph Ulf, vol. 5, Menammu Symposia (Stuttgart: Franz Steiner Verlag, 2004), 54–64.

¹⁷Aubet, *Commerce and Colonization in the Ancient Near East*, 21.

¹⁸Polanyi, “Ports of Trade in Early Societies,” 38–40.

¹⁹Karl Polanyi, *The Great Transformation*. (Boston: Beacon Press, 1957); Another important work from the same scholar is: *Trade Markets in the Early Empires* (Glencoe, Ill. Free Press, 1957)

²⁰Karl Polanyi, *The Great Transformation: The Political and Economic Origins of Our Time* (Boston: Beacon Press, 2001), 45.

²¹Aubet, *Commerce and Colonization in the Ancient Near East*, 21.

²²Polanyi and Pearson, *The Livelihood of Man*, 1977, 31.

²³Polanyi, “Ports of Trade in Early Societies,” 33.

²⁴See Polanyi’s discussion on the subject in *Ports of Trade in Early Societies*, 38-45; “Marketless Trading in Hammurabi’s Time.” In *Trade and Markets in the Early Empires*.

²⁵Polanyi, “Traders and Trade”; Karl Polanyi and Harry W Pearson, *The Livelihood of Man* (New York: Academic Press, 1977). Anthropologists, and in particular Carol Smith, working on the economy of pre-modern societies have identified three types of exchange systems: dyadic, polyadic and market exchange. Dyadic is direct trade between two equal-status individuals (for example, gift giving). Polyadic exchange is direct and it takes place between a high status individual and one or more subordinates. Market exchange is defined as a more complex form of exchange.

as their primary distributive mechanism. Polanyi's description of the dynamics of reciprocity initially convinced Leo Oppenheim that these ideas were applicable in the study of economic systems from the Late Bronze Age to the Persian Period.²⁶

Scholars focusing specifically on the ancient Near East have explored the systems of reciprocity, redistribution, and exchange that Polanyi has laid out in his studies on ancient trade and markets. These have been reanalyzed by recent scholars, such as Marc Van de Mieroop, to understand subjects related to the ancient Near East. According to Van de Mieroop, redistribution exchange systems are well attested in Mesopotamia during the Ur III period (2100 – 2004 BCE).²⁷ This type of system requires that an institution have access to enormous resources which subsequently are handed out to the people.²⁸

In the ancient Near East, the best example of reciprocal exchange is documented in the Late Bronze Age (1600- 1200 BCE) period in the Amarna texts. These documents attest the exchange of gifts between kings (see p.17 for a detailed discussion on this subject).²⁹ A first discussion on the dynamics of gift exchange was performed by Bronislaw Malinowski, who analyzed the gift and reciprocity system in the Trobriand Island known as the "Kula Ring." This system consists in annual inter-island visits between trading partners who exchange shell ornaments that are considered to be highly valuable. Two types of objects are exchanged: necklaces (*soulava*) and armbands (*mwali*). The ornaments exchanged are simply manufactured from materials of no inherent tangible value. For this reason, Malinowski proposed that the purpose behind the voyages to the diverse islands and the exchange of items which had no practical value was social in nature and served to reinforce amicable relationships among islanders. The Kula Ring was an effort to keep communication open with islands located at great distances, providing an exchange system that facilitated relations with people who spoke different languages by proposing items that were retained of worth by all the trading partners. Status was also reinforced in that the island chiefs were able to accumulate the greatest amount of valuables and therefore were interested in perpetuating these voyages.³⁰

Followers of Malinowski have either expanded on or criticized the concept that he developed; among these are Raymond Firth and Marcel Mauss. Raymond Firth's studies on the Maori tribes of New Zealand recognized complexity in exchange as well as forces of prestige and honor triumphing in supply and demand.³¹ Mauss emphasized the dominance of kinship relations among the Trobriand islanders that fuels relations and obligations within the group. According to Mauss, the simple act of exchange serves as a complex expression of the social relations that exist between people and objects and thus, the objects exchanged are fundamentally different from commodities. Gifts, in this way, are intended to support social relations.³² In the case of the Late Bronze Age, the exchange of gifts reached a different level from that of the Kula system described by Bronislaw Malinowski. If we observe the items

²⁶Leo Oppenheim, "A Bird's-Eye View of Mesopotamia Economic History," in *Trade and Market in the Early Empires: Economies in History and Theory*, ed. Karl Polanyi, Conrad Maynadier Arensberg, and Harry W Pearson (Chicago: Free Press, 1957), 12–26.

²⁷Marc Van de Mieroop, *Cuneiform Texts and the Writing of History* (London; New York: Routledge, 1999), 123–4.

²⁸Marc Van de Mieroop, Economic Theories and the Ancient Near East, *Melammu Symposia* 5, p. 59

²⁹Mario Liverani, "Elementi Irrazionali nel Commercio Amarniano," *Oriens Antiquus* 11 (1972): 297–317.

³⁰Bronislaw Malinowski, *Argonauts of the Western Pacific; an Account of Native Enterprise and Adventure in the Archipelagoes of Melanesian New Guinea*, (London; New York: G. Routledge & Sons; E.P. Dutton & Co., 1922).

³¹Raymond Firth, "Primitive Economics of the New Zealand Maori," (E.P. Dutton and Company, 1929).

³²Marcel Mauss and E. E Evans-Pritchard, *The Gift: Forms and Functions of Exchange in Archaic Societies* (New York: Norton, 1967).

circulating between individuals during the Late Bronze Age in the ancient Near East, it is clear that the objects gifted were precious goods. The exchange of gifts was not only meant to maintain relationships between the people of power but it also had a commercial end. This is also the case for most of the transactions that were carried out during the Middle Bronze Age in the Near East.

The third form of exchange is market exchange. Van de Mieroop suggests that the Old Assyrian merchant colony, located in central Anatolia at the site of Kanesh,³³ is an example of market exchange.³⁴ Here were found circa 20,000 tablets dating to the first half of the second millennium BCE, written by merchants from the city of Ashur who traveled to Kanesh in Anatolia. Ashur was the central point of a network that traded tin from the east, textiles from Babylonia and silver and gold from Anatolia. Traders, women and men, collected funds for their activities and, by seeking investment loans, they took commercial risks and could either make substantial profits or incur losses. Polanyi argued that the material culture found at Karum Kanesh illustrates the existence of an administered trade controlled by a palace. In this context the merchants were employed by the palace.³⁵ On the contrary, Van de Mieroop points out that the transactions in which the traders of the Old Assyrian colony were engaged were not regulated by the palace but were organized by the merchants themselves.³⁶ Stein, who was also a major contributor to the discussion on the Old Assyrian trade, focuses his attention on the “colonial encounters between foreign settlements and local polities as a specific form of inter-regional interaction.”³⁷ Van de Mieroop’s work on ancient Near Eastern economies led him to stress the idea that the three forms of exchange identified could have co-existed and that these forms did not develop in a chronological order, reflecting in this way the complexity and gradual evolution of these systems.

Van de Mieroop, as a historian and an expert on ancient texts, does not entirely reject the economic theories that developed over the years but his analysis on the three forms of exchange systems has prompted him to remind scholars of the study of ancient economies of the need to maintain a “skeptical attitude toward the grand theories of economic history” because, in the years in which these theories were developed, scholars were not primarily concerned with the history of these areas and time periods.³⁸ Finally, he supports a multi-disciplinary approach which consists in adopting more than one discipline (archaeology, history, anthropology, etc.) in the study of ancient economies.

Archaeologists have contributed to the study of economic systems extensively. Works by Elizabeth Brumfiel and Timothy Earle, for example, were influential in that they suggested three theoretical approaches to the study of ancient economies. These are: the adaptationist (people’s adaptation to the environment), commercial (the “increase in specialization and exchange as an

³³M. T. Larsen, “Caravans and Trade in Ancient Mesopotamia and Asia Minor,” *Bulletin of the Canadian Society of Mesopotamian Studies* 4 (1982): 33–45.

³⁴Zaccagnini, “La Circolazione dei Beni.”

³⁵Karl Polanyi, *Trade and Market in the Early Empires; Economies in History and Theory*. (Glencoe, Ill.: Free Press, 1957); Karl Polanyi, *Primitive, Archaic, and Modern Economies; Essays of Karl Polanyi*. (Garden City, N.Y.: Anchor Books, 1968).

³⁶Van De Mieroop, “Economic Theories and the Ancient Near East,” 61.

³⁷Gil J Stein, “Theoretical Model for Political Economy and Social Identity in the Old Assyrian Trading Colonies of Anatolia,” *TÜBA-AR XI* (2008): 25–40.

³⁸Van De Mieroop, “Economic Theories and the Ancient Near East.”

integral part of the spontaneous process of economic growth”³⁹ and political (local elites assume control of the economy, they control economy for self-economic and political aims).⁴⁰ Michael E. Smith specializes in the Aztec economic and social urbanization of central Mexico and has challenged the categories assigned to the exchange systems that Polanyi developed, pointing out that Polanyi’s classification presents several weak points: the failure to distinguish exchanges (two-way transactions) from transfers (one-way transactions),⁴¹ the indiscriminate grouping of forms of exchange (e.g., reciprocity) with exchange institutions (e.g., redistribution); and Polanyi’s inability to recognize commercial markets, as discussed above.⁴² Smith’s own response to this critique is the delineation of at least five types of transfers: allocation within the unit of production; gift, with no prospect of obtaining a return (from the family level to international diplomacy); taxes (compulsory transfers from individuals to the state); tribute (wealth transfers between states); and theft and plunder.⁴³ In addition, Smith listed a variety of agreements established between states and dispositions within the state itself to deal with the management of exchange. The following are some of the major categories proposed by Smith: reciprocal trade institutions (trade partners); periodic marketing systems (solar, dendritic, and interlocking forms); redistribution (both voluntary and involuntary forms, including leveling institutions, rationing, and feasting); state finance (discussed below); internal commercial institutions (merchants, money, credit, banking, accounting systems, etc.); and international exchange institutions (e.g. long-distance merchants, administered trade, ports of trade).⁴⁴ Yet these approaches have not been seen as satisfactory by all, and archaeologists, such as M. Smith, have sought to define an approach that includes a “global prospective on economies as open systems.”⁴⁵

Archaeologists have attempted to add another dimension to the study of ancient economy: the analysis of domestic contexts as places of consumption. Economy is interpreted as the provisioning of society (entailing production, exchange, and consumption). As M. Smith points out, archaeology considers increases in agricultural production, population growth, expansion of craft production, increased regional exchange, and changes resulting from taxation in money, including intensified long distance commerce, expansion of coinage, and urbanization.”⁴⁶ Archaeologists in the study of economic exchange systems in Mesoamerica have used archaeological data to offer several hypotheses concerning the socio-political significance of intra and intercommunity exchange systems, and analyzed the exchange between local, internal, or intra-community and long distance, external, intercommunity, interregional, or inter area exchange.⁴⁷ In this study, I have focused on the exchange system where trade and exchange take place at a local, intra-community and international level.

In the general discussion of ancient economy and exchange systems, trade has also been a

³⁹Elizabeth M Brumfiel and Timothy K Earle, “Specialization, Exchange, and Complex Societies: An Introduction,” in *Specialization, Exchange, and Complex Societies*, ed. Elizabeth M Brumfiel and Timothy K Earle (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1987), 1–9.

⁴⁰Ibid.

⁴¹Frederic L Pryor, *The Origins of the Economy: A Comparative Study of Distribution in Primitive and Peasant Economies* (New York: Academic Press, 1977), 26–31.

⁴²Smith, “The Archaeology of Ancient State Economies,” 84.

⁴³Smith, “The Archaeology of Ancient State Economies.”

⁴⁴Ibid., 85.

⁴⁵Ibid., 77.

⁴⁶Ibid., 74.

⁴⁷Gair Tourtellot and Jeremy A. Sabloff, “Exchange Systems among the Ancient Maya,” *American Antiquity* 37, no. 1 (January 1, 1972): 126.

major research topic within the studies of ancient economic systems. Scholars have suggested that the main trigger for the development of trade routes is the need for natural resources, along with the necessity of establishing political and economic relationships. The methods adopted to analyze trade are often limited to the use of one research approach. Historians, such as Van de Mierop, in tackling trade and exchange make use of texts. Other scholars have used materials science techniques to recognize the provenience of objects, but this practice has often brought to the examination of trade for its political conditions.⁴⁸

In this present research on Middle Bronze Age exchange systems in the Beqa'a Valley, Rahul Oka's and Chapurukha M. Kusimba's⁴⁹ definition of trade was influential in providing a suitable interpretation of the Middle Bronze Age trade systems that might have developed in the Beqa'a Valley as the result of social interactions. Oka and Kusimba have reviewed the literature on archaeological approaches to trade, including the primitivist-modernist and substantivist-formalist-Marxist debates.⁵⁰ As defined by the two scholars, trade represents an essential component of the material economic exchange and is a necessary part of social exchange. Trade is often interpreted as being an exchange of things rather than "the result of political and relational processes, the result of sociopolitical complexity, and as an afterthought of embedded exchange arising from social and political desires and motives."⁵¹ If trade is considered under these terms, the actions that are involved in the ancient exchange systems reflect economic, social, political and environmental motivations that are relevant for the participants.⁵²

To arrive at a more complete vision of trade, it is necessary to combine the use of more than one method of analysis and "multiple lines of evidence." In this research, I have made use of different lines of evidence to arrive at an understanding of the trade system in use in the Beqa'a during the Middle Bronze Age. Two primary lines of evidence used here are the detailed analysis of the ceramic vessels and artifacts and the study of the topography of the area. The study of trade has recently expanded with the inclusion in the research methodology of the study of transport systems,⁵³ quantitative artifact distributions,⁵⁴ and methods to distinguish various types of exchange with artifactual data.⁵⁵ The following is a discussion of the major interpretations on the forms of trade and exchange that developed throughout the Bronze Age.

⁴⁸Gil Stein recently characterized political economy research on Old World states as emphasizing four themes: (a) a shift from models of states as highly centralized to notions of variability and limits of state power; (b) a focus on the economic organization of states; (c) research on rural areas and center-hinterland interactions; and (d) attention to interregional interaction at diverse spatial scales. On this topic see: Gil J Stein, "Understanding Ancient State Societies in the Old World," in *Archaeology at the Millennium: A Sourcebook*, ed. GM Feinman and TD Price (New York: Kluwer, 2001), 356; Eric R Wolf, *Europe and the People without History* (Berkeley: University of California Press, 1982); W Roseberry, "Political Economy," *Annual Review of Anthropology* 17, no. 1 (1988): 161–85.

⁴⁹Rahul, Kusimba, Chapurukha Oka, "The Archaeology of Trading Systems, Part 1: Towards a New Trade Synthesis," *Journal of Archaeological Research* 16, no. 4 (2008): 339–95.

⁵⁰Ibid.

⁵¹Ibid.

⁵²Ibid., 341.

⁵³Robert D Drennan, "Long-Distance Transport Costs in Pre-Hispanic Mesoamerica," *American Anthropologist* 86, no. 1 (1984): 105–12; Kevin Greene, *The Archaeology of the Roman Economy* (Berkeley: University of California Press, 1986), 17–43.

⁵⁴Ian Hodder, "Regression Analysis of Some Trade and Marketing Patterns," *World Archaeology* 6, no. 2 (October 1, 1974): 172–89.

⁵⁵Colin A. Renfrew, "Trade as Action at a Distance: Questions of Integration and Communication," in *Ancient Civilization and Trade*, ed. Jeremy A Sabloff and C.C Lamberg-Karlovsky (Albuquerque, N.M.: University of New Mexico Press, 1975), 3–60.

2. The Development of Trade Routes in the Bronze Age Levant

From the Early Bronze to the Late Bronze Age, trade routes became more complex and, consequently, so did the social relationships that were forged around them. The types of goods that were exchanged and the geographical extension of the exchange patterns increased. The Egyptian involvement in the trade and exchange network of the Early Bronze Age⁵⁶ Levant was a major catalyst for the formation and development of the international trade system of this region. Studies conducted on the presence of Egyptians along the southern Levant have suggested that Egyptian colonies were established in this area during the Early Bronze Age I.⁵⁷ The end of the Early Bronze Age I experienced some sort of cessation of the Egyptian presence in the southern coastal plain, along with a lower amount of circulation of Egyptian artifacts during the Early Bronze Age II-III period. During this period, however, a commercial interest was still maintained by Egypt with the northern Levant, although imported Egyptian jars are also found in the Early Bronze Age II period at sites in the southern Levant,⁵⁸ which, according to Rafi Greenberg and Emanuel Eisenberg, were overseen by a limited number of Egyptian officials stationed in this region.⁵⁹ What seems to have developed further during this period is maritime transportation. According to W.A. Ward, the maritime missions were the result of state sponsored ventures which sought to establish close relationships with Byblos.⁶⁰ The growing

⁵⁶Johanna Regev et al., "Chronology of the Early Bronze Age in the Southern Levant: New Analysis for a High Chronology.," *Radiocarbon* 54, no. 3-4 (2012): 525-66. The chronology of the Early Bronze Age is a debated issue. The southern Levant chronology divides the Early bronze Age as follows: EB I-II transition occurred site-dependently between 3200-2900 BC, with EB II-III around 2900 BC, and EB III-IV ~2500 BC. The northern Levant divides the Early Bronze Age as follows: Early Bronze Age I, II, III.

⁵⁷Brandl Baruch, "Evidence of Egyptian Colonization in the Southern Coastal Plain and Lowlands of Canaan during the EB I Period," in *The Nile Delta in Transition: 4th - 3rd Millennium B.C. : Proceedings of the Seminar Held in Cairo, 21-24 October 1990, at the Netherlands Institute of Archaeology and Arabic Studies*, ed. Edwin C.M Brink van den (Tel Aviv: van den Brink, 1992), 441-76.

⁵⁸Douglas L Esse, *Subsistence, Trade, and Social Change in Early Bronze Age Palestine* (Chicago, Ill.: Oriental Institute of the University of Chicago, 1991), 103-16; Helene Kantor, "Egypt," in *Chronologies in Old World Archaeology*, ed. Robert W Ehrich, vol. 2 (Chicago and London: University of Chicago Press, 1992), 17-46; Naomi Porat, "Composition of Pottery: Application to the Study of the Interrelations between Canaan and Egypt during the 3rd Millennium B.C." (Hebrew University of Jerusalem, 1989); Ezra S Marcus, "Early Seafaring and Maritime Activity in the Southern Levant from Prehistory through the Third Millennium B.C.E.," in *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.*, ed. Edwin C. M. van den Brink and Thomas Evan Levy (London; New York: Leicester University Press, 2002), 403-17; L. E. Stager, "The Periodization of Palestine from Neolithic through Early Bronze Times," in *Chronologies in Old World Archaeology*, ed. Robert W Ehrich, 3rd ed. (Chicago and London: University of Chicago Press, 1992), 37-9.

⁵⁹Rafi Greenberg and Emanuel Eisenberg, in *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.*, ed. Edwin C. M. van den Brink and Thomas Evan Levy (London; New York: Leicester University Press, 2002), 213-22.

⁶⁰William Smith Ward, "Egypt and the East Mediterranean from Predynastic Times to the End of the ,," *Journal of the Economic and Social History of the Orient* 6 (1963): 44; Amnon Ben-Tor, "The Relations between Egypt and the Land of Canaan during the Third Millennium B.C.," *Journal of Jewish Studies* 33 (1982): 3-18; Amnon Ben-Tor, "The Trade Relations of Palestine in the Early Bronze Age," *Journal of the Economic and Social History of the Orient* 29, no. 1 (1986): 1-27; B. Brandl, "Evidence for Egyptian Colonization in the Southern Coastal Plain and Lowlands of Canaan during the EB I Period," in *The Nile Delta in Transition: 4th.-3rd. Millennium B.C. : Proceedings of the Seminar Held in Cairo, 21-24 October 1990, at the Netherlands Institute of Archaeology and Arabic Studies*, ed. Edwin C. M. van den Brink (Tel Aviv: distributed by the Israel Exploration Society, 1992), 448; Leon Marfoe, "Cedar Forest to Silver Mountain: Social Change and the Development of Long-Distance Trade in Early Near Eastern Societies," in *Centre and Periphery in the Ancient World*, ed. Michael Rowlands, Mogens T. Larsen, and Kristian Kristiansen (Cambridge: Cambridge University Press, 1987), 25-35; Muntaha Saghie, *Byblos*

interest for the northern coast of the Levant made possible the recovery of a higher amount of Egyptian and Egyptianizing artifacts from the site of Byblos in the central Levant. For this reason, the material culture excavated at Byblos represents the major source of evidence adopted in the study of ancient international exchange systems. Egyptian artifacts were also found in lesser amounts in other coastal sites along the southern Levant.⁶¹ Prestige goods circulated in the Levant and some objects made their way as far up as the hinterlands of modern day Syria; samples of artifacts were excavated at the site of Ebla (Tell Mardikh). Here were recovered two stone vessels with Egyptian hieroglyphs. These artifacts most probably arrived at Ebla indirectly through Byblos, as suggested by Gabriella Scandone Matthiae.⁶² Trade routes connected settlements such as Ebla to the Mediterranean coast; these routes also traveled east towards the Euphrates and northern Mesopotamia.

Ceramic vessels have been a major source of evidence used in the discussion of the existence and extension of trade routes. A primary interest was the identification of foreign ceramic vessels along the Levantine coast and in Egypt. The Metallic Combed Ware was discussed comprehensively to support the Levant's relationship with Egypt. The discovery of this ware, which was determined as arriving from Byblos, was found in some Egyptian tombs of Giza.⁶³ Painted reliefs from the Fifth Dynasty of Egypt (2300 -1640 BCE) from the mortuary tomb of King Sahure display images of ships being loaded and foreign vessels bearing cargo, presumably from the Syrian-Palestine coast, and the Palermo stone also records the return of an expedition carrying 40 shiploads of cedar logs, possibly coming from the Levant.⁶⁴

D. Esse, based on his studies at Beth Yerah, a site located in the southern Levant, supports the idea that in the Early Bronze Age distribution and market exchange systems existed. The site provides evidence indicating the presence of a central organization with at least some power of redistribution for all of Palestine.⁶⁵ Trade networks became the channels through which the institutions of the commercial networks and the community powers began to exchange gifts. M. E. Aubet suggests that the Egyptian need for goods allowed for the development of ports such as Byblos and that this relationship helped forge the institutionalization of their commercial relations. The institutionalization of these relations was considered to be important and, for this reason, they were made official by means of various political, ideological, juridical and ceremonial mechanisms.⁶⁶

in the Third Millennium B.C.: A Reconstruction of the Stratigraphy and a Study of the Cultural Connections (Warminster: Aris & Phillips, 1983); Mary Wright, "Contacts between Egypt and Syro-Palestine during Old Kingdom," *Biblical Archaeologist* 51, no. 3 (1988): 143–61. For additional information on the Old Kingdom foreign relations see: K. Sowada and Peter Grave, *Egypt in the Eastern Mediterranean during the Old Kingdom: An Archaeological Perspective* (Fribourg; Göttingen: Academic Press; Vandenhoeck & Ruprecht, 2009).

⁶¹Amnon Ben-Tor, "The Relations between Egypt and the Land of Canaan during the Third Millennium B. C.," *American Journal of Archaeology* 85, no. 4 (1981): 449–52; Amnon Ben-Tor, "New Light on the Relations between Egypt and Southern Palestine during the Early Bronze Age," *Bulletin of the American Schools of Oriental Research*, no. 281 (1991): 3–10.

⁶²G Scandone Matthiae, "I vasi egiziani in pietra dal palazzo reale G," *Studi Eblaiti* 4 (1981): 99–127; G Scandone Matthiae, *Da Athribis à Biblo: modi di contatto tra Egitto e costa siriana* ([Verona]: [Essedue Edizioni], 1990).

⁶³Douglas L Esse and P.K. Hopke, "Levantine Trade in the Early Bronze Age: From Pots to People," in *Proceedings of the 24th International Archaeometry Symposium*, ed. J.S. Olin and M. James Blackman (Washington, D.C., 1986), 327–39. Esse and Hopke 1986

⁶⁴Toby A. H Wilkinson, *Royal Annals of Ancient Egypt: The Palermo Stone and Its Associated Fragments* (London; New York: Kegan Paul International : Distributed by Columbia University Press, 2000).

⁶⁵Esse, *Subsistence, Trade, and Social Change in Early Bronze Age Palestine*, 100.

⁶⁶Aubet, *Commerce and Colonization in the Ancient Near East*, 258.

From the Early Bronze Age to the Middle Bronze Age, the main commercial hubs located on the coastal strip of the central and northern Levant and those situated in the hinterlands of Anatolia became more relevant to the development of complex forms of exchange. As will be explained further on page 12, the network of trade routes that developed during the Middle Bronze Age contributed to the establishment of economic relationships between the major powers of this time period. These interactions allowed for the establishment of relationships that were of a diplomatic, political and/or religious character and opened the way to trade and the acquisition of valuable natural resources.

The exchange of goods between the Mediterranean powers became significantly more complex during the Late Bronze Age (1550-1200 BCE). Scholars have discussed this period in reference to the gift exchange mechanisms that ruled its economy and maintained solid diplomatic relationships. Our knowledge from this time period comes from multiple lines of evidence including both archaeological and textual data. The Amarna Letters, circa 300 epistolary texts dated to the Late Bronze Age, exchanged between various Levantine polities and Egyptian rulers, are a primary source of information regarding the dynamics of reciprocity of this time period. These documents, along with the recovery of rich archaeological remains, attest to the complex structure of the exchange systems that developed during this time. Trade in the Late Bronze Age is understood as a mechanism for moving commodities.⁶⁷ Whether the movement of the commodities was performed by private initiative or state control, some of the main factors that impacted their movements were transportation, technology, value and ideology.⁶⁸ The gift-exchange model, which best represents the Late Bronze Age economic trade systems, was delineated by M. Liverani⁶⁹ and C. Zaccagnini.⁷⁰ Both scholars have stressed the social aspect of trade and identified moral and social connotations in ceremonial exchange as counterpoints to commercial trade.

Andrew and Susan Sherratt's analysis of Late Bronze Age trade concerns the incentive for trade, namely the desire by emergent elites to acquire goods that have a social significance.⁷¹ Their model draws in factors of production, consumption and exchange. The need to acquire prestigious goods motivated the intensification of local production and the extraction of a surplus that provided goods for exchange. The exchange included not only luxury goods but also non-convertible commodities, such as the contents of Canaanite jars, Aegean and Cypriot textiles and

⁶⁷John F Cherry and J.L. Davis, "The Cyclades and the Greek Mainland in LCI: The Evidence of the Pottery," *American Journal of Archaeology* 86 (1982): 339–40. Cherry and Davis 1982: 339-40

⁶⁸A. Bernard Knapp, "Ethnicity, Entrepreneurship, and Exchange: Mediterranean Inter-Island Relations in the Late Bronze Age," *The Annual of the British School at Athens* 85 (1990): 115–53; A. Bernard Knapp and John F Cherry, "Archaeological Science, Statistics, and Cultural Solutions: Trade Patterns in the Bronze Age Eastern Mediterranean," *Archaeometry*, 1991, 183–98; A. Bernard Knapp, "Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth," *World Archaeology* 24, no. 3 (1993): 50–2.

⁶⁹Liverani, "Elementi Irrazionali nel Commercio Amarniano"; Mario Liverani, *Prestige and Interest: International Relations in the Near East Ca. 1600-1100 B.C.* (Padova: Sargon, 1990); Mario Liverani, *International Relations in the Ancient Near East, 1600-1100 B.C.* (Houndmills, Basingstoke, Hampshire; New York: Palgrave, 2001).

⁷⁰Zaccagnini, "La Circolazione Dei Beni"; Carlo Zaccagnini, *Lo scambio dei doni nel Vicino Oriente durante i secoli XV-XIII* (Roma: Centro per le antichità e la storia dell'arte del Vicino Oriente, 1973); Zaccagnini, "Modo Di Produzione Asiatico E Vicino Oriente Antico. Appunti per Una Discussione"; Carlo Zaccagnini, "Aspects of Ceremonial Exchange in the Near East during the Late Second Millennium BC," in *Centre and Periphery in the Ancient World*, ed. Michael Rowlands (Cambridge: Cambridge University Press, 2009), 57–65.

⁷¹Andrew Sherratt and Susan Sherratt, "From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems," in *Bronze Age Trade in the Mediterranean: Papers Presented at the Conference Held at Rewley House, Oxford, in December 1989*, ed. N.H. Gale, vol. 90, Studies in Mediterranean Archaeology (Jonsered: P. Åströms Förlag, 1991).

pottery, glass, and faience locally produced for export on an interregional scale.⁷² Goods, such as wood, fine garments, jewelry, precious metals, stones, statues, chariots, ivories, copper, lapis lazuli, silver and gold were in circulation and were meant to fulfill the need for supplies but also to strengthen social bonds and maintain diplomatic relationships. Raw materials, such as metals, precious and semi-precious stones, ivory, amber, and wood were important to maintain a certain level of production and were requested by craftspeople to respond to the demand for goods.

In contrast, the real determinants of regional political-economic power, according to B. Knapp, were convertible resources, especially copper ingots and metal goods, which were controlled by the elite and traded possibly via formal gift-exchange.⁷³ Exchange systems in the Mediterranean were in continuous transformation. Here, demand and maritime technology increasingly enabled regional exchange networks to be linked to a larger system of circulation of goods and commodities.

The development of trade brought several transformations to social structures, as pointed out by Knapp. The reasons behind the participation in interregional trade systems could be diverse, for example, political, economic or merely human need. The changes wrought by these systems to society can be profound and can also be a means for social integration, with the acceptance of foreign ideas and customs, or it can divide societies by producing discordance among socio-political partners.⁷⁴

3. Trade and Exchange during the Middle Bronze Age Levant

In this research, I have placed my attention on the Middle Bronze Age trade and exchange system of the Beqa'a Valley as this topic has been less explored by previous scholars. There are several reasons behind this disregard. For example, the lack of a systematic archaeological research in this area, the absence of textual data and the difficult modern political situation that characterizes this region have prevented the development of additional archaeological studies. When it comes to the discussion of Middle Bronze Age trade routes, the spotlight has been placed on the trading activities described in the Mari texts,⁷⁵ as well as on the Assyrian Colonies at Karum Kanesh⁷⁶ because of the rich archaeological context of the recoveries made there and because of the existence of textual documentation of transactions

⁷²Knapp, "Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth," 340.

⁷³A. Bernard Knapp, "Hoards D'oeuvres: Of Metals & Men on Bronze Age Cyprus," *Oxford Journal of Archaeology* 7, no. 2 (1988): 147–76; A. Bernard Knapp, "Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth," *World Archaeology* 24, no. 3 (1993): 340.

⁷⁴G.L. Foster, "Trade, Social Conflict, and Social Integration: Rethinking Some Old Ideas on Exchange," in *Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History, and Ethnography*, ed. Karl L Hutterer, Michigan Papers on South and Southeast Asia 13 (Ann Arbor: Center for South and Southeast Asian Studies, University of Michigan, 1977), 3–22; Ian Hodder, "Trade and Exchange: Definitions, Identification and Function," in *Models and Methods in Regional Exchange*, ed. Robert E Fry, Society of American Archaeology, Paper 1 (Washington, D.C.: Society for American Archaeology, 1980), 154.

⁷⁵ Some scholars that have made strong use of the texts of Mari to reconstruct trade and economic patterns are: Jack M. Sasson, "A Sketch of North Syrian Economic Relations in the Middle Bronze Age," *Journal of the Economic and Social History of the Orient* 9, no. 3 (December 1, 1966): 161–81; A. Malamat, "Syro-Palestinian Destinations in a Mari Tin Inventory," *Israel Exploration Journal* 21, no. 1 (January 1, 1971): 31–38.

⁷⁶Levent Atici et al., eds., *Current Research at Kueltepe-Kanesh: An Interdisciplinary and Integrative Approach to Trade Networks, Internationalism, and Identity*, Journal of Cuneiform Studies, Supplemental Series 4 (Atlanta : Lockwood Press, 2014).

contracted in this area. Particular attention has also been given to patterns of circulation that developed from north to south along the Levantine coast that involved major trading centers due to the copious archaeological data available.⁷⁷

Most importantly, the over emphasis on the coastal areas has led to the exclusion in the study of trade of the role of trading centers located outside the major trading routes. This omission in the field of ancient Near Eastern studies has prompted the initiation of this study. The examination of the case of Kamid el-Loz is an attempt to highlight some of the aspects of hinterland trading centers. As previously stated, our state of knowledge on trade in the Middle Bronze Age is heavily constructed around the information gathered from the coastal settlements. Since the rediscovery of the coastal settlement of Byblos by the French historian Ernest Renan, major research work has been performed along the coast. Byblos was systematically excavated by Pierre Montet⁷⁸ in 1921 and by Maurice Dunand⁷⁹ at intervals from the 1920s to the 1970s. Their work has offered material for vivid discussions among scholars regarding the role that this port had in the interconnections between the central Levant and Egypt. Not surprisingly, the excavation in recent years of the coastal sites of Sidon,⁸⁰ Tell el-Burak⁸¹ and Tell Fadous-Kfarabida⁸² has led to important discoveries that have enlightened us on the relationship that the coastal central Levant had with Egypt, Cyprus and Crete.⁸³ The substantial amount of data that continues to emerge from the Levantine coast fascinates researchers who, for the most part, persist in the examination of this area and neglect the role of other important settlements, which, although located in more isolated zones, also contributed to the expansion of trading routes.

With the onset of the Middle Bronze Age, maritime routes expanded significantly in the eastern Mediterranean. Technology saw many advancements during this period: the introduction of true-bronze metallurgy and of maritime techniques, in particular improved sailing techniques, and better ship building methods. The utilization of stone anchors, attested in the Egyptian wall paintings, suggests the use of hulled merchant ships similar to the ones in use during the Late Bronze Age (e.g. the Uluburn shipwreck).⁸⁴ To respond to the demand for goods, the use of spinning centrifugal force was integrated with fast wheel technology for the production of ceramic vessels; this system promoted the growth of industry and trade. Settlements are predominantly located along the coast of an inner valley, next to rivers or in the range of arable

⁷⁷Doumet-Serhal et al., *Networking patterns of the Bronze and Iron Age Levant*; Doumet-Serhal, "Tracing Sidon's Mediterranean Networks in the Second Millennium B.C.: Receiving, Transmitting, and Assimilating. Twelve Years of British Museum Excavations."

⁷⁸Claude Doumet-Serhal et al., eds., *Networking patterns of the Bronze and Iron Age Levant: the Lebanon and its Mediterranean connections* ([London, England]; Beirut: Lebanese British Friends of the National Museum; Printed ACPP, 2008); Claude Doumet-Serhal, "Tracing Sidon's Mediterranean Networks in the Second Millennium B.C.: Receiving, Transmitting, and Assimilating. Twelve Years of British Museum Excavations," in *Cultures in Contact: From Mesopotamia to the Mediterranean in the Second Millennium BC*, ed. Joan Aruz, Sarah B Graff, and Yelena Rakic (Yale University Press, 2013), 132–41.

⁷⁹Maurice Dunand, *Fouilles de Byblos T. 1, [1], T. 1, [1]*, (Paris: P. Geuthner, 1939); Maurice Dunand, *Fouilles de Byblos. T. 2, T. 2*, (Paris: Librairie d'Amérique et d'Orient Adrien Maisonneuve, 1950).

⁸⁰Doumet-Serhal et al., *Networking patterns of the Bronze and Iron Age Levant*.

⁸¹Hélène Sader and Kamlah Jens, "Tell El-Burak: A New Middle Bronze Age Site from Lebanon," *Near Eastern Archaeology* 73, no. 2/3 (2010): 130–41.

⁸²Hermann Genz, "Middle Bronze Age Pottery from Tell Fadous — Kfarabida, Lebanon," *Berytus*. 53 (2010): 187–90.

⁸³Doumet-Serhal et al., *Networking patterns of the Bronze and Iron Age Levant*.

⁸⁴Murat Akar (2009), 'The Role of Harbour Towns in the Re-Urbanization of the Northern Levant in the Middle Bronze Age: Perspectives from Cilicia and the Amuq Plain of Hatay', ArchAtlas, Version 4.1, <http://www.archatlas.org/workshop09/works09-akar.php>, Accessed: 11 April 2015

areas.⁸⁵ This strategic positioning allowed for the development of more extensive trade routes during this time.

The sailing season for the Levant was throughout the summer, from early April to November. According to Avner Raban, with constant side winds in both directions, sailing between the Nile Delta and the Phoenician coast, Cyprus and Cilicia could have been accomplished in a week or two.⁸⁶ Important in this journey were the “ports of call.” These ports, such as Tel Nami in the southern Levant, were developed along the Levantine coast to facilitate maritime trips between Lebanon and Egypt.⁸⁷

Based on archaeological evidence, Egypt and the Levant were involved in commercial activities founded on the trade of cedar between the Nile Delta and the southern and central Levant.⁸⁸ Archaeological evidence from Tel Nami and Nami East, located along the Carmel coast, 15 km south of the modern city of Haifa, has revealed samples attesting to the existence of a cedar trade.⁸⁹ Here, samples of trees taken from Area O, locus 160, in a well used as a refuse dump, were found to be *Cedrus Libani*. The other specimens recovered were identified as *Pinus halepensis*, *Olean Europea* and *Quercus* and are found at Mount Carmel. These samples, which should be dated to the Middle Bronze Age II A (ca. 1950-1750 BCE), indicate that a great variety of wood was utilized at the site, including local wood found in the vicinity of Tel Nami.⁹⁰ Cedar samples were additionally documented at the Egyptian site of Tell el-Daba’a, also known as Avaris. These findings substantiate the supposition that there was an exchange of goods between Egypt and the central Levant.⁹¹ At Tell el-Daba’a were found Canaanite jars and transportation jars from Tell Arqa, a Middle Bronze Age site in the central Levant.⁹² Conversely, Egyptian ceramic vessels were found in other Middle Bronze Age sites along the central Levantine coast, such as Sidon, Tell Fadous-Fkarabida and Byblos. These Egyptian imports are exemplified in the form of the type of Egyptian Marl C jars, which are large, bag-shaped, wide mouthed, flat based vessels, used for burials and as storage jars.⁹³ Other artifacts of Egyptian origin are mainly attested at Byblos.

⁸⁵William G. Dever, “Archaeological Sources for the History of Palestine: The Middle Bronze Age: The Zenith of the Urban Canaanite Era,” *The Biblical Archaeologist* 50, no. 3 (September 1, 1987): 159.

⁸⁶Avner Raban, “Minoan and Canaanite Harbours,” *Aegaeum* 7 (1991): 130.

⁸⁷Michal Artzy, “Incense, Camels and Collared Rim Jars: Desert Trade Routes and Maritime Outlets in the Second Millennium,” *Oxford Journal of Archaeology* 13, no. 2 (1994): 121–47; Ezra S Marcus, “Tel Nami: A Study of a Middle Bronze IIA Period Coastal Settlement” (s.n.), 1991.

⁸⁸S. Frankenstein, “The Phoenicians in the Far West: A Function of Neo-Assyrian Imperialism,” in *Power and Propaganda. A Symposium on Ancient Empires*, ed. M. T. Larsen, Copenhagen Studies in Assyriology 7 (Copenhagen, 1979), 264.

⁸⁹Simcha, Artzy, Michal Lev-Yadun, “Wood Remains from Tel Nami, a Middle Bronze IIA and Late Bronze IIB Port, Local Exploitation of Trees and Levantine Cedar Trade,” *Economic Botany* 50, no. 3 (1996): 310–17.

⁹⁰Ibid. 311–312

⁹¹Karin Kopetzky, “Pottery from Tell Arqa Found in Egypt and Its Chronological Context,” *Archaeology & History in Lebanon* 26–27 (2007): 17–58. Studies of the relationship between Egypt and the Levant based on the material recovered at the site of Tell Dab’asee also: Patrick E. McGovern and Garman Harbottl, “Hyksos” Trade Connection between Tell El-Dab’a (Avaris) and the Levant: A Neutron Activation Study of the Canaanite Jar,” in *The Hyksos: New Historical and Archaeological Perspectives*, ed. Eliezer D Oren, University Museum Monograph 96 (Philadelphia: University Museum, University of Pennsylvania, 1997), 141–57.

⁹²Bettina Bader, “The Egyptian Jars from Sidon in Their Egyptian Context,” *Archaeology & History in Lebanon*, no. 18 (2003): 31–37; Genz, “Middle Bronze Age Pottery from Tell Fadous — Kfarabida, Lebanon;” Karin Kopetzky, “Egyptian Pottery from the Middle Bronze Age in Lebanon,” *Berytus*. 53 (2010): 167.

⁹³Bettina Bader et al., “An Egyptian Jar from Sidon in Its Egyptian Context: Some Fresh Evidence,” *Archaeology & History in Lebanon*, no. 29 (2009): 79–83.

In the southern Levant, Ashkelon was one of the major ports of the Middle Bronze Age. Canaanite jars from Ashkelon (according to petrographic analysis) were found at the site of Tell el-Daba'a. Among these were found jars bearing a Canaanite name.⁹⁴ These jars were used to transport wine and oil and, according to Manfred Bietak, the excavator of Tell el-Daba'a, around two million Canaanite jars arrived at this seaport site during the Middle Bronze Age II period.⁹⁵ From Tell el-Daba'a, Canaanite jars of the type described above were shipped some 150 km up the Nile to the city of Lisht, which was the capital city of Egypt during the Middle Kingdom (2080-1528 BCE).⁹⁶

The maritime connection with the central Levant was not limited to Egypt and to the southern Levant. In fact, maritime routes developed between the Aegean island of Crete and the central Levant as well. The sailing season in the Aegean was confined to short periods: in early summer, between April and mid-June, and early fall, from early September to mid-October.⁹⁷ The indirect connections between the Aegean and the central Levant were possible through the logistic mediation of Cyprus. That a relationship existed between the Levant and the Aegean island of Crete can be assumed by the occurrence of Kamares Ware along the central Levantine coast, which will be discussed in more detail in chapter IV. Together with the importation of vessels, other merchandise included Aegean legumes (e.g. *L. clymenum*), evidence of which was found at the site of Tell Nami.⁹⁸ While goods were circulating between the two regions, Minoan iconographic motifs also began to be included in the artistic repertoire of several Middle Bronze Age palaces, among which we can mention the frescos of Aegean and local inspiration found at the sites of Alalakh, Qatna,⁹⁹ Mari¹⁰⁰ and Kabri.¹⁰¹ At Tell Kabri, in the southern Levant, a

⁹⁴Lawrence E. Stager, in *Studies in the Archaeology of Israel and Neighboring Lands in Memory of Douglas L. Esse*, ed. Douglas L. Esse and Samuel Richard Wolff, vol. ASOR BOOK Vol.5 (Chicago, Ill.; Atlanta, Ga.: American Schools of Oriental Research: Oriental Institute of the University of Chicago, 2001), 625–38.

⁹⁵L. E. Stager, "Port Power in the Early and the Middle Bronze Age: The Organization of Maritime Trade and Hinterland Production," in *Studies in the Archaeology of Israel and Neighboring Lands: In Memory of Douglas L. Esse*, ed. Samuel R. Wolff and Douglas L. Esse, vol. Studies in ancient oriental civilization / Oriental Institute of the University of Chicago (Chicago: Oriental Institute of the University of Chicago, 2001), 625–38, <http://oi.uchicago.edu/pdf/SAOC59.pdf>.

⁹⁶D. Arnold, F. Arnold, and S. Allen, "Canaanite Imports at Lisht, the Middle Kingdom Capital of Egypt," *Agypten und Levant* 5 (1995): 13–32.

⁹⁷Connie Lambrou-Phillipson, "Seafaring in the Bronze Age Mediterranean: The Parameters Involved in Maritime Travel," *Aegaeum* 7 (1991): 11–20; Ralph K. Pedersen, "Emerging Maritime for the Bronze Age in Lebanon," *Zeitschrift Fur Unterwasserarchaeologie* 12, no. 1 (2012): 5–10.

⁹⁸M. E. Kislev, M. Artzy, and E. Marcus, "Import of an Aegean Food Plant to a Middle Bronze IIA Coastal Site in Israel," *Levant* 25, no. 1 (1993): 145–54; Lev-Yadun, "Wood Remains from Tel Nami, a Middle Bronze IIA and Late Bronze IIB Port, Local Exploitation of Trees and Levantine Cedar Trade," 315.

⁹⁹Peter Pfälzner, "Between the Aegean and Syria: The Wall Paintings from the Royal Palace of Qatna," in *Fundstellen: gesammelte Schriften zur Archäologie und Geschichte Alt Vorderasiens ad honorem Hartmut Kühne*, ed. Hartmut Kühne et al. (Wiesbaden: Harrassowitz, 2008), 95–118.

¹⁰⁰André Parrot, "Les peintures du Palais de Mari," *Syria: revue d'art oriental et d'archéologie* 4 (1937): 325–54. Irene Winter, "Thera Paintings and the Ancient Near East. The Private and Public Domains of Wall Decoration," in *The Wall Paintings of Thera: Proceedings of the First International Symposium: Petros M. Nomikos Conference Centre Thera, Hellas, 30 August - 4 September 1997*, ed. Susan Sherratt (Piraeus, Greece: Petros M. Nomikos and The Thera Foundation, 2000), 745–62.

¹⁰¹On the subject of the wall paintings found in the Near East see: Wolf-Dietrich Niemeier and Barbara Niemeier, "Minoan Frescoes in the Eastern Mediterranean," *Aegaeum* 18 (1998): 69–97; Barbara Niemeier and Wolf-Dietrich Niemeier, "Aegean Frescoes in Syria-Palestine: Alalakh and Tel Kabri," in *The Wall Paintings of Thera: Proceedings of the First International Symposium: Petros M. Nomikos Conference Centre, Thera, Hellas, 30 August-4 September 1997*, ed. Susan Sherratt (Piraeus, Greece: Petros M. Nomikos and the Thera Foundation, 2000), 763–

Middle Bronze Age palace with Aegean wall paintings and a painted floor were documented. The paintings in these locations show that the coastal sites were the major recipients of the Aegean influence while the hinterlands were less exposed to these motifs, suggesting that distance could have determined the amount of influence received; this is perceivable through the use of or lack of common motifs. The Aegean motifs of Qatna, for example, are less conspicuous compared to those found in Kabri and Alalakh, and even less so are the Aegean motifs at Mari, which are mainly represented by the marble-like floors.

Trade connections between Anatolia and the Levant are minimal and difficult to trace. It is possible that perishable goods of which we have no information may have been brought to the Levant from Anatolia. It is also possible that silver was one of the products that could have arrived to the Levant from Anatolia. For the northern Levant, we have some information of the presence of two large bronze pans discovered in Ebla.¹⁰² A comparison between the Ebla pans and the Troad pans from Anatolia suggest a connection between these two regions. These pans can be dated to the Middle Bronze Age I period (2000-1800 BCE).¹⁰³

That silver was in circulation along the coast and in the hinterlands is also attested by the presence of silver objects at Ebla and Byblos, where this precious metal was used to produce artifacts with typical Levantine elements. This suggests that raw silver arrived from Anatolia and was distributed to Levantine settlements where it was manipulated to produce jewelry and bowls, such as those found in Byblos and Ebla. As discussed above, Ebla had contacts with Anatolia, a fact best exemplified by the presence of the silver pans found at this site which are comparable to those recovered at Troads. Besides these silver pans, a silver bowl (TM 78. Q. 497) of the king Immenya was found in the Lord of the Goats tomb (1800 BCE) at Ebla. The bowl is decorated with ankh signs and a cuneiform inscription bearing the name of Immenya, possibly referring to the king of Ebla.¹⁰⁴ Silver bowls similar to the one found in the tomb of the Lord of the Goats at Ebla were also found at Byblos on the Montet Jar.¹⁰⁵ The silver bowl is characterized by a carination on the lower section of the bowl, a ring base and an everted rim, a typical shape for the carinated bowls of the Levant during the Middle Bronze Age I period. As suggested by Lorenzo Nigro, this shape is also distinctive of the classic Middle Bronze Age Syro-Palestinian bowls that are also known as gublite metal bowls and are found at Byblos.¹⁰⁶ Additional indications of silver from Ebla can be found in the Lord of the Tomb of the Cistern where a club

802; Barbara Niemeier and Wolf-Dietrich Niemeier, "The Frescoes in the Middle Bronze Age Palace," in *Tel Kabri: The 1986-1993 Excavation Seasons*, ed. N Angel-Zohar et al. (Tel Aviv: Emery and Claire Yass Publ. in Archaeology, 2002), 254–85; Eric H Cline, Assaf Yasur-Landau, and Nurith Goshen, "New Fragments of Aegean-Style Painted Plaster from Tel Kabri, Israel.," *American Journal of Archaeology* 115, no. 2 (2011): 245–61; Constance von Ruden, "Beyond the East-West Dichotomy in Syrian Levantine Wall Paintings," in *Critical Approaches to Ancient Near Eastern Art*, ed. Brian A Brown and Marian H Feldman (Boston: De Gruyter, 2014), 54–78.

¹⁰²S. Mazzoni, "Handled Pans from Ebla and the Evidence of Anatolian Connections," in *Variatio delectat: Iran und der Westen : Gedenkschrift für Peter Calmeyer*, ed. Peter Calmeyer and Reinhard Dittmann (Münster: Ugarit-Verlag, 2000), 403–27.

¹⁰³Ibid., 405. ; Marian H Feldman, "Handled Pans from Ebla and the Evidence of Anatolian Connections" (Ebla and Beyond: Ancient Near Eastern Studies after Fifty Years of Discoveries at Tell Mardikh, Rome, 2014).

¹⁰⁴Lorenzo Nigro, "The Eighteenth Century BC Princes of Byblos and Ebla and the Chronology of the Middle Bronze Age," *BAAL, Hors-Série, VI* (2009): 159–75.

¹⁰⁵Montet, *Byblos et l'Égypte. Quatre Campagnes de Fouilles À Gebeil, 1921-1922-1923-1924. (Texte-Atlas)*, LXXI n. 605.

¹⁰⁶Lorenzo Nigro "The Eighteenth Century BC princess of Byblos and Ebla and the chronology of the Middle Bronze Age," *BAAL, Hors-Séries VI* (2009); 166.

was found decorated with a limestone mace-head (TM 79. Q. 148) and an ivory shaft included a golden and silver cylinder seal inlaid with the name of Hotepibra Homerjeryatef, the 9th Pharaoh of the XIII Dynasty, who reigned between 1770-1760 BCE. Silver was also recovered in the royal tombs of Byblos. There were found two bowls that have been indicated as having Aegean influences,¹⁰⁷ a cup, a small mirror, two soles, a stem, long 9 cm, and fragments belonging to several vessels, two small rings and several pieces of a small plaque.¹⁰⁸

Additionally, some aspects of the artistic motifs from the Levant could have also reached southern Anatolia, and conversely, ideas from Anatolia may have reached the areas touched by the old Assyrian trade route. Other archaeological evidence brought to light at the port of Ashkelon attests the presence of connections between the southern Levant and Anatolia. At Ashkelon were located two Anatolian ceramic vessels in the shape of a shoe rhyton and an old Cappadocian seal; all these objects are datable to the early II millennium B.C.E. and attest to the rich interaction activities that were taking place in the eastern Mediterranean.¹⁰⁹

Regarding the development of the land routes, two types developed during this period. One type consisted in roads that connected the ports that bloomed along the coastline. The second form involved inland paths that developed in the Near East to connect the coastal centers with the inland communities not easily reached because of natural barriers and distance.

With the development of maritime ports, routes connecting harbors became essential for the circulation of goods, not only between seaports but also for the distribution of merchandise in the hinterland area. The material culture produced or found along the coast was exported and exchanged via the smaller settlements located in the vicinity of the major Middle Bronze Age harbors. Tell el-Burak, located just 9 km from Sidon, is an example of a Middle Bronze Age settlement that, because of its vicinity to this major port, came under its influence and produced comparable material culture. Scholars responsible for the investigation of the site of Tell el-Burak have indicated that this settlement was part of the kingdom of Sidon during the Middle Bronze Age. Along with Sidon, Tell el-Burak also functioned, to some extent, as a sheltering and anchoring port for sea crafts but did not have harbors that were able to accommodate big commercial ships.¹¹⁰ R. Pedersten, who performed an underwater investigation along the coast of Tell el-Burak and Tell Fadous-Fkarabida, suggests that ships transporting cedar may have passed the shores of Tell el-Burak and Tell Fadous-Fkarabida but these sites were not directly involved in the trade of the wood.¹¹¹ The need for efficient harbors connected to the trade routes encouraged the growth of important ports, such as Sidon and Byblos, to which secondary settlements were linked.

With the expansion of ports along the seafront, land routes also increasingly developed to ensure a connection between coast and inner lands and to allow for the transportation of goods. From the main ports, land routes most probably attempted to follow paths that could provide access to other settlements and that would lead to water sources, as water was a commodity essential for the trip. As a result, the land routes that developed in the hinterlands followed the

¹⁰⁷ An Early Bronze Age silver source was found in Crete that could suggest that some pieces might have arrived there as well. See: Noel H. Gale and Zofia Anna Stos-Gale, "Cross-Cultural Minoan Networks and the Development of Metallurgy in Bronze Age Crete," in *Metals and Mines: Studies in Archaeometallurgy*, ed. Susan La Niece et al. (London: Archetype Publications in association with the British Museum, 2007), 103–11.

¹⁰⁸ Charles Viroilleaud, Edouard Naville, and Edmond Pottier, "Un hypogée de la XIIe dynastie égyptienne à Byblos," *Syria* III (1922): 284.

¹⁰⁹ Stager, "Port Power in the Early and the Middle Bronze Age."

¹¹⁰ Pedersen, "Emerging Maritime for the Bronze Age in Lebanon," 9.

¹¹¹ *Ibid.*

main rivers, that is, the Litani and the Orontes rivers, the latter also known as the Assi river in Lebanon. The need to transport goods from the source, as exemplified by the case of cedar wood, led to the development of ports and trade routes that could permit the movement of commodities to distant areas.

An example of the complexity of the land trade system that developed during the Middle Bronze Age is found in the trade routes attested in the ancient texts found in the Old Assyrian colony of Kanesh, Anatolia, and the routes documented in the texts of Mari, a site located in present day Syria. These will be discussed in detail in chapter 3. The Old Assyrian routes connected Anatolia to Assur in northern Mesopotamia. The traders organized caravans of goods and transported them by donkeys. The importance in the development of such trade lies “on the greater perspective of interregional exchange,” as pointed out by G. Barjamovic.¹¹² The information available on the Old Assyrian routes is extensive, based mostly on the written documentation exchanged between the Assyrian trader associations and the Anatolian consumer groups. The study of these communications gives an idea of how trade between distant regions functioned during the Middle Bronze Age, providing a possible generalized view of exchange systems in ancient societies. The complex mercantile activities operated by the Assyrians to overcome local competition and circumvent political obstacles gives us the opportunity to delve into the mechanics of both the economic and social structures of the times in this area. The correspondence between Assyrians and Anatolians affords a view into almost all aspects of community living, such as familial organization, business associations, legal and political systems, and social and religious customs.¹¹³ Merchants promoted the family business and sold consignments of goods; later on, they were able to develop commerce with locals in Anatolia.¹¹⁴

In addition to the trade routes that developed between Anatolia and Assyria during the Middle Bronze Age, the routes documented in the texts of Mari, which are discussed in more detail in chapter III, are also of great importance as they provide information on the cities that were involved in the trading system that developed. More specifically, the texts provide information on the routes that connected Mari with the major settlements located to the west, among which were Hazor, Tell Dan, Qatna, Ugarit and Alalakh. The diverse citations found in the texts are related to the routes undertaken, the cities involved, the goods exchanged and the nature of the relationships forged by the king of Mari with other areas.¹¹⁵ In this dissertation, particular attention is given to the routes that were relevant in the discussion on circulation paths in the central Levant and the class of goods traded.

In contrast to the Middle Bronze Age Beqa’a Valley where archaeological data are limited, Mari and Kanesh present excellent archaeological and textual documentation that have enabled scholars to formulate hypotheses on the mechanics of trade in the Middle Bronze Age and to reconstruct the relationships that Mesopotamia and Anatolia established. In this

¹¹²Gojko Barjamovic, “The Geography of Trade Assyrian Colonies in Anatolia c.1975-1725 BC and The Study of Early Interregional Networks of Exchange,” in *Anatolia and the Jazira during the Old Assyrian Period*, ed. Jan Gerrit Dercksen and Nederlands Instituut voor het Nabije Oosten (Leiden: Nederlands Instituut voor het Nabije Oosten, 2008), 87–100.

¹¹³Ibid.

¹¹⁴Amelie Kuhrt, “The Old Assyrian Merchants,” in *Trade, Traders and the Ancient City*, ed. Helen Parkins and Christopher John Smith (London: Routledge, 2012), 16–30.

¹¹⁵P. Villard, “Un Roi de Mari À Ugarit,” *Ugarit-Forschungen* 18 (1986): 387–412; A. Malamat, “Mari and Its Relations with the Eastern Mediterranean,” in *Boundaries of the Ancient Near Eastern World: A Tribute to Cyrus Gordon*, ed. Meir Lubetski, Claire Gottlieb, and Sharon Keller (Sheffield, England, 1998), 411–18; Malamat, “Syro-Palestinian Destinations in a Mari Tin Inventory.”

dissertation, to approach the topic of the role of the Beqa'a in the general discourse of Middle Bronze Age exchange systems, I have availed myself of two main data sets: the archaeological material and the elevation data of the Beqa'a Valley.

On the coast, the archaeological evidence from the sites of Tell Arqa, Fadaous-Fakhariba, Byblos,¹¹⁶ Sidon¹¹⁷ and Burak¹¹⁸ has verified a certain level of interaction with the Egyptian culture and points to the formation of commercial trade relationships and the beginning of a more complex political involvement. However, of the few Middle Bronze Age sites that were excavated in the Beqa'a Valley, only Kamid el-Loz confirms the incidence of artifacts with Egyptianizing motifs found in an archaeological context. Here in fact, three scarab impressions were found displaying hieroglyphic signs. The occurrence of these artifacts is singular and there are no other indications of an Egyptian presence in the Beqa'a. Indeed, the existence of these objects at the site could be the result of an indirect process. The passage or permanence of the Egyptians in the Beqa'a has been a matter of debate for many years due to the discovery of Egyptian statues in the valley. Scholars, such as Kürt Galling, Wolfgang Helck, James Weinstein and, more recently, Alexander Ahrens, have provided interpretations on the presence of these artifacts. The discovery at the site of Tell Hizzin of two Middle Kingdom statues, one of Sebekhotep IV and one of the governor of Asyut, Djefaihapi,¹¹⁹ was often used to conjecture an Egyptian presence in the area and, in earlier scholarship, provided a means to date and create chronological correlations. K. Galling was the first to abandon the idea that the Egyptians dominated the Beqa'a.¹²⁰ J.M. Weinstein¹²¹ and Wolfgang Helck¹²² suggested that the artifacts arrived in the Levant at a later time period, most probably during the Second Intermediate Period when Middle Kingdom objects were looted from temples, cultic installations and tombs.¹²³ As demonstrated by Alexander Ahrens¹²⁴ with the analysis of artifacts uncovered in Egypt at the site

¹¹⁶Daphna Ben-Tor, *Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period*, Orbis Biblicus et Orientalis., Series Archaeologica 27 (Fribourg: Academic Press; Göttingen: Vandenhoeck & Ruprecht, 2007).

¹¹⁷Bader et al., "An Egyptian Jar from Sidon in Its Egyptian Context: Some Fresh Evidence"; Doumet-Serhal et al., *Networking patterns of the Bronze and Iron Age Levant*; Claude Doumet-Serhal, "Sidon (Lebanon): Twenty Middle Bronze Age Burials from the 2001 Season of Excavation," *Levant* 36, no. 1 (2004): 89–154.

¹¹⁸Hélène, Kamlah, Jens Sader, "Tell El-Burak: A New Middle Bronze Age Site from Lebanon," *Near Eastern Archaeology* 73, no. 2/3 (2010): 130–141; Helen Sader, "Palace Architecture in Tell El-Burak-Lebanon: Some Evidence for Egyptian-Mesopotamian-Levantine Interconnections," *Bulletin d'Archéologie et d'Architecture Libanaises Hors-Série VI* (2009): 177–183.

¹¹⁹Asyut Djefaihapi was active under Sesostris I. Both of the Egyptian statues were discussed by Alexander Ahrens, "The Egyptian Objects from Tell Hizzin: An Archaeological and Historical Reassessment," *Bulletin d'Archéologie et d'Architecture Libanaises*, in press; Helen Sader, "Tell Hizzin in the Biqā': New Evidence from an Old Excavation," in *Proceedings of the 6th International Conference on the Archaeology of the Ancient Near East* (University of Rome-Italy, in press), 636.

¹²⁰Galling, K., "Berichte: Archäologisch-Historische Ergebnisse Einer Reise in Syrien Und Libanon Im Spatherbst 1952," *Zeitschrift Des Deutschen Palastina-Vereins* 69 (1953): 88–93.

¹²¹J.M. Weinstein, "A Statuette of the Princess Sobeknefru at Tell Gezer," *BASOR* 213 (1974): 49–57; J.M. Weinstein, "Egyptian Relations with Palestine in the Middle Kingdom," *BASOR* 217 (1975): 1–16.

¹²²Wolfgang Helck, *Die Beziehungen Ägyptens Zu Vorderasien I, 3. Und 2. Jahrtausend v. Chr.*, Ägyptologische Abhandlungen 5 (Wiesbaden, 1971); Wolfgang Helck, *Wirtschaftsgeschichte des Alten Ägypten im 3. und 2. Jahrtausend vor Chr.* (Leiden; Köln: E.J. Brill, 1975).

¹²³Helck, *Die Beziehungen Ägyptens Zu Vorderasien I, 3. Und 2. Jahrtausend v. Chr.*; Helck, *Wirtschaftsgeschichte des Alten Ägypten im 3. und 2. Jahrtausend vor Chr.*

¹²⁴Alexander Ahrens, "A »Hyksos Connection«? Thoughts on the Date of Dispatch of Some of the Middle Kingdom Objects Found in the Northern Levant," in *Egypt and the Levant – the Crossroads. Proceedings of an International*

of Tel Dab'a and in the Levant at the site of Tell Qatna, the items found may have reached the Levant through Avaris. Ahrens comments that these pieces of art were considered as "exotic foreign objects" and were not fully understood in their original meaning.¹²⁵ These statues were found in a secondary context and were probably brought there at a later time by the New Kingdom Egyptians whose presence was more accentuated during the Late Bronze Age. Besides the recovery from Tell Hizzin of these fragments from Egyptian statues, other artifacts included Egyptianizing scarabs, more specifically, a scarab of the "Anra Group"¹²⁶ that was probably part of a tomb assemblage, as suggested by Ahrens. The scarab presents a single oval line frame and has the Anra formula. It is datable to the Late Middle Bronze Age II period (MBA IIB/C southern Levantine chronology used by Ahrens)¹²⁷ and is deemed to be a Levantine production by Ahrens, and not an import from Egypt.

By considering the extended network of trade routes of the Middle Bronze Age, we come to realize that these trade systems were meant not only to establish economic relationships between the major powers of the Middle Bronze Age that would facilitate the acquisition of natural resources, but also to cement relations that were of a diplomatic, political and/or religious character. The gift exchange system best explains the diplomatic relationships that were established during this period. Luxurious gifts were exchanged between allies and tributes were made by vassals to high ranking officials; peace offerings were intended for deities.¹²⁸ From the texts of Mari, we understand that the Mari king, Zimri-Lim, was to travel to the city of Aleppo with his entourage to pay a visit to the king of Yamhad. This diplomatic trip made use of the same routes adopted to transport goods or send messages from one kingdom to the other.¹²⁹ The economic aspect of the trade routes is well exemplified by the Assyrian colonies which are best explained with the market exchange system.

The information available from the texts of Mari and Assyria are the main source of information on trade during the Middle Bronze Age and they provide us with important data to understand the level of complexity of Middle Bronze Age trade. However, they do not enlighten on the mechanism of the systems that developed in secondary and off-center trade communities. In this respect, Leon Marfoe is considered to be the only scholar that has attempted to define the role of the Middle Bronze Age in the Beqa'a Valley, yet his work was more focused on the study of the Beqa'a settlement patterns from the Prehistoric period to the Roman period. This present study makes use of Kuschke's survey data from 1954 and the new data that Marfoe was able to collect during his survey in the 1970's. With the information collected, Marfoe suggested some of the possible routes that might have been used. This information is presented in the book *Kamid el-Loz 14*. Although his major interest was not on trade and circulations patterns of the Beqa'a Valley, his work is essential as it provides information on the occupation history of the valley. In regard to Marfoe's contribution to the study of trade in the Levant, it can be seen in a short article that he wrote¹³⁰ and where he views regional development as part of larger,

Conference on the Relations of Egypt and the Near East in the Bronze Age Held in Prague, September 1–3, 2010, ed. J. Mynařová (Prague: Charles University; Czech Institute of Egyptology, 2011), 21.

¹²⁵Ibid., 35–36.

¹²⁶Ahrens, "The Egyptian Objects from Tell Hizzin: An Archaeological and Historical Reassessment."

¹²⁷Ibid.

¹²⁸Nam, *Portrayals of Economic Exchange in the Book of Kings*, 112:72.

¹²⁹Amanda H Podany, *Brotherhood of Kings: How International Relations Shaped the Ancient Near East* (Oxford; New York: Oxford University Press, 2010), 107.

¹³⁰Marfoe, "Cedar Forest to Silver Mountain: Social Change and the Development of Long-Distance Trade in Early Near Eastern Societies," 25.

“systematically interrelated social changes occurring coevally.” Marfoe explores two long distance linkages between Egypt and the Levant and between Mesopotamia and Syro-Anatolia and attempts to assess the nature of these relationships and identify social changes as a product of interrelationships among Near Eastern societies.¹³¹

4. Kamid el-Loz: A Brief History of the Research

The site of Kamid el-Loz (33.616°N 35.816°E), whose ancient name Kumidi is known from the Amarna Letters, has a long occupation history. The settlement occupation dates back from the Late Chalcolithic up to the Roman period. The excavation of the site of Kamid el-Loz started as a joint project in 1963 under the direction of Arnulf Kuschke of the University of Mainz and of Prof. Dr. R. Hachmann from the University of Saarlandes. Kuschke left the project in 1965¹³² and the site came under the direction of Hachmann (1963-1981), whose work concentrated mainly on the Late Bronze Age levels of the site. The results of his excavations were published in the *Sarbrucker Beiträge zur Altertumskunde*. In 1997, the excavation restarted under the direction of Prof. Dr. Marlies Heinz from the University of Freiburg. Heinz's interest at the start of her role as a director of the excavation was to identify the transition levels from the Middle Bronze Age to Late Bronze Age and Iron Age. The latest excavation seasons have revealed a Middle Bronze Age palace and, since the uncovering of this building, the director of the excavation has focused her attention on defining the chronology and the architectural organization of the Middle Bronze Age palace. Additionally, the excavation has also extended to include the administrative area and the investigation of the Middle Bronze Age levels below the Treasury of the Late Bronze Age. A goal of the excavation is also to obtain a better understanding of the transition from the Middle Bronze Age to the Late Bronze Age of the site. My collaboration with the team of Kamid el-Loz started in 2009 and continued through 2011 when the civil war in Syria began to spill over into Lebanon and the excavation came to a temporary halt. During these seasons, my main role was that of analyzing the Middle Bronze Age ceramic material from the areas excavated. Although I am responsible for most of the ceramic vessel material that is recovered at the site, I have concentrated, for this research, on the ceramic vessels from the palace area. Additionally, my interest is to understand the relationship between Kamid el-Loz and the Beqa'a Valley.

In this dissertation, I will concentrate mainly on the Middle Bronze Age levels. The Middle Bronze Age at Kamid el-Loz was characterized by a palace organized around an administrative center. Not only the archaeological material found in the palace, but also the recovery of tablets dated to the Old Babylonian period found at the site attest to the practice of writing. Archaeologically, the Middle Bronze Age levels of the site had been previously identified by Hachmann between 1963 and 1981. The main archaeological remains were found on the “North Slope.” Here, a fortification wall which was circa 2m wide and could have reached 2m in height was unearthed and the excavator has proposed that it represents a bastion-like fortification. Besides the fortification wall, several Middle Bronze Age buildings were also uncovered there. The Middle Bronze Age buildings are attested from phases 14 to 20 (see chronological table 1, p. 223). From level 14 are attested buildings with a drainage system. A

¹³¹Ibid., 26.

¹³²Leon Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary* (Bonn: Habelt, 1995), 99.

chambered structure was uncovered in level 15 and a structure with a terrace layout was found in level 16.¹³³ Another well-preserved structure of the Middle Bronze Age was temple T4 of period 6, the architectural and archaeological data of which has been recently published in 2012 by M. Metzger. Several graves were also identified in the so-called residential area and were composed of single or multiple individual graves with goods that included ceramic vessels and, in some occasions, bronze tools.¹³⁴ Although the Middle Bronze Age levels of Kamid el-Loz were already exposed in the previous excavation seasons, it was not possible to define the social organization of the settlement and the overall picture of the settlement was not entirely clear. The recent excavation seasons, from 2007 to 2011, have exposed several Middle Bronze Age materials and features, the Middle Bronze Age palace area, as previously mentioned, and several walls found in the so-called administrative area. The function of the latter is not yet apparent and future excavations will help to define their use. Additionally, new graves were uncovered in the residential area. Of interest in the last excavation season of 2011 was the exposure of a mass grave where several individuals were found with a few objects. The excavator believes that these graves were probably set up during the Middle Bronze Age II period.¹³⁵ Since 2011, the excavation activities at Kamid el-Loz stopped due to the civil war in Syria. Future excavation work will explore additional areas around the Middle Bronze Age Palace.

5. An Overview of the Dissertation Research

This dissertation research project is organized to provide an introduction on the scholarship of ancient economic studies and provides three chapters, two, three and four, that contain the data set used to support the discussion related to the relevance of Kamid el-Loz and the Beqa'a Valley in the formation of internal trade and exchange systems within the valley and beyond its borders. Landscape archaeology and the *chaîne opératoire* approach are the main research methodologies used to interpret the data collected. Both these perspectives were essential to the understanding of the material as part of a process of social agency.

Chapter two, presents the data collected from the analysis of the ceramic material deriving from the Middle Bronze Age palace of Kamid el-Loz and excavated during the 2007-2011 seasons. The main ceramic vessels types taken as study subjects are the following: bowls (mainly of the carinated type), platters, jars, cooking pots and juglets. These were analyzed following the *chaîne opératoire* perspective to examine the ceramic material from Kamid el-Loz as a social process that can be traced from its initial production to its final use. This approach was initially intended to reconstruct the phases involved in the production of an object¹³⁶ and was later developed to study the object's history or biography from its creation to its final

¹³³Ibid., 104.

¹³⁴Ibid., 115–117; For a reinterpretation of the grave of Kamid el-Loz see: Elisabeth Wagner-Durand, “The Life of the Dead in Kamid El-Loz/Lebanon – The Burials with a View to the Settlement History,” in *Contextualising Grave Inventories in the Ancient Near East*, ed. Peter Pfälzner, Qatna Studien Supplementa 3 (Wiesbaden: Harrassowitz Verlag, 2014), 51–72.

¹³⁵Marlies Heinz et al., “Kamid El-Loz: Report on the Excavations 2010 and 2011,” *Bulletin d'Archéologie et d'Architecture Libanaises* 15 (2015 2011): 59.

¹³⁶Lemonnier, Pierre 1993. *Technological choices: transformation in material cultures since the Neolithic*. London: Routledge; Leroi-Gourhan, A. 1943. *Évolution et Techniques*. Vol. I. Paris: A. Michel. Ibid. 1964. *Le Geste et la Parole*. Paris: A. Michel; Ibid. 1967. *Treasures of Prehistoric Art*. New York: H. N. Abrams; Chantal; Ibid. 1993. *Gesture and Speech*. Cambridge, Mass.: MIT Press.

disposal.¹³⁷ The latter interpretation of this approach is important to understand the material culture as part of a chain of social actions that can be observed from its initial stage of material procurement to its production and daily life consumption, until its discarding. The ceramic material from Kamid el-Loz is discussed in the later interpretation of *chaîne opératoire* to permit a discussion in terms of both everyday and afterlife consumption. Chapter II offers some interpretations of the Kamid el-Loz practices related to the use of vessels for the preparation of food, for storing goods and for the sustenance of the deceased in the afterlife. The results of this research depict Middle Bronze Age Kamid el-Loz as a multifaceted production organization that indulged in complex social practices.

In chapter three, landscape theory is employed to analyze the topography of the Beqa'a Valley. Following the latest studies on landscape, for this research, landscape has been interpreted as the space where natural topography influences and shapes human activities and where people engage with natural resources. In the case of the Beqa'a Valley, landscape influences the construction of routes for the circulation of goods. With this in mind, the topography of the Beqa'a is explored in all its aspects and, in chapter three, topographical and geographical information on the valley is presented. The sites identified in the survey conducted by Kuschke,¹³⁸ Copeland and Wescombe,¹³⁹ Marfoe,¹⁴⁰ and Bonatz,¹⁴¹ are used to produce a fresh map of all the Middle Bronze Age sites identified in the valley to discuss their location in reference to resource availability and to major access points that would have facilitated the formation of trading routes. The maps produced graphically illustrate the routes that were possibly used, with special attention given to the routes that ran along the eastern and western sectors of the valley. Mapping the routes also demonstrates the existence of several that could have been used to convey merchandize, contributing to the extension of Middle Bronze Age trade into the anti-Lebanon mountain and the Lebanese Mountains.

Chapter four discusses the different levels of interactions that the Beqa'a Valley developed to make use of the paths described in chapter three. In chapter four, the material culture that was found at the site of Kamid el-Loz is examined. More specifically, the objects examined are seal impressions, painted vessels (Levantine Painted Ware, Tell Yahudeya Ware, Painted Ware) and cooking ware.

Three levels of interaction are explored, the local, the interregional and the international. Each of these forms of interaction provides an opportunity to discuss how Kamid el-Loz and, in general, the Beqa'a Valley interacted with the neighboring regions to its west, east, south and north. The analysis suggests that goods, such as cooking pots, were locally produced. Comparisons for the Kamid el-Loz common ware can be found at other sites such as Tell Hizzin

¹³⁷ Igor Kopytoff in *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai et al. (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1986), 64–91; Michael B. Schiffer 1972, *Archaeological Context and Systemic Context*. *American Antiquity*, Vol. 37, No. 2 (1972), pp. 156-165.

¹³⁸ Arnulf Kuschke, "Beiträge zur Siedlungsgeschichte der Biqā'," *zeitdeutpalavere Zeitschrift des Deutschen Palästina-Vereins* (1953-) 70, no. 2 (1954): 104–29; Arnulf Kuschke, "Beiträge Zur Siedlungsgeschichte Der Biqā' (Fortsetzung Und Schluß)," *Zeitschrift Des Deutschen Palästina-Vereins* 74, no. 2 (January 1, 1958): 81–120; Arnulf Kuschke et al., *Archäologischer Survey in Der Nördlichen Biqāc, Herbst 1972* (Wiesbaden: L. Reichert, 1976).

¹³⁹ L. Copeland and P.J. Wescombe, *Inventory of Stone-Age Sites in Lebanon*, vol. t. 41, fasc. 2: t. 42, fasc. 1, Université Saint-Joseph, Beirut, Syria. *Melanges.*, (Beyrouth: Impr. Catholique, 1965).

¹⁴⁰ Leon Marfoe, "Between Qadesh and Kumidi a History of Frontier Settlement and Land Use in the Biqa', Lebanon" 1978.

¹⁴¹ D. Bonatz, *Mountains and Plains: Archaeological Survey in the Hinterland of Kamid Al-Loz / Lebanon: Report on the First Campaign* (Orientalisches Seminar - Vorderasiatische Archäologie., 2001).

and Tell Ghassil in the Beqa'a Valley. Additionally, evidence shows that the valley had its own decorative techniques. At the interregional level, the data from Kamid el-Loz supports the proposition that the Beqa'a shared decorative techniques and vessel shapes with southwestern Syria and with the southern Levant, while other artistic motifs and painted ceramic vessels suggest the existence of a relationship between the Beqa'a Valley, the northern Levant and the Levantine coastal area. Finally, the limited connections between the Beqa'a and the western islands (Cyprus and Crete) is substantiated by the discussion on the objects that speak for the international level of relationships attained by these sites. In fact, relations with these islands were limited or relegated to the coastal sites. And, while the Beqa'a's relationships with Egypt are less defined, the routes running from the west to the east and into the Anti-Lebanon mountain were most probably the channels across which Egyptian motifs traveled and are discernible in southern Syria on the wall paintings of Tell Sakka.

This dissertation seeks to fill the gap in our knowledge on trade and exchange in the Middle Bronze Age Levant, placing an emphasis on the reconstruction of the internal routes and off-center settlements of the Beqa'a Valley that contributed to the extension of trade into the hinterlands. The data collected from the site of Kamid el-Loz is used in this work to support the idea that the Beqa'a was engaged at different levels in several relationships with the regions adjacent to the valley and that, to some extent, these relationships were facilitated by the presence of paths that, although located in a challenging atmosphere across treacherous mountain passes, were essential to the development of internal routes responsible for the diffusion of ideas and artistic motifs into the hinterlands of the Beqa'a and southwestern Syria. This research will benefit the understanding of trading systems and raise awareness on the need to perform more studies on the contribution of non-centralized areas to the development of trading economic systems.

CHAPTER II

The Ceramic Vessel Economy of Middle Bronze Age Kamid el-Loz

Introduction

The ceramic vessel collection found in the Middle Bronze Age palace of Kamid el-Loz is essential in determining the development of the ceramic vessel economy of the Beqa'a Valley during the Middle Bronze Age. In this chapter, the ceramic vessels from the Middle Bronze Age palace of Kamid el-Loz are discussed in four sections. The first section describes the methodology utilized to perform the analysis of the ceramic vessels. The methodology is based on the concept of *chaîne opératoire*, an approach that was first introduced in the 1960's by André Leroi-Gourhan, the first archaeologist that adopted this concept in his work on prehistoric paintings in France. Leroi-Gourhan made use of this approach to study the many stages involved in the production of an object. This approach became the basis for later studies interested in understanding the social aspects involved in production that went beyond the simple manufacturing of an object and which permitted a view into the life of an artifact. The implementation of the *chaîne opératoire* method became a means to comprehend the biography of an object, wherein aspects of production and consumption are also included. Along these lines, Michael Schiffer's work on the systematic contextualization of elements into the cultural system was influential for the construction of a methodological approach for the study of the production, modification, usage and discarding of objects.¹⁴² Igor Kopytoff goes further and introduces the concept of a cultural biography of things in which the things are not considered to be merely commodities but their understanding should be closely related to their cultural context.¹⁴³ In this study, the latter interpretation of the *chaîne opératoire* approach is used to analyze the ceramic vessels of Kamid el-Loz, from their production to their final disposal. The vessels' production story was also reconstructed through the use of traditional methods, such as formal visual analysis and petrographic and chemical analysis. These various methods were applied in order to recreate the ceramic vessel history and the ceramic economy of Kamid el-Loz.

The reconstruction and the understanding of the archaeological context of the artifacts is an indispensable process in the study of the ceramic vessels and their life-history. For this reason, the second section of this chapter provides a description of the Middle Bronze Age rooms of the palace of Kamid el-Loz, where most of the ceramic vessels were recovered. There are also some reflections on the three building phases that characterized the palace.

The third segment of this chapter comprises a detailed description of the physical characteristics of the ceramic vessels. Based on the information collected from the visual analysis and the chemical and petrographic examinations, five main classes of vessels were identified: the bowls, the cooking vessels, the storage jars, the platters and the juglets. The

¹⁴² Schiffer M.B. "Archaeological Context and Systemic Context." 157

¹⁴³ Kopytoff, Igor, in *The Social Life of Things: Commodities in Cultural Perspective*, ed. Arjun Appadurai et al. (Cambridge; New York: Cambridge University Press, 1986), 64–91; See also: Roberta Gilchrist, "Archaeological Biographies: Realizing Human Lifecycles, -Courses and -Histories," *RWAR World Archaeology* 31, no. 3 (2000): 325–28.

typology was then contextualized and divided according to the building phases of the palace in order to identify changes in the vessels. Finally, section four provides the results obtained by adopting the *chaîne opératoire* approach. All the data collected will be used to reconstruct the ceramic economy of the site of Kamid el-Loz and that of the Beqa'a Valley.

1. Research Design: Chaîne Opératoire in the Study of the Ceramic Economy of the Beqa'a Valley

The study of ceramic vessels has seen major developments since the earliest analysis conducted in the 1500's. According to Clive Orton et al., the history of ceramic vessels has witnessed three major phases. The first is the art-historical phase that dates back to the 1500's when particular attention was given to funeral urns and fine wares. The second is the typological phase that developed in the 1880's due to the necessity of classifying pottery and creating a relationship between pottery and stratigraphic sequence. A major contributor to this phase was W.M.F. Petrie, to whom is attributed the adoption of a cross-dating system.¹⁴⁴ Finally, the contextual phase, the third development in ceramic studies,¹⁴⁵ saw the contribution of scholars such as Anna O. Shepard,¹⁴⁶ who discusses topics related to chronology, trade/distribution and technology. These aspects later set the foundations for future studies on ceramic economy.

The development of ceramic vessel studies was accompanied by the advancement in the studies of ceramic economy. This field became influenced by traditional European economic history and evolutionary ideas and, in its considerations, began to incorporate the social relationships between craft production and agriculture.¹⁴⁷ During the 1980's, several significant works on the study of ceramic vessels and their relevance to the understanding of local and international economies were produced by researchers, such as Prudence Rice,¹⁴⁸ Carla Sinopoli,¹⁴⁹ Barbara Mills,¹⁵⁰ and Clive Orton.¹⁵¹ These scholars have contributed enormously to the change which has taken place in the study of ceramic vessels, from the simple use of ceramic vessels as indicators of chronology and style to that of communal social practices. The case studies presented by Sinopoli provide some of the current approaches constructive in the study of ceramic vessels and in determining the vessels' usefulness when considered in their broader archaeological and cultural contexts. Sinopoli's work includes a collection of studies concerning ceramic distribution. Case studies of Neolithic, Halaf and Roman period ceramics are used as examples in a scholarly work that attempted to observe the patterns of the sociological, economical and political conditions that produced them.¹⁵² Rice has written extensively on pottery analysis and on the production, specialization and standardization of the objects

¹⁴⁴Petrie, W. M. Flinders, *Methods and Aims in Archaeology* (London Macmillan [u.a.], 1904).

¹⁴⁵Orton, Clive, Paul Tyers, and A. G. Vince, *Pottery in Archaeology* (Cambridge; New York, NY, USA: Cambridge University Press, 1993), 4.

¹⁴⁶Shepard, Anna Osler, *Ceramics for the Archaeologist*. (Washington: Carnegie Institution of Washington, 1956).

¹⁴⁷Prudence M. Rice, *Pottery Analysis: A Sourcebook* (Chicago [u.a.]: Univ. of Chicago Press, 2005), 169.

¹⁴⁸Prudence M. Rice, *Pottery Analysis: A Sourcebook* (Chicago: University of Chicago Press, 1987) first edition.

¹⁴⁹Barbara J Mills and Patricia L. Crown, *Ceramic Production in the American Southwest* (Tucson: University of Arizona Press, 1995).

¹⁵⁰Sinopoli M. Carla, *Approaches to Archaeological Ceramics* (New York: Plenum Press, 1991).

¹⁵¹Orton, Tyers, and Vince, *Pottery in Archaeology*.

¹⁵²Sinopoli, *Approaches to Archaeological Ceramics*, 83–117.

fabricated¹⁵³ in relation to Mayan ceramic production, calling for the need for a study of ceramic vessels to achieve a deeper insight into people and culture. The present research conducted on the ceramic vessels of Kamid el-Loz was particularly influenced by the work of Cathy L. Costin, who, in her PhD dissertation, reconstructed the ceramic economy of the Pre-Hispanic Wanka from the Peruvian highland.¹⁵⁴ Her dissertation provides a study of Pre-Hispanic ceramic vessels in order to discuss their use and function. Craft specialization and its relationship with the evolution of complex societies was analyzed.¹⁵⁵ In this research, Costin's study on the organization of the ceramic production and its connection to patterns of exchange were influential in defining the extension of exchange patterns and the methodology of the research design.¹⁵⁶

M.S. Tite's work¹⁵⁷ was also of great relevance for this present study. Tite underlines the importance in using material science techniques, such as chemical and petrographic analyses for the reconstruction of ancient ceramic economies. Following the methodology used by Tite, materials science techniques were also adopted in this research to determine types of clay and their provenance.

Keeping in mind the various research conducted on the ceramic economy of ancient communities, I have taken the rich ceramic inventory available at Kamid el-loz as a means to formulate suppositions on the ceramic production and consumption of the vessels at the site and, in general, a possible site guide for future research in the Beqa'a Valley.

The large quantity of ceramic vessels uncovered in the Middle Bronze Age palace of Kamid el-Loz allows for the investigation of the ceramic economy of the site. To acquire a full understanding of the various aspects of the ceramic economy, that is, production, consumption and circulation, I have drawn on the concept of *chaîne opératoire*. The term *chaîne opératoire* was first used by scholars in the 1960s to investigate the technological implications in the production of an artifact. André Leroi-Gourhan,¹⁵⁸ Heather Lechtman, Robert S. Merrill,¹⁵⁹ and Pierre Lemonnier¹⁶⁰ are some of the main contributors to the notion of *chaîne opératoire*, a concept that stresses the active role of materials in technological actions. As early as 1943-1949, Leroi-Gourhan had published two volumes entitled *Évolution et Techniques* and *L'Homme et la Matière*, where he elucidates his approach to issues related to the creation of artifacts and the human and mental forces behind their production, as well as the acquisition of skills, all of which

¹⁵³Prudence Rice, "Specialization, Standardization and Diversity: A Retrospective," in *The Ceramic Legacy of Anna O. Shepard*, ed. Ronald L Bishop and Frederick W Lange (Niwot, Colo.: University Press of Colorado, 1991), 257–79; Rice, *Pottery Analysis*, 1987; Prudence Rice, "Change and Conservatism in Pottery Producing Systems.," in *The Many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*, ed. Sander Ernst van der Leeuw, Alison C Pritchard, and Universiteit van Amsterdam (Amsterdam: Universiteit van Amsterdam, 1984), 231–88; Prudence M Rice, "Evolution of Specialized Pottery Production: A Trial Model," *Current Anthropology* 22, no. 3 (1981).

¹⁵⁴Cathy Lynne Costin, "From Chiefdom to Empire State: Ceramic Economy among the Prehispanic Wanka of Highland Peru," 1986.

¹⁵⁵*Ibid.*, xx.

¹⁵⁶*Ibid.*, xxi.

¹⁵⁷M. S Tite, "Pottery Production, Distribution, and Consumption-The Contribution of the Physical Sciences," *Journal of Archaeological Method and Theory* 6, no. 3 (1999): 181–233.

¹⁵⁸Leroi-Gourhan, André, *Le Geste et la Parole. Tome I: Technique et Langage*.

¹⁵⁹Heather Lechtman and Robert S Merrill, *Material Culture Styles, Organization, and Dynamics of Technology*, Proceedings of the American Ethnological Society (St. Paul: West Pub. Co., 1977), <http://books.google.com/books?id=X0sYAQAAMAAJ>. Lechtman, Heather, and Robert S. Merrill. 1977. *Material culture: styles, organization, and dynamics of technology*. St. Paul: West Pub. Co.

¹⁶⁰Lemonnier, Pierre, *Technological choices: transformation in material cultures since the Neolithic*.

are linked to social aspects. In his work, he explains that by breaking down all the steps that lead to the finalized action or artifact, it is possible to study the mechanical properties involved.¹⁶¹ His ideas on this matter are further developed in 1964 in his work “*Le Geste et la Parole*,” where Leroi-Gourhan indicates that operational behavior in the process of creating objects is of interest because “the activity is closely related to the balance of the brain areas with which it is connected,” demonstrating the importance of the human mind behind what is created.¹⁶²

Leroi-Gourhan adopted the *chaîne opératoire* approach for his studies on the prehistoric paintings in France providing a different perception of the concept of technological processes by interpreting the numerous stages that were involved in the creation of the paintings.¹⁶³ According to Leroi-Gourham, “technique is both motion and tool, which are organized to form a chain by a true syntax that gives to the operation series their rigidity and their adaptability.”¹⁶⁴ The social aspects of the study of the different processes required to achieve the formation of an object underlined by Leroi-Gourham were used and built upon by later scholars who were interested in the life-history of an object. Michael Schiffer, in his 1972 article on systemic contexts states that all elements enter into a cultural system where they are modified, broken, used and discarded.¹⁶⁵ Schiffer identifies five steps in which elements take part in their respective context. These processes are: procurement, manufacture, use, maintenance and discard.¹⁶⁶ Each of these processes includes several stages. Schiffer, to these processes, adds storage and transportation of an object as essential procedures that impact the life of an object. In his article, he underlines the need to associate archaeological material to behavioral and organizational hypotheses to systematically contextualize elements. Igor Kopytoff, in his paper on the cultural biography of things, designates a cultural and cognitive process in the production of a commodity in which an object is “first materially produced as a thing and then placed in a category as a certain type of thing.”¹⁶⁷ He makes use of the biographical approach to the study of objects to reconstruct the story of the many singularities of the produced items and sustains that, because these objects may undergo modifications during their lifetime, there is need for a classification and a reclassification of the items, the importance of which may be altered with the passing of time and with cultural changes.

More recently, scholars, such as Frederic Sellet, have proposed that the objective of *chaîne opératoire* is to describe and understand all cultural transformations that a specific raw material undergoes. He states: “The initial stage of the chain is raw material procurement, and the final stage is the discard of the artifact.”¹⁶⁸ It is a chronological segmentation of the actions and mental processes required in the manufacture of an artifact and in its maintenance into the technical system of a prehistoric group. This type of research methodology requires a detailed study of the artifacts that can provide information on the life of the objects from their primary phase, that is, the creation of the objects, until they cease to exist, which includes the end of the

¹⁶¹Leroi-Gourhan, A. *Évolution et Techniques*. Vol. I. (Paris: A. Michel. 1943), 19.

¹⁶²Leroi-Gourhan, *Le Geste et la Parole*.; Leroi-Gourhan, *Gesture and Speech*, 225.

¹⁶³Leroi-Gourhan, *Treasures of Prehistoric Art*.; Conneller, *An Archaeology of Materials Substantial Transformations in Early Prehistoric Europe*, 27.

¹⁶⁴Conneller, *An Archaeology of Materials Substantial Transformations in Early Prehistoric Europe*. P. 323

¹⁶⁵Schiffer M.B. “Archaeological Context and Systemic Context,” 157

¹⁶⁶Schiffer M.B. “Archaeological Context and Systemic Context,” 158. See also Schiffer, Michael B., and Andrea R. Miller. 2002. *The Material Life Of Human Beings Artifacts, Behavior, And Communication*. London: Routledge.

¹⁶⁷Kopytoff, Igor, “The Cultural Biography of Things: Commoditization as Process,” 64.

¹⁶⁸Frederic Sellet, “Chaîne Opératoire; the Concept and Its Applications,” *Lithic Technology* 18, no. 1/2 (1993): 106–12.

object in terms of its particular use and/or its destruction. The identification of the sequence of the processes spurs reflection on the several stages in the life of an object and encourages the exploration of the social phases behind the object's life. As M.A. Dobres states, an analytical focus, knowing the step-by step physical actions and material procedures by which ancient technicians proceeded, prepared, modified, shaped, used, repaired, reworked, recycled and ultimately discarded their material culture, affords the researcher an enormous amount of information regarding the knowledge, technical strategies and *savoir-faire* needed to manufacture an artifact, as well as the limitations encountered in the creation of an object.¹⁶⁹ The focal point in the development of the *chaîne opératoire* methodology of study is that behind each manufacturing process there is an embedded social act.¹⁷⁰

In this study, the *chaîne opératoire* methodology is applied to the study of the ceramic vessels from the MBA palace rooms of Kamid el-Loz. The analysis of the vessels will proceed with the description of the following steps:

- Raw materials used for the production of the vessels
- Techniques for the fashioning of the ceramic vessels
- Identification of types and catalogue of the vessels available
- External treatments

From the description of these procedures necessary for the understanding of the production of the ceramic vessels at Kamid el-Loz, it was possible to formulate a typology of the ceramic inventory. The typology was formulated on the vessels recovered from twelve rooms of the MBA palace with a focus on the ceramic vessels from room 7 and 8. A few additional pieces from the administrative and residential areas of Kamid el-Loz were added to the typology, which is composed of six main types: bowls, cooking vessels, storage jars, platters and jugs. The thorough investigation of the ceramic vessels made possible the reconstruction of the ceramic economy of the site, including production, consumption and distribution/circulation of the ceramic vessels.¹⁷¹ This investigation also sheds light on the organization of the ceramic production and the palace's engagement in social activities.

The study of ancient ceramic economies has become a relevant issue and is often discussed by various scholars in the study of Pre-Columbian ceramic vessels. Michael E. Smith provides a functional approach to Aztec ceramic vessels¹⁷² and provides a classification of feasting types based on the use of ceramic vessels deriving from markets. His study contributed to the understanding of ceramic vessel shapes and their consumption.¹⁷³

Works on the ceramic economy of the Ancient Near East have greatly increased over the years. Yet, some scholars place their attention on only one or two aspects of ceramic vessel economy, as demonstrated from the study of the ceramic material from the site of Tell Leilan in

¹⁶⁹Marcia-Anne Dobres, *Technology and Social Agency: Outlining a Practice Framework for Archaeology* (Oxford, UK; Malden, Mass.: Blackwell Publishers, 2000), p. 168.

¹⁷⁰*Ibid.*, 169.

¹⁷¹Cathy Lynne Costin, "Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production," *Archmeththeo Archaeological Method and Theory* 3 (1991): 1–56. P. 1

¹⁷²Michael E. Smith, "Aztec Feasts, Rituals, and Markets: Political Uses of Ceramic Vessels in a Commercial Economy," in *The Archaeology and Politics of Food and Feasting in Early States and Empires*, ed. Tamara L Bray (New York: Kluwer Academic/Plenum, 2003), 235–68; A work done before Smith on the functional study of ceramic is by Elizabeth M Brumfiel, "Weaving and Cooking: Women's Production in Aztec Mexico," in *Engendering Archaeology: Women and Prehistory*, ed. Joan M Gero and Margaret Wright Conkey (Oxford, UK; Cambridge, Mass., USA: B. Blackwell, 1991), 224–51.

¹⁷³Smith A.T. *Political landscape: constellations of authority in early complex politics*, 261

Syria, where scholars have analyzed issues related to the technology of ceramic production.¹⁷⁴ At Sidon, the most common aspect that has been analyzed is that of consumption, as exemplified by the work of Claude Doumet-Serhal on the ceramic vessels recovered in the Middle Bronze Age tombs and in the Middle Bronze Age temple.¹⁷⁵ Jean-Paul Thalmann recovered a well-preserved Middle Bronze Age workshop (*atelier*) at the site of Tell Arqa. The excavation of this workshop enabled him to reconstruct a Middle Bronze Age ceramic production area on the western sector of the tell.¹⁷⁶ The recovery of the Middle Bronze Age II workshop in the central Levant is a unique circumstance that has enriched our knowledge on the techniques used in the production of vessels and on the clay sources available in the Middle Bronze Age Levant.

In addition to ceramic production and consumption, circulation is a topic that has been of interest to archaeologists, particularly when creating correlations with economic trading systems and defining exchange systems and circulation patterns. An example of a study of the Near East that attempted to use ceramic vessels to support the existence of maritime relationships between Egypt and the Levant is that of I. Forstner-Müller. His analysis on the jars from Tell Arqa and Sidon has led to the identification of petrographic correlations with the jars of Tell el-Dab'a' (Avaris) in Egypt,¹⁷⁷ suggesting that the jars of Tell Arqa and Sidon were transported to Egypt. Works related to the study of jar transportation and maritime trade are a common subject,¹⁷⁸ as, for example, is the case of the Late Bronze Age jars from the Uluburun Shipwreck.¹⁷⁹

Recently, the study of ceramics has embraced the concept of ceramic vessels as a result of social processes; this was achieved through the use of the concept of *chaîne opératoire*. Some examples of works that have used such an approach for the study of ceramic vessels in the Ancient Near East is the work of Kim Duistermaat,¹⁸⁰ where she analyses Middle Assyrian ceramics from Tell Sabi Abyad, Syria. Duistermaat provides a detailed study of the pottery from

¹⁷⁴Louise Marie Senior, "Time and Technological Change: Ceramic Production, Labor, and Economic Transformation in a Third Millennium Complex Society (Tell Leilan, Syria)" 1998; M. James Blackman, Gil J Stein, and Pamela B Vandiver, *The Standardization Hypothesis and Ceramic Mass Production: Technological, Compositional, and Metric Indexes of Craft Specialization at Tell Leilan, Syria* (Washington, D.C.: Society for American Archaeology], 1993), 60–80.

¹⁷⁵Further details on the ceramic consumption at Sidon will be provided in the consumption section page 88.

¹⁷⁶Thalmann, Jean-Paul et al., *Tell Arqa - I: Les Niveaux De L'âge Du Bronze* (Beyrouth: Institute Français Du Proche-Orient, 2006).

¹⁷⁷Studies on the Egyptian jar of Sidon are available in: Bader et al., "An Egyptian Jar from Sidon in Its Egyptian Context: Some Fresh Evidence." Information on the connection between the storage jars from Tell Arqa and those of Tell El-Dab'a are available in Patrick E McGovern, *The Foreign Relations Of The "Hyksos": A Neutron Activation Study Of Middle Bronze Age Pottery From The Eastern Mediterranean* (Oxford, England: Archaeopress, 2000).

¹⁷⁸ Studies on the Early Dynastic Egypt transportation jars are available in: Edwin C. M. van den Brink and Thomas Evan Levy, *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.* (London; New York: Leicester University Press, 2002).

¹⁷⁹For the Eastern Mediterranean studies available on transportation jars used to discuss topics related to trade, see: Jacob Sharvit et al., "Predynastic Maritime Traffic Along the Carmel Coast of Israel: A Submerged Find From North Atlit Bay," in *In Quest of Ancient Settlements and Landscapes: Archaeological Studies in Honour of Ram Gophna*, ed. R Gophna, Edwin C. M. van den Brink, and Eli Yannai (Tel Aviv: Ramot Pub., Tel Aviv University, 2002), 159–66. Other scholarly works on this subject are: M. E. L. Mallowan, "Phoenician Carrying Trade, Syria," *Antiquity* 13, no. 49 (March 1939): 86–87; Elizabeth Lyding Will, "Production, Distribution And Disposal Of Roman Amphoras," in *Ceramic Production and Distribution: An Integrated Approach*, ed. George J Bey and Christopher A Pool (Boulder: Westview Press, 1992), 262–74; AJ Parker, "Shipwrecks and Ancient Trade in the Mediterranean," *Archaeological Review from Cambridge* 3 (1984): 99–113; Artzy, "Incense, Camels and Collared Rim Jars."

¹⁸⁰ Douistermaat Kim, *The pots and potters of Assyria*.

the description of the vessels and their typology to the techniques and organization of pottery production. Ultimately, she follows the approach of M.F. Smith and D.E. Arnold¹⁸¹ to present the variety of the vessels present in this period, changes overtime, identification of a production center and function.¹⁸² Other studies are those carried out on the Middle Minoan period (1900 BCE) ceramic vessels from Crete. In this case, the scholar, Ina Berg,¹⁸³ adopted in her work the use of materials science techniques, such as X-radiography, to collect information relative to the physical components of the ceramic vessel, such as the characterization of clay fabrics, to determine composition and provenance, achieve the identification of primary forming techniques, their combinations and minute specifics, attachment of spouts, handles, etc. and the identification of repairs and breaks.

As of this writing, a study on the ceramic vessel economy of the Beqa'a has not been performed. This is due to the fact that scholars tend to limit their studies to one or two aspects of the life of the ceramic vessel when analyzing ceramic economic systems. Here, I have attempted to include all three aspects of ceramic economy: production, consumption and circulation. Additionally, I have included a study on the landscape of the area to link the production of the ceramic vessels to the general economic development that occurred with the use of trade routes. The ceramic collection available at Kamid el-Loz allows for a reconstruction of the ceramic economy of the site as well as for that of the entire Beqa'a Valley. This chapter will therefore provide an interpretation of the data collected from the detailed analyses aforementioned and will define the characteristics of ceramic production and consumption at Kamid el-Loz during the Middle Bronze Age. In chapter IV, an analysis of circulation patterns for ceramics as well as other objects will be provided.

2. The Archaeological Context of the Ceramic Vessels from the Middle Bronze Age Palace

The ceramic vessels recovered throughout the 2008-2011 excavation seasons were excavated from the nine rooms and the courtyard of the Middle Bronze Age Palace. Other Middle Bronze Age ceramic vessels were uncovered in the so-called "Administrative Area" and the "Residential Area" of the site, which in this research will not be considered but will be the subject of future studies. The 9 rooms and the courtyard belong to the second phase of the Middle Bronze Age period, that is, the Middle Bronze Age II period (1750-1550 BCE). During this period, the palace¹⁸⁴ underwent several building transformations, which can be summarized in three main phases.

The earliest phase is Phase 1 (Fig. 1 green structure, p. 205). This phase belongs to the earliest segment of the Middle Bronze Age II period. To this phase are dated the oldest rooms of the palace which are located on the southern side of the palace building. Further research will

¹⁸¹Smith Marion F, "Function from Whole Vessel Shape: A Method and an Application to Anasazi Black Mesa, Arizona," *Ameranth American Anthropologist* 90, no. 4 (1988): 912–23.; Dean E Arnold, *Ceramic Theory and Cultural Process* (Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1985).

¹⁸²Douistermaat Kim, *The pots and potters of Assyria*, 33.

¹⁸³Berg, Ina, "Exploring the Chaîne Opératoire of Ceramics through X-Radiography," in *Archaeological Ceramics: A Review of Current Research*, ed. Simona Scarcella, European Association of Archaeologists, and Annual Meeting (Oxford, England: Archaeopress, 2011), 1–10.

¹⁸⁴The term palace is here used to identify the monumental building uncovered at the site. The palace can be better called a public building since until now we do not have any of the elements necessary to define it as a palatial institution.

clarify this phase but, at this stage, we know only that there is an old palace building construction where the orientation of the rooms may have been different from the subsequent phase of the later palace, as demonstrated by room 12.¹⁸⁵

Six rooms are attributed to Phase 2 of the palace, which date to the Middle Bronze Age II period. These are rooms 6, 7, 8, 9, 10, 11 (Fig. 1 blue structure, p. 205). The palace is composed of a central courtyard known as room R10 where several cypress wooden beams were uncovered, suggesting the presence of a roof. From R10, it was possible to access room R8, a storage room.¹⁸⁶ Room 6 was most probably an area where the preparation of food took place; here a *tannur* was found suggesting these activities. Additionally, in this same room, several sherds fragments were found. Room 7 is considered to be a storage area. The function of room 9 remains at this stage unclear. The building during this phase was almost completely destroyed by fire, as is evident from the presence of ash layers and burned wooden beams.

The latest building phase is Phase 3 (Fig. 1 red structure, p. 205) dated to the late Middle Bronze Age II period. This phase sees a change in the building construction of the palace. Only two rooms, 4 and 5, were identified belonging to this phase and the excavator points out that these were the remains of households. It is possible that, towards the end of the Middle Bronze Age, small households occupied this sector of the palace.¹⁸⁷ The construction techniques adopted for these rooms is different from that of the palace. The rooms are smaller and the space is characterized by the presence of *tanners*, as well as by the presence of cooking ware, indicating that the area was limited to a more domestic use.

Below is a table with a schematic outline of the building phases in the palace area.

Middle Bronze Age II Building Phase of Kamid el-Loz Palace		
Phase 1	Households (Room 4-5)	Late Middle Bronze Age II
Phase 2	Palace (Room 6-11)	Middle Bronze Age II
Phase 3	Early Building Phase (Room12)	Early Middle Bronze Age II

2.1 PHASE 1

This phase is marked by the construction of a house with irregular rooms built above the palace rooms of phase 2. Mainly, two rooms, 4 and 5, are dated to this period and were built after the palace was burned. Rooms 6 and 7 of the second palace phase construction were used until the late Middle Bronze Age II period.

¹⁸⁵ Detailed information regarding the composition of the palace can be found in the excavation report of 2008-2009: Marleis Heinz et al., “Kamid el-Loz Report on the Excavations in 2008 and 2009,” *Bulletin d’Archéologie et d’Architecture Libanaises* 14 (2010): 103–29 and in the excavation report of 2010 and 2011: Heinz et al., “Kamid el-Loz: Report on the Excavations 2010 and 2011.” The excavator identified these phases as “older building,” “young building” and “intermediate building” construction phases. Here, I have simply identified this same phases as Phase 1 (old palace), Phase 2 (young palace) and Phase 3 (intermediate MBA building in the palace area).

¹⁸⁶ Heinz et al., “Kamid el-Loz Report on the Excavations in 2008 and 2009.”

¹⁸⁷ Ibid.

2.1.1 Room/Court 4

This room was used as an area for the preparation of food. The assumption that cooking and baking took place here is supported by the presence of a *tannur* which was found in the south-eastern corner of the room. The discovery of a wooden beam with traces of burning indicates the existence of a roof.¹⁸⁸ The size of the room could suggest that it was a “court.” Access to this room was available from room 5, as well as from room 7. Ceramic vessel sherds were used to stabilize the loam construction of the *tannur*. Fragments of pottery sherds, a carinated bowl and a globular bowl were found in this room.

2.1.2 Room 5

Most probably, the access to room 5 was through room 7 and court 4. Besides the presence of a child burial on its southern wall, the archaeological context of this room was minimal; no installations were found and it is hard to determine the function of the room. Here, a child burial was recovered on its southern wall, W^P 33, and a juglet of the so-called Monochrome Chocolate Painted Ware (MCPW hereafter) was part of the child’s grave goods.¹⁸⁹ Such a ceramic vessel is often attributed to the end of the Middle Bronze Age, which allows the dating of this construction phase to the end of the first part of the second millennium. The MCPW shows a spiral motif and it belongs to the later production of the LPW. Additional ceramic vessels recovered are the carinated bowls.

2.2 PHASE 2

Phase 2 represents the main construction phase of the palace where 6 rooms were uncovered: a central room, a courtyard, also called room 10, around which were located rooms 8,9,11 on the palace’s southern side and on its northern side, rooms 6 and 7. With the exception of room 10, the other rooms show an irregular rectangular shape. These rooms can be dated to the Middle Bronze Age II period. Considering that this area probably represents the storage area of the palace, we can assume that the rest of the palace may have additional sectors dedicated to the different aspects of palace life.

2.2.1 Room 6

Three walls of room 6 were documented in excavation. With the exception of the western wall (W^P29),¹⁹⁰ each wall was made of mud brick with a stone foundation. W^P29, differently from the other walls of the palace rooms, shows mere traces of a whitish plaster floor which was preserved only in small parts on the inner face of the wall. A recess contained a well preserved *tannur*. The room had been filled with destruction rubble, mainly consisting of collapsed mud bricks that came from the superstructures of the surrounding walls. Two floorings were exposed.

¹⁸⁸Ibid., 71.

¹⁸⁹Ilan, David, “Middle Bronze Age Painted Pottery from Tel Dan,” *Levant* 28, no. 1 (1996): 157–76.

¹⁹⁰W^P = W stands for wall and P stands for Palace.

One is mainly a stone floor that merges on its southern part with a trodden clay floor; this last area was covered with several ceramic vessel fragments. A *tannur* rises to a height of 1.30 m (floor level 940.90 m; highest part of the *tannur*- 942.2 m). The *tannur* itself was made of clay. In addition, the *tannur* had been stabilized by pottery fragments on its outer facade. The reinforcement of a *tannur* by pottery fragments can be observed in several Levantine sites as, for example, at Tell el-Mutesellim / Megiddo,¹⁹¹ as well as in Syria at the site of Umm el-Marra.¹⁹² It is possible that room 6 was covered with an accessible roof where ceramic vessels were stored.¹⁹³ Here were recovered, in particular, carinated bowls, pithoi, storage jars fragments with string impressions and a baking tray. It has been suggested that this room was used for storing, as well for the preparation of food, due to the presence of storage jars.

2.2.2 Room 7

Room 7 is bordered by walls W^P31, W^P30 and W^P18. Since wall W^P31 has not been excavated down to the palace floor level of this room, we can only assume that it stretches as far as room 7. This supposition, however, is strengthened by the fact that a part of the mud brick superstructure of the southern wall slid off the stone foundation and fell into the room. Wall W^P18 also consisted of a stone foundation with a mud brick structure that was either destroyed or removed by the settlers of the intermediate house who then rebuilt the wall for their own needs. The same applies to the western wall W^P31. The northern bordering wall has not been yet excavated. The pottery found in room 7 of the palace indicates that it was a storage area due to the presence of a large quantity of ceramic vessels, among which, storage jars. The ceramic assemblage uncovered here includes 42 ceramic vessels datable to the Middle Bronze Age II and late Middle Bronze Age II period. With only a few exceptions, the collection is composed of medium ware ceramic vessels. The inventory includes four pithoi, four juglets, three small jars, one jug, LPW, four cooking pots (one of which has two handles), one lamp, two stand calices, eighteen platters and ten bowls. A particular treatment on the surface of the pottery, the burnishing technique, is visible on the inside of the platters and on the outside of the carinated bowls. The pottery inventory of room 7 is composed of a high percentage of dining vessels.¹⁹⁴

2.2.3 Room 8

The room is characterized by a hard parched clay floor and had significant signs of burning on its southern wall (W11). The walls show a strong inclination, suggesting a pressure deriving from the room 9 walls.¹⁹⁵ The room, on its eastern side, had clay benches consolidated with stones to hold storage vessels, at least 8 of which were documented. In front of the bench was a *tannur*. Benches were also present on the southern side of the wall where 3 storage vessels were placed, two of which were found in situ. On the western side of the wall were uncovered

¹⁹¹Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009"; Israel Finkelstein, David Ussishkin, and Baruch Halpern, *Megiddo III: The 1992-1996 Seasons* (Tel Aviv: Emery and Claire Yass Publications in Archaeology, Institute of Archaeology, Tel Aviv University, 2000), 112–113– fig. 6.13.

¹⁹²Personal observation during the 2008 excavation season.

¹⁹³Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009," 80.

¹⁹⁴Heinz et al., "Kamid El-Loz: Report on the Excavations 2010 and 2011." Heinz et. al. 2011 in press

¹⁹⁵*Ibid.*

several fragmented vessels, as also at the entrance of the room and in its central area.¹⁹⁶ Besides the presence of storage vessels, other types were discovered. Among these were juglets, LPW and carinated bowls. At the entrance area were found not only storage vessels but also a large cooking pot and a dipper juglet. In the western part of the room were recovered seven more vessels, one dipper juglet, one biconical juglet, four slightly carinated bowls with mostly straight necks and an open carinated bowl with handle(s). In addition to these, other complete and fragmented vessels (among them a considerable number of flat bowls/platters) were recuperated.¹⁹⁷ The pottery unearthed in this room strongly suggests that the function of the room was that of a storage area.

2.2.4 Room 9

Burned mud brick debris filled the room, reaching as far as the room's western end. W^P35 marks the southern end of room 9 and soundly fits the scheme of the corresponding walls W^P10-3 and W^P11. On the eastern side of room 9 is found an entrance which is still under investigation.¹⁹⁸ Carinated bowls were reported here.

2.2.5 Hall 10/Room 10

The Courtyard/Hall 10 possesses a hard packed clay surface and walls with a stone foundation with a mud brick superstructure, both covered with white chalky plaster. Its northern wall, W^P31, was partially reconstructed as it was reused by the intermediate households erected during the palace construction phase 3. The eastern wall, WP18, was maintained at a height of 3 m; the collapsed mud brick recovered against this wall preserved it in good condition. The southern W^P19 and western W^P10-2 walls were conserved at the height of 2.80 m. Traces of the fire that burned the palace were found on these walls. The passage way to the hall was stone paved and the floor of the hall was a simple trodden floor. A circular installation was found close to the eastern wall. The wooden beans found in the room have been interpreted as a possible roof.¹⁹⁹ The amount of ceramic sherds found here was limited in quantity.

2.2.6 Room 11

Room 11 is located south of Room 9, the function of which is still unclear. The room is composed of wall W^P10-3 on its northern side, with its top layer preserved at 941.26 m, while wall W^P35 preserves its top layer at above 9.42 m. Remains of a surface was found only near wall W^P35. W^P10-3 seems to reach older layers of the palace and is constructed upon older architectural structures.²⁰⁰ From this room were recovered several carinated bowls with round

¹⁹⁶Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009."

¹⁹⁷Heinz et al., "Kamid El-Loz: Report on the Excavations 2010 and 2011."

¹⁹⁸Thalmann et al., *Tell Arqa - I*; Heinz et al., "Kamid El-Loz: Report on the Excavations 2010 and 2011."

¹⁹⁹Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009," 76.

²⁰⁰*Ibid.*, 77.

carinations.

2.3 PHASE 3

Below room 11 of the palace building of Phase 2 was uncovered the wall of room 12. Although not completely exposed, one of the most striking aspects of the room was its orientation, which was different from the overall orientation of the entire palace. The partial excavation of the room determined that, at present, it is composed of two parallel walls on its northern and its southern side. The inside of the room was filled with burned mud brick. After the removal of the filling of the room, a stone floor was revealed. The floor was found covered by a layer of ash, which the excavator has identified as the result of a fire destruction.²⁰¹ Here were found LPW, internally flat burnished platters, as well as exteriorly burnished carinated bowls.

3. Kamid el-Loz Ceramic Vessel Typology

The typology of Kamid el-Loz's ceramic vessels is mainly developed on the study of the ceramic vessel collection found in room 8 and 7 of the Middle Bronze Age palace. An appendix with all the ceramic vessel types can be found on page 155.

The ceramic inventories recovered from room 7 and 8 were essential in building up a ceramic typology for the site of Kamid el-Loz. These rooms held a well preserved collection of vessels, all from the same archaeological context. The labeling system adopted to identify each vessel is the following: It consists of the initial of the vessel name followed by the initial of the subtype of the vessel. In the case of Bc Type 1, (bc) stands for the vessel name Carinated Bowl. Finally, the different types of vessels found have been identified numerically. The descriptive labeling adopted for the classification of the ceramic vessels is built as a flexible system that allows for the addition of new types when additional material is found. The labeling indicates the main shape of the bowl, plus, when necessary, an identifier of its body shape often based on rim shapes of the recognized vessels. In the appendix available on p. 155 is a detailed description of the ceramic vessels and, when possible, the ware group was indicated. From previous studies conducted by the team working on the ceramic vessels of Kamid el-Loz, three groups have been recognized through the use of visual analysis of the ceramic recovered.

The first group includes Fine Wares (FW), which commonly exhibit a fine slip, a fine temper and a fine core. Moreover, the ceramic vessels present thin walls. This group was additionally subdivided into: FW 1. Fine ware containing only mineral temper. This group was also identified by the thin section petrographic analysis of the Levantine Painted Ware. This ware has fine grain inclusions with minimal or non-existent mineral temper and residual quartz elements. To this class of ware also belong several examples of carinated bowls. Firing temperatures for this type of ware were high (900 C°); FW 2 is a fine ware with predominantly mineral temper with the addition of chaff temper. This ware is found in carinated bowls and platters; FW 3 is a fine ware with predominantly chaff temper and mineral additions. This ware

²⁰¹Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009," 86.

is found in carinated bowls and platters. FW 4 is characterized by fine ware without temper, particularly found in carinated bowls and juglets.

The second group is the medium ware (MW) vessels, which present a “normal” slip, medium fine temper and or medium core. These wares were fired at a medium temperature. MW.1 is a medium ware with only mineral temper with the presence of quartz and chert inclusions. To this class belong several carinated bowls. MW. 2 is a medium ware with predominantly mineral inclusions and additions of chaff temper. Examples of this ware are to be found on platters, carinated bowls and storage jars. MW. 3 is medium ware with predominantly chaff temper and additional mineral inclusions. To this ware, in particular, belong cooking pots, jars and platters. MW. 4 is a medium ware with only chaff temper; to this ware class belong cooking pots.

The third group is the coarse ware (CW). These ceramic vessels present a coarse temper and core, and show an overall coarse appearance. Firing temperatures for the production of such vessels are very low. To the CW. 1 belong the cooking vessels. This is a coarse ware with only mineral temper and the potsherds are highly porous and dark. CW. 2 is characterized by a coarse ware with predominantly mineral temper and additions of chaff inclusions. To this subgroup we must add the presence of a ware rich in calcareous inclusions, more specifically, this ware is rich in shell inclusions; this group presents also sand and grain in the matrix. The middle size jars and cooking pots are part of this category. CW. 3 is a coarse ware with predominantly chaff temper and additional mineral inclusions. To this variety of ware belong the cooking vessels and baking trays. Finally, CW. 4, is coarse ware with mainly chaff inclusions. The ceramic vessels associated with this group are the cooking vessels.

3.1 Ceramic Inventories from Rooms 7 and 8

The inventory of room 7 includes circa 42 nearly complete vessels. The large variety of vessels available provides a clear picture of the types in use during this time period. The collection comprised a large variety of platters, several utilitarian wares, for instance, storage jars and cooking pots, and serving wares, such as the two stands (Fig. 3, p. 213), which are indicative of their usage as a serving set. Other outstanding pieces were several lamps and a few painted sherds, among which were a few LPW sherds.

Room 8 was found containing several storage jars, carinated bowls and juglets (see carinated bowls and juglets in the appendix). On the eastern wall of room 8 were discovered eight storage jars which were found in situ. Within this group of pottery, and of particular interest, was the recovery of a small juglet positioned inside one of the jars. In addition, one dipper juglet, one biconical juglet, four slightly carinated bowls with handles and several flat bowls were also discovered there. On the southern wall were also located 2 storage jars and pithoi, of which two were found in situ. Additional jars were situated in the western side of the room. The entrance and the center of the room had pottery, among which, a large cooking pot and a dipper juglet. A 1.25 m pit, located on the eastern side of the western wall, was also filled with pottery, including a complete small juglet and a squared juglet.²⁰² A handled chalice must also be mentioned among the interesting ceramic vessels found in the room.

A few other examples from other areas were incorporated into the ceramic vessel typology as they presented characteristics that were important to strengthen the discussion of this

²⁰²Ibid., 76.

research. The description of vessel forms is based on William P. Anderson's vessel study from Sarepta²⁰³ and on Dan P. Cole's study on the ceramic vessels from the Middle Bronze Age II levels at Shechem in the southern Levant.²⁰⁴ After a careful analysis of the ceramic vessels recovered, it is possible to observe that the best-represented vessel types at the site are the carinated bowls. A hallmark of the Middle Bronze Age,²⁰⁵ these types of bowls illustrate a rounded carination, a simple everted rim or an internal indentation and a high neck. These are all characteristics that are typical of the Middle Bronze Age II carinated bowls of the northern and southern Levant. Furthermore, the surface is often burnished with vertical or zigzag lines along the neck and horizontal lines on the body. Besides the carinated bowls, storage jars are well represented in several rooms of the palace, as are also platters. Another important class of vessels recovered at the site is the painted ware. In the Middle Bronze Age palace were retrieved several body sherds and almost complete vessels with geometric designs. This class of vessels is known as Levantine Painted Ware (LPW). These painted vessels will be discussed in more detail in chapter IV. Besides the LPW, a few additional unique painted pieces were found. These are a juglet and one broken platter, upon which animal motifs are illustrated. Here, I will describe the five types of ceramic vessels: bowls, platters, jars, cooking pots and juglets that were analyzed and the decorative techniques recognized. A more detailed description of the vessels is available in the appendix to this chapter, comprehensive of comparative examples.

3.1.1 Bowls (nos.1-11, pp. 155-165)

Eleven types of bowls have been identified, all of which are datable to the Middle Bronze Age II period, with the exception of few examples that were unearthed during the 2011 excavation season in the administrative area. These bowls possessed a squared rim and a sharp carination, elements which are typical of the Middle Bronze Age I period. The types that were recognized are based on the shape of the rim profile: The majority of the bowls pertaining to the site are characterized by a carination, with a few examples presenting a sharper carination. The most frequently occurring type of rim among the carinated bowls is that of a rounded everted rim with an internal stepped profile; the second most common rim is that of a simple rounded rim. The necks of the carinated bowls range from a high neck to a short neck. The base is also an element that varies often. The most common base found for the carinated bowls is the ring base, with different variations of the ring angle, followed by carinated bowls with a disc base.

All the bowls that were analyzed originating from the palace, and some examples from the administrative area and the residential area, which have been included because of their close similarities, are wheel made. Two main types of wares can be identified for the carinated bowls. They are the fine ware bowls and the medium ware bowls. The fine ware bowls are characterized by coarse sand and fine sand. The medium ware has inclusions that range from fine sand to gravel, with a minimal presence of vegetal inclusions. The section of the bowls indicates that these received a cooking process that was medium to high. The most common surface treatment

²⁰³William Paul Anderson, University of Pennsylvania, and University Museum, *Sarepta I: The Late Bronze and Iron Age Strata of Area II, Y: The University Museum of the University of Pennsylvania Excavations at Sarafand, Lebanon* (Beyrouth: Distribution, Département des publications de l'Université libanaise, 1988), 453.

²⁰⁴Dan P Cole, *Shechem I: The Middle Bronze IIB Pottery* ([Ann Arbor, Mich.]; Winona Lake, IN: American Schools of Oriental Research ; Distributed by Eisenbrauns, 1984).

²⁰⁵Ruth Amiran, *Ancient Pottery of the Holy Land; from Its Beginnings in the Neolithic Period to the End of the Iron Age.* ([New Brunswick, N.J.: Rutgers University Press, 1970).

visible is the burnishing technique. The exterior presents a pink (5YR 8/3) color and the interior a dark, yellowish brown (10 YR 4/6). Their function, due to their shape, has been suggested as being that of containers for liquids. No botanical analyses were made on these vessels to identify exactly what they might have contained in the past. Comparisons for the carinated bowl of Kamid el-Loz indicate a closer relationship with the southern Levant (Tell Dan, Hazor) northern Levant (Alalakh) and the southwestern Syrian (Tell Sakka) examples. Furthermore, the Middle Bronze Age II period vessels in the southern Levant, for example, at the site of Tell Dan, suggest a phase of decline which may be discerned in the limited presence of burnished vessels; this can be seen in the Middle Bronze Age II/Late Bronze I period vessels found at the site of Kamid el-Loz. The body of the carinated bowls of Kamid el-Loz exhibits an irregular shape and a taller neck.²⁰⁶

3.1.2 Platters (nos. 1-12, pp. 166-177)

Platters are the most common class of vessels recovered at the site. Their variety is also very diversified. The shape of the rim changes frequently and the base tends to be either a ring base, a profiled ring base, a squared profile rim base or a flat disc base. Another common element of all the Middle Bronze Age II platters found in both the palace and in the administrative area is the typical burnishing technique employed to decorate them. According to Ruth Amiran, the burnishing decoration is particularly used during the Middle Bronze Age I period and is less documented within the Middle Bronze Age II.²⁰⁷ More precisely, both the rim and the interior of the platters are burnished. The interior also reveals the same decorative technique. A combination of vertical and horizontal burnishing lines, zigzag or only vertical lines are applied to the interior or exterior of the platters' surface. Parallels showing similar burnishing techniques during the Middle Bronze Age II period are available at the site of Shechem, (stratum XVIII) in the southern Levant.²⁰⁸ Another site in the southern Levant that demonstrates the use of simple burnishing decorations is Hazor, stratum 3.²⁰⁹ In the central Levant, at the site of Tell Hizzin, burnished platters are available but these are assigned by H. Genz to the Middle Bronze Age I period.²¹⁰ Lastly, in southern Syria, this technique is found at the site of Tell Yabroud. The

²⁰⁶ Avraham Biran, *Dan I: a Chronicle of the Excavations, the Pottery Neolithic, the Early Bronze Age and the Middle Bronze Age Tombs*, Annual of the Nelson Glueck School of Biblical Archaeology (Jerusalem: Nelson Glueck School of Biblical Archaeology, Hebrew Union College-Jewish Institute of Religion, 1996).

²⁰⁷ Amiran, *Ancient Pottery of the Holy Land; from Its Beginnings in the Neolithic Period to the End of the Iron Age*, 90.

²⁰⁸ Cole, *Shechem I*, pl. 2, Bp.21 nos. e, f, h.

²⁰⁹ James A. de Rothschild Expedition at Hazor, Yigael Yadin, and Shimon Angress, *Hazor II: An Account of the Second Season of Excavations, 1956* (Jerusalem: Magnes Press, Hebrew University, 1960), pl. CIX, 2–5.

²¹⁰ Hermann, Sader, Hélène Genz, "Middle Bronze Age Pottery from Tell Hizzin, Lebanon," *Berytus*. 53 (2010): 133; According to H. Genz, the platters with burnishing decorations are most probably the same as those that L. Nigro calls "Orange Burnish Ware" and are assigned by Nigro to the MB I and MB II. Articles on this topic by Lorenzo Nigro are the following: Lorenzo Nigro, "Coordinating the MB I Pottery Horizon of Syrian and Palestine," in *Proceedings of The First International Congress on the Archaeology of the Ancient Near East. Rome, May 18th-23rd 1998*, ed. Paolo Matthiae et al. (Roma, 2000), 1187–1212; Nigro, Lorenzo, "The MB Pottery Horizon of Tell Mardikh/Ancient Ebla in a Chronological Perspective," in *The Middle Bronze Age in the Levant: Proceedings of an International Conference on MB IIA Ceramic Material, Vienna, 24th-26th of January 2001*, ed. Manfred Bietak, Österreichische Akademie der Wissenschaften, and International Conference on MB IIA Ceramic Material (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2002).

platters are medium ware and most of these vessels demonstrate the presence of medium size sand and some chaff. All the examples recovered at the palace are wheel made. Of particular interest is vessels type 11, which has a small ledge protruding from the rim of the vessel. The size of the vessels varies from large to small. The vessels recovered in the palace rooms represent a wide variety of rim shapes, among which are the everted rim platters with an external profile or an internal profile.

3.1.3 Juglets (nos. 1-6, pp. 178-183)

The few exemplars uncovered provide a variety of forms and shapes. A considerable quantity of sherds belonging to trefoil rims, double edge handles and button bases suggest the presence of juglets with characteristics typical of the Middle Bronze Age II. The ware of the juglets varies from fine to medium. The fine ware vessels display a thin wall, with sand used as the main temper with a few traces visible of medium size gravel. The juglets of Kamid el-Loz illustrate diverse surface treatments and the most common is the painted ware, with the LPW being the most documented. A few other examples evidence burnishing while others show a simple slip.

3.1.4 Jars (nos. 1-14, p. 184-194)

The term “jars” indicates both medium size and large size jars used to contain goods, liquids (oil, wine and water) or other alimentary products such as grain and wheat. The ware of the jars is that of a medium ware, with inclusions that range from quartz, fine sand and shells on medium size jars. The majority of the jars found in the palace of Kamid el-Loz are large storage jars that often can be identified as phittoi. These large storage jars show a common feature, that is, a flat base and string marks visible towards the base and on the body of the vessel, the surface of which is uneven. Incised parallel lines decorate the upper section of the shoulder of the vessels or, more commonly, there are plastic decorations applied to the upper section of the shoulder and patterns such as fish scale motifs are used. The most common rim is the externally everted profiled rim; other rim types found are the plain everted rim and elaborated rim. Of great importance is also the presence of several pot marks applied on the body of the vessel. These are often interpreted as indicators of the existence of some form of administration system²¹¹ and are distinguished by simple incisions applied before firing. The marks are all dissimilar, with the exception of two cases where the sign is repeated. Pot marks are located on the shoulders of the jars. In the palace area, pot marks were found in area IIIa 15/S FS19. The exact location of these pots marks on the vessels is difficult to determine but, based on the orientation of the marks, the orientation of the sherd and its thickness, it is possible to suggest that they were located on the shoulders. With the exception of two examples, all six marks were found on broken sherds with a design that is not entirely preserved. Marks include several different designs, among which, ladder designs, a rounded A shape on two sherds, and three other unidentified marks. From room 8 derive two jars with pot marks. Some of the pot marks cannot be identified clearly but others

²¹¹Bryant G Wood, *The Sociology of Pottery in Ancient Palestine: The Ceramic Industry and the Diffusion of Ceramic Style in the Bronze and Iron Ages* (Sheffield, England: JSOT Press for the American Schools of Oriental Research, 1990), 45.

display a mark that recalls a vegetative motifs with a long vertical line and two oblique lines on the right and left side of the central vertical line (vessel n. IIIa 16/North FS28.2008). Other examples of pot-marks on sherds are also available at the site of Tell el-Ghasil; unfortunately, these too are not completely preserved and for this reason, comparing the signs found at both sites is difficult.²¹² Most of the jars here discussed were found in room 8 and 7 and were handleless. From room 7 were recovered circa 618 sherds. Eleven types of jars were identified according to the rim profiles: everted rim and internally and externally profiled (type 1); profiled internally and externally elaborated (type 2); plain rim and rounded edge (type 3); everted rim squared profile (type 4); everted rounded profile rim (type 5); rounded everted rim with triangular section (type 6); everted rim and flattened edge (type 7); profiled externally with tapered edge (type 8); everted rim profiled externally and with tapered edge (type 9); jars with an everted profiled rim (type 10) and externally profiled everted rim with rounded edge (type 11).

3.1.5 Cooking Vessels (nos. 1-10, p. 195-204)

Also known as craters, these vessels display characteristics that retain some elements also present in the later phase of the Early Bronze Age IV period and which were maintained in the earlier phase of the Late Bronze Age I period. This phenomenon of preserving the same features over time can be attributed to an appreciation for the shape of the object and because of its good performance and functionality, reasons that guaranteed the continuation of a form for a long period of time. Several types of cooking pots were recovered from the palace area. Ten types of cooking pots were identified based on the profile of the rim: plain everted rims (type 1); everted rim and external ridge on the rim (type 2); profiled everted rim with external projection (type 3); profiled everted rim (type 4); everted upright-rim and internal indentation (type 5); everted rims and profiled neck (type 6); profiled rim with internal and external projection (type 7); flat base cooking pots (type 8); baking trays (type 9) and everted rim and two sided handles (type 10). Generally speaking, the cooking pots were characterized by a brown to dark gray ware with a dark core. This type of ceramic vessels was usually fired at 650 C.°The most prominent temper is quartz. The surface treatments visible on this class of ceramic vessels are characterized by the use of a wet smoothing technique or, as visible in some cases, by the application of a thin slip. The closest parallels for the cooking pots of Kamid el-Loz are available at Tell el-Ghassil, suggesting that this class of vessel was more locally produced and had a more regional accent.

4 Ceramic Vessel Production and Consumption in Kamid el-Loz

4. 1 Ceramic Vessel Production in Kamid el-Loz

Ceramic production during the Middle Bronze Age in the central Levant is a relatively little explored topic. One of the main reasons for this gap in knowledge is the lack of a systematic study of ceramic in terms of production as an economic resource of a site. Only a few

²¹²Claude Doumet-Serhal, *Les Fouilles de Tell El-Ghassil de 1972 à 1974: étude du matériel* (Beyrouth: Institut français d'archéologie du Proche-Orient, 1996), 291 pl. 109 fig. 1-4.

works on this topic can be found for some Middle Bronze Age sites in Jordan,²¹³ in the southern Levant,²¹⁴ Syria²¹⁵ and Cyprus.²¹⁶ To discuss ceramic production and consumption at Kamid el-Loz, the concept of *chaîne opératoire* will be used to reconstruct the activities involved in the production of ceramic vessels and to understand the ways in which vessels are consumed in relation to the archaeological context of the palace of Kamid el-Loz. As the concept of *chaîne opératoire* suggests, one essential step that leads to a better understanding of an object is to delineate the sequence involved in the production of a ceramic vessel. Therefore, to define the forms of ceramic vessel production at Kamid el-Loz, the body shape of the ceramic vessels of the site will be analyzed, taking into account the size of the rim, the base and the height.

Due to the dearth of archaeological data on the ceramic workshop production in Lebanon, it is difficult to define the circumstances surrounding ceramic production in the central Levant. A pottery workshop has yet to be identified at the site of Kamid el-Loz. The difficulties in identifying the area where a pottery kiln may have been located and where the ceramic vessels may have been prepared can be largely attributed to the extensive modern inhabitation present next to the tell and above the tell, on its southern side, where a modern mosque and a cemetery are located. It is quite possible, however, that the site indeed had a pottery workshop in the vicinity. Examples of Middle Bronze Age pottery workshops and kilns in the Levant suggest that these structures or facilities were located near the sites, as in the case of Tell Arqa in Lebanon.²¹⁷ In the southern Levant, in the area of Tel Avi-Jaffa, were reported around 14 kilns; these are often located close to settlements. Other Middle Bronze Age II kilns were reported in Jericho and Deir al-Balah. The kilns recovered in the Tel Aviv area inform us on some of the preferred locations to build a kiln. The kiln from Tel Qasileh²¹⁸ was situated on the slope of the site, while

²¹³Studies on ceramic production in the Near East during the Middle Bronze Age are available at Tell El-Hayyat in Jordan. Steven E. Falconer, "Rural Responses to Early Urbanism: Bronze Age Household and Village Economy at Tell El-Hayyat, Jordan," *Journal of Field Archaeology* 22, no. 4 (1995): 399–419.

²¹⁴R. Kletter and A. Gorzalczany, "A Middle Bronze Age II Type of Pottery Kiln from the Coastal Plain of Israel," *Levant* 33, no. 1 (2001): 102.

²¹⁵For Syria, some studies on ceramic production are available for the site of Tell Qatna in: L. Martian et al., "The Provenance and Production Technology of Bronze Age and Iron Age Pottery from Tell Mishrife/ Qatna (Syria)," *Archaeometry* 47, no. 4 (2005): 723–44.

²¹⁶A study on Middle Bronze Age ceramic production at Cyprus is available in: David Frankel, "Pottery Production in Prehistoric Bronze Age Cyprus: Assessing the Problem," *Journal of Mediterranean Archaeology* 1, no. 2 (1988): 27–55.; Louise C. Maguire, "The Middle Bronze Age Painted Pottery: Ware, Styles," in *Cypriot Ceramics: Reading the Prehistoric Record*, ed. Jane Atwood Barlow et al. (Philadelphia, PA: University Museum of Archaeology and Anthropology, University of Pennsylvania, 1991), 59–65.

²¹⁷Thalmann et al., *Tell Arqa - I*.

²¹⁸R. Kletter and A. Gorzalczany, "A Middle Bronze Age II Type of Pottery Kiln from the Coastal Plain of Israel," *Levant* 33, no. 1 (2001). p.100. Additional kilns were reported by Kaplan at Abattoir Hill: 8/15/15 1:54 AM at Tell Aviv, Jaffa: J Kaplan, "The Archaeology and History of Tel Aviv-Jaffa," *Biblical Archaeologist* 35 (1972): 76–77. Kilns found in other regions: Tell al-'Ajjul W. M. Flinders Petrie, *Ancient Gaza I: Tell El Ajjul* (London: British School of Archaeology in Egypt, 1931), 6, 11, pIs. lii–liii; Ann Killebrew, "Approaches to Reconstructing the Ancient Potters' Craft during the Late Bronze and Iron Ages in Eretz Israel: A Description of the Ancient Pottery Manufacturing Process and Its Implications for Archaeological Research in Israel" 1989, 123–124); Tel Ridan: Avraham Biran, "Tell Er-Ridan. Notes and News," *Israel Exploration Journal* 24 (1974): 142; Fanny Vitto and Gershon Edelstein, "Ridan, Tel," in *NEAEHL*, 4, 1993, 1283., Jericho (Kenyon (Kathleen M Kenyon, Richard Burleigh, and Thomas A Holland, *Excavations at Jericho: Architecture and Stratigraphy of the Tell*, vol. VII (London: British School of Archaeology in Jerusalem, 1981), 364, pI. 334a; Kathleen M Kenyon and Thomas A Holland, *The Pottery Phases of the Tell and Other Finds* (London: British School of Archaeology in Jerusalem, 1983), 425. Tell el-Hesi, Tell al-Hayyat (Steven E Falconer, Bonnie Magness-Gardiner, and Mary C Metzger, "Preliminary Report of the First Season of the Tell El-Hayyat Project," *Bulletin of the American Schools of Oriental*

the kilns of Tel Aphek,²¹⁹ Ramat Aviv,²²⁰ and Tell Michal²²¹ were situated in an area that was previously used for interring the deceased. Based on the study conducted by R. Kletter and A. Gorzalczany, kilns were not placed within domestic areas due to their function.²²² It is possible to suggest that a Kamid el-Loz kiln could have been located along the slope of the tell in order to make use of the winds to assist combustion. The western side of the site will be the object of investigation in the near future. If the location of the workshop is not found near the Tell, however, a survey of the surrounding area is needed to identify a concentration of ceramic vessels that may indicate a possible workshop; an excavation would follow. Presently, conducting a survey in this area is impossible and our best source of information on ceramic production in the central Levant and, more specifically, in modern Lebanon, is available at the site of Tell Arqa, located in the Akkar region of northern Lebanon.

Tell Arqa presents a well-documented pottery workshop in level 14 of the Middle Bronze Age II period, identified on the western side of the temple.²²³ This area was exclusively used for the production of ceramics and the location was intended to benefit from the wind to facilitate combustion. Four levels of usage that indicate the extended utilization of this area for the production of ceramic vessels, the decantation of the clay and the collection of pluvial water were identified.²²⁴ The earlier atelier located at the periphery of the living settlement was a specialized workshop and the production of the ceramic vessels was conducted during the period between April and October. The fast wheel technique was used to produce pottery. Small size vessels were thrown on the wheel and all large pots and storage jars were coil-built from bottom to shoulder. Storage jars, in particular, were built-up using a mixed technique, a combination of simple coiling and true throwing.²²⁵ Thanks to the identification of such an atelier at the site of Tell Arqa and to the kilns documented in the southern Levant, it is possible to assume that, during the Middle Bronze Age, there was a well developed system of ceramic production in this area and that Kamid el-Loz had its own center for ceramic production. A few elements can support this assumption. The presence of a palace suggests that Kamid el-Loz was able to have an organized system for the production of ceramics and the presence of unique ceramic types implies that the site was fashioning its own ceramics. Among these, we must mention some examples of Levantine Painted Ware juglets and bowls that have no direct parallels with other vessels found in the Levant; these examples are discussed in Chapter four.

Research, no. 255 (1984): 54–55; for the site see B Magness-Gardiner and Steven Falconer, “Community, Polity, and Temple in a Middle Bronze Age Levantine Village,” *Journal of Mediterranean Archaeology* 7, no. 2 (1994): 127–64), Nahal Soreq (L Singer-Avitz and Y Levi, “An MB IIA Kiln at the Nahal Soreq Site,” *’Atiqot* XXI (1992): 9–17). Dair al-Balah (Ann E. Killebrew, “Pottery Kilns from Deir El-Balah and Tel Migne-Ekron,” in *Retrieving the Past: Essays on Archaeological Research and Methodology in Honor of Gus W. Van Beek*, ed. Joe D Seger and Gus W Van Beek (Winona Lake, Ind.: Eisenbrauns, 1996), 135–62.

²¹⁹Kletter and Gorzalczany, “A Middle Bronze Age II Type of Pottery Kiln from the Coastal Plain of Israel,” 100.

²²⁰Kletter and Gorzalczany, “A Middle Bronze Age II Type of Pottery Kiln from the Coastal Plain of Israel,” 97.

²²¹*Ibid.*, 95–96.

²²²*Ibid.*, 102.

²²³Jean-Paul Thalmann, “Pottery of the Early Middle Bronze Age at Tell Arqa and in the Northern Levant,” in *The Middle Bronze Age in the Levant: Proceedings of an International Conference on MB IIA Ceramic Material, Vienna, 24th-26th of January 2001*, ed. Manfred Bietak, Österreichische Akademie der Wissenschaften, and International Conference on MB IIA Ceramic Material (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2002), 365.

²²⁴Thalmann et al., *Tell Arqa - I*.

²²⁵*Ibid.*

The ceramic vessels from the palace area seem to be a semi-specialized production. A particular emphasis on producing specific types of ceramic vessels, such as carinated bowls, platters and storage jars, is discernable in the standardized measurements (rim, base and height). Additionally, these are found in larger numbers compared to other vessels, such as juglets. At the moment, this research has focused on the ceramic vessels from the palace building. Future research will include the ceramic vessels from other areas and will be discussed in their respective context. This study on the ceramic vessels found in the palatial context suggests that the palace had a demand for these vessels because of their use in daily life activities, such as dining, as well as for storage purposes. Vessels, such as platters, were most probably also important as objects used for display purposes, especially during communal banqueting activities.

The information collected from the pottery analyses performed from 2008 to 2011 has provided several indications regarding the production techniques in use at Kamid el-Loz. First of all, it was possible to identify the use of three main types of clay: a local clay, a red clay and a very pale brown clay.

The red clay utilized in the composition of the ceramic found at Kamid el-Loz is distinguished by its richness in iron; this same clay is common at a village called Iata el-Fekhar, in the Wadi Salouane, located only 9 km east of Kamid el-Loz. The clay source of Iata el-Fekhar is located 3 km from the village.²²⁶

The second type of clay predominantly used for the production of the ceramic vessels at Kamid el-Loz is a local reddish clay. The analysis made on the few sherds accessible indicates the presence of a high percentage of iron. Such clay is mainly found in the area of Zhale, located 30 minutes walking distance away north of Kamid el-Loz.

The third type is the light brown clay which up to now was found in a limited number of examples. The vessels that evidence this type of clay are principally datable to the late Middle Bronze Age II period. A case in point is the goblet found in the northern side of the palace area in 2011 (Fig. 4, p. 214). The light brown clay suggests a higher amount of silica. This type of clay had been formerly identified by Doumet-Serhal in her Tell el Ghassil ceramic analysis where she designates the origin of this clay to the site of Rachaya el-Fekhar.²²⁷

With the exception of a few handmade vessels (of particular interest is a simple rim bowl found in the palace), the entirety of the pottery documented from the palace and from the administrative area is mostly wheel made, with some vessels illustrating a mixed technique. In the latter case, the wheel-coiling technique is used. This method consists in preparing the clay into long narrow coils by rolling it against a hard surface or squeezing it between the fingers.²²⁸ A second stage entails the fashioning of the vessels on the wheel. Ceramic vessels show clear signs of wheel marks, such as orientation of the line and coiling marks. The bases also illustrate signs of wheel cut techniques. The use of a portable microscope, HP proscope (lens 50), has shed light on the external surface treatment applied on the vessels. At least four types of decorative features were noted on the vessels of Kamid el-Loz. The most common decoration is the

²²⁶Ali Nabil, "Pottery Production and Distribution: An Ethnographic Observation at Aita El-Foukhar, Anti-Lebanon," *BAAL* 6 (2002): 300–307..

²²⁷Doumet-Serhal, *Les Fouilles de Tell El-Ghassil de 1972 à 1974*, 22.

²²⁸Valentine Roux and Daniela Corbetta, *The Potter's Wheel: Craft Specialization and Technical Competence* (New Delhi: Oxford & IBH Pub. Co., 1989); Valentine Roux, "The Potter's Wheel in Middle Bronze II in the Southern Levant Technological Study of the Beth Shean Ceramics," *Arkeotek Journal* 3, no. 4 (2009), http://www.irit.fr/thearkeotekjournal/index.php?option=com_content&task=view&id=109&Itemid=9&idarticle=12.

burnishing technique (Fig. 5, p. 214), followed by the presence on storage jars of incised decorations, applied decorations and painting.

The incised patterns are quite common during this time period. The most common motifs that are visible from the southern to the northern Levant are the combed decorations that are composed of undulated or simple horizontal lines. Both decorations can also be found in combinations, where the undulated motif is located at the center framed by horizontal lines. This pattern was visible on a crater found during the previous excavation of the site in building phase 18-17. This embellishment is often considered to be a decoration generally applied to craters and also to medium size jars but it can be also found in storage jars and burial jars. The examples available at Kamid el-Loz found in the administrative area (I/II h 18/1 2011 sherd 30) include the wavy combed decorations located on the upper shoulder of the vessels; these are also very common in southern Syria, with some examples originating from Tell Mtoune.²²⁹ Simple horizontal motifs can also be detected on jars from Hazor and, at Beth Shean, these motifs are also observed on jars for burials.²³⁰

Horizontal and wavy lines were also found on fragments from the site of Tell Ghassil, as well as at Baalbeck in the northern Beqa'a.²³¹ This painting technique consists in the use of a limited selection of colors, dark red brown and light brown. The decoration is seemingly applied with brush strokes of a sort. The most common adornments tend to recall geometric patterns but figurative motifs and, in general, animal patterns and vegetative motifs are also present.

One of the most common types of painted ware found at Kamid el-Loz is the so-called Levantine Painted Ware, characterized by a combination of lines and geometrical motifs. This style will be discussed in depth in chapter IV. In general, the motifs most attested at Kamid el-Loz are the circular and spiral motifs. Among the motifs also encountered are the hatched patch motifs, with two examples recovered at Kamid el-Loz in the palace area (III-a-16), sherd number FS 2.TS.R8 and FS 20.15. Other examples of Painted Ware fragments retrieved illustrate a series of irregular parallel lines running on the handle of the juglet. These are combined with light red and dark brown strips with a *collarete* also visible at the bottom of the neck. On sherd FS 37, found in area I-i-16, there is an indication that the rim was also painted with dark brown ticks (Fig. 2. II.1-2, p. 212; Fig. 3, p. 213).

Quadruped animal motifs are commonly found depicted on the Kamid el-Loz vessels. The most common motifs executed on the vessels of Kamid el-Loz are the ibex and the vegetative images. In two cases, platters with animal designs were recovered. During the older excavations, a platter with a simple rounded rim and tree motifs was located in the Middle Bronze Age temple, level T4a in room C.²³² The broken platters illustrate a motif composed of four trees. The other examples include combinations of vegetative motifs with ibexes (Fig. 8, p. 216). Of particular interest is a juglet with a composition that integrates vegetative motifs with ibexes,

²²⁹Frank Braemer and Michel Al-Maqdissi, "La Ceramique du Bronze Moyen dans la Syrie du Sud," in *Céramique de l'Age du Bronze en Syrie. I*, ed. Michel Al-Maqdissi, Valérie Matoïan, and Christophe Nicolle, vol. 161 (Beyrouth: Institut français d'archéologie du Proche-Orient, 2002), 25, fig. 11.

²³⁰M. A. Maier, "The Middle Bronze Age II Pottery," in *Excavations at Tel Beth-Shean, 1989-1996. Volume II, Volume II*, ed. Amihay Mazar and Robert A Mullins (Jerusalem: Israel Exploration Society : Institute of Archaeology, the Hebrew University of Jerusalem, 2007), 242-389.

²³¹Adam Thomas Smith, *Imperial Archipelago the Making of the Urartian Landscape in Southern Transcaucasia* (Ann Arbor, 1996), 38. Hermann Genz, "The Middle Bronze Age Pottery from Baalbek," *BAAL*, Hors-Série, IV: (2008): 148 pl. 85,6,7.

²³²Martin Metzger, *Kāmid el-Lōz 17. Die Mittelbronzezeitlichen Tempelanlagen T4 und T5* (Bonn: Habelt, 2012), tafeln 11 n.7.

fantastic motifs and divider lines. Finally, the last vessel with an animal motif exhibits a quadruped beast, the identification of which is still uncertain. This fragment was most probably also part of a platter. The platters and the juglets from the administrative area were burnished, medium ware vessels; the motifs were painted on the vessels with a dark red color.

Burnishing, as mentioned earlier, is the most common technique used to decorate and refinish fine and medium ware vessels. The microscope reveals the orientation of the burnishing that provides them with a polished surface. The slip consists of extremely fine-grained clay particles. It is applied to the exterior and interior of the vessel surfaces as a method for strengthening the bonds between coils and also to create a smooth surface. Burnishing at Kamid el-Loz is mostly applied on carinated bowls and deeper juglets and platters. The carinated bowls are burnished horizontally on the body and vertically on the neck. Plates are mainly burnished internally and on the rim. By and large, this technique seems to die out during the Middle Bronze Age IIB in the southern Levant, as attested at the site of Kamid el-Loz, but it seems to have continued in the central Levant. Furthermore, there is more documentation during the Middle Bronze I for this technique which then starts to fade towards the end of the Middle Bronze Age II.

4.2 Consumption Practices in the Palace of Kamid el-Loz

Following the concept of *chaîne opératoire*, to achieve a full understanding of the extended life history of ceramic vessels, it is necessary to understand the social practices involved in the production, use and disposal of these vessels. Below is a discussion of the several ways in which the ceramic vessels of Kamid el-Loz were possibly consumed.

Because only a limited section of the palace was exposed, it is difficult to provide a complete picture of the various forms of consumption that were taking place here during the Middle Bronze Age. It was indeed a great fortune that this specific area, identified as the storage quarter of the palace, was excavated. A significant amount of complete and almost complete ceramic vessels was uncovered in several rooms. These findings can indicate the diverse consumption actions that may have occurred in this particular area of the palace. It is generally accepted that consumption indicates the way goods are consumed during the lifetime of a populace.²³³ The several ceramic vessel types found in the palace can point to a variety of ways in which these vessels were used in the different daily life activities of the palace dwellers. The palace, as a living structure, represents the area where several social events would have taken place, making the palace a functional organization. Actions, such as the storing of goods, administration and participation in public events, would have been common occurrences within this structure.²³⁴ The palace is the setting where daily life activities transpired and became part of the everyday consumption of the palace's spaces.²³⁵ Daniel Miller²³⁶ designates as a main step towards the understanding of consumption the identification of the process of socializing with goods and the manner in which people socialize with goods.²³⁷ The study of consumption

²³³Paul R Mullins, "The Archaeology of Consumption.," *Annual Review of Anthropology* 40 (2011): 135.

²³⁴An example of a palace that was multi-functional during the Middle Bronze Age is the Palace of Mari.

²³⁵ See: Daniel Miller, *Acknowledging Consumption a Review of New Studies* (London; New York: Routledge, 1995), 3,4. The act of consumption illustrates a process of selection made based on trends.

²³⁶Daniel Miller, *Acknowledging Consumption a Review of New Studies* (London; New York: Routledge, 1995).

²³⁷Ibid.

through objects seeks to understand the way individuals or groups of individuals conform to the norms of their societies and beliefs. Because ceramic vessels are one of the most common residues of human activities in the past, it was possible to suggest, after a close analysis of the vessels collected in the second and third phase of the palace construction, that there are at least four forms of socialization between people and goods discernible in the use/consumption of the ceramic vessels found in the several rooms of the edifice.

This first form of consumption is the use of ceramic vessels for the preservation of goods, and, for this reason, vessels are a means to store goods. The second form of consumption is indicated by the presence of cooking pots for the preparation of food, which could have been prepared for the consumption of food to be eaten in the palace or for special events like feasting occasions that would have involved the gathering of people. The third form is that of feasting, and lastly, in the later construction phase of the palace, vessels are also intended for use as burial goods for the deceased.

4.2.1 Ceramic Consumption and the Preservation of Goods

The recovery of a great amount of vessels from rooms 7 and 8 exemplifies the first form of consumption and indicates the use of one section of the palace for the storing of food. The presence in the palace of storage jars in room 7 and 8 is a clear sign that a form of preservation was taking place. This is so, in particular, in room 8, where a clay bench was found on the eastern wall of the room. The bench, according to the excavator of the room, presents elements that suggest that it was used to hold at least 8 jars.²³⁸ The southern wall indicates that at least 3 jars were held in the room and, in this same context, were found two storage jars in situ. Other storage jar fragments were discovered in the western wall of the room.²³⁹ Based on the archaeological data recovered, the presence of 8 jars on the eastern side of the room implies the incidence of a similar amount of vessels on the southern wall. The entrance of the room is located on the northern wall. In its vicinity, additional storage jar sherds were found. We can suppose that at least 6 jars were located against the northern wall. The western wall was occupied by a tannur, a fact that leads us to assume that at least 22 jars were stored in the room. These vessels could have contained goods, such as barley or grain, necessary for the preparation of bread. Due to the lack of a botanical analysis performed on the interior of the vessels found, it is possible only to suppose that barley and grain were preserved in these jars. This assumption is made based on the type and form of the vessels found in the palace rooms. This type of storage jar is handleless and presents a long neck, a wide opening and a large base. A study published by J-P. Thalmann²⁴⁰ and by M. Yon²⁴¹ proposes that there are several elements that indicate when a jar is used for storage or for transportation. Handles are in particular a guiding factor. If placed at the sides of the jars, these are considered to be functional and meant for the transportation of goods;²⁴² they also indicate that long distance exchanges existed. On the contrary, the presence of large openings and large bases is typical of the storage jars. At Kamid el-Loz, the majority of

²³⁸Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009," 75.

²³⁹Ibid., 75–76.

²⁴⁰Jean-Paul Thalmann, "Transporter et Conserver: Jarres de L'Age Du Bronze a Tell Arqa," *Archaeology & History in the Lebanon* 17 (2003): 25–37.

²⁴¹Marguerite Yon, *Dictionnaire illustré multilingue de la céramique du Proche Orient ancien* (Lyon; Paris: Maison de l'Orient ; Diffusion de Boccard, 1981).

²⁴²Thalmann, "Transporter et Conserver: Jarres de L'Age Du Bronze a Tell Arqa," 25.

the jars found have the characteristics of a typical storage jar deprived of handles. Jars furnished with handles, however, were also uncovered at the site. The presence of a numerous quantity of jars without handles signifies that these were designated for the specific purpose of storing.²⁴³ We may advance the idea, therefore, that the storage rooms of the palace were used to contain goods, such as grain or barley, as suggested by the presence of handleless storage jars. This is additionally corroborated by a few examples of handles belonging to storage jars that were most probably intended for the transportation of goods.

The storage jars uncovered in Room 8 range in size from 1 to 1.30 meters in height; they have large bodies and a flat base and are characterized by incised and plastic decorations that are applied on the upper section of the neck. String marks are visible on the body and on the base. On one occasion, a storage jar was found with two smaller vessels at the level of the shoulder. The excavator of the room suggested that these were most probably attached to the storage jar with a cord.²⁴⁴ Based on this observation, we may further propose that these smaller vessels were intended to be used with the storage vessels either to take out the stored contents from the vessel or to pour liquids or food. In room 8 were also found several carinated bowls and fragments of sherds belonging to platters, a cooking pot and a deeper juglet. The same types of vessels were also found in room 7 but in a lower number, circa 4. Room 7 was, in fact, filled with ceramic vessels that were related to dining activities, as suggested by the presence of approximately 18 platters and two chalice stands. From the aforementioned two rooms, we can assume that three main forms of consumption, which indicated at least three important aspects of the palace life, were taking place. The first act is that of consuming the vessels for the preservation of food; the second is the use of the vessels for the preparation of food and the third is the utilization of vessels in feasting activities.

4.2.2 Ceramic Consumption and the Preparation of Food

The preparation of food is the second form of consumption that will be described. The preparation of food involves not only food crops but also the use of objects such as pots, ovens and hearths.²⁴⁵ These elements are closely related to the understanding of the concept of consumption, which includes not only the concept of food consumption but also that of object consumption and the idea that ceramics are containers²⁴⁶ used for the preparation of food. Indications of activities linked to the preparation of food in the palace are perceptible in the two construction phases of the palace, that is, in phase 1 and phase 2, and evidence of food preparation can be discerned in some rooms of the palace, for instance, in rooms 6 and 8.²⁴⁷ A *tannur* was located in front of the clay bench that was found in room 8, along its eastern wall. The room might have been used not only for the storing of food but also for the preparation of food.²⁴⁸ A *tannur* installation was also found in Room 6.²⁴⁹ The *tannur*, measuring 1.30 m in height, was situated in a recess of the room. The installation was made of clay and its walls were

²⁴³Ibid.

²⁴⁴Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009."

²⁴⁵Metzger, *Kāmid el-Lōz 17. Die Mittelbronzezeitlichen Tempelanlagen T4 und T5*, 168.

²⁴⁶Haaland, Randi "Porridge and Pot, Bread and Oven: Food Ways and Symbolism in Africa and the Near East from the Neolithic to the Present," *Cambridge Archaeological Journal* 17, no. 2 (2007): 168.

²⁴⁷Heinz et al., "Kamid el-Loz Report on the Excavations in 2008 and 2009," 76.

²⁴⁸Ibid., 76.

²⁴⁹Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009."

reinforced with sherds.²⁵⁰ In this same area, several ceramic vessels indicating the preparation of food were found; utilitarian wares and fragments of bread platters were uncovered in the palace area I-i 15/16 (FS 19 n. 16). These platters are characterized by the occurrence of several perforations to allow ventilation. Additionally, there are also examples of straight wall baking trays, also known as flat bottom cooking pots, commonly found at Kamid el-Loz. Similar examples were found at Tell Arqa in phase M and are dated to the Middle Bronze Age II period.²⁵¹ Other examples are also available in southern Syria at the site of Mtoune and at Shechem in the southern Levant.²⁵² These vessels could be found in the Middle Bronze Age I period, as exemplified by the samples originating from southern Syria.²⁵³

5.2.3 Feasting Activities in the Middle Bronze Age Palace of Kamid el-Loz

The practice of feasting is defined as an act of communal sharing of food that is prepared for a particular occasion.²⁵⁴ Feasting implies the preparation and the consumption of food that is later displayed or presented in admirable ceramic vessels. These factors are key elements that not only define a culture but also part of a political strategy. Display and communal consumption are an essential part of socio-political strategies. Arjun Appadurai puts forth the concept that converting the environment that surrounds people can create a “powerful semiotic device.”²⁵⁵ As Appadurai states, the consumption of a good is part of a semiotic system that occurs in a particular social context.²⁵⁶ In particular, when a feasting activity is performed, the consumption of communal food brings to the establishment of social relationships, that is, the sharing of food creates a bond and it is a powerful sign of the relations formed.

The concepts described by Appadurai can be seen in the various artistic reproductions illustrating the act of food consumption and feasting and are documented archaeologically by the remains found in palaces, temples and households of the Ancient Near East. These documentations have been the object of much scholarly study. Indeed, the first feasting theories were developed in the early ethnographic studies and adopted by anthropologists, archaeologists and art historians. Relevant ethnographic studies on the subject were conducted by Goldschmidt and Driver in 1943. These two scholars were followers of Franz Boas who described the White Deer Skin Feast in California.²⁵⁷ In archaeology, the topic of feasting is a relatively new entry

²⁵⁰Ibid.

²⁵¹Thalman et al., *Tell Arqa - I*, plate 105 n. 8–11.

²⁵²Cole, *Shechem I*, 146, pl. 23:Cf A.2 a–b. Examples of flat bottom cooking pots with upraised walls and vestigial holes were found at the site in level MB IIB.

²⁵³Braemer and Al-Maqdissi, “La Ceramique du Bronze Moyen dans la Syrie du Sud,” 26, fig. 8.

²⁵⁴Brian Hayden and Suzanne Villeneuve, “A Century of Feasting Studies,” *Annual Review of Anthropology* 40, no. 1 (2011): 434.

²⁵⁵Arjun Appadurai, “Gastro-Politics in Hindu South Asia,” *American Anthropologist* 8 (3) 1981: 494.

²⁵⁶Ibid. 495

²⁵⁷The study of the practice of feasting has gone through several stages. One was the Structural-Functionalist Phase, during which, under the aegis of Radcliffe-Brown and Malinowski, feasts began to be viewed in terms of maintaining the cultural systems of which they were a part. In archaeology, the feasting topic is a recent introduction. There have been three basic phases of feasting studies: an early descriptive phase prior to 1970; a formative theoretical phase in the 1970s and 1980s; and a developmental theoretical stage from the 1990s to the present (Hayden and Villeneuve, “A Century of Feasting Studies,” 437.) where feasting was analyzed and emerged independently in at least four distinctive areas, including Classical Aegean archaeology, Neolithic and Bronze Age archaeology of Western Europe, the archaeology of South America, and the archaeology of the Southern United

proposed by researchers in the Aegean field, Neolithic and Bronze Age of Western Europe and the archaeology of South America and the United States. Scholars have interpreted vessels and their use in feasting activities in connection to social engagement and political strategies. Morris, in his study²⁵⁸ on the Inca's abundant ceramic vessels, architecture and features linked with feasting practices, suggested that the Inca state used feasting to run its administrative organization and meet its many labor needs. Smith has pointed out that the ceramic vessels used in Aztec feasting denote a common purpose for the feasting activity. From the elite social level to the lower classes, people will engage in feasting activities that, in their respective context, will have important social goals. According to Smith, it is difficult to determine the social political implications that can be drawn from the presence of feasting wares found in an archaeological setting. These vessels, however, can provide an idea regarding the exchange patterns of the society and the political aspects associated to the exchange system, as well as the social divisions inherent in the community.²⁵⁹ M. Dietler's studies on feasting activities sustain that drinking and, in particular, alcohol consumption is a social act that occurs in occasions of social interactions that help establish relationships of obligation and hospitality.²⁶⁰ More specific studies were concerned with recognizing feasting activities in an archaeological context. On this subject, an interesting study of the main elements that are indicators of acts of feasting is furnished by Twiss,²⁶¹ who identifies the principal aspects needed to classify forms of feasting and social practices. Certain elements that can signal feasting activities are the following: the quantity of the vessels, serving equipment,²⁶² food preparation items, and the existence of decorated paraphernalia. In this research, Twiss' identification of feasting paraphernalia was used to identify such activity in the Middle Bronze Age palace of Kamid el-Loz.

Generally speaking, acts of feasting in the Near East are attested in textual documentations and artistic representations. In Mesopotamia feasting is described in early literature (e.g. The Epic of Gilgamesh), and representations of banquet scenes depicting activities of feasting are available, for example, in the Standard of Ur (c. 2600 BCE).²⁶³ Feasting performed in the temples and in the palaces are indicative of social activities that are meant to establish "common social bonds and to create hierarchies of privilege, inclusion and exclusion," as indicated by M. Feldman in her analysis of feasting in the Ancient Middle East.²⁶⁴ Susan

States.

²⁵⁸Edward Craig Morris, "Maize Beer in the Economics, Politics, and Religion of the Inka Empire," in *Fermented Food Beverages in Nutrition*, ed. Clifford Felix Gastineau et al. (New York: Academic Press, 1979), 21–34.

²⁵⁹Adam T. Smith, *The Political Landscape Constellations of Authority in Early Complex Polities* (Berkeley: University of California Press, 2003), 260–261.

²⁶⁰Michael Dietler, "Drink: The Role of Drinking in the Political Economy and the Case of Early Iron Age France," *Journal of Anthropological Archaeology* 9 (1990): 365.

²⁶¹Katheryn C Twiss, "Transformations in an Early Agricultural Society: Feasting in the Southern Levantine Pre-Pottery Neolithic," *Journal of Anthropological Archaeology* 27, no. 4 (2008): 418–42.

²⁶²J. M. Clarke, "Akha Feasting: An Ethnoarchaeological Perspective," in *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power*, ed. Michael Dietler and B. Hayden (Washington, D.C.: Smithsonian Institution Press, 2001), 160; W.K. Powers and M.N. Powers, "Metaphysical Aspects of an Oglala Food System," in *Food in the Social Order: Studies of Food and Festivities in Three American Communities*, ed. Mary Douglas (New York: Russell Sage Foundation, 1984), 68.

²⁶³Hayden and Villeneuve, "A Century of Feasting Studies," 434.

²⁶⁴Virginia Rimmer Herrmann, J. David Schloen, and Marian H Feldman, eds., "Religious, Communal, and Political Feasting in the Ancient Middle East," in *In Remembrance of Me: Feasting with the Dead in the Ancient Middle East*, Oriental Institute Museum Publications 37 (Chicago: Oriental Institute, 2014), 63–68. For other works on the

Pollock, in her study of Feasting in Early Mesopotamia, considers the distribution and consumption of food and drink as a means to contribute to state power and politics in urbanized societies.²⁶⁵ Studies on feasting in the Levant also illustrate the act of performing a rite of remembrance for the dead by engaging in communal repasts that took place in the chambers of the royal burials. Benches in rooms were found bearing ceramic vessels used for the consumption of food.²⁶⁶ Other examples of feasting are available at the site of Ugarit²⁶⁷ and Ebla.²⁶⁸

In the central Levant, studies on Middle Bronze Age food and vessel consumption are principally available at the site of Sidon where several tombs and monumental buildings were uncovered. Here rituals were performed in honor of the deceased. More specifically, scholars have found that food was consumed next to the deceased, as indicated by the presence of animal bones and platters, suggesting a form of last gathering among family and relatives. In this ritual, two main types of consumption were taking place, one performed by the family and relatives, and the other, the symbolic consumption by the deceased.²⁶⁹

How can feasting activities be recognized at Kamid el-Loz? From the recent excavation of 2011, there are clear indications of feasting activities in room 7 of the palace. In this room, ceramic vessels were found that suggest the incidence of communal eating and gathering of a group of people. The vessels uncovered in room 7 can be indicative of communal feasting, and it is possible to imagine that these were meant to be part of a banquet set, and point to the practice of sharing food that was served on stand vessels. Stand vessels are not uncommon at the site of Kamid el-Loz, as these were found in large quantities in the Middle Bronze Age temple of Kamid el-Loz and two examples were uncovered in room 7. Stands are known to be a type of ceramic vessel, which, as the name suggests, have a long stand to which is attached a platter; other examples have only a simple stand perforated on both sides, on which a platter could be positioned. The two examples found in the palace were fashioned by using two techniques: the hand-made technique, as evidenced by the body of the stand, and the wheel, as visible in the attached platter.²⁷⁰ Platters could have been placed at the center or at the ends of a banquet table, in this way allowing the people gathered at the feast to reach out and take the food placed on them.

representation of feasting see: Irit Ziffer, "From Acemhöyük to Megiddo: The Banquet Scene in the Art of the Levant in the Second Millennium BCE," *Tel Aviv* 2005, no. 2 (September 1, 2005): 133–67.

²⁶⁵Susan Pollock, "Feasts, Funerals, and Fast Food in Early Mesopotamian States.," in *The Archaeology and Politics of Food and Feasting in Early States and Empires*, ed. Tamara L Bray (New York: Kluwer Academic/Plenum, 2003), 17–38.

²⁶⁶Peter Pfälzner, "Syria's Royal Tombs Uncovered," *Current World Archaeology*, no. 15 (2006): 12–22.

²⁶⁷Wayne T. Pitard, "The 'Libation Installations' of the Tombs at Ugarit," *The Biblical Archaeologist* 57, no. 1 (1994): 20–37.

²⁶⁸ On Ebla and works related to feasting see: Alfonso Archi, "Cult of the Ancestors and Tutelary God at Ebla," in *Focus: A Semitic/Afrasian Gathering in Remembrance of Albert Ehrman*, ed. Y. L. Arbetman (Amsterdam/Philadelphia: John Benjamins Publishing Company, 1998), 103–12. Maria-Giovanna Biga, "La Fête À Ébla (Syrie, Xxive Siècle Av J.-C.)," *Journal Asiatique* 299, no. 2 (2011): 479–94.

²⁶⁹Claude Doumet-Serha and Jwana Shahud, "A Middle Bronze Age Temple in Sidon. Ritual and Communal Feasting," in *Ritual, religion and reason: studies in the ancient world in honour of Paolo Xella*, ed. Paolo Xella et al., 2013, 33–60.

²⁷⁰ In previous excavation seasons at Kamid el-Loz, two short high stands with a platter attached were recovered. These were found in building level 14, where cooking pots with rounded bases and everted rims were also recovered, as well as three platters and a medium size jar. See: Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*, 120 fig. 70 n.3–4.

Along with the two stands found in room 7, other vessels indicative of feasting activities are the carinated bowls, which were probably used as cups for drinking, and the juglets, with which liquids were most likely poured, and a great quantity of platters. It may be hypothesized that these ceramic vessels constituted a set to be used when holding a banquet and therefore are tangible signs of the feasting involved in the establishment of social relations. Although the vessels were not found in a major dining court but in storage room, the variety and the specific types recovered suggest that such feasting activities were taking place.

4.2.4 Symbolic Acts of Consumption in the Afterlife

The third aspect of consumption that will be discussed is the use of ceramic vessels as an expression of a ritual and of the symbolic consumption that was being performed at Kamid el-Loz. Consumption in the afterlife in the Near East has recently become an area of research attractive for many scholars. A recent work on the funerary practices of the ancient Near East was collected in a edited volume by Nicola Laneri.²⁷¹ This collection of studies includes works that analyze the funerary performance from different periods of the ancient Near East. The volume also investigates how funerary practices, as social actions, have formed or contributed to the social and cultural values of a community and shaped the social character of funeral traditions in the ancient Near East and the Mediterranean.²⁷²

The recovery of the Middle Bronze Age monumental building at the site of Sidon spurred a particular interest in the study of communal rituals in remembrance of the dead. This building, identified as a temple by the excavator, is composed of 6 rooms. The building is more than 51 m long. It was built around the end of the Middle Bronze Age and continued to exist until the Late Bronze Age. A large quantity of ceramic vessels was found in this building, particularly in room 2, where a large number of lamps, circa 598, and 141 platters and bowls were identified.²⁷³ In addition to the recovery of the ceramic material, animal remains were also found, as well as a table that documented wood transactions. The temple at Sidon represents an optimal example of an edifice where social practices associated to communal ceremonies to commemorate the passage of the deceased to the afterlife took place. These rites were expressed in the performance of consumption.²⁷⁴

The most common form of consumption documented in the central Levant is that of afterlife symbolic consumption. The practice provides the deceased with the objects needed for subsistence in the afterlife. These grave goods were often in the form of ceramic vessels. The Middle Bronze Age tombs recovered in the central Levant were found with funerary sets that

²⁷¹Nicola Laneri, *Performing Death: Social Analyses of Funerary Traditions in the Ancient Near East and Mediterranean* (Chicago: The Oriental Institute of the University of Chicago) 2007. Some of the earliest studies on the afterlife and the rituals performed in remembrance of the dead have been produced by anthropologists. For example, see Richard Huntington and Peter Metcalf, *Celebrations of Death: The Anthropology of Mortuary Ritual* (Cambridge [England]; New York: Cambridge University Press, 1979). The work of the French sociologist, Émile Durkheim, on the aborigines has brought him to focus on the integration of individuals in communal life. Durkheim and his followers, Robert Hertz and Marcell Mauss, have contributed to the study of funerary practices by defining it as a ritual used to provide a way to express a sense of togetherness. This view is also sustained by Radcliff-Brown.

²⁷²Nicola Laneri, *Performing Death: Social Analyses of Funerary Traditions in the Ancient Near East and Mediterranean* 2007, 1.

²⁷³Claude Doumet-Serhal, "Sidon during the Bronze Age: Burials, Rituals and Feasting Grounds at the 'College Site,'" *Near Eastern Archaeology* 73, no. 2/3 (2010): 114–29.

²⁷⁴S. Collins, "A Monumental Building at Sidon: Room 3, Context 971," *AHL* 24 (2006): 106–13.

included at times metal objects and often ceramic vessels, such as platters, carinated bowls and juglets. Examples from the site of Sidon in southern Lebanon propose a more sophisticated form of ritual consumption. The tombs unveiled at the site reflect a change in the concept of commemorating the dead from the Middle Bronze Age I to the Middle Bronze Age II period. As a process of expressing individuality, the site of Sidon illustrates that during the Middle Bronze Age I period there was a tendency to bury the dead in single tombs with goods, while in the Middle Bronze Age II period the burials demonstrated an interest in communal rituals, confirmed not only by the several bones recovered at the site but also by the sets of ceramic vessels that were found there.²⁷⁵ At Sidon, relatives would consume food with the deceased, and the deceased was left with a set of vessels that included a platter, a bowl and any other type of vessel necessary to insure food for the afterlife. Other examples from the central Levant are cave tombs where sets of ceramic vessels, including platters, jars and carinated bowls were revealed.

In the Beqa'a Valley, Kamid el-Loz and Tell Hizzin are our source of information regarding burial consumption practices. Here, I will focus mainly on the material deriving from Kamid el-Loz, where evidence for the aforementioned consumption is documented in Phase 1 (Intermediate construction period) and in phase 2 of the palace construction period. During the recent excavation seasons of phase 1 of the Middle Bronze Age palace, a period marked by a process of decline of the palace and the construction of small households with few rooms, preceding the Late Bronze Age period, a painted juglet of the Levantine Painted Ware type was found together with the bones of a new-born child. The juglet, which was retrieved from the palace area, originated from building Phase 3. The painted vessel in this context becomes a special artifact designed to be part of a figurative consumption of liquids by the dead; the vessel that was found contained most probably oil. Very often, the Levantine Painted Ware is found in burial contexts. In the central Levant, this type of pottery was recovered from burials situated in Sidon,²⁷⁶ in the coastal area and at Tell Hizzin in the Beqa'a Valley.²⁷⁷

In the residential area, a grave of the Middle Bronze Age II period was exposed under the Late Bronze I house. The pit was composed of at least 10 individuals and the excavators have suggested that this pit was the result of a massacre, due to the identification of a destruction layer where one spear head was found in the last phases of the Middle Bronze Age II. The pit also contained a few grave goods which could sustain the proposition that this form of burial may have been conceived to allow the positioning of vessels, such as the LPW juglet, for the afterlife needs of the deceased.

Additional information on the practice of consumption in relation to burial practices at Kamid el-Loz are granted by the graves disclosed in the older excavations and described by Renate Mirror. Several tombs were found with sets of vessels associated with burials and dated to the Middle Bronze Age. The vessels consisted primarily of carinated bowls, juglets, among which painted juglets, platters and jars.²⁷⁸ These sets of vessels uncovered in these Middle Bronze Age tombs, which will be described below, suggest a form of emblematic consumption and support the argument that, during the Middle Bronze Age, Kamid el-Loz performed the practice of symbolic food consumption for the dead. A total of 24 graves were recovered at Kamid el-Loz during the excavations conducted in the 1960's. Graves (n. 97 to n. 121) were

²⁷⁵Doumet-Serhal, *Les Fouilles de Tell El-Ghassil de 1972 à 1974*.

²⁷⁶Ibid.

²⁷⁷Genz, "Middle Bronze Age Pottery from Tell Hizzin, Lebanon."

²⁷⁸Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*, 115–117.

excavated but only a few are relevant to the discussion of afterlife consumption. I will focus on only the relevant graves for this discussion. Generally speaking, most of the graves contained one or more vessels, along with other objects, such as pins. Grave 97 contained a carinated bowl with a high neck and a simple rim, and a LPW juglet with circular motifs and a pin. Grave 99 comprised two small juglets with a flat base, one of which had a trifoiled rim. Grave 100 had 6 vessels, among which was a carinated bowl, a juglet with a pointed base and a juglet with a rounded base, a platter with four side ledges, burnished on the inside and with a disc base. Additionally, there were two jugs, both with trefoil rims, one with a flat base and the second one with a ring base. All these graves had a complete set of vessels located on the left side of the deceased.

Grave 101 contained 4 vessels, including 3 carinated bowls and a trefoil mouth juglet. Two of the carinated bowls had a disc base and a simple everted rim. One had a ring base and a profiled rounded rim. Grave 102 had a jug with a trefoil mouth rim similar to that of grave 101. Grave 103 contained a jug and grave 104 a jar with side handles, while grave 105 held a juglet. Grave 108 had a single jar with two handles and grave 109 comprised a juglet with a pointed vessel, an axe, two platters and a juglet. Grave 110 consisted of a platter with a ring base and a jug with a side handle, a rounded everted rim and a ring base, and a deep bowl with a ring base. Grave 114 contained a crater and jar with side handles. Grave 115 held a jug, while grave 118 had a juglet with a button rim. Grave 119 included a juglet with a flat base and two beads; grave 120 contained a broken jar and, finally, grave 121 incorporated a jug and a painted juglet.

These graves are representative of the rituals which surrounded burials and denote the importance of providing the departed with an endowment that would ensure sustenance in the afterlife. In most of the Kamid el-Loz graves, a type of vessel that is always incorporated is the juglet. This vessel often contained traces of liquids, such as oils. Juglets and carinated bowls are the most common goods found in the tombs. Juglets are generally painted and, during the Middle Bronze Age, the LPW is the most recurrent ware included in tombs.²⁷⁹ The rituals that were involved in the deposition of the deceased highlight the nexus that existed between values, personal relationships and order, all factors around which a society is structured.²⁸⁰

Conclusions

In this chapter, the ceramic vessels of the Middle Bronze Age palace of Kamid el-Loz were discussed to reconstruct the ceramic economy of this settlement. The ceramic vessels were approached with the *chaîne opératoire* methodology in mind, a method understood in its most recent meaning as the study of the “biography of an object,” from their production to their final use. Such understanding of the *chaîne opératoire* approach has provided the means to view the Kamid el-Loz ceramic vessels as expressions of social activities that played an integral part in the maintenance of a community as a dynamic, living entity. The analyses of the ceramic vessels have revealed the diverse and particular aspects of the ceramic vessel economy of this settlement.

²⁷⁹Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*; Heinz et al., “Kamid El-Loz: Report on the Excavations 2010 and 2011.”

²⁸⁰Hikaru Suzuki, *The Price of Death: The Funeral Industry in Contemporary Japan* (Stanford, Calif.: Stanford University Press, 2000), 18.

Although only 9 rooms were excavated from the Middle Bronze Age palace of Kamid el-Loz, the data collected provides valuable information useful for the reconstruction of the typology and chronology of the site and of the various social activities that took place within the palace walls. Based on the ceramic material uncovered in the rooms, phase 1 and phase 2 are datable to the Middle Bronze Age II period, more specifically, phase 1 was characterized by a stage of decline of the palace and some rooms of the palace were reused, while new rooms were built above the phase 2 rooms and were quite similar to simple households. The ceramic vessels recovered reflected transitioning types datable to the Middle Bronze Age II and to the earliest phases of the Late Bronze Age I period. The palace most probably flourished during phase 2, which is assigned to the Middle Bronze Age II period. It is from this phase that the majority of the vessels were recovered and represent the best preserved levels of the palace of the Middle Bronze Age II period. Phase 3 must be assigned to a transitional period. The layout of some of the rooms attributed to this phase changes and presents a different orientation. These rooms are ascribed to the Early Middle Bronze Age II period and probably to the end of the Middle Bronze Age I period, but, at this point, it is too early to indicate a precise chronology for this level.

The ceramic vessels analyzed derived mainly from two rooms of the Middle Bronze Age palace, room 7 and 8. Here, the rich ceramic inventory has contributed to the discussion on ceramic production and typology of the vessels. Five types were analyzed: carinated bowls, cooking ware, jars, juglets and platters. The study has shown that Kamid el-Loz possessed a mixed ceramic production organization, with ceramic vessels that were mass produced, such as the carinated bowls and platters, and a specialized vessel production attested and exemplified by the painted ware (e.g. LPW). Carinated bowls are a hallmark of the Middle Bronze Age, with their rounded body shape and tall neck. They reflect a style that is datable to the Middle Bronze Age II period and which is commonly found in the Levant. The Kamid el-Loz ceramic vessels find similarities with the ceramic from the Beqa'a Valley (Tell el-Ghassil and Hizzin), from the southern Levant (Tell Dan, Shechem and Hazor) and southwestern Syrian (Tell Sakka, Dibhin and Yabroud).

Based on this investigation of ceramic vessels, it is possible to point out some of the social activities that were performed in the building. These rooms were clearly used to store goods, as evidenced by the great number of storage vessels found. At least one room dated to phase 2 of the palace was predisposed for this purpose. As attested by the presence of seal impressions, the building was responsible for the administration of the goods stored in the palace. The palace sector was also reserved for the preparation of food, as demonstrated by the recovery of an oven in rooms 6 and 8. In addition to the daily life activities documented in the palace, we can observe, based on the ceramic vessel types recovered in room 7, that the palace was also the place where feasting activities were carried out. The remains of fine vessels, such as platters, carinated bowls and stand vessels indicate that communal gatherings and the sharing of food occurred in the palace. These activities were necessary to maintain the stability of a palace. Ceramic vessels were used and reused as containers for goods and food. They were also included among burial goods, making ceramic vessels essential objects to be placed with the deceased, as they symbolized sustenance in the afterlife.

Chapter III

Reconstructing Circulation Paths between South Lebanon and Southwest Syria: A Case Study from the Beqa'a Valley

Introduction

In chapter two, the dynamics of the ceramic vessel production and consumption of Kamid el-Loz was delineated and a picture of the local economic systems was provided. In chapter three, a study of the Beqa'a Valley landscape is presented and a reconstruction of the paths that connected the Beqa'a Valley region with southern Lebanon and southwestern Syria is achieved. The intricate network that emerged from this work provides proof that there were strong relations between the Beqa'a Valley and the neighboring regions and that the history of the Beqa'a Valley is strongly connected with that of the Levant and Syria. This chapter explores the topographic conformation of the landscape of the Beqa'a Valley to determine its role in the development of trade routes during the Middle Bronze Age, taking into consideration that the development of a functional economic system depends heavily on the possibility of creating valid circulation structures that allow goods to flow easily from production centers to exchange posts and, ultimately, to the consumers.

The Beqa'a Valley presents one of the most intriguing valley conformations of the Near East in relation to the evolution of exchange paths. Scholars have often disregarded the trade routes that expanded throughout the valley during the Early and Middle Bronze Age period, focusing their studies on the progress of the routes located on the coast.²⁸¹ In this chapter, a reconstruction of the routes that crossed the valley and connected it to the neighboring regions will be laid out, and reflections on the degree of influence exerted by the Beqa'a Valley on the development of trade routes will be explored. This study has made use of the written documentation available for the Middle Bronze Age to discuss circulation paths recorded as active in the archives of the major kingdoms of this period and to discuss the sources of raw materials and the items that were reputed to be important merchandise to be traded. In addition, several methods have been adopted to reconstruct the paths in this region, namely, a thorough study of the topography of the valley, the distribution of the settlements, resource availability, and the calculation of the effort necessary to cross the area. This information was processed with Geographical Information System Software (GIS hereafter).

1. Research Design

The focus on known trade routes from ancient texts and the rich archaeological data available from the Middle Bronze Age Levantine coastal settlements has monopolized the attention of most scholars and has led them to discount other players that were involved in the development of trade networking systems. These additional participants in the development of trade routes were disregarded for several reasons: the lack of archaeological research available

²⁸¹Doumet-Serhal, "Tracing Sidon's Mediterranean Networks in the Second Millennium B.C.: Receiving, Transmitting, and Assimilating. Twelve Years of British Museum Excavations;" Doumet-Serhal et al., *Networking patterns of the Bronze and Iron Age Levant*.

for this area, scarce textual documentation, and the location of these settlements in less accessible areas. This disinterest has left the field of research incomplete and one-sided, having utilized only the perspective of major economic centers to generalize the dynamics of ancient trading networks. The Beqa'a Valley, in this case, provides an excellent opportunity to explore peripheral settlements that were difficult to reach but that, nonetheless, took part in the expansion of exchange systems that utilized sometimes tortuous, yet functional paths. These paths most probably crossed the mountain ranges of the central Levant, more specifically, the Lebanese Mountains and the Anti-Lebanon mountain chains that enclosed the valley.

A reconstruction of the history of the Beqa'a Valley presents some difficulties due to the absence of archaeological excavations performed in the area. Of the 62 sites that were identified as belonging to the Middle Bronze Age period by the surveys conducted between the 1950s and the 1970s, only the sites of Kamid el-Loz, Tell Hizzin, and Tell el-Ghassil have been partially excavated. In this research, the settlement of Kamid el-Loz was taken as a case study because it represents the best excavated site at present. The location of Kamid el-Loz is examined here to formulate hypotheses on inland circulation routes in the Beqa'a Valley and to explore the role of inland settlements in the development of trade routes. This study recognizes the important role that the coastal Levantine sites played in the exchange network of this period but chooses to focus principally on inland communities, such as Kamid el-Loz, and on their contribution to the extension of circulation paths in the valley and in southwestern Syria.

When reconstructing the inland paths of the valley, we must take into account several factors that contribute to the success and development of trade routes in a given area. One important factor is the accessibility to the region and the environmental resources found there. Consequently, a major concept that allows for a better comprehension of the formation of trade routes in the Beqa'a Valley is the idea that both the environmental and the cultural landscape were critical in the construction of these networks. Over the past thirty years, the term landscape²⁸² has been used in many different strands of archaeology in relation to settlements and their descriptions. Traditionally, landscape is valued for the economic resources that it can provide and the refuge that the natural scenery can offer. In the 1890s, the German geographer Friedrich Ratzel was the first to provide a definition of cultural landscape as a “landscape modified by human activity.”²⁸³ His work focused on how human groups extended themselves across space and differentiated themselves from one another in relationship to properties imposed by their natural environments. The term landscape was later introduced in the English-speaking scholarly world by Carl Sauer, who, in 1925, defined landscape as a cultural landscape that is fashioned from a natural landscape by a culture group.²⁸⁴ This early definition of landscape indicates how culture was seen as agency and landscape, in particular, was seen as undergoing several changes (due to environmental and human factors) over time. Landscape studies were also influenced by Durkheim's vision of landscape as being shaped by societies. Landscape, as the outcome of the collective consciousness, is modeled by institutional frameworks. Human relationships, along with their natural habitats, are of indirect concern.²⁸⁵

²⁸²The term landscape is often subject of discussions as the term can also refer to a landscape that is modified by human activities or to a landscape as a natural environment.

²⁸³F. Ratzel, “Die Deutsche Landschaft,” *Halbmonatshefte der Deutschen Rundschau* 4 (96 1895): 407–28.

²⁸⁴Carl Ortwin Sauer, *The Morphology of Landscape*. (Berkeley, Calif.: University of California Press, 1925), 46.

²⁸⁵Anne Buttner, *Society and Milieu in the French Geographic Tradition* (Chicago: Published for the Association of American Geographers by Rand McNally, 1971), 28.

The processualists' point of view²⁸⁶ of settlement patterns and the phenomenologists'²⁸⁷ experience of the natural world have contributed to the understanding of landscape by taking into consideration the human impact on past environments as well as the environment's effect on human thoughts, actions, and interactions. In this chapter, the latter aspect of the interpretation of landscape will be investigated, that is, the influence that the Beqa'a Valley had on the development of trade routes. Although there have been many different approaches to the study of landscape in the past, recently, this concept has been redefined to incorporate into the traditional economic aspect a "socio-symbolic dimension."²⁸⁸ The study of landscape archaeology is mostly based on the construction and the understanding of the relationship between humans and the environment. This most recent approach concentrates mainly on the dynamic facet of the relationship that exists between people and their surroundings. Theoretical approaches used in the study of landscape have developed over the years, taking characteristics from different trends. Common approaches to the study of landscape have included the study of landscape ecology, to which belong the recent approaches on the study of (1) topography, (2) ritual landscape, and (3) ethnic landscape.

The study of landscape as ecology recognizes history and cultural perception as variables contributing to the structure, organization, and culture change.²⁸⁹ This approach emphasizes natural environmental variables, including essential subsistence resources, other raw materials needed for living and for commercial exchange. Ritual landscape studies examines patterns in the spatial distributions of ritual features, visible in public buildings, monuments, squares and various secluded areas.²⁹⁰ Ethnic landscape undelines that concept that landscape is constructed by communities; any modifications are used to mark or recreate sociocultural boundaries.²⁹¹

²⁸⁶ The processualist approach of landscape embodies a more self-conscious scientific approach of landscape methodology. It follows the methodological and theoretical cannon of the 1970's.

²⁸⁷ See mainly Christopher Y Tilley, *A Phenomenology of Landscape: Places, Paths, and Monuments* (Oxford, UK; Providence, R.I.: Berg, 1994).

²⁸⁸ Wendy Ashmore and Arthur Bernard Knapp, *Archaeologies of Landscape: Contemporary Perspectives* (Malden, Mass.: Blackwell, 1999), 1.

²⁸⁹ See some of the major scholar on this topic: Glenn Davis Stone, *Settlement Ecology: The Social and Spatial Organization of Kofyar Agriculture* (Tucson: University of Arizona Press, 1996); G.D. Stone, "Agricultural Abandonment: A Comparative Study in Historical Ecology," in *Abandonment of Settlements and Regions: Ethnoarchaeological and Archaeological Approaches*, ed. Catherine M Cameron and Steve A Tomka (Cambridge; New York: Cambridge University Press, 1993), 74–81; see also K. F. Anschuetz, "Not Waiting for the Rain: Integrated Systems of Water Management for Intensive Agricultural Production in North-Central New Mexico" (University of Michigan, 1998); Brian K Roberts, *Landscapes of Settlement Prehistory to the Present* (London; New York: Routledge, 1996); Stephanie Michelle Whittlesey et al., *Vanishing River: Landscapes and Lives of the Lower Verde Valley: The Lower Verde Archaeological Project: Overview, Synthesis, and Conclusions* (Tucson, Ariz.: SRI Press, 1998).

²⁹⁰ For additional scholarship on this topic see: Richard Bradley, *The Significance of Monuments on the Shaping of Human Experience in Neolithic and Bronze Age Europe* (London; New York: Routledge, 1998); Richard Bradley, "Ruined Buildings, Ruined Stones: Enclosures, Tombs and Natural Places in the Neolithic of South-west England," *World Archaeology* 30, no. 1 (1998): 13–22; Richard Bradley and Richard Chambers, "A New Study of the Cursus Complex at Dorchester on Thames," *Oxford Journal of Archaeology* 7, no. 3 (1988): 271–89; Thimoty C Darvill, "Ever Increasing Circles: The Sacred Geographies of Stonehenge and Its Landscape," *Science and Stonehenge.*, 1999, 167–202; A. P. Fowler and J.R. Stein, "The Anasazi Great House in Space, Time and Paradigm," in *Anasazi Regional Organization and the Chaco System*, ed. David Elmond Doyel (Albuquerque, N.M.: Maxwell Museum of Anthropology, 1992), 101–22; David A Freidel et al., *Maya Cosmos: Three Thousand Years on the Shaman's Path* (New York: W. Morrow, 1993); Robert L Hall, "Medicine Wheels, Sun Circles, and the Magic of the World Center Shrines," *Plains Anthropologist* 30, no. 109 (1985): 181–93; Robert L Hall, *An Archaeology of the Soul: North American Indian Belief and Ritual* (Urbana: University of Illinois Press, 1997); Tim Ingold, "The Temporality of the

For the analysis of all the aforementioned aspects, cultural anthropologists and archaeologists have taken inspiration from Anthony Giddens' structuration theory and from Pierre Bourdieu's concept of habitus. Anthony Giddens' structuration theory focuses on social order across space and time rather than the subject or the social object.²⁹² Scholars that deal with the study of landscape have adopted Giddens' interpretation of locale as space used to provide the settings for interaction, which is essential for the specification of contextuality.²⁹³ Pierre Bourdieu's contribution to the study of space is linked to the concept of habitus, which suggests that to better understand space, we must realize that space is culturally and socio-symbolically charged.²⁹⁴ Landscape is often a central element used to discuss different aspects of ancient societies; more specifically, it is part of the discussions related to the creation of an empire's power and ideologies. As viewed by A. Smith, landscape incorporates the physical contours of the created environment, but landscape mainly is the place where political authority is constructed. Politics, according to Smith, operates through landscapes.²⁹⁵

More recently, scholars such as Bernard Knapp and Wendy Ashmore have contributed to the development of the study of landscape archaeology in relation to the concept of landscape as a "place for cross-cultural communication in multiple senses."²⁹⁶ Landscape, as described by scholars such as O. Harmansah, becomes a "physically and mentally constructed world made up of a constellation of meaningful, interconnected places where people engage with the material world around them."²⁹⁷ According to O. Harmansah, if landscape is seen in a broader sense, it can lead to the understanding of space as a spatialized narrative that serves as an area for commemoration.²⁹⁸ This approach takes inspiration from Henri Lefebvre's idea of urban space as

Landscape," *World Archaeology* 25, no. 2 (1993): 152–74; Jarich Oosten, "Landscape and Cosmology," *Archaeological Dialogues* 4, no. 02 (1997); C Richards, "Henges and Water: Towards an Elemental Understanding of Monumentality and Landscape in Late Neolithic Britain," *Journal of Material Culture* 1, no. 3 (1996): 313–36; Colin Richards, "Monuments as Landscape: Creating the Centre of the World in Late Neolithic Orkney," *World Archaeology* 28, no. 2 (1990): 190–208; J.R. Stein and S.H. Lekson, "Anasazi Ritual Landscapes," in *Anasazi Regional Organization and the Chaco System*, ed. David Elmond Doyel (Albuquerque, N.M.: Maxwell Museum of Anthropology, 1992); Tilley, *A Phenomenology of Landscape*.

²⁹¹On ethnic landscape see the works of: Wendy Ashmore and 272-286, "Construction and Cosmology: Politics and Ideology in Lowland Maya Settlement Patterns," in *Word and Image in Maya Culture: Explorations in Language, Writing, and Representation*, ed. William F Hanks and Don Stephen Rice (Salt Lake City: University of Utah Press, 1989); Richard Bradley, *Altering the Earth: The Origins of Monuments in Britain and Continental Europe: The Rhind Lectures, 1991-92* (Edinburgh: Society of Antiquaries of Scotland, 1993); Richard Bradley, *Rock Art and the Prehistory of Atlantic Europe Signing the Land* (London; New York: Routledge, 1997); Ian Hodder, "Converging Traditions: The Search for Symbolic Meanings in Archaeology and Geography," in *Landscape and Culture: Geographical and Archaeological Perspectives*, ed. J. Malcolm Wagstaff (Oxford [Oxfordshire]; New York, NY, USA: B. Blackwell, 1987), 134–45; Tim Ingold, "Culture and the Perception of Environment," in *Bush Base: Forest Farm: Culture, Environment, and Development*, ed. Elisabeth Croll and David J Parkin (London; New York: Routledge, 1992), 39–56; Olga F Linares, *Ecology and the Arts in Ancient Panama: On the Development of Social Rank and Symbolism in the Central Provinces*, Studies in Pre-Colombian Art and Archaeology 17 (Washington: Dumbarton Oaks, Trustees for Harvard University, 1977).

²⁹²Anthony Giddens, *The Constitution of Society: Outline of the Theory of Structuration* (Berkeley: University of California Press, 1984), 2.

²⁹³*Ibid.*, 118.

²⁹⁴Setha M Low, "Embodied Space(s): Anthropological Theories of Body, Space, and Culture," *Space and Culture* 6, no. 1 (2003): 14.

²⁹⁵Thomas A. Smith. *Political landscape: constellations of authority in early complex politics*. 2003

²⁹⁶Wendy Ashmore and Knapp, Bernard, *Archaeologies of landscape: contemporary perspectives*, 1999, 4.

²⁹⁷Ömür Harmanşah, *Cities and the Shaping of Memory in the Ancient Near East*, 2013, 29.

²⁹⁸*Ibid.* 31

a social product; he believes that landscape is a place of social agency and that the construction of an urban space is the result of political decisions that involve planning that takes into consideration the spatial practices of everyday life. These decision practices are important, as they can determine political power.²⁹⁹ Along the same lines is the work of Adam Smith, who also used the work of Lefebvre to understand constructed landscapes that are culturally produced.³⁰⁰

Techniques to approach the study of landscape have also been evolving. The ability to perform both analyses and comparisons with software, such as GIS, has provided archaeologists with a new set of quantitative research tools for examining spatial patterns at macro and micro scale levels. GIS methods range from the study of the natural environment to the relationships that people maintain with their physical settings and one another. Archaeologists working in the ancient Near East are now approaching the study of landscape to provide a multiscale analysis of the relationship between humans and the environment. The interactions between people and habitat is discernable in the cultural landscape and archaeologists are now adopting the use of GIS to understand the dynamics of these interactions. The GIS computer program utilizes a set of computer-based tools that consent the creation, storage, transformation, and visual representation of spatially referenced data or information. Through the use of GIS software, we can attain spatial data, which are described by their spatial characteristics and attributes.³⁰¹ Finally, the GIS system is adaptable to the different needs of the user and offers a data model for storing geographic features.

Scholars, such as Tony Wilkinson,³⁰² Jason Ur,³⁰³ Jesse Cassana,³⁰⁴ Susan Alcock and John F. Cherry³⁰⁵ have contributed to the study of landscape through the performance of surveys and the study of satellite images to reconstruct human settlement patterns in order to provide an understanding of landscapes modified by human activities and the networks that were established between settlements. Jason Ur's work at Tell Hamoukar includes a study on the cultural landscape, adopting data that originates from surveys and remote-sensing datasets. His work, based on off-site archaeological features, explores the dynamic relationship between a settlement

²⁹⁹Ibid. 75

³⁰⁰Adam T. Smith, *Imperial Archipelago the Making of the Urartian Landscape in Southern Transcaucasia* (Ann Arbor, 1996), 38. On the discussion of built environment as political landscape due to agency over the course of historical events and social processes see: Adam T Smith, *The Political Landscape Constellations of Authority in Early Complex Polities* (Berkeley: University of California Press, 2003).

³⁰¹GIS makes use of vector and raster data. Vector data represent real-world entities that are modeled as points, lines, or polygons. Points might symbolize archaeological sites in a settlement distribution map, lines could correspond to the path of roads or rivers, and polygons might represent survey areas. Raster data, on the other hand, represent real-world entities as rows and columns that make up a grid, with each cell encoded with information (James Conolly and Mark Lake, *Geographical Information Systems in Archaeology* (Cambridge, UK; New York: Cambridge University Press, 2006), 26. A common raster dataset is a digital satellite image. These categories of data are fluid, as primary vector and raster data can be transformed many times based on research questions and needs (A Frank, "Spatial Concepts, Geometric Data Models, and Geometric Data Structures," *Computers & Geosciences* 18, no. 4 (1992): 409–17); Conolly and Lake, *Geographical Information Systems in Archaeology*, 14.

³⁰²T. Wilkinson, *Archaeological Landscapes of the Near East*. The University of Arizona Press. 2003.

³⁰³Jason A. Ur and McGuire Gibson, *Tell Hamoukar* (Chicago: Oriental Institute of the University of Chicago, 2010).

³⁰⁴Jesse Casana and Jackson Cothren, "Stereo Analysis, DEM Extraction and Orthorectification of CORONA Satellite Imagery: Archaeological Applications from the Near East," *Antiquity* 82, no. 317 (September 2008): 732–49.

³⁰⁵S.E. Alcock and J. Cherry, *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World*. 2004.

and its landscape.³⁰⁶In this study on the landscape of the Middle Bronze Age Beqa'a Valley, landscape is seen as the place where people engage with the environment and where social interactions take place. The topography of the valley plays a vital role in defining the communities that developed in the plane of the valley, whose inhabitants adjusted to the environment that surrounded them.

Advances in techniques to integrate historic and spatial datasets have resulted in an emphasis on the collection and accessibility of data. The CAMEL (Center for the Archaeology of Middle Eastern Landscapes) laboratory of the Oriental Institute of the University of Chicago is attempting to provide a repository of spatial datasets. Formed in 1998, the goal of the laboratory is the study of the ancient Middle East via the landscape and the collection and dissemination of spatial datasets.³⁰⁷ Other important initiatives from other research centers are making available Middle Eastern spatial datasets, such as the Corona Atlas of the Middle East of the University of Arkansas;³⁰⁸ the ArchAtlas of the University of Sheffield;³⁰⁹ the Electronic Cultural Atlas Initiative of the University of California at Berkeley;³¹⁰ and MedArchNet³¹¹ hosted by World Universities Network, Equinox Publishing, the Cotsen Institute of UCLA, the Judaic Studies Program of UCSD, the Digital Archaeological Atlas of the Holy Land, UCSD Division Calit 2, and the Institute for Aegean Prehistory. In 2003, archaeologists were able to acquire newly available high-resolution commercial satellite imagery to document the looting that was taking place in Iraq.³¹²

GIS tools have been used to identify and study different aspects of the landscape of the Near East. Scholars have explored landscape formation processes and assessed the relative value of different remote datasets for developing a key for the visual identification of archaeological tell sites and off-site features,³¹³ and have demonstrated the value of Corona satellite photographs as an aid in detecting tell sites, clusters of dense surface material, field boundaries, and other

³⁰⁶Jason A. Ur and McGuire Gibson, *Tell Hamoukar* (Chicago: Oriental Institute of the University of Chicago, 2010).

³⁰⁷Scott Branting and Joshua Trampier, "Geospatial Data and Theory in Archaeology: A View from CAMEL," in *Space - Archaeology's Final Frontier? An Intercontinental Approach*, ed. R.B. Salisbury and D. Keeler (Newcastle: Cambridge Scholars, 2007), 272–89; "The Oriental Institute of the University of Chicago," *Oriental Institute Annual Reports of CAMEL*, accessed July 14, 2015, <http://oi.uchicago.edu/research/oriental-institute-annual-reports-camel>.

³⁰⁸"Corona Atlas of the Middle East," *Corona Atlas of the Middle East*, accessed July 14, 2015, <http://corona.cast.uark.edu/index.html>.

³⁰⁹"ArchAtlas: Archaeological Atlas Project," *ArchAtlas: Archaeological Atlas Project*, accessed July 14, 2015, <http://www.archatlas.org/Home.php>.

³¹⁰"ECAI - Electronic Cultural Atlas Initiative," *ECAI - Electronic Cultural Atlas Initiative*, accessed July 14, 2015, <http://www.ecai.org/>.

³¹¹"MedArchNet," *MedArchNet*, July 14, 2015, <http://www.medarchnet.org/>.

³¹²John Curtis et al., "An Assessment of Archaeological Sites in June 2008: An Iraqi-British Project," *Iraq* 70 (2008): 215–37; A. Hamdani, "Protecting and Recording Our Archaeological Heritage in South Iraq," *Near Eastern Archaeology* 71 (2008): 221–30; Carrie Hritz, "Remote Sensing of Cultural Heritage in Iraq: A Case Study of Isin.," *TAARII Newsletter* 3 (2008): 1–8; Lawrence Rothfield, *The Rape of Mesopotamia behind the Looting of the Iraq Museum* (Chicago: University of Chicago Press, 2009); Stone E.C., "Patterns of Looting in Southern Iraq," *Antiquity* 82, no. 315 (2008): 125–38; M. Van Ess et al., "Detection of looting activities at archaeological sites in Iraq using Ikonos imagery," in *Angewandte Geoinformatik 2006: Beiträge zum 18. AGIT-Symposium Salzburg*, ed. Josef Strobl, T. Blaschke, and G. Griesebner (Heidelberg: Wichmann, 2006), 668–78.

³¹³A. Beck et al., "Evaluation of Corona and Ikonos high resolution satellite imagery for archaeological prospection in western Syria.," *Antiquity* 81 (2007): 161–75; G. Philip, A. Beck, and N. Galiatsatos, "CORONA Satellite Photography: An Archaeological application from the Middle East.," *Antiquity* 76 (2002): 109–18; K. Wilkinson, A.R. Beck, and G. Philip, "Satellite Imagery as a Resource in the Prospection For archaeological Sites in Syria.," *Geoarchaeology* 21 (2006): 735–50.

built features. Other scholars make use of combining panchromatic and multispectral sensors, which recover and measure spectral signatures reflecting ground conditions and permit archaeologists to continue to visually identify ancient features in diverse landscapes and thus begin to understand the taphonomic processes that result in their distinct appearance on remote datasets. Kennedy pointed out the importance of seasonality in determining the usefulness of a declassified Corona satellite photograph and interpreting the appearance of ancient features.³¹⁴ Menze and Ur applied a combination of multispectral and elevation remote-sensing datasets to reconstruct settlement patterns in northern Mesopotamia.³¹⁵

In this research, use was made of the Environmental System Research Institute's (ESRI) ArcGIS software. With ArcGIS it was possible to handle the wide range of remote-sensing datasets used to create the maps of the trade routes crossing the Beqa'a Valley. To better understand the impact of landscape on the development of circulation paths and, more specifically, the important role that the Beqa'a Valley's natural position played in the formation of exchange routes, this research commenced with an analysis of the topography of the Beqa'a Valley, followed by a study of the surveys conducted by Kuschke,³¹⁶ Copeland and Wescombe,³¹⁷ Marfoe³¹⁸ and Bonatz.³¹⁹ The latter was conducted in the Beqa'a Valley and performed in the southern Anti-Lebanon sector, more specifically, north of the Jabalech-Cheikh mountain, (also known as Mt. Hermon) and located in the area between Kamid el-Loz and the Damascus basin.³²⁰ The natural obstacles present in this area that would have prevented the development of routes were also included in this research. The physical elements of the valley, such as pathways, water sources, and natural resources are taken into consideration. Other elements taken into account are slope percentages and seasonality. Additionally, the information collected from the surveys of the valley and the data collected from the study of the topography of the valley has been processed with the GIS software. *Geomatics*,³²¹ a multiscalar method that advocates the collection of all available georeferenced data, maps, aerial photographs, and satellite images into a single framework, such as GIS, was used a follow-up method for comparison and analysis.

The intent of this study is to determine the relationship between Middle Bronze Age sites identified from the survey and the valley environment in the construction of circulation paths. Ten maps were created to provide a visual representation of the extension of the trade routes that might have been used at that time and to trace the dissemination of material culture and visual representations along these routes. Particular attention was given to the routes that follow an east or west trajectory. The development of these routes was the principal impetus for the growth of

³¹⁴D. Kennedy, "Declassified Satellite Photographs and Archaeology in the Middle East: Case Studies from Turkey," *Antiquity* 72 (1998): 553–71.

³¹⁵B.H. Menze and J.A. Ur, "Detection of Ancient Settlement Mounds: Archaeological Survey Based on the SRTM Terrain Model," *Photogrammetric Engineering & Remote Sensing* 72 (2006): 1–15; Menze BH and Ur JA, "Mapping Patterns of Long-Term Settlement in Northern Mesopotamia at a Large Scale.," *Proceedings of the National Academy of Sciences of the United States of America* 109, no. 14 (2012): 778–87.

³¹⁶Kuschke, "Beiträge zur Siedlungsgeschichte der Biqā"; Kuschke, "Beiträge zur Siedlungsgeschichte Der Biqā' (Fortsetzung Und Schluß)"; Kuschke et al., *Archäologischer Survey in Der Nördlichen Biqāc, Herbst 1972*.

³¹⁷Copeland and Wescombe, *Inventory of Stone-Age Sites in Lebanon*.

³¹⁸Marfoe, "Between Qadesh and Kumidi a History of Frontier Settlement and Land Use in the Biqa', Lebanon."

³¹⁹D. Bonatz, "Preliminary Remarks on an Archaeological Survey in the Anti-Lebanon," *BAAL* 6 (2002): 283–307.

³²⁰D. Bonatz, "Preliminary Remarks on an Archaeological Survey in the Anti-Lebanon," *BAAL* 6 (2002): 283–307.

³²¹G. Bitelli, "Remote Sensing and Integration with Other Geomatic Techniques in Archaeology," in *Satellite Remote Sensing a New Tool for Archaeology*, ed. Rosa Lasaponara and Nicola Masini (New York: Springer, 2012), 113–27.

trade and for the transportation of goods to the hinterlands. Moreover, the material culture found along these routes demonstrates varying degrees of impact produced by the circulation of foreign culture from the west to the hinterlands. The first routes that will be described are those leading to the east. The area of modern day Damascus was chosen as an ending point for this study because Middle Bronze Age levels are present, and, just a few kilometers away from the center of Damascus, in the vicinity of the Damascus airport, is the site of Tell Sakka, which during the Middle Bronze Age was characterized by the presence of a palace containing wall paintings that speak of the site's exposure to international motifs. From the Damascus area, routes probably led further south of Syria and toward the east, to the area of Palmyra, which was also occupied during the Middle Bronze Age. To the west of the Beqa'a, the routes that led to Beirut are unclear. This is due to the limited archaeological work performed along the western sides of the Lebanese mountains. This lack of information makes it difficult to determine if this area was occupied. Currently, we can say that the coastal zone was characterized by the presence of ports but, based on the surveys conducted in the surrounding areas, occupation seems to have been limited. Beirut, which was also occupied during the Middle Bronze Age, was the final point of the trade routes. To the south, the ending point of the path that I have traced leads to the settlement of Tel Dan. To the north, accessibility to the settlements in western Syria was possible following the Assi river, which becomes the Orontes river in Syria.

2. The Landscape of Lebanon and the Beqa'a Valley

Lebanon is characterized by a mountainous landscape with a Mediterranean-type climate that varies from coastal dry to mountain subhumid to inland semi-arid. The country presents a series of geomorphologic units ranging from level quaternary plains to sloping and steep mountains with alternating soft marl and hard limestone rocks.³²² Basalt and sandstone intrusions can be found in various places. The country is dissected by a series of major and minor faults that add to the complexity of the geomorphology. This variability in landform, mineral substrates, and climate resulted in rich vegetation and yielded different soil types such as Fluvisols, Cambisols, Vertisols, Luvisols, Regosols, Leptosols, and Calcisols in different associations and proportions.

One of the most relevant topographic characteristics of the area is the presence of mountain ranges that cross the country from north to south. The Mount Lebanon range reaches an elevation of 3,083 m on the western side of Lebanon while the Anti-Lebanon range rises to 2,814 m at Mount Hermon. These two mountain ranges enclose the Beqa'a Valley, which is 850 m above sea level. The highest mountains of the Mount Lebanon range are located on the northern side of the valley. These are: the Qornet el-Saouda mountain, which is the highest peak at 3,088 meters above sea level; EzZnanir, 3,073 m; ErRahal, 2,954 m; TalletOuardierRjoum, 2,938 m; Tallet el Ouata, 2,934 m; MarcharaaTourmous, 2,932 m; Msakham, 2,912 m; Dah Qloussia, 2,845 m; and QornetBirket el Qash, 2,821 m. In the area of Baalbek and Hermel is found the HarfAin el-Baida mountain at 2,839m. East of Beirut is the JabalSannin mountain, reaching a height of 2,695 meters. On the southern end of the Mount Lebanon range are the Chouf Mountains, located in the Chouf district. This area is home to the biggest forest of Lebanese Cedars and is found on the flanks of the JabalBarouk mountain, which has an elevation

³²²T. Darwish et al., "Inventory and Management of Lebanese Soils Geographical Database of Euro-Mediterranean Countries," *The Libanese Science Journal* 6, no. 2 (2005).

of approximately 1,943 m. Cedars are found in Maaser el Shouf and AinZhalta, as well as in Mount Makmel, which towers over the Qadisha Valley. Here, cedars are located at an altitude of less than 2,000 meters, allowing accessibility to this resource.

On the eastern side of Lebanon is the Anti-Lebanon Mountain range. Presently, this mountain range is divided between Lebanon and Syria. The range is about 150 kilometers in length. The highest peak of the range is Mount Hermon, with an elevation of 2,814 m, and the second highest peak is Talat Musa at 2,669 meters. The northern range is narrow and is characterized by high peaks; the central mass of the mountain range is broader and higher, while the southern side is more accessible, as it is characterized by long torrents. Several descending plateaus distinguish the eastern side. The mountain range is covered by snow for most of the year and it has few rivers.

Located between Mount Lebanon and the Anti-Lebanon mountains is the Beqa'a Valley, an area which lies in a north to south direction. The valley is 10-15 km wide and is 120-125 km long with an altitude of 800-1100 m. The rainfall occurs mainly during the winter season between the months of November and April. Generally, the winters are cold and wet while the summers tend to be dry and hot. The average annual temperature is 15-17°C. The monthly winter average is a minimum of -3°C and the average monthly maximum is 24°C. The summer average monthly minimum is 7°C and the average monthly maximum is 35°C. The amount of precipitation in the Beqa'a varies from region to region: 900-1000 mm in the south, 400-700 mm in the center, and 200-400 mm in the north. The Beqa'a Valley is the result of sedimentary filling-in; thus, successive sedimentary layers characterized the geology of the valley. These were later cemented by a conglomerate of limestone that occurred during the Neocene times and later by different alluvial and colluvial deposits. During the Miocene times, basaltic lava was extruded in some places.

The most prominent resource of the Beqa'a Valley is the soil. Two main soil types should be mentioned in relation of the Beqa'a Valley. The conglomerates (thick to moderately thick soils) make up most of the plateau of the Orontes River and Litani River, the two major rivers of the valley. The colluvial soil brought by the Quaternary rains is characteristically calcareous and grey-brown and red-brown in color; it is mostly located near the foot slopes of the basins of the Orontes River and the Litani River. A considerable portion of the soil in the central Beqa'a Valley is reddish or black in color and are high in clay content and generally calcareous. Dark chestnut color clay soils are also common. Along the Litani River, in the central Beqa'a, some young alluvial soils occur, varying in characteristics but invariably having a high CaCO content. On the eastern and western side of the valley, strips of shallow grayish-white soils are formed on white marl.³²³The distinctiveness of the soil of the Beqa'a Valley allowed this area to become the major producer of agricultural products.

Rivers and lakes are also an important resource in Lebanon. According to C.D. Walley, there are two main groups of rivers in Lebanon. The first group includes the east-west rivers that drain from Mount Lebanon and flow into the Mediterranean Sea. These are the Nahr el Aouali, the Nahr al Ibrahim, the Nahr al Jaouz, the NahrAbouMoussa, the Nahr al Kabir, the AbouAssouad, the Sainiq, the Awali, the Damour, the Beirut, the Nahr el Khab, the Aboy Ali, the El Barea, and the Ostuene.³²⁴The Awaliriver is 48 km long, originates in the Barouk and

³²³A. H. Sayeh and A. J. Salib, "Some Physical and Chemical Properties of Soils in the Beqa'a Plain, Lebanon," *Journal of Soil Science* 20, no. 1 (1969): 167-75.

³²⁴Gunnar Lehmann, *Bibliographie der archäologischen Fundstellen und Surveys in Syrien und Libanon* (Rahden/Westf.:Leidorf, 2002).

Niha mountains, and flows through the western side of Mount Lebanon into the Mediterranean. The Damour and Awali rivers are the two main river systems of southern Lebanon.

The second group includes the Beqa'a Valley rivers, the Litani River and the Assi River. The Litani River is the main water source of southern Lebanon. It originates in the Beqa'a Valley, west of Baalbek and flows into the Mediterranean Sea, north of the city of Tyre. The Assi River is also known as the Orontes River in Syria and flows northwards into Syria. The source of the latter is in the village of Labweh, on the eastern side of the Beqa'a Valley; this river widens when it reaches Hama, Syria. Another river, mainly located in the southern Beqa'a, is the Nahr al Hasbani River. It runs toward the village of Rachaya.

Three major lakes are found in Lebanon. The Qaraoun and the Bnachi are located in the Beqa'a, and near the Jezzine Pass is lake Buhayrat al Qirawn. The Qaraoun Lake or reservoir is an artificial body of water,³²⁵ positioned in the southern Beqa'a near the Qaraoun Village. It was created in 1959 to produce hydropower and to supply water for domestic use and for irrigation. Lake Bnachi, a natural lake, is situated in northern Lebanon.

Based on the description given of the topography of the valley, the natural obstacles that prevented the development of routes in the valley are the mountains to the east and west of the valley. The height and slope percentage of these mountains undoubtedly complicated the possibility of crossing them, and, for this reason, the only provable access points that were identified in this research are the zones where the mountain altitude is low and where the mountain gorges allow accessibility.

3. Previous Studies on the Beqa'a Valley

Although previous studies on the Beqa'a are available, they are not sufficient to reconstruct the history of the valley. Surveys and excavations were performed in the area and have revealed that the valley has been inhabited since prehistoric periods. The Beqa'a Valley has received particular attention by scholars because of the rich archaeological data available for the antique period, especially for the Roman period, to which is dated the well-known site of Baalbek. To the Umayyad period is dated the site of Anjar. Less known is the Bronze Age of the valley, where only a few sites dated to this period have been excavated. Of great importance is the site of Kamid el-Loz, which attracted the attention of scholars due to the recovery of a Late Bronze Age Palace that testifies to an Egyptian presence in the valley.³²⁶ Our main source of information regarding the Middle Bronze Age, which is the focus of this research, derives from the excavations at Kamid el-Loz and other sites that have been partially excavated, such as Tell el-Ghasill and Tell Hizzin.

Along with these excavations, several surveys have been also performed. In the 1930s, a survey in the valley was conducted by Anton Jirku and published in 1934 in "Neue Forschungen in Syrien und Palästina." In the 1950s, the first systematic exploration of the area was made by

³²⁵It was created near Qaraoun village in 1959 by building a 61-metre-high (200 ft) concrete-faced rockfill dam in the middle reaches of the Litani River.

³²⁶Rolf Hachmann, "Der Palast eines Syrischen Klein Königs der Späten Bronzezeit in Kāmid el-Lōz," in *Palast und Hütte: Beiträge zum Bauen und Wohnen im Altertum von Archäologen, Vor- und Frühgeschichtlern: Tagungsbeiträge eines Symposiums der Alexander von Humboldt-Stiftung, Bonn-Bad Godesberg, veranstaltet vom 25.-30. November 1979 in Berlin*, ed. Alexander von Humboldt-Stiftung et al. (Mainz am Rhein: P. von Zabern, 1982), 21–41.

A. Kuschkeby, who conducted a survey in the valley by using a motorcycle.³²⁷ He documented several sites in the Beqa'a and assigned them to specific chronological periods.³²⁸ In the 1960s, Copeland and Wascombe performed a study on Neolithic sites in the Beqa'a Valley.³²⁹ A survey conducted by Copeland in 1965 identified new sites datable to the Natufian period.³³⁰ Additional research to reconstruct the prehistory of Lebanon was carried out in the 1970s, before the Lebanese Civil War and, more recently, in 1991, Schroeder provided another study on the prehistoric period of Lebanon.³³¹

Leon Marfoe's research was a major contribution to the identification of Bronze Age sites. In 1975, he published a report on the survey that he himself conducted, in the form of a catalog of sites that included six photocopies of maps in a 1:1000000 scale with the exact location of the known sites. In his catalogue, he documented approximately 401 sites. He began his dissertation research using as a starting point Kamid el-Loz.³³² His study presented a detailed analysis where three main themes were investigated: the persistent rise and fall of civilization; the continual struggle between the desert and the sown, the rivalry between nomadic pastoralists and sedentary farmers; and the *leitmotiv* of the "widespread and perpetual image of the Levant as a crossroads of culture." Marfoe's aim was to investigate the interrelationship of these three themes in the historical development of the Levant.³³³ Emphasis was given to human-environment interaction. Marfoe provides not only information regarding the landscape of the Beqa'a Valley but also an analysis of the ceramic material of Kamid el-Loz and a chronology of the site. Although his dissertation was never published, an abbreviated form of this study is available.³³⁴

Other surveys were performed in the northern Beqa'a and in the Akkar plain in 1997. The Akkar plain was surveyed by Assad Seif³³⁵ and by Karin Bartl; during the survey, 70 archaeological sites were identified.³³⁶ In 2001, in a survey performed by Ken Matsumoto and Hisahiko Wada, several Middle Bronze Age sites were located.³³⁷ Current surveys have focused on later period settlements. D. Bonatz surveyed the area between Kamid el-Loz and Janta in the

³²⁷Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*, 9.

³²⁸Kuschke, "Beiträge Zur Siedlungsgeschichte Der Bikā' (Fortsetzung Und Schluß)"; Kuschke, "Beiträge zur Siedlungsgeschichte der Bikā'."

³²⁹Copeland and Wascombe, *Inventory of Stone-Age Sites in Lebanon*.

³³⁰L Copeland, "Natufian Sites in Lebanon," in *The Natufian Culture in the Levant*, ed. O. Bar-Yosef and F.R. Valla, International Monographs in Prehistory (Michigan: Ann Arbor, 1991), 27–42.

³³¹B. Schroeder, "Natufian in the Central Béqaa Valley, Lebanon," in *The Natufian Culture in the Levant*, ed. O. Bar-Yosef and F.R. Valla, International Monographs in Prehistory (Michigan: Ann Arbor, 1991), 43.

³³²Leon Marfoe work on the Beqa'a was completed at the Oriental Institute of Chicago in 1975.

³³³Marfoe, "Between Qadesh and Kumidi a History of Frontier Settlement and Land Use in the Biqa', Lebanon," 1–2.

³³⁴Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*; Leon Marfoe and Rolf Hachmann, *Kamid El-Loz 14. Settlement History of the Biqa' up to the Iron Age*, Saarbrücker Beiträge Zur Altertumskunde 53 (Bonn: Habelt, 1998).

³³⁵Assad Seif's survey in the Akkar plain was part of his doctoral dissertation research and is not available for consultation.

³³⁶Karin Bartl and A. Chaaya, "Akkar Survey 1997. Archaeological Surface Investigations in the Plain of Akkar/Northern Lebanon, Preliminary Results," *BAAL* 3 (1997): 169–79; Karin Bartl, "Ancient Settlements in the Plain of Akkar/Northern Lebanon. First Results of Archaeological Survey Work in 1997 and 1999," *Occident and Orient*, (March 2002): 2–4.

³³⁷松本健和田久彦, "Report on the Archaeological Survey in the Hilly Area of Akkar Region in North Lebanon," *ラーファイダーン*.22 (2001): 93–111.

Anti-Lebanon mountains in 2001 and 2002.³³⁸ During this survey, Bonatz was able to identify a few Middle Bronze Age settlements that support the presence of a route in the area of the Janta River that led into Damascus.³³⁹ A recent survey by Michael Sommer, who studied the importance of the Beqa'a during the Hellenistic period, determined that the northern and southern routes, leading respectively to the southern Levant and to northern Levant, developed greatly during the Hellenistic period. Sommer included a short survey of the area with the aim of defining the importance of the valley during the Hellenistic and Roman periods.³⁴⁰

For this research, the work of Marfoe was of key importance in the reconstruction of the settlement patterns of the Beqa'a Valley during the Middle Bronze Age. Table 2.1-3 (p. 224-226) contains a list of all the Middle Bronze Age sites that were identified by Marfoe during the 1970s in the southern, central, and northern Beqa'a. The sites' sizes can be divided into 3 categories:³⁴¹

- 1) Small: These sites measure from 50-150 meters in diameter, the smallest being al-Ftah II, with a tell of approximately 50 m in diameter.
- 2) Medium: These sites are about 150-250 meters in diameter.
- 3) Large: The size of these sites is approximately 250-350 + meters in length, with Andjar I being the largest site, located north/east of Kamid el-Loz (370 x 310 m). The majority of the large-sized sites are mainly located in the southern Beqa'a.

Geographically speaking, most of the settlements identified in the survey were located north of Kamid el-Loz. These are Tell Ghazza, Tell Satiya al Yamin, Tall ar-Rahib, Anjar, Tell al-Istabil, Tell DayrZanun I, Tell Bar Elyas, Tell QabbElyas, Tell Taanayel, Tell Nab' al-Fa'ur, Tell as-Sirhan, Tell Dalhamiya, Tell Schtura, Tell Ksara, and Tell Djidita. The most northern sites are Tell al-Ghabi, Tell Tayyaq, and Tell 'Ayn Scharif. These are located along the northern portion of the Litani River and along the valley. The biggest sites north of Kamid el-Loz that Marfoe documented are Anjar (370 x 310 m) and Tell Bar Elyas (340 x 220 x 27 m).

South of Kamid el-Loz are located Tell Kherbe and Tell Dibbin, positioned along the southern section of the Litani River. The most southern site is Tell Dibbin (340 - 240 x 23 m), located along a route that leads to Tel Dan, a settlement that, during the Middle Bronze Age, featured impressive mud brick structures. The Egyptian Execration texts and cuneiform tablets from the Mesopotamian city of Mari both attest Tel Dan's significance in the early second millennium BCE.³⁴²

Directly to the east of Kamid el-Loz is the Great Rift Valley and the Anti-Lebanon Mountains. No Middle Bronze Age sites were identified east of Kamid el-Loz. To the west of Kamid el-Loz are located the sites of Qaql al Kharibe (200 - 250 x 5 m) and Tell ad Djisir (180 x 150 x 11 m). These are medium-sized settlements.

Based on the survey performed by Marfoe, it is possible to observe a trend in the settlement patterns. Map *n. x* proposes a dot-density overlay of the sites identified on an aerial photograph of the Beqa'a Valley. The visualization of the layers provides insight into the relationship between the archaeological sites and the features of the landscape. The size of the settlements recorded by Marfoe refers to the size of the tell at the time in which Marfoe conducted the survey. In his research, Marfoe notes that with the onset of the Middle Bronze Age

³³⁸Bonatz, "Preliminary Remarks on an Archaeological Survey in the Anti-Lebanon."

³³⁹Ibid.

³⁴⁰Michael Sommer, "The Beqa'a Valley in Antiquity. A Regional-Historic Survey," *Bulletin d'Archéologie et d'Architecture Libanaises* 5 (2001): 71-91.

³⁴¹ The measurements provided by Marfoe for the sites identified do not refer specifically to the general size of the Tell at the moment of its identification and it does not refer to the size of the settlement in the Middle Bronze Age.

³⁴²Malamat, "Syro-Palestinian Destinations in a Mari Tin Inventory."

I period, large sites were resettled, while, during the Middle Bronze Age II period, there is an increase in number of sites.³⁴³ The larger sites (circa 250-350 + meters) identified are located along the major rivers of the Beqa'a Valley, that is, the Assi and the Litani Rivers. Large-sized sites situated in the proximity of the Litani River are Tell Haschba, Tell 'AynScharif, Tell Dalhamiya, Tell as-Sirhan, Tell Bar Elyas, and Tell Ghazza. Tell ad-Dar and Kamid el-Lozare farther away from the Litani river, the major source of water in the valley but are, however, at a reachable distance. Another site of larger dimension is that of Anjar, which is located near the slopes of the Anti-Lebanon mountain range and situated close to a mountain access point. Another large site that was recognized by Marfoe is positioned in the southern Beqa'a Valley. This site is Tell Dibbin, positioned close to the Hasbani River, which leads to the southern Levant and to Tel Dan, the closest site to the Beqa'a Valley's southern entrance, and dated to the Middle Bronze Age. Settlements of medium size (circa 150-250 meters) during the Middle Bronze Age II were principally located in the valley close to water sources, more specifically, along the Litani River. An interesting concentration of sites is also to be found close to the slopes of the Lebanese Mountains where four settlements are located: Tell Djedita, Tell Schtura, Tell QabbElyas, and Tell Ta'nayil, all recorded as being small-to middle-sized settlements. Smaller sites (size 50-150 meters) were to be found along the plain of the valley and in proximity of the Litani and Assi Rivers.

Of all the sites that were documented in the Beqa'a Valley, Kamid el-Loz, as mentioned previously, is the only site that has been systematically excavated. A fresh survey was conducted in the area of Kamid el-Loz by Michael Sommer and M. Heinz in 2001 and in the Anti-Lebanon mountains by Bonatz in 2002. The latter survey was mostly concerned with the identification of sites of the Late Antique period but a few Middle Bronze Age sites were also identified.³⁴⁴ Sommer points out in his work that the site of Kamid el-Loz is in a geographical position that allows for the control of not only the main road but also the greater part of the Beqa'a. Although this work focuses more on the Hellenistic period, it also presents a new perspective on the relevance that the Beqa'a Valley landscape had in the determination of Hellenistic sites and acknowledges that the history of the Beqa'a is strongly linked with that of the surrounding area and cannot be separated from that of the Levant and Syria.³⁴⁵ Sommer's assumptions are heavily based on the geographic characteristics of the Beqa'a Valley and on the knowledge that the valley was a fertile alluvial land, which, although bordered by the mountains, was accessible from several different directions.³⁴⁶ The southern plain of the Beqa'a was characterized by a more Mediterranean climate, making this area of the Beqa'a particularly fertile thanks also to the presence of the Litani and Assi rivers that run through the valley.

4. A Reconstruction of the Beqa'a Valley Routes

The identification of the Middle Bronze Age sites from the survey conducted by Marfoe is crucial in defining the distribution of the settlements and the identification of access points to the valley. Trade paths were well developed during the Middle Bronze Age, a fact that is well attested in the written documentation available for this period. Here, the goods that were traded

³⁴³Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*, 428.

³⁴⁴Michael Sommer, "The Beqa'a Valley in Antiquity. A Regional-Historic Survey," *BAAL* 5 (2001):71-91.

³⁴⁵Michael Sommer, "The Beqa'a Valley in Antiquity. A Regional-Historic Survey.

³⁴⁶*Ibid.*, 73.

during the Middle Bronze Age, the identification of the settlements located in the Levant, and the paths that probably connected them will be discussed.

4.1 Resource Demand and the Development of Trade Paths

The development of circulation paths through the Beqa'a began with the demand for specific resources. These paths facilitated the circulation of products. The central Levant was especially known in antiquity for two major resources: cedar wood and agricultural products. A reduced amount of Lebanese cedar is presently found growing along the rocky mountain slopes with a thin soil cover at altitudes higher than 1000 m above sea level (a.s.l.) in the eastern part of the Mediterranean, for example, on Mt. Lebanon, Mt. Ansarie, Mt. Amanos, and Mt. Toros. By the Middle Bronze Age, the cedar forests that had flourished along the coast had begun to decrease.³⁴⁷ The Lebanese mountains at this time were still rich in cedar. The transportation of the wood from the mountains became necessary to satisfy the request for this commodity.

Archaeological and textual documentation provide some insight into the relevance of cedar wood in the ancient Near East. Cedar wood was used for the construction of temples, palaces, and other important buildings. The word for cedar wood in Akkadian is *erenu*. It appears in the Epic of Gilgamesh in reference to the forest guarded by Humbaba.³⁴⁸ Texts indicate that cedar wood originated mainly from Lebanon and the Amanus region. A clear indication of the specific types of wood used before the later second millennium is rare, with the exception of the texts dated to the time of Ur-Namma and Gudea³⁴⁹ towards the end of the third millennium BCE. By the second millennium, most of the documentation is from Mari, where the consignment of *erenu*-wood on the road to Mari detained at Carchemish is recorded.³⁵⁰ Other evidence comes from the site of Tel Nami, where, in the Middle Bronze Age II level, remains of Lebanese Cedar (*cedar libani*) were found in a well at the site.³⁵¹

Generally, the Levant was known for its production of grain, olive oil, and wine, all mainly available in the Anatolian region and Levantine area. As attested in the texts from Mari, oil, grain, and wine were imported from the western regions. Wine was a particular product of the west. There are no indications that wine was being exported from the Beqa'a to any of the major cities of the Levant. McGovern suggests that in antiquity the wine of the Damascus region probably arrived from the Beqa'a Valley and from there it was dispatched to cities such as Qatna,

³⁴⁷ Yoshinori Yasuda et al. The earliest record of major anthropogenic deforestation in the Ghab Valley, northwest Syria: a Palynological study *Quaternary International* 73/74 (2000) 127-136. For a discussion on the climatic change and cedar forest issues see also: Marvin W Mikesell, "The Deforestation of Mount Lebanon," *Geogrevi Geographical Review* 59, no. 1 (1969): 1-28; L Hajar et al., "Environmental Changes in Lebanon during the Holocene: Man vs. Climate Impacts," *Journal of Arid Environments* 74, no. 7 (2010): 746-55.

³⁴⁸ On the discussion of cedar forests in ancient texts see: Farouk N. H Al-Rawi and A. R George, "Back to the Cedar Forest the Beginning and End of Tablet V of the Standard Babylonian Epic of Gilgamesh.," *Journal of Cuneiform Studies* 66 (2014): 69-90.

³⁴⁹ P. R. S Moorey, *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence* (Oxford; New York: Clarendon Press, 1994), 350; Edmond. Sollberger and Jean Robert. Kupper, *Inscriptions Royales Sumériennes et Akkadiennes*, Littératures Anciennes Du Proche-Orient.3 (Paris: Éditions du Cerf, 1971), 196: IIA1b; IIA4e.

³⁵⁰ Jean Robert. Kupper, "Le Bois a Mari," *Bulletin on Sumerian Agriculture* 6 (1992): 163-70; Moorey, *Ancient Mesopotamian Materials and Industries*, 351.

³⁵¹ Lev-Yadun, "Wood Remains from Tel Nami, a Middle Bronze IIA and Late Bronze IIB Port, Local Exploitation of Trees and Levantine Cedar Trade," 311.

in the upper Orontes Valley, via the Tadmor-Palmyra way.³⁵² In regard to oil, texts from the Alalakh archives indicate that a city, Murar,³⁵³ located between Alalakh and Ugarit, was a center known for oil production.³⁵⁴ That the Beqa'a was a fertile region is known from its geological composition.³⁵⁵ The natural vegetation in the area where there is Red Mediterranean soil consists of holm oak (*Quercus ilex*), cork oak (*Quercus suber*), wild olive (*Olea Europea*), carob (*Ceratonia Siliqua*), lentil (*Pistacea Lentiscus*), stone pine (*Pinus pinea*), and Aleppo pine (*P. Halepensis*).³⁵⁶

An analysis of the vegetation changes in the Beqa'a Valley was made in the Aammiq wetland area; the flora analyzed there included around 600 species.³⁵⁷ Conifer species in use from this area that have been attested among the sources are cedar and cypress wood, employed in construction activities. Olive trees grew along the coast. Archaeobotanical research conducted at the site of Tell Fadaous-Fhakariba on Middle Bronze Age plants indicates their presence along with pistachio and spikelet.³⁵⁸ In regards to the Beqa'a Valley, where research teams have collected and analyzed samples to identify the plants present in this area, the main source of information to date derives from the Roman period.

4.1.1 Raw materials

Metals were circulating from Anatolia to the Northern Levant (present-day Syria) and through the Assyrian region (present-day northern Iraq). The Kültepe texts attest to the circulation of gold, silver, tin, and copper.³⁵⁹ The identification of tin sources has been a controversial matter. A small number of scholars have suggested that during the Old Assyrian period, tin arrived from Anatolia. This hypothesis was suggested by Yener,³⁶⁰ while James Muhly proposes that at the time of Zimri-Lim the source of tin was to be found in Afghanistan, hence, the distribution of tin from Mari to various Levantine cities.³⁶¹ Other sources of tin were to be found in the Kardagh Mountains in northeastern Iran, east of Tabriz, and also in Uzbekistan and Afghanistan.³⁶²

³⁵²Patrick E McGovern, Stuart J Fleming, and Solomon H Katz, eds., *The Origins and Ancient History of Wine* (Amsterdam, The Netherlands: Gordon and Breach Publishers, 1996), 108.

³⁵³D. J Wiseman, *The Alalakh Tablets*. (London: British Institute of Archaeology at Ankara, 1953), Alalakh 320–322.

³⁵⁴Jacob Lauinger, “Archival Practices at Old Babylonian/Middle Bronze Age Alalakh (level VII)” 2007, 82.

³⁵⁵*Mediterranean Soils* (Eolss Publishers, Oxford, UK., 2011), <http://hdl.handle.net/10261/38282>.

³⁵⁶Willy Verheyen and Diego de la Rosa, “Mediterranean Soils: In Land Use and Land Cover,” *Encyclopedia of Life Support Systems*, 26 (Oxford, UK: Encyclopedia of Life Support Cultural Organization, 2005), <http://hdl.handle.net/10261/38282>.

³⁵⁷*Ibid.*

³⁵⁸Hermann Genz and et. al., “Excavation at Tell Fadaous-Kfarabida: Preliminary Report on the 2009 Season of Excavation,” *Bulletin d’Archéologie et d’Architecture Libanaise* 13 (2009): 71–124.

³⁵⁹Klaas R Veenhof, “Ancient Assur: The City, Its Traders, and Its Commercial Network,” *Journal of the Economic and Social History of the Orient* 53, no. 1/2 (2010): 56–61.

³⁶⁰K. Aslihan Yener, *The Domestication of Metals: The Rise of Complex Metal Industries in Anatolia* (Leiden; Boston: Brill, 2000).

³⁶¹J. D Muhly, “Tin Trade Routes of the Bronze Age: New Evidence and New Techniques Aid in the Study of Metal Sources of the Ancient World,” *Ameriscie American Scientist* 61, no. 4 (1973): 404–13; James D Muhly, “Sources of tin and the beginnings of bronze metallurgy,” *American Journal of Archaeology* 89 (1985): 275–91.

³⁶²James D Muhly, “Sources of tin and the beginnings of bronze metallurgy,” *American Journal of Archaeology* 89 (1985): 275–91; Moorey, *Ancient Mesopotamian Materials and Industries*, 239.

Textual documentation is the best source of information on the issue of tin and its trade. The most informative documents are the archives of KarumKanesh and Mari. The KarumKanesh archives report that merchants from Assur brought tin to central Anatolia, but the source of the tin is not indicated. Scholars, such as Muhly, maintain that this implies that Anatolia did not have tin. Because of the great quantity that was shipped to Anatolia, M. Aubet has suggested that Anatolia was an important distribution point or, to be more specific, a market.³⁶³ Yener, thanks to a survey conducted in Anatolia, has hypothesized that Anatolia had important sources of tin in antiquity. Two of these sources were located in Bolkardağ and Kestel in the Taurus Mountain range, and another was found in Hisarcık in central Anatolia.³⁶⁴

The Mari letters represent the best documentation on the circulation of tin at the Mari palace. The Mari texts describe the movement of tin and its distribution points. Tin was shipped from Mari to places such as Aleppo, Qatna, Ebla, Dan, Hazor, and Ugarit. Because the shipment of tin followed an east to west trajectory, Muhly has proposed that the source is to be found in Afghanistan.³⁶⁵ Mari text A. 1270,³⁶⁶ dated to the reign of Zimri-Lim, reports that tin was deposited at the palace of Mari and that the shipment arrived from Babylon, Susa, or Ugarit.³⁶⁷ Tin was exported to Hazor from Mari, as documented in ARM VII 236:6.³⁶⁸ Additionally, ARM XXIII 556 documents a shipment of tin brought to the city of Halab (Aleppo) sent by Hammurabi of Babylon. Other quantities were deposited by two merchants, Ishhi-Dagan and Yatar-Addu. Further deliveries to Yarim-Lim of Yamhad, his family, and other individuals living in Halab are attested in ARM XXV 48+ and to his vizier, as documented in ARM XXIII 448, 449. A person living in Ugarit also received tin. Additional Mari letters mentioning tin are ARM VII, 86, 87, 88, 233, and 287. They also refer to the distribution of tin to places such as Hazor and Dan.

Silver was available in Anatolia, the region that has the greatest quantity of geologically identified silver bearing ores. Between 1986 and 1989, Yener conducted research on the ancient sources of silver in Anatolia. In her study, she concentrated on the Bolkardağ mining district of the Taurus Mountains,³⁶⁹ an area where silver deposits are found, based on the Akkadian king's inscription. During the second millennium, silver was less common and it was used to produce some vessels and for ornamentation.³⁷⁰ Silver was in circulation since the Middle Bronze Age, as indicated by objects such as the Montet jar³⁷¹ and the silver carinated bowls and silver plaques of anthropoid figures found at the Obelisk temple of Byblos.³⁷² Silver may have been extracted from lead ores and used for manufacturing in Anatolia as early as the fourth millennium.³⁷³ During the third millennium, Anatolia was trading silver down the Euphrates into Sumer and, in the early second millennium, the Kültepe texts indicate that merchants from Assur were trading

³⁶³ Aubet, *Commerce and Colonization in the Ancient Near East*, 291.

³⁶⁴ Aslyhan Yener K, "Strategic Industries and Tin in the Ancient near East."

³⁶⁵ Robert Maddin and Tamara Stech Wheeler and James D. Muhly, "Tin in the Ancient near East: Old Questions and New Finds." *Expedition: 19 (2) 1977*, pp. 35-47.

³⁶⁶ *Ibid.*

³⁶⁷ Text A.1270 Line 1-9 contains a list of tin deposited at the palace treasury in Mari, totaling 16 talents 10 minas, around 500.

³⁶⁸ Malamat, "Syro-Palestinian Destinations in a Mari Tin Inventory."

³⁶⁹ Aslyhan Yener K, "Strategic Industries and Tin in the Ancient near East."

³⁷⁰ Moorey, *Ancient Mesopotamian Materials and Industries*, 234-237.

³⁷¹ Nigro, "The Eighteenth Century BC Princes of Byblos and Ebla and the Chronology of the Middle Bronze Age."

³⁷² Dunand, Maurice. 1939. *Fouilles de Byblos T. 1, [1], T. 1, [1]*. Paris: P. Geuthner; *Ibid.* 1950. *Fouilles de Byblos. T. 2, T. 2*. Paris: Librairie d'Amérique et d'Orient Adrien Maisonneuve.

³⁷³ Moorey *Ancient Mesopotamian Materials and Industries*, 235.

textiles for silver from Anatolia.³⁷⁴ Anatolia was especially rich in metal deposits, and copper was used as a monetary system.³⁷⁵ Copper was in demand, as is confirmed in a contract stipulating the delivery of 195 kg of copper to Kanesh (ICK 2 text 54). Copper was mainly circulating from Cyprus to the Levant and Mesopotamia, as the Mari texts indicate.

Precious metals, such as gold, could have arrived from Anatolia, as attested in the Kültepe/Kanesh texts, and also from Egypt.³⁷⁶ Regarding bronze, Dercksen notes that in the Kanesh texts there are no indications of its circulation in its prime form; it appears, however, in the texts as circulating in the form of objects and often belonging to the inventory of households. Bronze items are noted as being sent to Assur.³⁷⁷

Precious stones, such as turquoise, arrived from Sinai,³⁷⁸ lapis lazuli came from Afghanistan. Scholars have agreed that the source of lapis lazuli is to be found in the Badakhshan district of Afghanistan, along with minor local sources.³⁷⁹ From the second millennium BCE, the Egyptian treasure of Tôd represents the largest amount of lapis lazuli found and, in this same place, silver was also found. This treasure is dated to Amenemhat II (1911-1876 BCE), third king of the 12th dynasty, and was excavated in 1936 from the basement of a temple dedicated to the worship of Monthu, 30 km south of Luxor. The treasure contained unworked lapis lazuli, seals, and amulets from the third and second millennia BCE. During the first half of the second millennium, the use of lapis lazuli declined compared with that of the Ur III period. In the 18th century, the acquisition of lapis lazuli was indirectly associated with that of tin through the Elamites or Elam, as documented in the Mari Texts.³⁸⁰ With the development of the Indus trade in 1750 BCE,³⁸¹ there came a decline in the use of lapis lazuli. Moorey suggests that this reflects the tendency to recycle stocks. Settlements, such as Mari and Assur, produced small quantities of lapis lazuli used for amulets, beads, and inlays.³⁸²

4.1.2. Processed Goods

Textiles were an important form of processed goods. Text ARM In. 535³⁸³ describes a royal journey from Mari to Aleppo and Ugarit, where gifts that were brought along consisted mainly of clothes and garments. In the texts from KarumKanesh, there are approximately 100,000 pieces of textiles mentioned. Assyrians were transporting wool textiles to central Anatolia. These were traded together with more than 13 tons of tin.³⁸⁴ The interest in textiles and

³⁷⁴ Ibid., 237

³⁷⁵ Jan Gerrit Dercksen, *The Old Assyrian Copper Trade in Anatolia* ([Istanbul]: Nederlands Historisch-Archaeologisch Instituut te Istanbul, 1996).

³⁷⁶ Moorey, *Ancient Mesopotamian Materials and Industries*

³⁷⁷ Dercksen, *The Old Assyrian Copper Trade in Anatolia*, 151.

³⁷⁸ Patty Gerstenblith, *The Levant at the Beginning of the Middle Bronze Age* (Winona Lake: Ind.: Eisenbrauns, 1983); Moorey, *Ancient Mesopotamian Materials and Industries*, 101. Michael Rowlands et al., eds., "Commercial Networks in the Ancient Near East," in *Centre and Periphery in the Ancient World* (Cambridge [etc.]: Cambridge University Press, 1987), 47–56.

³⁷⁹ Moorey, *Ancient Mesopotamian Materials and Industries*, 86.

³⁸⁰ Villard, "Un Roi de Mari à Ugarit."

³⁸¹ Moorey, *Ancient Mesopotamian Materials and Industries*, 90.

³⁸² Ibid.

³⁸³ William W. Hallo, "The Road to Emar," *Journal of Cuneiform Studies* XVIII, no. 3 (1964): 57–88. Hallo 1964.

³⁸⁴ Allison Karmel Thomason, "Her Share of the Profits: Women, Agency, and Textile Production at Kültepe/Kanesh in the Early Second Millennium BC.," in *Textile Production and Consumption in the Ancient Near East*:

the large amount circulating in the Near East suggest, according to Nurith Goshen et al., that textile production was under palatial control. In the Levant area and, more specifically, in the central and southern Levant, there are no indications of large palace textile workshops as was the case in Syria,³⁸⁵ where workshops for the production of textiles and other materials testify to the important role of the palatial sector in the economy of the community, along with private manufacture. Palatial workshops were attested at Mari. In one letter, we find Zimri-lim's request for garments: 200 purple, 100 blue, 100 white, 100 black, and 100 green. The number of garments requested suggests the scale of palatial production (ARM XVIII, 11).³⁸⁶ In a letter found in Hazor, the king of Mari asked some of his subjects, among which was the king Hazor, to send garments to Mari in preparation for a celebration.³⁸⁷ A large quantity of spindle whorls at the Levantine sites are documented for the Middle Bronze Age, and they were present as early as the Early Bronze Age. At Levantine sites such as Tell Kabri,³⁸⁸ Jericho,³⁸⁹ and Beth Shean, textile tools are few, and their distribution indicates that there was a small-scale, non-industrial production of textiles.

Byblos, on the contrary, apparently exported linen to Ebla during the Middle Bronze Age³⁹⁰ and the production of purple-dyed textiles was, according to Margarita Gleba and Dafydd Griffiths, established at Tyre and Sidon.³⁹¹ The textiles found at Sidon contain traces of linen, and parallels for such textiles are available from Jericho. The technique used is a known Egyptian method. In this period, there is a change in technology related to the production of textiles, from the spinning technique with the use of spindle whorls to the use of loom weights and a switch to the vertical warp-weighted loom typical in the north Mediterranean region and Anatolia.³⁹²

Archaeology, Epigraphy, Iconography, ed. Marie-Louise Nosch, H Koefoed, and Eva B. Andersson Strand, *Ancient Textiles 17* (Oxford – Oakville, 2013), 93–112.; W.A. Lassen, “Technology and Palace Economy in Middle Bronze Age Anatolia: The Case of the Crescent Shaped Loom Weight,” in *Textile Production and Consumption in the Ancient Near East: Archaeology, Epigraphy, Iconography*, ed. Marie-Louise Nosch, H Koefoed, and Eva B. Andersson Strand (Oxford UK: Oxbow, 2013), 78–92.

³⁸⁵Peyronel L. and Missione archeologica italiana in Siria, *Gli strumenti di tessitura dall'età del bronzo all'epoca persiana*.

³⁸⁶Irit Ziffer, *At That Time the Canaanites Were in the Land* (Tel-Aviv: Eretz Israel Museum, 1990), 51; J.-M. Durand, *La nomenclature des habits et des textiles dans les textes de Mari* (Paris: CNRS Éditions, 2009), ARM XXX.

³⁸⁷Wayne Horowitz, Takayoshi Oshima, and Seth L Sanders, *Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times* (Jerusalem: Israel Exploration Society : Hebrew University of Jerusalem, 2006), 83–85.

³⁸⁸On Tel Kabri textile production see: N. Yasur-Landau Goshen and H.E Cline, “Textile Production in Palatial and Non Palatial Contexts: The Case of Tel Kabri,” in *Textile Production and Consumption in the Ancient Near East: Archaeology, Epigraphy, Iconography*, ed. Marie-Louise Nosch, H Koefoed, and Eva B. Andersson Strand, 2013.

³⁸⁹Elisabeth Crowfoot, “Textiles, Matting and Basketry,” in *Excavations at Jericho IV*, ed. Kathleen Mary Kenyon (London, 1982), 546–50.

³⁹⁰María Eugenia Aubet, *The Phoenicians and the West: politics, colonies, and trade* (Cambridge [England]; New York: Cambridge University Press, 1993), 18.

³⁹¹Margarita Gleba and Dafydd Griffiths, “Textile Remains from a Middle Bronze Age Burial in Sidon,” *Archaeology & History in Lebanon*, no. 34/35 (December 2011): 285–96.

³⁹²Ibid. Additional information on textile production and techniques is available from the studies conducted at Ebla: See: E. Andersson et al., “New Perspectives on Bronze Age Textile Production in the Eastern Mediterranean. The First Results with Ebla as a Pilot Study,” in *Proceedings of the 6th International Congress of the Archaeology of the Ancient Near East: 5 May-10 May 2009, “Sapienza”, Università Di Roma*, ed. International Congress on the Archaeology of the Ancient Near East, Paolo Matthiae, and Licia Romano, vol. 1 (Wiesbaden: Harrassowitz, 2010), 159–76. Other Studies on textile are: Agnete Kjørdal Lassen, “Textile and Traders. A Study of the Technology,

4.2 Identification of Levantine Cities

Textual data for the Middle Bronze Age regarding the use of paths that developed during this period are contained in several texts from the Mari, Alalakh, and Kanesh archives. The development of these paths was triggered by many factors, one of which was the necessity of obtaining goods. In this section, I will focus principally on the identification of the names of the cities located in the Levant that had a connection with Mari and the goods that were transported toward the west. The western cities, located along the Levantine coast, were rich in resources such as grain, oil, and wine but mostly cedar wood.³⁹³ These resources were exchanged and traded with merchandise such as textiles from Mari. In addition to offering insight into the paths used and the goods exchanged, these documents also include information regarding the means of transportation used,³⁹⁴ a topic that will be discussed below.

The Mari archives were found in the palace of Mari, a site located in present day Syria. They are an important source of information for understanding of the extent of the relationship that Mari had with the Northern and Southern Levant, shedding light on the nature of the goods that were considered of importance in trade during the Middle Bronze Age and also on the paths that were adopted at this time to exchange goods. The Mari archives, approximately 20,000 tablets, were found during six excavation campaigns conducted by André Parrot. Several archives containing tablets of different genres were found in different sectors of the palace. Some of the most important archives were recovered in room 115, next to the courtyard of the palace; this room contained the royal epistolary archive.³⁹⁵ Other relevant tablets were found in room 135, dated to Yahdun-Lim (1810-1794 BCE),³⁹⁶ and in the small eastern palace (Chantier A), dated to the period of Zimri-Lim (1775-1760 BCE). The Mari texts mention several cities located to the west of Mari. Of great interest is the reference to the region of Apim, often identified with the region of Damascus. The region of Damascus is not clearly indicated in textual documentations. These texts tell us that Mari was dealing with a region identified later in the Amarna text as Apum. In the Amarna Letters, the toponym Apum appears as Apu or Upu.³⁹⁷ Hachmann suggests that this city was under the control of Kamid el-Loz.³⁹⁸ Furthermore, there are indications that Mari was entertaining relations with the valley between Saron and Lebanon.³⁹⁹ The Beqa'a Valley area was probably known as Kinahnum at the time of Mari.⁴⁰⁰

Organization and Socioeconomic of Textile Production in Anatolia in the Middle Bronze Age C. 2000-1700 BCE” (University of Copenhagen, 2008).

³⁹³this material could have been used to produce oils.

³⁹⁴W. F. Leemans, “Old Babylonian Letters and Economic History A Review Article with a Digression on Foreign Trade,” *Journal of the Economic and Social History of the Orient* 11, no. 2 (1968): 180; W. F. Leemans, *Foreign Trade in the Old Babylonian Period, as Revealed by Texts from Southern Mesopotamia*. (Leiden: E.J. Brill, 1960), 134.

³⁹⁵Wolfgang Heimpel, *Letters to the King of Mari a New Translation, with Historical Introduction, Notes, and Commentary* (Winona Lake, Ind.: Eisenbrauns, 2003), 4.

³⁹⁶Jean-Marie Durand, *Les Documents épistolaires du palais de Mari ; présenté et traduits par Jean-Marie Durand*. (Paris: Éd. du Cerf, 1997), 25–40.

³⁹⁷See: Juan Antonio Belmonte Marín, *Die Orts- und Gewässernamen der Texte aus Syrien II 2. Jt. v. Chr.* (Wiesbaden: Ludwig Reichert Verlag, 2001), 28; Juan-Pablo Vita, *Reyes de Damasco en la época de El-Amarna*, ISIMU 7 (Universidad Autónoma de Madrid, 2009), 1.

³⁹⁸Rolf Hachmann, *Bericht über die Ergebnisse der Ausgrabungen in Kāmid el -Loz (Libanon) in den Jahren 1966 und 1967* (Bonn: R. Habelt, 1970), 87.

³⁹⁹Jean-Marie Durand, *Les documents épistolaires du palais de Mari. Tome II* (Paris: les Éd. du Cerf, 1998), 49.

Another text that indicates the existence of routes crossing Lebanon is a text from Shamshi-Adad. This text, inscribed on an alabaster slab (RIMA 1), is dated to 1782 BCE. Charpin describes this inscription as the documentation of a military mission.⁴⁰¹ Of interest to this research is the mention of three possible routes existent in the area of Lebanon. The upper path started at Abattum, between Meskene and Raqqa, and corresponds to the road from Abatuma to Qatna; the second road mentioned had its beginning at Halabit, while the third path was not specified but probably had its source south of Halebiye. These two last paths converged at Qasr el Heir, and from there they reached Qatna via Palmyra. Charpin, to support this theory, cites a Mari text where the military commanders of the expedition were Zimri-iluma, Mutu-Bisir, Samadahum, Sumu-Nihin and Yasmah-Addu.

Tablet M. 5423 was probably written by Samadahun to Yasmah-Addu. It describes how King IshiAddu of Qatna took sesame and food from the granaries of a city named Dur-Ishi-Addu and gave them to the Mari troops. The itinerary reveals that Ishi-Addu conducted the troops on a journey between the Anti-Lebanon and Lebanon Mountains, which in Akkadian is noted as *Saren u Labnan*, and they besieged the city of Serum. Among the other enterprises mentioned in the tablet is the conquest of *Sibat*, which Charpin identifies as the city of Supite, that is, the city of Baalbeck.

In the same text, the last expedition occurred at Apum (Damascus) and the troops were stationed at a city called Dubba, which is positioned just ahead of the city of Rahisum (identified as *ruhizzi* in the Amarna letters), and which Charpin locates somewhere near Damascus. It is suggested that this city was Tell Sakka, which is found in the vicinity of the modern city of Damascus and was also an important settlement with a palace complex during the Middle Bronze Age.⁴⁰²

At Tell Sakka, a tablet (Tell Sakka n.1) was found in the Middle Bronze Age palace. The tablet, composed of 12 lines, was dated to the Middle Bronze Age. In this text, the sender of the letter is Kanhilesu (this name was identified as a term that indicated a clan of Canaan), a person from the district of Damascus, according to the scholar FayssalAbdallah.⁴⁰³ Kanhilesu inquires about his brother, Zimri-lim, asking how he is and promising to help him. Abdallah proposes two possible identifications of Zimri-lim. The first is that this name refers to the King Zimri-Lim of Mari, verifying in this way the close relationship between Tell Sakka and Mari. The second possibility is that the name refers to the king of Sakka. Abdallah suggests that the Zimri-Lim in this text should be identified as the king of Mari, based on the style used to write the letter.⁴⁰⁴

To the northwest of Mari, one of the most influential cities involved in international relations with Mari was Qatna, situated on the upper Orontes Valley. According to Klengel, during the Middle Bronze Age, Qatna ruled the territory of southern Syria.⁴⁰⁵ The Mari letters that mention the site are 256 [ARM V 20] and 257 [ARM V 26]. The latter reveals the arrival of

⁴⁰⁰ Georges Dossin, "Une mention de Cananéens dans une lettre de Mari," *Syria* 50, no. 3/4 (1973): 280; Brigitte Gronenberg et al., *Die Orts- und Gewässernamen der altbabylonischen Zeit* (Wiesbaden: L. Reichert, 1980), 139.

⁴⁰¹ D. Charpin, "Samsi-Adad's Lebanon Campaign: Royal Inscriptions and Archival Text," *The Canadian Society for Mesopotamian Studies* 4 (October 2009): 5–12.

⁴⁰² *Ibid.*, 10.

⁴⁰³ F. Abdallah, "La Découverte D'un Premier Texte. Cunéiforme Á Damas, Tell Sakka: Revision Historique," *Damascus University Journal* 27, no. (3+4) (2011): 31–34. Abdallah 2011.

⁴⁰⁴ *Ibid.* 32

⁴⁰⁵ Horst Klengel, "Qatna – Ein Historischer Überblick," *MDOG* 132 (2000): 239–52; T. Richter, "Qatna. A. Nach Schriftlichen Quellen," *RIA* 11 (2006): 159–61.

a messenger from Qatna.⁴⁰⁶ Letter 258 [I 54]⁴⁰⁷ is an instance where Shamshi-Addu speaks of sending several presents to Qatna such as turbans and textiles. The Mari archives indicate a direct route from Mari to Qatna that crossed the desert.⁴⁰⁸

The city of Ugarit, a settlement located in the northern Levantine coast, is mentioned in the Mari texts,⁴⁰⁹ attesting to the ongoing relations between the coastal kingdom and upper Mesopotamia.⁴¹⁰ Ugarit is cited in reference to the desire of the king of Ugarit to visit the palace of Mari and a visit of the king of Mari to Ugarit. The site is also named in reference to a man from Ugarit, a messenger who describes the beauty of the palace of Zimri-Lim. In other economic archives, there are allusions to Ugarit in the context of the tin trade [ARM VII, line 8, 31]. Tin was credited to the Mari palace by two notables at Ugarit, bearing the names of Ishhi-Dagan and Yatar-Addu (11.6-8). Ugarit, in this context, had the role of a trading center for the shipment of tin to places such as Crete. J. D. Muhly suggests that tin was distributed to men from Kaptaru (Crete) residing in Ugarit and from there tin was shipped to Crete.⁴¹¹

On the central Levantine coast, the site that is mentioned in the archives is Byblos.⁴¹² Byblos (ancient Gubla),⁴¹³ located on the modern Lebanese coast, is cited in the Mari letters about eight times.⁴¹⁴ It appears also in a document where reference is made to messengers that the king of Mari had received from Iamhad of Qatanum and from Byblos.⁴¹⁵ The text describes textiles and it seems that this type of goods was much valued by Mari. Among the garments of Byblos mentioned in the texts of Mari are the linen textiles from Byblos (*gublayû*), which, according to Durand⁴¹⁶ and Maeir,⁴¹⁷ were probably of Egyptian origin. Finally, among the gifts from the court of Byblos, there was also a gold vessel.⁴¹⁸

Among the sites located in the southern Levant, the letters refer to Hazor⁴¹⁹ and Tell Dan.⁴²⁰ Attestations for Hazor derive from Babylonian texts as well as from the Mari texts. In the Mari texts, Hazor is mentioned in relation to the sending of messengers and to the exchange of gifts between this city and Mari (TH.72.16:4).⁴²¹ In three letters from the Mari archives, special

⁴⁰⁶Jean-Marie Durand, *Les Documents épistolaires du palais de Mari ; présenté et traduits par Jean-Marie Durand*. (Paris: Éd. du Cerf, 1997), 405.

⁴⁰⁷Ibid., 406

⁴⁰⁸ARM 1 66; Georges Dossin, *Le royaume de Qatna au XVIII^e siècle avant notre ère d'après les "Archives royales de Mari,"* Bulletin Académie royale des sciences, XL ([Brussels]: [Académie Royale de Belgique], 1954), 420.

⁴⁰⁹F. Micheli-Tocci, *La Siria nell'età di Mari*. (Roma: Centro di studi semitici, Università, 1960), 69; Horst Klengel, *Geschichte Syriens 2. Jahrtausend v. u. Z.* (Berlin, Akademie-Verlag, 1969), 330 ff. T.

⁴¹⁰Marguerite Yon, *The City of Ugarit at Tell Ras Shamra* (Winona Lake, Ind.: Eisenbrauns, 2006).

⁴¹¹Muhly, "Tin Trade Routes of the Bronze Age."

⁴¹²K. A. Kitchen, "Byblos, Egypt, and Mari in the Early Second Millennium B.C.," *Orientalia Orientalia* 36, no. 1 (1967): 39–54.

⁴¹³Byblos is known as *Gubla* in the ancient texts of the Third Millennium and early Second Millennium BCE.

⁴¹⁴Georges Dossin, "Les Archives Économiques Du Palais de Mari," *Syria* 20, no. 2 (1939): 111.

⁴¹⁵Transliteration from Georges Dossin, "Les Archives Économiques Du Palais de Mari," *Syria* 20, no. 2 (1939): 111.

⁴¹⁶Jean-Marie Durand, *Les Documents épistolaires du palais de Mari ; présenté et traduits par Jean-Marie Durand*. (Paris: Éd. du Cerf, 1999), 159.

⁴¹⁷Aren M. Maeir, "The Political and Economic Status of MB II Hazor and MB II Trade: An Inter- and Intra-Regional View," *Palestine Exploration Quarterly Palestine Exploration Quarterly* 132, no. 1 (2000): 45.

⁴¹⁸Georges Dossin, "Les Archives Économiques Du Palais de Mari," *Syria* 20, no. 2 (1939): 111.

⁴¹⁹Written as Ha-šu-ra or Ha-šu-ra-a, Ha-šu-ur (A. Leo Oppenheim, *The Interpretation of Dreams in the Ancient Near East: With a Translation of an Assyrian Dream-Book* (Philadelphia: American Philosophical Society, 1956), 313, Babylon 36383,1).

⁴²⁰Malamat, "Syro-Palestinian Destinations in a Mari Tin Inventory."

⁴²¹Durand, *Les Documents épistolaires du palais de Mari ; présenté et traduits par Jean-Marie Durand*, 1999, 388.

reference is made to the transportation of tin and the commercial links between Mari and Hazor. Furthermore, there were letters by Bahdi-Lim⁴²² that confirms the arrival at Mari of a messenger from Hazor (ARM VI, 23 and 78), verifying an active correspondence between the two cities. Other Mari letters that mention Hazor are ARM VII, 236 and XII, 747.⁴²³ At Hazor, a letter (Hazor IAA 1997-3305 = Hazor 16803) that mentioned Mari was also found. The letter lists the items of first quality, such as garments and objects in gold, silver and bronze, which were to be delivered to Mari.⁴²⁴

Based on the documentation just mentioned, trading paths were well established between the settlements located along the routes that led to southern Mesopotamia and those that reached Levantine settlements. Indications of the Beqa'a Valley's participation in this Middle Bronze Age trading system remain obscure and vague. Egypt's involvement also remains unclear; references to Egypt are absent in the known archives and texts of the Middle Bronze Age.⁴²⁵ Some information regarding the relationships that Egypt was entertaining with the Levant is available from the Egyptian texts. The MitRahina inscription, an inscribed single red granite block found at MitRahina (Memphis) is a valuable source of information for the 12th Dynasty of Egypt. The inscription derived from the court records of Amenhemat II (c. 1919-1885 BCE) of the 12th Dynasty and contains details on the activities during two years of his reign. These activities include endowments, building activities, and some aspects of Egypt's foreign relationships. For this particular research, focus will be placed on the aspects of international relations described on this inscription. The document mentions the transportation of cedar from Lebanon to Egypt during the reign of Amenhemat II (c. 1919-1885 BCE).⁴²⁶ According to Altenmüller and Moussa, who divided the inscription of 41 columns into 40 subjects, column M8 deals with the dispatching of expedition troops to Lebanon and M18-21 list raw materials and goods that the expedition troops brought back from Lebanon.⁴²⁷ Column 18 of the text provides information on the goods that were circulating: metals such as bronze, copper, and silver and aromatics and plant materials such as cedar oil, olive oil, and pine trees. Other materials listed were worked goods such as daggers of gold, bronze and ivory; building stones and wood comprised the bulk of the shipment, along with a smaller number of other commodities.⁴²⁸ Besides the list of items mentioned in the text as deriving from the mission to Lebanon, the text also provides some terms that refer to the Lebanese coast, Ḥnty-S.

Another source of information on Egypt's relationships with the Levant is the Turin King list, also known as the Turin Royal Canon. This list is a papyrus, now at the Egyptian Museum of Turin, created during the reign of Ramses II of the 19th Dynasty of the New Kingdom, and it

⁴²²Bahdi-Lim was in charge of the palace of Mari during the reign of Zimri-Lim. J.R Kupper "Correspondance de Bahdi-Lim" (Archives Royales de Mari) ARM VI 1954, No.78; Malamat 1960, 13

⁴²³Wayne Horowitz and Nathan Wasserman, "An Old Babylonian Letter from Hazor with Mention of Mari and Ekallätum." *Israel Exploration Journal* Vol. 50, No. 3/4 (2000), pp. 169-174

⁴²⁴Wayne, Wasserman, Nathan Horowitz, "An Old Babylonian Letter from Hazor with Mention of Mari and Ekallätum," *Israel Exploration Journal* 50, no. 3/4 (2000): 169-74.

⁴²⁵Beatrice Teissier, *Egyptian Iconography on Syro-Palestinian Cylinder Seals of the Middle Bronze Age* (Fribourg, Switzerland; Göttingen: University Press; Vandenhoeck&Ruprecht, 1996), 7.

⁴²⁶Ezra S Marcus, "Amenemhet II and the Sea: Maritime Aspects of the MitRahina (Memphis) Inscription," *Ägypten und Levante : Zeitschrift für ägyptische Archäologie und deren Nachbargebiete* 17 (2007): 137.

⁴²⁷H. Altenmüller and A.M. Moussa, "Die Inschrift Amenemhets II. Aus Dem Ptah-Tempel von Memphis.," *SAK* 18 (1991): 1-48.

⁴²⁸Marcus, "Amenemhet II and the Sea," 138.

contains a list of the names of rulers of Egypt with the length of their reigns in years.⁴²⁹ The list documents the 13th-15th Dynasties' kings and their relationships with the Levant. This list suggests not only the existence of relationships that involved the Pharaohs but also their importance. Besides the presence of such written documentation, 13th Dynasty seals were also found in the Levant at the sites of Megiddo, Ajjul, Jericho, Lachish, and Byblos. These seals could strongly support the thesis of the existence of relations between the Levant and Egypt if they come from a Middle Bronze Age context and were not brought during the Late Bronze Age as the result of later looting. The seals are dated to the reign of Neferhotep (c. 1745–1735 BCE) and his brother Sobekhotep IV (c. 1735–1725 BCE),⁴³⁰ both belonging to the 13th Dynasty, and verify the presence of officials who were mainly treasurers and stewards and who Ryholt indicates were both controllers of the commodities that were transported back and forth and in charge of cattle and grain.⁴³¹

Besides the textual documentation that verifies the relationship existing between Egypt and the Levant, there are also indications of forms of interaction in the figural representations in the reliefs at Beni Hassan. There, wall painting illustrate the transportation of goods by Asiatics: men, women, and children are depicted with colorful ropes and wearing hair styles different from those typical of the Egyptians of that period.⁴³² As also attested in the Mari texts, donkeys were used for the transportation of goods.⁴³³ They were also exploited to haul commodities from Assur to Anatolia on a route that had an established way station at KarumKanesh. Thanks to the tablets found at KarumKanesh, we have indications that donkeys made journeys that lasted from five to six weeks.⁴³⁴ Other forms of transportation recorded in the Mari texts are boats and wagons. Boats were used to carry goods and people along the river.⁴³⁵ Goods that were conveyed by boat to Mari were wine, barley, and millstones.⁴³⁶ Wagons were used in Anatolia to move large volumes of merchandise and this practice required good roads. Wagons were heavy, four-wheeled constructions with massive or spoked wheels. Ten to twenty talents (about 300-600 kg) represented a standard wagonload, but ox-drawn wagons may have carried much heavier freight when the roads allowed it.⁴³⁷

4.3 Trading Paths Based on Written Sources

Textual documentation furnishes several indications on the routes that connected western cities with those located to the east. The major sources that shed some light on the paths developed during the Middle Bronze Age are the Urbana tablet (UIOM 2134) and its near

⁴²⁹K. S. B Ryholt, *The Political Situation in Egypt during the Second Intermediate Period: C. 1800-1550 B.C.* (Copenhagen: Museum Tusulanum Press, 1997), 69.

⁴³⁰Detlef Franke, "The Late Middle Kingdom (Thirteenth to Seventeenth Dynasties): The Chronological Framework," *Journal of Egyptian History* 1, no. 2 (2008): 272.

⁴³¹Ryholt, *The Political Situation in Egypt during the Second Intermediate Period*, 85.

⁴³²Leemans, *Foreign Trade in the Old Babylonian Period, as Revealed by Texts from Southern Mesopotamia*, 134.

⁴³³Stephanie Dalley, *Mari and Karana: Two Old Babylonian Cities* (London; New York: Longman, 1984), 157.

⁴³⁴Gojko Johansen Barjamovic, *A Journey Through Anatolia in 1865 BC* (Kayseri büyükşehir belediyesi, 2011), 160–168; Karl Hecker, "Der Weg nach Kaniš," *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 70, no. 2 (1980): 185–97.

⁴³⁵*Ibid.*, 169.

⁴³⁶*Ibid.*, 169–171.

⁴³⁷Gojko Johansen Barjamovic, *A Journey Through Anatolia in 1865 BC* (Kayseri büyükşehir belediyesi, 2011).

duplicate copy in the Yale Babylonian Collection (YBC 4499),⁴³⁸ and the texts from Mari. The information provided in these texts include distances, time, medium used, and the goods traded and exchanged.

Hallo reconstructs the itinerary described in the Urbana tablet (UIOM 2134), now preserved at the Oriental Museum of the University of Illinois in Urbana,⁴³⁹ to recreate the path used to reach Emar in northern Syria from southern Mesopotamia. The route described in this tablet crosses over modern Iraq, northern Syria, and southern Turkey.⁴⁴⁰ Of the six cities that were identified, it is certain that Larsa, Babylon, and Sippar were in the south and Assur, Urkesh, and Harran to the north. Emar seems to have been a major link on the route to Mari in the Dream Book Itinerary. Emar was a main stop on the way to Aleppo, Qatna, and Hazor.⁴⁴¹ Hallo has estimated that the possible trading route to the city of Emar took 25-30 airline km/day to travel and calculated the days that were needed to reach several sites on the way to southern Mesopotamia and to northern Syria. The outbound trip would have taken approximately 2 months and 27 days. Mari is included in the geographical record, and Hazor is a city that is also mentioned.

From the Old Babylonian texts, Hallo identifies a route that goes from Mari to Qatna, and from Qatna it seems possible to trace a route that goes to Hazor,⁴⁴² most probably using the roads available through the hinterlands of the Beqa'a. From the textual evidence available from the archives of Mari, it is reasonable to infer that a route running through the Palmyra desert was active and that it was feasible to reach the Beqa'a Valley crossing through the area of Damascus and the Anti-Lebanon Mountains.

Typical trading routes would have been created, as suggested by Charpin, either in a northerly or southerly direction.⁴⁴³ The northwestern route, as seen also in the Urbana tablet, would have touched the following cities: Mari, Emar, Halab, and Qatna. From Qatna, it would have accessed the Beqa'a Valley from the north and reached Hazor through the valley. The southwestern route would have pursued the following itinerary: from Mari, it would have gone across the Palmyrian desert, reached the Damascus area, and finally arrived at the Beqa'a from the Barada River, where, on the western side of the Anti-Lebanon, are located several Middle Bronze Age sites.

5. Reconstruction of the Paths Crossing the Beqa'a Based on Topographic Analysis

The reconstruction of the paths that will be discussed below was made possible through the use of the Geographical Information System (GIS) software. The reconstruction process began with the location of the sites recognized by Marfoe in his survey of the 1970s,⁴⁴⁴ Kuscke's

⁴³⁸Hallo, "The Road to Emar," 63.

⁴³⁹ The Urbana Tablets was discussed by the following scholars: Albrecht Götze, "An Old Babylonian Itinerary," *Journal of Cuneiform Studies* 7, no. 2 (1953): 51–72; Albrecht Goetze, "Remarks on the Old Babylonian Itinerary," *Journal of Cuneiform Studies* 18, no. 4 (1964): 114–19; Albrecht Goetze, "Tuttul in a 'Cappadocian' Proper Name," *Jcunestud Journal of Cuneiform Studies* 7, no. 3 (1953): 110. Hallo, "The Road to Emar," 57.

⁴⁴⁰Ibid., 63.

⁴⁴¹Ibid., 81.

⁴⁴²Hallo, "The Road to Emar."

⁴⁴³Charpin, "Samsi-Adad's Lebanon Campaign: Royal Inscriptions and Archival Text."

⁴⁴⁴Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*.

survey in the 1950s,⁴⁴⁵ and Copeland and Wescombe's survey in 1965 (Map.1, p. 206).⁴⁴⁶ Additionally, the topography of the Lebanese and Anti Lebanon Mountain Valley was taken in consideration to identify passages, water sources that were possibly used for traveling, and elevations and slope percentages of the valley and the mountains. Besides identifying the paths, an estimation of the time employed to cross the area on foot was calculated. However, it is possible that other means of transportation were used to cross the valley and the mountains. As mentioned previously, there is documentation in the Mari texts that donkeys were used to transport goods in caravans consisting of 3000 animals. Donkeys are also depicted on the Beni Hassan tombs of Egypt, dated to the 19th century,⁴⁴⁷ and are associated with the Canaanites, who were generally identified as Asiatic merchants with their loaded donkeys.⁴⁴⁸ Donkeys are also extensively documented as beasts of burden in the long distance trade networks that moved goods between the Assyrian heartland and Anatolia in the early 2nd millennium BCE. The standard weight carried by a donkey was about 75 kg,⁴⁴⁹ which is remarkably similar to the weights observed for loads at a modern alabaster workshop in Egypt, where a maximum of 80 kg was divided between the two sides of the donkey's body.⁴⁵⁰ Because of the many rivers that flow in Lebanon, boat travel must be also considered. It is known that boats were used to navigate the Euphrates River, however, of the 16 rivers present in Lebanon, none can be navigated.⁴⁵¹

In this study, the calculation of the time used to cross a mountain by foot is proposed to provide an idea of the distances and difficulties that embarking on a trip on such roads would entail. To calculate the time it would take to walk a path, the following formula has been adopted:

$$\text{Time} = \text{Kilometers/Speed}$$

Studies show that the average time needed to walk 5 km at a regular speed is 1 hour. These calculations were made according to several experiments performed to establish the average walking speed. The average walking speed was 4.85 ft/second for younger pedestrians and 4.33 ft/second for older pedestrians.⁴⁵²

Several factors can influence the time it takes to walk a route. These are weather, slope percentage, age, fatigue, and weight. Calculating the time required to travel a course is essential to make comparisons and establish differences between paths lengths, arriving in this way at

⁴⁴⁵Kuschke, "Beiträge zur Siedlungsgeschichte der Biḳā'," *Zeitschrift Des Deutschen Palästina-Vereins* 70 (1954); Arnulf Kuschke, "Beiträge zur Siedlungsgeschichte der Biḳā'," *Zeitschrift Des Deutschen Palästina-Vereins* 71 (1955): 97–110; Kuschke, "Beiträge zur Siedlungsgeschichte der Biḳā' (Fortsetzung und Schluß)," *Zeitschrift Des Deutschen Palästina-Vereins* 74 (1958).

⁴⁴⁶Copeland and Wescombe, *Inventory of Stone-Age Sites in Lebanon*.

⁴⁴⁷Percy E Newberry, F. Ll Griffith, and G. Willoughby Fraser, *Beni Hassan* (London: Sold by K. Paul, Trench, Trübner, 1893), Pl. XXXI; William H. Shea, "Artistic Balance among the Beni Hasan Asiatics," *The Biblical Archaeologist* 44, no. 4 (October 1, 1981): 219–28.

⁴⁴⁸William Foxwell Albright, *The Archaeology of Palestine* (London: Pelican, 1960), 207–208; I. Milevski, "Local Exchange in the Southern Levant during the Early Bronze Age: A Political Economy Viewpoint," *Antiquo Oriente* 7 (2009): 9; Ianir Milevski, *Early Bronze Age Goods Exchange in the Southern Levant: A Marxist Perspective* (London: Oakville, CT: Equinox Pub., 2011); Shea, "Artistic Balance among the Beni Hasan Asiatics."

⁴⁴⁹Larsen, *Old Assyrian Caravan Procedures*, 141–155.

⁴⁵⁰Thomas R Hester and Robert F Heizer, *Making Stone Vases: Ethnoarchaeological Studies at an Alabaster Workshop in Upper Egypt* (Malibu: Undena Publications, 1981), 36–37;

⁴⁵¹"Rivers and Lakes" <http://countrystudies.us/lebanon/32.htm>

⁴⁵² Establishing pedestrian walking speed.

http://www.westernite.org/datacollectionfund/2005/psu_ped_summary.pdf

suppositions regarding the viability of these paths as exchange routes. It is not the intention of this study to propose that these times were absolute.

5.1 Impact of the Environment on Path Viability: Seasonality

Since only three sites have been excavated in the Beqa'a Valley and there is no written evidence or other archaeological data that can corroborate these routes, other factors that may have influenced the development of one route over another must be cited and relied upon to support theories on path preferences. Aspects such as seasonality, means of transportation, and obstacles may or may not have favored access to the local resources.

Seasonality was one factor that might have determined the access to the mountains. The values presented here refer to the current climatic situation and, although they do not reflect actual Middle Bronze Age temperature levels, these figures provide indications as to the possibility of crossing the mountains during the winter season. The entrance to the cedar mountains might not have been accessible throughout the entire year, in particular, during the winter season. Based on the data collected in recent years regarding the temperature levels and percentage of snowfall in Mount Lebanon and the Chouf district, it is possible to suggest that seasonality had an impact on access to the cedars during specific seasons, such as winter. The Chouf district is one of the areas that holds great importance for this study because it still preserves the cedars that in ancient times were highly desired. In this area, the annual rainfall average is 1,200 mm (47 in), and the mean annual temperature is 11.3 °C (52.3 °F). The mean daily maximum temperature is 23.4 °C (74.1 °F) in August, whereas the mean minimum temperature in January is -0.6 °C (30.9 °F). The absolute temperature ranges from -10.8 °C (12.6 °F) in January to 32.3 °C (90.1 °F) in August. The mean relative humidity is around 65%, but the eastern slopes are slightly dryer. In the Anti-Lebanon, winters are harsh and summers are moderate. The average annual rainfall ranges between 300–400 mm. Winter sometimes yields heavy rains.

In spite of the fact that cedar trees are usually found in lower altitude zones, they would still be difficult to reach during the winter, when temperatures can plunge to approximately -10.8 °C. In recent years, from 50 to 55 days of snowfall per year have been recorded in this area. Because of the winter cold and snow, it would have been preferable to cross the mountain during the summer or spring seasons.

5.2 The Beqa'a Valley–Beirut Routes (Map 2, p. 207)

In map 1, at least four paths that could have been followed to travel out of the Beqa'a Valley are traced. The starting point is the site of Kamid el-Loz, with routes that lead to the east of the valley's borders and to the coastal zone. By mapping the Middle Bronze Age sites with GIS, it is possible to trace the corridors used to reach the coast. The routes that lead to the coast, as reconstructed and seen on Map 2, are quite tortuous and would have entailed the crossing of cedar forests, such as those of the Chouf and AinZhalá. On the western side of the Beqa'a Valley is found a concentration of middle-sized sites, such as Tell Shtura, Tell Taanayel, Tell Djidita, Tell Kasra, and Tell QabbElyas, the largest site. The strategic positioning of these settlements can indicate the first possible route (Map 2 W1) in use during the Middle Bronze Age. This

passage would have crossed the area of Dahr al Baidar and the AinZhala forest and might have been the best path used to reach the area of Beirut. The elevation of the Lebanon Mountain drops in the vicinity of the aforementioned sites to 1,269 m. This road's distance from the site of Tell Shtura is approximately 43.4 km and would require about 546 minutes to travel. The maximum elevation point would be achieved at 1,574 m, descending to 1,055 m on the western side of the Lebanese mountains until reaching a minimum of 34 m in height in the vicinity of the area of Beirut. The average slope is between 6.0%–7.2%. The maximum slope is 29.1% and the minimum slope is -28.0%.

By observing the number of sites and their location on the eastern side of the Lebanese mountains, it is possible to suggest that this area provided an access point to the west as well as to the cedar forests. By crossing the Lebanese Mountains to reach the coast and possibly the actual site of Beirut, it was possible to follow a path close to a source of water such as the Beirut River. According to the available surveys conducted in this area, during the Middle Bronze Age, there were only a few Middle Bronze Age sites here other than Beirut. These sites were Asfuriya, Sinn al-Fil, and Fayadiya, located near the Beirut River.

Another possible passageway could have originated at Kamid el-Loz, in the Beqa'a, and cut through the Jezzine Pass (Map 2 W2). To travel this way would have required going south of Kamid el-Loz along the Qaroun Lake, an artificial body of water that was created in 1959. Therefore, the path would have either crossed the area of the present lake or traveled along its borders⁴⁵³ and, at Machgara, would have crossed the mountains towards the east, reaching the Jezzine Pass, where the elevation would have dropped from 1,483 to 1,000 m on its western side (P. 4, p. 211). From here, the trail could have descended to reach the area of the coast of Sidon. From Sidon it was possible to reach Tell Burak. The path is 57.3 km long with a maximum slope of approximately 46.3%, and it would have taken at least 12 hours, at most 16 hours, to walk on foot. If this last route was indeed active, its existence could lead to the formulation of interesting interpretations concerning the presence of the paintings of Tell el-Burak and Tell Sakka in Syria, which will be discussed in chapter five.

Several Middle Bronze Age sites are located along the southern central Levantine coast and, more precisely, in proximity of the rivers Damour and el-Awali. Besides Sidon and Tell el-Burak, the two major excavated sites in this area of the coast, other settlements—Lab'a', al-Qrayya, Wadi al-Laymun, Bna'ful, and KaferDjarra—are close to the river el-Awali. Other sites are located north of Sidon. These are Barga, Shim, Sargbal, and Majdalouna.⁴⁵⁴ A systematic study of these sites was not performed. To date, at the site of Sidon, Cypriot ware and Egyptian pottery were present, while at the site of Majdalouna and Qrayya, Cypriot ware was documented.⁴⁵⁵

Another trail could have passed through the Beqa'a Valley to reach the north (Map 2 W3). Starting from Kamid el-Loz and following the central valley, the Middle Bronze Age settlements were located along the two main rivers, the Litani and the Assi, that run across the valley. Along this path was also located the settlement of Baalbek. From Baalbeck, the path would have either continued farther north towards Homs or traveled west to reach the coastal settlements. It is quite possible that stops were made along the way as several sites are located on

⁴⁵³ The lake was not existent in the Bronze Age and it is used here only as a point of reference.

⁴⁵⁴ Lehmann, *Bibliographie der archäologischen Fundstellen und Surveys in Syrien und Libanon*.

⁴⁵⁵ P.E. Guigues, "Lebe'a, KaferGarra, Qraye': Necropoles de La Region Sidonienne (suite)," *Bulletin du Musée de Beyrouth*, 2 (1938): 27–72; P.E. Guigues, "Lebe'a, KaferGarra, Qraye': Necropoles de La Region Sidonienne (suite)," *Bulletin du Musée de Beyrouth*, 3 (1939): 53–63.

this route. This course of travel offered two options: crossing the valley and later the mountains or crossing the valley and circling around the mountains. In the first case, crossing the mountains, the trip would have required traversing the northern Lebanese mountains, which reach an altitude of approximately 1,798 m and have a maximum slope percentage of 28.4 (P. 3, p. 210). The path, 187 m long, would have taken about 39 hours and 36 minutes. The second option, circling the mountains, would have extended the trip, but the difficulties would have diminished. Had the path crossing the mountains been taken, the route would have reached settlements such as Tell Arqa and the coastal district. The exploitation of such a trail suggests that northern Lebanon was well connected with Cyprus. The reasons that explain the large amount of Cypriot ware at Tell Arqa include the possible presence of people from Cyprus and the favorable geographic vicinity of the settlement to Cyprus. From the location of Tell Arqa, it was possible to cross the Lebanon Mountains at its lowest point and reach the northern Beqa'a Valley. From Tell Arqa, paths were running along the coast as well, reaching sites such as Sidon where other Cypriot ware was found.

5.3 The Beqa'a Valley–Damascus Routes (Map 3, p. 208)

Damascus was chosen as an end point for this study as there is reliable data that suggests the importance of this area in the development of trade routes during the Middle Bronze Age. At the time, the settlements that are documented were located in the area surrounding the present day city of Damascus and towards the modern border between Syria and Jordan. These Middle Bronze Age sites are characterized by small tells. From some of these tells, tombs and some architectural features were recorded.⁴⁵⁶ The most prominent site is that of Tell Sakka, which presents the best evidence to suggest that in southwestern Syria communities were organized around palaces and were engaged in some level of administration. The area between Kamid el-Loz and Damascus was the subject of two surveys, one performed by Leon Marfoe⁴⁵⁷ and one more recently by D. Bonatz;⁴⁵⁸ data from both surveys was used in this research to suggest the routes that might have been operated to access the Anti-Lebanon Mountains.

At least three paths leading to the city of Damascus and the southern Syrian region during the Middle Bronze Age can be traced. To tackle these paths would have necessitated crossing the Anti-Lebanon Mountains at the lowest elevation points and then following the paths located in the vicinity of the Baradariver. A first course (Map 3 E1) can be traced from Kamid el-Loz to the east that could have trailed the low plain to the north, reaching the location of Anjar, the size of which, during the Middle Bronze Age period, is unknown; the present site, however, measuring, 370 x 310 m, has an extended archaeological occupation history. This track would have passed by locations such as Tell ar-Rahib and Tell Satiya ay-Yamin, located right on the western side of the Anti-Lebanon Mountains. Once at Anjar, the passage would have proceeded through the mountains, reaching the Zabadani area and following the Baradariver to arrive in the area of Damascus and its surroundings, where Middle Bronze Age sites are located. Here are found the sites of Tell Sakka, Tell es-Salihyah, Mtoune, Yabroud, and Dhibin; additional sites are HyyaratDanun, TulaylatSawaqa, and Qatana. The highest elevation point encountered would

⁴⁵⁶ On the Middle bronze Age sites in Southern Syria see: Lehmann, *Bibliographie der archäologischen Fundstellen und Surveys in Syrien und Libanon*.

⁴⁵⁷ Marfoe, "Between Qadesh and Kumidi a History of Frontier Settlement and Land Use in the Biqa', Lebanon."

⁴⁵⁸ Bonatz, "Preliminary Remarks on an Archaeological Survey in the Anti-Lebanon."

have been 1,379 m, with a maximum slope of 31.6%. The length of this route is approximately 68 km and would have taken at least 15 hours by foot.

A second route (Map 3 E2, p. 208) that could have linked Kamid el-Loz and, in general, the valley to the Damascus area, might have started in the direct vicinity of Kamid el-Loz, making it necessary to journey through the so-called Rift Valley and the Janta Mountains to reach the Barada river. In this area, the survey conducted by Bonatz was important in defining the internal paths taken. According to his survey, the following documented sites were to be dated to the Middle Bronze Age: Tell Kabb el-Kroum, identified with site 14 (14A, 14B, 14/02), and sites 44, 47, 23 A, and 23/02, located in the Janta Valley. If we take into consideration the height of the mountains that needed to be crossed in order to reach the Barada River, we may deduce that the first route mentioned would have presented fewer difficulties, as the altitude of the mountains between Anjar and Zabadani ranges from 1,261 m to 1,379m (P.1, p. 210). More challenging would have been the passage from Kamid el-Loz through the Rift Valley and Janta chain, which registers elevation points between 1,474 m and 1,675 m (P. 2, p. 210). This path is 65.2 km long and would have taken 14 hours.

The third (Map 3 E3, p. 208) and last passage that I have taken into consideration is one explored in 1802 by Hamilton, Squire and Leake.⁴⁵⁹ Setting off from Baalbeck, it would have reached the western plain of the Anti-Lebanon Mountains and proceeded towards Serghay, continued on to Zabadani, and trailed the Barada river. The highest elevation point of this expedition would have been 1,506 m, with a distance traveled of 89.7 km, taking at least 18 hours by foot.

5. 4 The Beqa'a Valley–North-Southern Routes (Map 4, p. 209)

Marfoe points out in his study that an entrance to the valley is available from the north, where the mountain ranges are broken by the plain of Homs and the Nahr el Kaber Valley (Homs-Tripoli gap). Based on the topography of the valley, the northern and southern trajectory of this path is the most probable to be used. The first path (Map 4 N-S 1) that can be suggested would have connected the northern Beqa'a with Tell Nebi Mend, a settlement located 20 km southwest of the city of Homs. Tell Nebi Mend shows a square plan with an artificial ditch and a rampart dated to the Middle Bronze Age. The routes would have followed the natural plain of the Beqa'a and the Assi River. From Kamid el-Loz, sites such as Baalbeck, Laboue, and Hermel would have provided possible resting points. The elevation that must be reached to cross the valley in this area is 1.71 km, with an average slope between 2.0%–3.1%. The total distance between Kamid el-Loz and Tell Nebi Mend is 79.6 km, and a route connecting these two points would have taken 16.5 hours to travel.

The second path (Map 4 N-S 2), traced out in map 3, leads to the northern area of the Beqa'a. This path would have been an ideal one because of its vicinity to the Litaniriver. This route would have touched sites such as Tell Barr Elyas, Tell as-Sirhan, Tell Dalhamiya, Tell al-Ghabi, and Tell 'AynScharif and would have proceeded north, where several sites are located in the area that divides the Litani River from the Orontes River. Other sites are found on the path of the Orontes River, such as al-Hirmil IV, Wadi al Djawz, Kirmil V Old town center, KhirbatBusaybis, Marah al Wazza, Tell Haql al-Djami, Tell Sugha, Haql al-Bayda, Tell

⁴⁵⁹J. Malcolm Wagstaff, "Three Friends in Lebanon, April, 1802," *Archaeology & History in Lebanon* 12, no. Autumn (2000): 13–19.

QasrLabwa, and Tell Labwa III ay-Yamin.⁴⁶⁰ This way leads to northern, western, and coastal Syria. The sites along this route have never been excavated, but they may have played a role as posts on the northern path.

For travelers journeying toward the north and the west, the easiest way would have been to cross the valley. The Orontes River would have been followed for a short tract until reaching settlements such as Tell Hirmil and, upon reaching the westerly mountain area that connects with Tell Arqa, the course would have proceeded north, touching the several settlements located on the northern Levantine coast.

The path from Kamid el-Loz would have followed the Litani River and touched settlements, such as Tell Dibbin (Map 4 N-S 3). This site, which was never excavated, was surveyed, and it is one of the largest in the southern Beqa'a (approximately 340-240 x 23 m). Based on satellite images of this area, Tell Dibbin is presently a zone used for cultivation. Here, Marfoe recognized Middle Bronze Age levels. The settlement was located along a path that could have led to other settlements, such as Tel Dan (Tell el-Qâdi).⁴⁶¹ A path from Tell Dibbin to Tel Dan can be traced, covering a distance of 14.7 km. The maximum slope of this path is 18.6%. Three hours would have been necessary to complete a journey on such a path.

Conclusions

In this chapter, the reconstruction of the possible paths that might have been used during the Middle Bronze Age in the Beqa'a Valley has been presented. This study has shown that the Beqa'a was actively involved in the trading activities of the time and that the paths that connected the valley to the east and to the west facilitated connections between peripheral settlements and other more accessible, active trade centers. Although the north to south routes were more advanced, the western and eastern routes were also well developed and had the important role of linking the coastal area and that of southwestern Syria. It is quite possible that the sites located in the vicinity of the modern city of Damascus played an important part in the development of the circulation paths that expanded farther east and south and that they were particularly favored by the exchange system supported by these paths. The palace at Tell Sakka in southwestern Syria exemplifies the advantages gained from the use of these routes. The wall paintings using Egyptian-influenced motifs indicate that the site had external cultural influences and incorporated them into their artistic representations. This study makes evident that the Beqa'a Valley, the Levant and Syria were strongly connected and that their past must be viewed jointly.

The use of GIS contributed to this research in several aspects. First of all, it furnished the basis for a consideration of the Beqa'a Valley as a possible throughway to reach the regions to the east and west of its borders. It allowed the reconstruction of the possible paths that may have been used at that time to connect the valley with the neighboring regions, confirming that the paths leading to the east and west of the valley were tortuous and that to travel them would have been time consuming and required great physical strength. Whether these paths were used during the Middle Bronze Age remains difficult to determine. Excavations of additional sites in the

⁴⁶⁰Marfoe, *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*, Map 1.

⁴⁶¹Ahrens, "A »Hyksos Connection«? Thoughts on the Date of Dispatch of Some of the Middle Kingdom Objects Found in the Northern Levant."

valley and the identification of ancient paths will be necessary to arrive at more definite conclusions. Presently, however, further research in this area is difficult due to the heavy urbanization of the valley and to the many construction activities and environmental changes that have modified the landscape of the mountain area. The possibility of the existence of circulation paths is indicated by the presence of material culture that suggests contacts with the surrounding area. In particular, the following routes were examined: the western routes to the coast, the routes to the east that connected the settlements of the Damascus area, and the routes to the south, where strong connections between the valley sites and the southern Levant are visible. The objects recovered from these sites reflect the transmission of influences that could have derived only through contacts with different areas and cultures.

An overview of the distribution of the Middle Bronze Age sites in the valley leads to interesting interpretations on the locations that were deemed preferable or suitable for a settlement. After mapping the Middle Bronze Age settlements that were identified in the surveys conducted by Kuschke,⁴⁶² Copeland and Wescombe,⁴⁶³ Marfoe⁴⁶⁴ and Bonatz,⁴⁶⁵ it is possible to conclude that there were four likely paths used during the Middle Bronze Age. The paths that were running from north to south were the most developed due to the following reasons: The topography of the central valley is characterized by a flat surface and does not present particular difficulties for travelers, as opposed to the hardships probably encountered when crossing a mountain. The availability of water resources allowed for the development of the paths that were most possibly running along the Litani and Orontes Rivers, as indicated by the settlements located there (routes NS 1, NS2). Additionally, the material culture deriving from the settlements in the valley demonstrates the use of shared technologies that indicate a close connection in the production of the pottery. This aspect was also pointed out by other scholars who attempted to define the character of the relationship between Mari and Hazor. According to Maier,⁴⁶⁶ the ceramic assemblage from the transitional phase Middle Bronze Age IIA-B at Hazor shows similarities to the pottery from southwestern Syria and, more specifically, to that of the Damascene basin,⁴⁶⁷ and this is also a common element for the material culture of Kamid el-Loz, in the Beqa'a Valley. Another route that was likely used, based on the concentration of settlements on the eastern side of the Lebanese mountains, is a western route. The position of these sites also indicates the access points to the trade routes. A concentration of sites at the foothill of the mountain, therefore, clearly demonstrates that the sites were most probably outposts where travelers could rest before starting their journey across the mountain to reach the coastal ports, such as those in the area of Beirut. The paths that developed to the east leading to the area of Damascus were facilitated by the presence of gorges that were more accessible and by paths that were less steep. The access point to the mountain was most probably located in the

⁴⁶²Kuschke, "Beiträge zur Siedlungsgeschichte der Biqā"; Kuschke et al., *Archäologischer Survey in Der Nördlichen Biqāc, Herbst 1972*.

⁴⁶³ L. Copeland and P.J. Wescombe, *Inventory of Stone-Age Sites in Lebanon*, vol. t. 41, fasc. 2: t. 42, fasc. 1, Université Saint-Joseph, Beirut, Syria. Melanges, (Beyrouth: Impr. Catholique, 1965).

⁴⁶⁴Marfoe, "Between Qadesh and Kumidi a History of Frontier Settlement and Land Use in the Biqa', Lebanon."

⁴⁶⁵Bonatz, "Preliminary Remarks on an Archaeological Survey in the Anti-Lebanon."

⁴⁶⁶A. M. Maier, "Tomb 1181: A Multiple-Interment Burial Cave of the Transitional Middle Bronze Age IIA-B," in *Hazor V: An Account of the Fifth Season of Excavation, 1968: Text and Illustrations*, ed. Amnon Ben-Tor, Baruch Arensburg, and Alan Paris ([Jerusalem]: Israel Exploration Society: Hebrew University of Jerusalem, 1997), 295–340.

⁴⁶⁷M. A. Maier, "The Political and Economic Status of MBII Hazor and MBII Trade: An Inter- and Intra-Regional View," *Palestine Exploration Quarterly* 132 (2000): 38.

vicinity of the site of Anjar (Route E1). From there it was possible to follow the Barada river path and reach the area of Damascus.

Additional research in the valley, in the form of a more detailed survey conducted to define the size of the Middle Bronze Age tells, would clearly contribute to the characterization of the hierarchy of the tells available in the valley and verify the presence of the Middle Bronze Age sites recognized in earlier surveys. Furthermore, the excavation of sites located at the access points of the various mountains could shed light on their specific roles in the development of circulation paths in this area.

Chapter IV

The Material Culture from Kamid el-Loz: Evidence of Interactions

Introduction

The mountain ranges that acted as natural barriers surrounding the Beqa'a Valley, as previously discussed, did not prevent the notable infiltration of cultural influences from various sources. Although positioned in an area that was difficult to reach, the settlements located in the Beqa'a Valley became active in an exchange structure that was bolstered by a system of paths that connected them to major centers outside the valley. Kamid el-Loz, one of these inner valley settlements, became important for this system as it was found at a crossroad of the trade mechanism that developed during the Middle Bronze Age. The paths reconstructed in the previous chapter and the studies conducted on the material culture found in this region indicate that the circulation of goods triggered the installation of various multifaceted relationships with the regions beyond the valley's mountainous borders.

This chapter will explore, through the analysis of certain classes of objects found at Kamid el-Loz, the varying levels of interaction that this site established with Syria, to the east, with the Lebanese coastal sites and the islands of Crete and Cyprus to the west, and with Egypt to the south. This study will delineate the presence of three types of interaction: local, interregional and international. The objects that will be analyzed to support the existence of the three aforementioned forms of interaction include painted ceramic vessels, the Levantine Painted Ware and the Painted Ware from the Middle Bronze Age palace rooms, from the administrative area and from the residential area of Kamid el-Loz. In addition, the seal impressions, scarab impressions and the wall painting of Tell Sakka and Tell el-Burak will also be included in this discussion. These artifacts will be fundamental in determining the nature of the relationships formed during the Middle Bronze Age in this region of the Beqa'a Valley, as well as the dynamics that characterized these contacts. This chapter will demonstrate that Kamid el-Loz, in spite of its less favorable location for commercial traffic, was nonetheless able to acquire and produce artifacts that reflected the distinctive cultural mobility which the Middle Bronze Age exchange pathways expedited. Kamid el-Loz became a key player in the system that permitted the circulation of the cultural markers of this time period and facilitated the transfer of goods and images into the hinterlands of southwestern Syria.

1. Research Design: Identifying Signs of Interactions

Settlements located at boundaries and at the crossroads of major trading routes are exposed to an array of cultural influences leading to the production of material culture that reflects such interactions. The material culture that originates from these settlements has often induced scholars to investigate the cultural identity and the ethnicity of the communities that settled in these contexts.⁴⁶⁸ Scholars have suggested overcoming the issues that emerge from the

⁴⁶⁸Michael Dietler and Ingrid Herbich, "Habitus et reproduction sociale des techniques: l'intelligence du style en archéologie et en ethnoarchéologie," in *De la préhistoire aux missiles balistiques: l'intelligence sociale des techniques*, ed. Bruno Latour and Pierre Lemonier (Paris: La Découverte, 1994), 202–27; Dietler, Michael and

pursuit of the identification of regional culture and identity by addressing the social relationships that exist in the production and circulation of the material culture and taking into consideration the environment in which it is found.⁴⁶⁹ To better grasp the characteristics of the material culture that was produced and circulated at crossroads, archaeologists have asked questions, such as: How does material culture originate in its social context? What are the social processes and structures that lead to the production of certain objects? How do these objects affect social structures?⁴⁷⁰ These research questions are anchored to P. Bourdieu's practice theory and to the *chaîne opératoire* approach first formulated by the French scholars P. Lemonnier and A. Leroi-Gourhan and discussed in chapter II.⁴⁷¹ These approaches were adopted in this study to perform detailed analyses of artifacts in order to collect the information necessary to understand the social activities involved in the production of an object. In this chapter, the study of the material culture of Kamid e-Loz draws from Bourdieu's and Lemonnier's understanding of an object as the product of social practices. Furthermore, the analysis of the objects deriving from Kamid el-Loz will be discussed in terms of material culture produced at sites located at economic crossroads and therefore open to external cultural influences, as well as to environmentally produced changes. Michael Dietler and Ingrid Herich, among others, have worked with the material culture from settlements located at crossing borders and have conducted studies on the ceramic vessels produced in the pottery communities of the Luo people in western Kenya, concluding that variations in style between communities is an indication of adaptation to social changes.⁴⁷² Prolonged contact with different cultures, they suggest, contributed to the changes visible in the culture of these communities and these changes were amplified by the impact of landscape on their material culture. On this issue, studies on South American and Central American material culture and its relationship with landscape have been the focus of scholars, such as Miriam Stark and Marisa Lazzari. Their research has centered on the study of artifacts in relation to the landscape in which they are found and have indicated that agency plays a major role in the consideration of circulation paths and the mobility of artifacts through space, as well as on their social significance.⁴⁷³ The studies of Stark et al. on the prehistoric Tonto Basin ceramic vessels from the region of Arizona follows the *chaîne opératoire* concept to measure "technological style" in utilitarian ceramic. Stark's study on the production process of the Tonto Ceramic assemblage is used to understand the technological style, and, more specifically, the different technical variations chosen to produce a vessel. The technological style and variation of style provide valuable information on the district's own technological patterns⁴⁷⁴ but, most

Herich, Ingrid, "Habitus, Techniques, Style: An Integrated Approach to the Social Understanding of Material Culture and Boundaries," in *The Archaeologies of Social Boundaries*, ed. Stark, Miriam T. (Washington, [D.C.]: Smithsonian Institution Press, 1998), 232–63.

⁴⁶⁹ André Leroi-Gourhan, *Évolution et Techniques*. (Paris: A. Michel, 1943).

⁴⁷⁰ André Leroi-Gourhan, *Évolution et Techniques*. (Paris: A. Michel, 1943), 234

⁴⁷¹ André Leroi-Gourhan, *Évolution et Techniques*. (Paris: A. Michel, 1943). See chapter II for a detailed discussion on the *chaîne opératoire* approach.

⁴⁷² Dietler, Michael and Herich, Ingrid, "Habitus, Techniques, Style: An Integrated Approach to the Social Understanding of Material Culture and Boundaries," 254.

⁴⁷³ Marisa Lazzari, "Landscape of Circulation in Northwest Argentina: The Working of Obsidian and Ceramics during the First Millennium AD.," in *Social Archaeologies of Trade and Exchange Exploring Relationships among People, Places, and Things*, ed. Alexander A Bauer and Anna Agbe-Davies (Walnut Creek, Calif.: Left Coast Press, 2010), 49–68;

⁴⁷⁴ Miriam T Stark, Mark D. Elson, and Jeffery J. Clark, "Social Boundaries and Technical Choices in Tonto Basin Prehistory," in *The Archaeologies of Social Boundaries*, ed. Miriam T Stark (Washington, D.C.: Smithsonian Institution Press, 1998), 213–216.

importantly, both the type of goods and the style can inform on the influences that cultural boundaries receive from external interactions.

Lazzari, who worked with obsidian and ceramic from the first millennium period of Northwestern Argentina, has suggested that objects that circulate, as in the case of ceramic and obsidian, reflect in them the diverse transactions that circulation entails and that, when they reach a location, they bring with them the large-scale social space accumulated throughout their travels. Lazzari has stressed that circulation becomes the domain of social practices that both result from and generate social meanings.⁴⁷⁵ For this reason, landscape becomes a place where objects circulate and they engage with the physical world. The engagement with a particular topography over a long period of time produces large scale social spaces. Obsidian becomes a means to open a discussion on settlement connections. For example, the obsidian source and the motifs and morphology depicted on the ceramic vessels produced in the area create connections with neighboring valleys.⁴⁷⁶

Based on the aforementioned understanding of material culture in landscapes at crossroads, this chapter will tackle questions related to the circulation of objects and ideas. More specifically, to what extent were Kamid el-Loz and the Beqa'a involved in the international interactions in which the coastal Levantine settlements were participating? How did the topography of the valley and the Middle Bronze Age cultural environment affect the material culture of Kamid el-loz? And, what type of information regarding the social milieu of Kamid el Loz can the material culture of the site provide?

To answer these questions, several classes of objects were analyzed. These included the painted vessels and seal and scarab impressions from the Beqa'a Valley and from the adjacent regions. Additionally, the wall paintings of Tell Sakka and Tell el-Burak will also be discussed to support the importance of a western or easterly route. The Painted Ceramic vessels found in abundance at the site demonstrate that this type of Levantine Painted Ware was produced locally. Furthermore, the ceramic vessels illustrate shared decorative techniques mostly visible on the surface of the vessels, thereby indicating that interaction at the level of circulating technologies was indeed taking place. The impact of the landscape on the circulation of motifs and technologies reflects the social ramifications of foreign influences provoked by the advent of shared technologies and the exchange of knowledge and ideas that occurred through the circulation and exchange of objects.

The examination of these objects and the evidence that they furnish spur reflections on the level at which Kamid el-Loz and the Beqa'a Valley were able to participate in the exchange systems active throughout the Middle Bronze Age, and on the effects that these circulating objects had on the Kamid el-Loz material culture. The analysis of the evidence will contribute to the understanding of how images were in use throughout the vibrant coastal sites as well as in the hinterland communities. This chapter will attempt to unveil what occurs to images and technologies when they are not only transported over time but also transferred from more consolidated economic zones to less centralized commercial centers. To discuss this phenomenon, a series of case studies, subdivided by level of local, interregional and international interactions, will follow. These case studies will allow the discussion of artifacts in relation to geographical connections, delineating, in this way, the level of relationship that Kamid el-Loz,

⁴⁷⁵Lazzari, "Landscape of Circulation in Northwest Argentina: The Working of Obsidian and Ceramics during the First Millennium AD.," 51.

⁴⁷⁶Ibid., 59.

and in general, the Beqa'a Valley settlements instituted with the neighboring regions and the outcome of such contacts on the development of cultural ideas.

2. Local Interaction of the Beqa'a Valley

Local interactions at Kamid el-Loz can be discerned by observing the ceramic vessel production at the site. The ceramic material of Kamid el-Loz that was analyzed in chapter II shows that carinated bowls and platters share stylistic features with the examples found at Tell Hizzin, Tell el-Ghassil and Baalbeck. Our best site for comparisons is that of Tell el-Ghassil. Here, the ceramic vessels were well documented in the 1996 report prepared by Claude Doumet-Serhal. Similarities can be seen between the carinated bowls type 6 from Kamid el-Loz and the bowls from *niveau X* of Tell el-Ghassil.⁴⁷⁷ Other indications of local interaction can be captured in the cooking ware of Kamid el-Loz, more specifically, type 1-4 from Kamid el-Loz have similarities with the cooking ware from Tell el-Ghassil *niveau IX* and *niveau VIII*. The same can be said for some types of storage jars. The most documented storage jar at the site of Kamid el-Loz is type 6 and presents similarities with the storage jars from Tell el-Ghassil *niveau VII*.⁴⁷⁸ Furthermore, the LPW of Kamid el-Loz, characterized by spiral motifs framed with geometric bands, finds parallels with one LPW recovered at Tell el-Ghassil in *niveau X*. It can be suggested that ceramic vessels used for the preparation of food reflect the local ceramic production of the Beqa'a Valley.

Finally, Kamid el-Loz presents some unique pieces, represented by vessels with animal motifs. These vessels are a burnished platter from the Palace area and a sherd and a juglet from the Administrative area (I/II h 18/1 – Fig. 8, p. 216). The platter with the animal motifs depicts a series of animal images executed with a red pigment (FS 15 n. 28). The fracture on the sherd does not allow for the reconstruction of the full animal but it appears to be a quadruped characterized by two front legs, two ears, two horns and a small tail. This animal image recalls that of an ibex running. Following this figure is a less preserved image of another quadruped, and lastly, the almost entirely preserved representation of an ibex.

An interesting and unique vessel was found in the administrative area and is dated to the late Middle Bronze Age II and Late Bronze Age I period. This almost complete painted vessel is a juglet with a concave ring base with a broken handle. The surface is burnished and painted with dark red figurative motifs located on the central section of the vessel's body and on its shoulder. The identification of the elements reproduced is not exactly clear. It can be suggested that the motifs on the vessel are representations of a natural scene or an attempt at reproducing an open space. A proposed interpretation is the following: These are two animals, one of which seems to be a horned quadruped (Fig. 8.c, 216) and the second an unidentified animal with wings or horns (Fig. 8.c, p. 216). Alternating between the two creatures is an undulated vertical line (Fig. 8.c, p. 216) and a series of fine vertical lines with one horizontal fine line running through the vertical lines (Fig. 8.e). These motifs, placed in such a manner, resemble a fence. On the shoulders of the same juglet (Fig. 8.b, p. 216) are visible other motifs that recall four animals. This area of the vessel is broken and the interpretation of two possible series of horizontal lines with one vertical line that runs through them is, yet again, unclear. The last piece that shows animal motifs was also found in the administrative area. The body sherd, possibly belonging to an internally

⁴⁷⁷ Doumet-Serhal. *Les fouilles de Tell El-Ghassil de 1972 à 1974: étude du matériel*. 1996, p.194, pl. 2:6

⁴⁷⁸ Doumet-Serhal. *Les fouilles de Tell El-Ghassil de 1972 à 1974: étude du matériel*. 1996, p. 230 pl. 48:8

burnished platter (Fig. 7, p. 216), displays the image of a quadruped and is executed in dark red paint.

The sherds and vessels portray motifs that are common in the ancient Near East but the composition, the design and the motifs chosen are unique to Kamid el-Loz. Up to date, exact parallels for these pieces are unavailable, hinting to a local production. The motifs perhaps reflect the environment of the Beqa'a Valley, that is, the mountainous areas that border the valley. The natural scenery of the Beqa'a is particularly represented in motifs illustrating a combination of animal figures and vegetation that recalls trees. The motif of the caprid or ibex is very common in the Near East. Although exact parallels cannot be found for the examples from Kamid el-Loz, animal figures reproduced as in the the Kamid el-Loz vessels are found in the southern Levant at the site of Beth Shean, where a zoomorphic vessel portrays a caprid motif framed in horizontal and vertical lines.⁴⁷⁹ Other examples showing the adoption of animal figures on vessels are visible in the Syro-Cilician vessels. This type of vessel is characterized by the presence of a stylized quadruped, often resembling an ibex. This ceramic style type originated in the Ebla-Aleppo region⁴⁸⁰ and was also very common in the central Levant, for instance, at the site of Sidon, where circa three examples were found in association with the warrior tombs and were dated to the Middle Bronze Age I period.⁴⁸¹

3. Interregional Interaction of the Beqa'a Valley

In this section, the Tell Yahudeya Ware (TYW hereafter) and the Levantine Painted Ware (LPW hereafter) will be discussed as case studies to present the possible connections that the Beqa'a Valley had established with the regions located to the west and to the east of the valley. Both wares were extensively treated by scholars and identified as chronological markers: the TYW for the Middle Bronze A II and the LPW for the Middle Bronze Age I. The recovery of these wares at the site of Kamid el-Loz indicates that specialized ware was in circulation in the valley, and that the Beqa'a was producing the LPW. In addition, the LPW, a type of vessel which scholars tend to designate as a Middle Bronze Age I marker, was common in the Middle Bronze Age II at the site. The analysis will show that the LPW found at Kamid el-Loz had concrete connections with that of the southern Levant (e.g. Tel Dan and Hazor) and with the LPW from the settlements located in southwestern Syria (e.g. Tell Sakka). The presence of the TYW at Kamid el-Loz suggests strong correlations with ceramic vessel trends that were most popular in the west. These same trends reached the Beqa'a as far east as southwestern Syria. Other case studies that I have used to corroborate the Beqa'a Valley's links with the neighboring regions are ulterior examples of painted ware, carinated bowls, scarab impressions and a classic Syrian style seal impression.

⁴⁷⁹M.A. Maeir, "The Middle Bronze Age II Pottery," in *Excavations at Tel Beth-Shean: 1989-1996/2 The Middle and Late Bronze Age Strata in Area R.*, ed. 'Ammīḥay Māzār (Jerusalem: Israel Exploration Soc., 2007), 285 pl. 11. 1, photo 4.75 Zoomorphic vessel.

⁴⁸⁰Claude Doumet-Serhal, *Sidon 15 Years of Excavations : On the Occasion of the Exhibition Sidon "The Best of 15 Years" 3 September - 3 November 2013 Sidon* (Beirut : The Lebanese British Friends of the National Museum, 2013, 2013), 139.

⁴⁸¹*Ibid.*, 139–140.

3.1a The Tell Yahudeya Ware at Kamid el-Loz and in its Neighboring Regions

Historically, the TYW was thought to originate from Tell el-Yahudeya, a site located in Egypt and, for this reason, of Egyptian origin.⁴⁸² H. Junker, in 1921, began the first study on the Tell el-Yahudeya Ware and assigned it a Nubian origin.⁴⁸³ George Andrew Reisner, in 1923, believed that the ware was of Egyptian derivation.⁴⁸⁴ In 1924, Bonnet suggested that the TYW was not of Egyptian derivation and that it probably originated in the Near East.⁴⁸⁵ After diverse attempts by scholars to identify the origin of the Tell el-Yahudeya Ware, David Aston, in a recent work, has suggested the presence of two main branches of TYW, a Levanto-Egyptian and a Palestinian⁴⁸⁶ one, as well as third group, for which the provenance should be Cyprus.⁴⁸⁷ Aston advocates the possibility of the existence of a subgroup that can be added to this category and can be identified in the area of Syria and Lebanon.⁴⁸⁸

The Palestinian group seems to have its source in the Levant. Debates on the origins of this ware places it in the Levantine region and, more specifically, in the coastal area, with one kiln site recovered at the southern Levantine site of Afula.⁴⁸⁹ Here, TYW from a potter's refuse pit was found.⁴⁹⁰ Additional studies on the TYW are available from the research series of Tell el Daba'a. This comprehensive research includes also the history of the studies on the TYW ware, a typology for the Tell el-Daba'a collection and the latest studies of the ware from the Levant.⁴⁹¹

The site of Kamid el-Loz represents the most southern site of the Beqa'a Valley where TYW has been identified. During the excavation season of 2011, a TYW⁴⁹² sherd (FS 25 n.25) was uncovered in the palace area (area I-I 15/16), north of the Middle Bronze Age palace walls. The sherd (L. 6 cm circa and W. 4 cm) displays a series of vertical dotted patterns on its surface (Fig. 9, p. 217). Another documented TYW juglet was found in the Middle Bronze Age temple

⁴⁸² Petrie believed that the ware had an Italian origin.

⁴⁸³ Hermann Junker, *Der Nubische Ursprung Der Sogenannten Tell El-Jahudiye-Vasen*, Sitzungsberichte (Akademie der Wissenschaften in Wien. Philosophisch-Historische Klasse), 198 Bd. 3. Abh. (Wien, A. Hölder, 1921).

⁴⁸⁴ George A Reisner, *Excavations at Kerma*, vol. 5. 6, Studies, Harvard African; Harvard African Studies (Cambridge : Peabody Museum of Harvard University, 1923).

⁴⁸⁵ H. Bonnet, "Zur Herkunft der Sogenannten Tell El-Jahudiye-Vasen," *ZAS* 59 (1924): 119–30.

⁴⁸⁶ An early Palestinian and a Late Palestinian type have been identified. The same subdivision exists for the Levanto-Egyptian type with an Early (equal to Merrilles's el-Lisht ware) and a Late Levanto-Egyptian type (equivalent to Merrilles's Tell Yahudiyeh Ware). For further information on this discussion see: David A. Aston, "A History of Tell El-Yahudiyeh Typology," in *The Bronze Age in the Lebanon: studies on the archaeology and chronology of Lebanon, Syria, and Egypt*, ed. Manfred Bietak, Ernst Czerny, and Institut français d'archéologie du Proche-Orient SCIEM 2000 (Program) (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2008), 190. Aston 2008, 190.

⁴⁸⁷ Ibid.

⁴⁸⁸ Ibid.

⁴⁸⁹ Ibid.

⁴⁹⁰ On discussions regarding the origin and provenance of TYW see: Kaplan, Maureen F. *The Origin and Distribution of Tell El Yahudiyeh Ware*. Göteborg: Paul Åströms Förlag, 1980. Also see Aston 2000; Tell el-Jahudiyeh-Keramik, LÄ VI, 335–348; M. Bietak, Archäologischer Befund und Historische Interpretation am Beispiel der Tell el-Yahudiya-ware, in: S. Schoske (ed.), *Akten des Vierten Internationalen Ägyptologen-Kongresses, München 1985*, Band 2. SAK, Beihefte Band 2, Hamburg, 1989, 7–34; Zevulun 1990 Tell el-Yahudiyeh Juglets from a Potter's Refuse Pit at Afula, *Eretz-Israel* 21, pp. 174–190, p. *107 (english summary);

⁴⁹¹ Aston, David A., and Manfred Bietak. 2012. Tell el-Dab'a VIII: the classification and chronology of Tell el-Yahudiya ware. Wien: Verlag der Österreichischen Akademie der Wissenschaften.

⁴⁹² The Tell Yahudeya Ware has been extensively treated recently by Aston in: *Tell el Daba'a VIII: The Tell el-Yahudiya Ware and its Classification*. Verlag der Österreichischen Akademie der Wissenschaften Austrian Academy of Sciences Press 2012

T4a structure during the old excavation seasons in 1977 (Fig. 10, p. 217). These two exemplars display the typical dotted decoration, mainly located on the upper body section of the vessel.⁴⁹³ In the Beqa'a Valley, in addition to Kamid el Loz, Tell el-Yahudeya Ware was found in Tell Hizzin and Tell el-Ghassil, in the northern Beqa'a. The TYW of Tell Hizzin was recently re-analyzed by H. Genz.⁴⁹⁴ At Tell Hizzin are documented a Tell el-Yahudeya broken juglet (Hizzin n. 51537) and several fragments characterized by incised dots that form triangular patterns (Hizzin n. 51611) Fig. 11, p. 217; this is one of the most common motifs adopted to decorate most globular juglets.⁴⁹⁵ At the site of Tell el-Ghassil, two TYW with dotted patterns were found in *Niveau VI*⁴⁹⁶ and, in *Niveau X*,⁴⁹⁷ a TYW juglet with naturalistic motifs illustrating birds and palm trees was also recovered in Tomb 1 (Fig. 12, p. 217); this type of TYW, with naturalistic designs, belong to the Branch J groups (Tell el-Daba'a typology).⁴⁹⁸ According to the typology created for the Tell el Daba'a TYW, the Tell el-Ghassil and Tell Hizzin TYW belong to the Levanto-Egyptian group type I2.

Other TYW examples were found in the central Levant at the coastal sites of Tell Burak,⁴⁹⁹ Tell Fadous-Farabida,⁵⁰⁰ Tell Arqa,⁵⁰¹ Arde,⁵⁰² Kafer Garra,⁵⁰³ Sin el-Fil,⁵⁰⁴ Majdalouna⁵⁰⁵ and Sidon.⁵⁰⁶ At Tell Arqa, located north of the central Levant, were recovered 23 TYW fragments deriving from phase M (Middle Bronze Age II) and belonging to the Levanto-Egyptian group II or III, these fragments show mainly dotted patterns.

The Levanto-Egyptian group are the most commonly found in the central Levant, more specifically, the TYW of group type I2, which includes jugs on which three zones are decorated with standing and pending triangles. To this group belong the examples from Arqa, Byblos, Sin el-Fil, and perhaps Beirut. A piriform jug with a spiral decoration was found at Sin el-Fil and belongs to the Levanto-Egyptian group II type I2.1b.⁵⁰⁷

⁴⁹³ Martin Metzger Die mittelbronzezeitlichen Tempelanlagen T4 und T52012, taf. 24 n.6

⁴⁹⁴ Genz, "Middle Bronze Age Pottery from Tell Hizzin, Lebanon," 2010.

⁴⁹⁵ Idem

⁴⁹⁶ Claude Doumet-Serhal. 1996. *Les fouilles de Tell El-Ghassil de 1972 à 1974: étude du matériel*. Beyrouth: Institute français d'archéologie du Proche-Orient. P. 240 fig.1-2. *Niveau VI* has been dated to the Late Bronze Age-Iron Age (Doumet-Serhal 1996, 17)

⁴⁹⁷ Niveau X corresponds to the Middle Bronze Age II period (1750-1640 BCE). The chronology of the site is discussed by Doumet-Serhal 1996 in *Les Fouilles de Tell El-Ghassil de 1972 à 1974*. Table 1, p. 8.

⁴⁹⁸ Jean-Paul Thalmann et al., *Tell Arqa - I: les niveaux de l'âge du bronze* (Beyrouth: Institut Français du Proche-Orient, 2006). P. 197, pl 15. fig.2; Badre 1982.

⁴⁹⁹ Kamal Badreshany, "The Middle Bronze Age Pottery From Tell El-Burak, Lebanon," 2005.

⁵⁰⁰ Hermann, Genz Sader, Hélène. "Middle Bronze Age Pottery from Tell Hizzin, Lebanon," *Berytus*. 53 (2010): 133.

⁵⁰¹ Thalmann et al., *Tell Arqa - I*.

⁵⁰² J. Kaplan, "The Archaeology and History of Tel Aviv-Jaffa," *Biblical Archaeologist* 35 (1972): 178, fig. 127f.

⁵⁰³ Paul-Emile Guigues, "Lébé'a, Kafer-Garra, Qrayé: nécropoles de la région sidonienne," *Bulletin du Musée de Beyruth* 1 (1937): 35-76; Guigues, "Lebe'a, Kafer Garra, Qraye': Necropoles de La Region Sidonienne," *Bulletin du Musée de Beyruth* 2 (1938): 27-72; Guigues, "Lebe'a, Kafer Garra, Qraye': Necropoles de La Region Sidonienne (suite)." For studies on the presence of TYW in Lebanon and Syria see: David A Aston, Manfred Bietak, and Aren Maeir, *The classification and chronology of Tell el-Yahudiya Ware* (Wien: Verl. der Österr. Akad. der Wiss., 2012).

⁵⁰⁴ M. Chehab, *Tombe Phénicienne de Sin El Fil: Melanges Offerts a M.R. Dussaud*, vol. II, 1939, 805, Fig. 5.

⁵⁰⁵ M. Chehab, "Les Tombe Phéniciennes. Majdalouna," *Bulletin Du Musée de Beyrouth* IV (1940): 37-53.

⁵⁰⁶ Hanan Charaf, "The Tell el Yahudeya Ware from Tell Arqa," in *The classification and chronology of Tell el-Yahudiya Ware*, ed. David A Aston, Manfred Bietak, and Aren Maeir (Wien: Verl. der Österr. Akad. der Wiss., 2012), 600-601.

⁵⁰⁷ *Ibid.*, 599.

In some tombs of Byblos and Sin el-Fil were found piriform 1c jugs of the Levanto-Egyptian group III-IV, with two registers decorated with standing and pending triangles,⁵⁰⁸ and a 1d jug decorated with vertical incised bands was recovered at Byblos.⁵⁰⁹ To the Early Levantine group V belong the examples found in the tomb of Kafered-Djarra. At Tell Fadaous, a piriform jug 1a, dated to the late Middle Bronze Age I period, belongs to the Levanto-Egyptian group I.⁵¹⁰ Byblos yielded an ovoid TYW of the Lebanese type, Early Levantine IV jugs and Early Palestinian V bowls. According to Charaf, the earliest examples were unearthed in the area around Byblos.⁵¹¹ Sites located further to the south of the central Levantine coast, such as Majdalouna,⁵¹² yielded a TYW of the Middle Palestinian III type group C3, characterized with decorations that are made of bands and small concentric circles. Further south of Byblos, a Middle Palestinian III type group C3 was also found at Sin el-Fil.⁵¹³ Finally, another group of TYW found in the central Levant is Branch J, which includes the juglets with naturalistic design vessels. This group is found at Tell Arqa, Arde, Byblos and Sidon.⁵¹⁴ A naturalist design was found on two open vessels from a tomb dated to the Middle Bronze Age II at Tell Burak, south of Sidon and it belongs to the Branch P group. The designs from the Tell el-Burak open vessels show lotus and bird motifs.⁵¹⁵ The fragments from Tell el-Burak have close relations with the piece found at Tell el-Ghassil in the Beqa'a and discussed earlier under the TYW of the Beqa'a Valley. According to Charaf's study on the TYW from Tell Arqa, it is possible to suggest that there were two centers for the production of TYW in the central Levant. One was located at Tell Arqa and another at Arde.⁵¹⁶

Although the presence of the Tell el-Yahudeya Ware was particularly documented in the coastal sites, it must be noted that its presence extends also as far inland as southern Syria. Here, some examples were found at the sites of Tell el-Ashari, Mtoune and Dhibin.⁵¹⁷ The TYW from Tell el-Ashari presents the typical TYW decoration on the upper section of a juglet shoulder, with vertical dotted lines surrounding this area. The Mtoune TYW juglet is characterized by two bands with dotted decorations. One band is located at the level of the handle attachment, on the shoulder of the vessel, and the second band is located on the upper middle section of the vessel's body. The TYW from Tell Dhibin presents a delineated triangular pattern on the decorative zone of the upper shoulders of a juglet; this zone is filled with dotted incisions. Some other examples

⁵⁰⁸Examples from Byblos can be found in: Montet, *Byblos et l'Égypte. Quatre Campagnes de Fouilles À Gebeil, 1921-1922-1923-1924. (Texte-Atlas)*, Pl. CXLVI: 917. Example from Sin el-Fil can be found in: M. Chehab, *Tombe Phénicienne de Sin El Fil: Melanges Offerts a M.R. Dussaud*, vol. II, 1939, fig. 5a.

⁵⁰⁹Montet, *Byblos et l'Égypte. Quatre Campagnes de Fouilles À Gebeil, 1921-1922-1923-1924. (Texte-Atlas)*, Pl. CXLVI:914.

⁵¹⁰Genz H et al., "A Middle Bronze Age Burial from Tell Fadaous-Kfarabida, Lebanon," *Agypten und Levante* 20 (2010): 183–206.

⁵¹¹T. Bagh, "The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications," *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC II. Österreichische Akademie Der Wissenschaften, Denkschriften Der Gesamtkademie* 29 (2000): 219–37.

⁵¹²Chehab, "Les Tombe Phéniciennes. Majdalouna," fig. 3a.

⁵¹³Chehab, *Tombe Phénicienne de Sin El Fil: Melanges Offerts a M.R. Dussaud*, vol. II, fig. 6b.

⁵¹⁴Charaf, "The Tell el Yahudeya Ware from Tell Arqa."

⁵¹⁵Kamal Badreshany and J. Kamlah, "The Middle Bronze Age Pottery From Tell El-Burak," *Berytus* 53–54 (2013): 81–113.

⁵¹⁶Charaf, "The Tell el Yahudeya Ware from Tell Arqa," 600–601.

⁵¹⁷Frank Braemer and Michel Al-Maqdissi, "La Céramique du Bronze Moyen dans la Syrie du Sud," in *Céramique de l'Age du Bronze en Syrie. I, I*, ed. Michel Al-Maqdissi, Valérie Matoïan, and Christophe Nicolle, vol. T. 161 (Beyrouth: Institut français d'archéologie du Proche-Orient, 2002), 50.

can be cited from the site of Tell Sakka, near the modern city of Damascus, where at least three exemplars of TYW, all of which are juglets with different dotted patterns, were found in *niveaux* 4.⁵¹⁸ At present, it is not possible to determine whether there were centers of production for the TYW in the Beqa'a Valley or in southwestern Syria, but it is nonetheless possible to observe a certain appreciation for this type of ware. The vessels illustrate decoration patterns that are also commonly used on the examples that were found on the coastal Levantine sites. The presence of this class of vessel attests to the circulation of goods that took place in the Beqa'a valley and to the interregional interaction that involved the valley and Syria. Whether this type of vessel was locally made or imported, it can be suggested that production technology was being transferred or shared through the transportation across boundaries of this type of vessels. The possible linking routes were the eastern paths that ran from the Beqa'a to southwestern Syria, such as route E1-3 previously discussed in chapter III. Such a route was essential for the creation of interconnections between regions and facilitating the transfer of the technological methods visible in the TYW.

3.1b Levantine Painted Ware (LPW) at Kamid el-Loz and in the Southern and Eastern Neighboring Regions

The LPW is extensively documented throughout the central Levant. The term Levantine Painted Ware was first used by J. Tubb in a 1983 article, and is related to the discovery of this ware in Palestine and on the Syrian coast.⁵¹⁹ This type of pottery is often indicated as a marker of the Middle Bronze Age I period (circa 2000-1800 BCE). The main properties of the LPW is the decorative pattern often applied to juglets, which includes geometric and linear motifs. One of the main characteristics of the LPW ware in the Middle Bronze Age II period is the presence of a ring base and a stepped rim.

In the Beqa'a Valley, the LPW was reported at the sites of Kamid el Loz, Tell Hizzin and Tell el-Ghassil. Of interest to this study are the circa 23 painted ware sherds and vessels of the so-called Levantine Painted Ware type found at Kamid el-Loz in the palace storage rooms, in the administrative area and in a tomb of the residential area during the excavation seasons of 2008-2011.⁵²⁰ From the old excavation seasons (1977-1981) are documented three painted vessels from the Middle Bronze Age tombs. One is a band-painted dipper juglet from a child burial Tomb 106.⁵²¹ The second is a painted juglet found in Tomb 97, with a stepped-rim, triple handles, spiral decorations, an unusual upper dot-band zone and ticks on the rim and handle.⁵²² The third example was found in another child Tomb 121. Here was uncovered a juglet with a

⁵¹⁸A. Taraqji, "Nouvelles Découvertes Sur Les Relations Avec l'Égypte À Tell Sakka Et à Keswé, Dans La Région de Damas," *Bulletin de La Société Française d'Égyptologie* 144 (1999): fig.12.

⁵¹⁹J. N. Tubb, "The MBIIA Period in Palestine: Its Relationship with Syria and Its Origin," *Levant* 15 (1983): 49–62(14).

⁵²⁰Heinz et al., "Kamid El-Loz: Report on the Excavations 2010 and 2011."

⁵²¹R. Miron, "mittelbronzezeitlichen Gräber am Nordhang des Tells," in *Bericht über die Ergebnisse der Ausgrabungen in Kāmid el-Lōz in den Jahren 1971 bis 1974*, ed. Rolf Hachmann and Rudolf Echt (Bonn: R. Habelt, 1982), pl. 30 Grab 106. Miron 1982, pl. 30 Grab 106

⁵²²*ibid.*, 104

crossed metope decoration.⁵²³ The LPW recovered during the recent excavation seasons, found in contexts related to daily life activities, such as storage areas, made clear the fact that this type of vessel was not used exclusively as a funeral good for the deceased. It is possible to assume that these vessels, along with other painted wares found in the storage rooms of the palace, were displayed when used.

Table 3 (p. 227) contains a list of the LPW found at Kamid el-Loz; this list includes complete ceramic vessels that are often exemplified by juglets, sherds and one example of a rim belonging to a carinated bowl. Two main body shapes are found: juglets and carinated bowls. The juglets are the best represented and often display a button base and a stepped rim. The vessels were divided into categories based on their decoration patterns. The most common styles that have been recognized are: the geometrical style (Fig. 13, p. 217), the circle and spiral motif style (Fig. 14, 217), the cross line style, the linear style and the wavy line style (Fig. 14, p. 217). Often, the LPW is found in burials,⁵²⁴ but most of the Kamid el-Loz pieces were found in non-funerary related contexts, that is, the palace rooms, and this is also true for the greater part of the LPW of the Middle Bronze Age II, found, for example, in southwestern Syria and at Tel Dan. A total of 3 complete juglets were extracted from graves, one piece was recovered from room 8 of the palace and two in the palace storage rooms. In 2011, additional LPW was retrieved in a tomb of the MBA II from the residential area.⁵²⁵ From the above examples, we gather that certain decorative patterns appeared during different phases of the Middle Bronze Age Levels of Kamid el-Loz.

Based on the study of the Kamid el-Loz LPW collection and their decorative motifs, it is possible to determine that in the later phase of the Middle Bronze Age II period, corresponding to palace Phase III, the most common Levantine Painted Ware in use at the site is the juglet with bi-spiral motifs (Fig. 14, p. 217). Additionally, the surface of the vessels shows a light brown slip or, as also identified by David Ilan, a creamy surface,⁵²⁶ a stepped rim, a flat base or a button base. To the early phase of the Middle Bronze Age II period can be assigned the triangle with a crosshatch motif. Only one fragmented sherd was found bearing this design in the old levels of the Late Middle Bronze Age Palace Phase 3. The pieces recovered at Kamid el-Loz have been proven to belong to the Middle Bronze Age II period as these were recovered in the Middle Bronze Age II levels of the palace, in the administrative area and in the burials of the residential area. The presence of LPW in other areas during the Middle Bronze Age II period is well attested. It was found in the southern Levant and, specifically, at the sites of Tell Dan and Hazor and in southwestern Syria, at Tell Sakka and Mtoune,⁵²⁷ where juglets with a one-sided handle were decorated with spiral motifs.

Other sites in the Beqa'a where LPW was recovered are Tell Hizzin and Tell el-Ghassil. At Tell Hizzin were reported circa three complete juglets, mainly illustrating spiral motifs. At Tell el-Ghassil, a complete LPW juglet was found in Tomb 1 of *niveau* X and displays spiral

⁵²³Tine Bagh, *Tell El-Dab'a XXIII: Levantine Painted Ware from Egypt and the Levant*, vol. 37, Untersuchungen Der Zweigstelle Kairo Des Österreichischen Archäologischen Instituts, 2013, 140.

⁵²⁴For a complete study on the LPW see: Bagh, *Tell El-Dab'a XXIII*.

⁵²⁵Heinz et al., "Kamid El-Loz: Report on the Excavations 2010 and 2011."

⁵²⁶T. Bagh, "The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications," *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC II. Österreichische Akademie Der Wissenschaften, Denkschriften Der Gesamtakademie* 29 (2000): 99–109.

⁵²⁷Michel al- Maqdissi, Valérie Matoïan, and Christophe Nicolle, *Céramique de l'âge du bronze en Syrie. I, I*, (Beyrouth: Institut français d'archéologie du Proche-Orient, 2002), 49, planche XIX–B, n. 108 and 109 pl. XX–A.

motifs framed with geometric bands.⁵²⁸ Claude Doumet-Serhal dates the vessels to the Middle Bronze Age IIB (1700-1640 BCE) period following the southern Levantine chronology.⁵²⁹

Clearly, Lebanon was one of the major producers of the LPW. As previously noticed by Tubb, the production of this ware must be located in the central Levantine area.⁵³⁰ This type of ware was found in the following sites along the central Levantine coast: Sidon,⁵³¹ Lebe'a, Ruweise, Ginosar, Majdalouna, Beirut, Sin el-Fil, Byblos, Tell el-Salhiyeh, Tell Fadaous-Kfarabida⁵³² and Tell Arqa, and was dated to the Middle Bronze Age I period.⁵³³

Tine Bagh, in her research, has recently devoted some attention to the LPW. Her latest work, published in 2013 on the LPW,⁵³⁴ gives an overview of the sites in Egypt and in the entire Levant that have reported the presence of this ware. Bagh has attempted to subdivide the various types of LPW based on their decorative patterns.⁵³⁵ The results of her research brought her to the conclusion that the LPW is a type of vessel that appeared in the Levant only during the Middle Bronze Age I period and seems to belong to, and was used only, during the Middle Bronze Age I period. Although Bagh's research is detailed and includes a large corpus of LPW from the Levant, there are still problematic issues. First of all, the term Levantine Painted Ware is outdated and not feasible anymore as it tends to assign this ware to a specific region. Second, the LPW should not be assigned only to the Middle Bronze Age I period as it continued to be produced and used during the Middle Bronze Age II period as well, and is clearly attested in several sites from the southern Levant, in southwestern Syria and, in particular, in the Beqa'a Valley, with Kamid el-Loz being the major producer of LPW. Third, creating a typology based only on the decorative patterns can lead to issues as it does not take into account the shape of the vessels found and it fails to provide a good discussion on the relationship between the decoration and shape of the vessel. In this chapter, the discussion of the LPW ware supports the possibility of the existence of the eastern and southern routes traced in chapter III from the Beqa'a Valley to the southern and eastern regions. These routes facilitated the circulation of the LPW vessel type and style. The southwestern Syria and the Beqa'a Valley LPW show several important relationships that are not limited to the use of similar decorative patterns. These characteristics are the banded and circular motifs, which are also evidence for the use of this style up to the Middle Bronze Age II.

3.1c Discussion

The presence of 23 LPW pieces is relevant in relation to the single TYW found in the palace area and the single juglet deriving from the Middle Bronze Age II temple. Kamid el-Loz had a

⁵²⁸Genz, "Middle Bronze Age Pottery from Tell Hizzin, Lebanon" (Tell Hizzin nos. 51451, 51573, 51693); Badre, "Tell El-Ghassil," 130, fig.8: 72.34. Doumet-Serhal, *Les Fouilles de Tell El-Ghassil de 1972 à 1974*, 197 pl 15 fig. 1.

⁵²⁹Doumet-Serhal, *Les Fouilles de Tell El-Ghassil de 1972 à 1974*.

⁵³⁰Leila Badre, "Tell El-Ghassil: Tomb 1," in *Archéologie Au Levant. Recueil À La Mémoire de Roger Saidah*, ed. Roger Saidah, Collection de La Maison de l'Orient Méditerranéen 12, Série archéologique 9 (Lyon, 1982), 130, fig 8:73.34.

⁵³¹Bagh, *Tell El-Dab 'a XXIII*.

⁵³²Genz, "Middle Bronze Age Pottery from Tell Fadaous — Kfarabida, Lebanon," 114.

⁵³³Bagh, "The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications."

⁵³⁴Tine Bagh, *Tell El-Dab 'a XXIII: Levantine Painted Ware from Egypt and the Levant*, 2013.

⁵³⁵Bagh, "The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications," 89.

particular interest in the production of the LPW type vessels with their distinctive decorative motifs. These vessels, in circulation throughout the Levant since the Middle Bronze Age I period, were able to affect strongly the material culture of the Levantine coastal sites and filtered also into the hinterlands of the Beqa'a Valley. At the moment, we can only be certain that Kamid el-Loz pursued the production of the LPW during the Middle Bronze Age II, as it is found in this level. Two other northern Beqa'a sites, Tell Hizzin and Tell el-Ghassil, evidence the same type of ware during the Middle Bronze Age II. It is, however, possible that the LPW was also common during the Middle Bronze Age I period. Future excavations and the exposure of the Middle Bronze Age I level could clarify the extent of the use of this ware. Additionally, it can be suggested that, while in most coastal sites of the Levant the LPW was typical of the Middle Bronze Age I period, in the hinterlands, that is, in the Beqa'a Valley and in several sites of southwestern Syria, its utilization was not limited to the Middle Bronze Age I period, as most scholars have suggested⁵³⁶ basing their assumptions on the material found in most sites excavated along the coast, but continued into the Middle Bronze Age II.

The presence of the Levantine Painted Ware vessels and Tell el-Yahudeya Ware sherds not only indicate that Kamid el-Loz had an interest in these types of vessels, but, at this stage of the research, it is also possible to suggest that the Levantine Painted Ware, in contrast to TYW, may have been produced locally. Up to date, a pottery workshop has not been attested at Kamid el-Loz but there are two towns in the vicinity of the site where pottery workshops could have been located. One such location is found 8.4 km away from Kamid el-Loz, in the modern village of Aita el-Foukar, and the second one in Rachaya, 18 km distant from the site. The composition of the LPW matched that of the carinated vessels and common ware of Kamid el-Loz (see chapter III for more details on the mineral composition of the ceramic vessels of Kamid el-Loz). What appears to be a common point for the LPW found in the southern Beqa'a Valley, in the southern Levant, in sites such as Tel Dan, and as far as southern Syria, is that it was in use during the Middle Bronze Age II period. The exemplars of the LPW available at Kamid el-Loz that are dated to the Middle Bronze Age II period illustrate the following features: stepped rims, button shaped bases, and a cream slip. These same qualities are found on the White Cream Ware from Tell Dan, which has been dated to the Middle Bronze Age II by the excavator. The LPW from Kamid el-Loz and the White Cream Ware from Tell Dan show the same characteristics and are later versions of the Middle Bronze Age I LPW that circulated along the coast.

The site of Kamid el-Loz evidences a considerable amount of LPW, with circa 23 examples recovered mainly in the palace, compared to the TYW which consists of only two examples, with one fragment found in the palace and a juglet found in the temple. Although both types of vessels are very common in the Levant and are often recovered in tombs, the TYW at Kamid el-Loz and at other sites, such as Tell Hizzin and Tell el-Ghassil in the Beqa'a Valley, is limited to a few exemplars, while the LPW, on the contrary, appears to have been a type that was more common and was produced locally. Furthermore, the techniques involved in the production of the LPW vessels were not as complex as those for the TYW, which required several steps in the creation of its unique decoration, with a first layer of slip and burnishing followed by the repeated "pricking" of the surface of the vessel using a sharp tool to create a large variety of geometric designs. The surface of these vessels is very often grey or light-brown in color and the holes were filled with chalk or lime to create a contrast effect.

⁵³⁶Tubb, "The MBIIA Period in Palestine: Its Relationship with Syria and Its Origin"; Bagh, "The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications."

Both the Kamid el-Loz LPW and TYW types suggest the presence of sharing practices. This is visible in the adoption of decoration patterns and also in the use of specific types of vessels that were extensively present along the coast. The LPW from Kamid el-Loz offers a few unique examples and decorations that, at the moment, are only found at this site. This fact indicates that, along with the traditional LPW decorative patterns already in use since the Middle Bronze Age I, there was also an attempt to create new, regional styles.

On the other hand, the recovery of just one sherd and one juglet of the Tell el-Yahudeya Ware type might indicate that the site was not involved in the production of this class of vessels and that the pieces were most probably brought to Kamid el-Loz. The Tell el-Yahudeya Ware was also circulating in southwestern Syria and examples of this ware were found in the tombs of the site of Tell el-Ashari,⁵³⁷ at the site of Mtoune in tomb III and IV, in a tomb at Tell Dhibin, at Tell Ghuzlaniyah on the surface, at a tomb of the site of Tell Taybeh, at tell Debbeh on the surface and at Tell Bosra level 15, 18-19.⁵³⁸ The TYW, in southwestern Syria, is found often in funerary contexts and several pieces are also available at the Museum of Damascus and Dera'a. The TYW excavated at these locations was mainly represented by small cylindrical neck juglets with either elliptic, ovoid, biconical or globular bodies.⁵³⁹ According to Braemer and al-Maqdissi, the general distribution of the ware and its consistency in shape at the site of Mtoune,⁷ Souweimereh, Taybeh, Tell el Ash'ari, Tell Dera'a, Tell Debbeh and Tell Sakka suggest that these were being distributed or produced by the same workshop. As previously suggested, the presence of the TYW and the LPW in the Beqa'a Valley and in the neighboring eastern and southern regions underline the use of shared technologies in these areas. These shared technologies are visible in the choices of decorative styles and vessels types. The possibility that the TYW and LPW were produced locally further strengthens the idea of circulating shared technologies and explains the protraction of the use of the TYW, and more specifically, of the LPW into the Middle Bronze Age II period.

4. Interregional Interactions of the Beqa'a Valley

4.1 Interregional Interaction with the West Coast: The Painted Ware

Another Painted Ware, which differs from the LPW in shape and decorative composition, was recovered in room 7 of the Middle Bronze Age palace of Kamid el-Loz. The Painted Ware demonstrates that there were tangible interactions with the Levantine coast, where it is widely present. This ware presents painted bichrome bands (generally dark brown and dark red) located on the upper section of the body, directly beneath the shoulders of the vessel. Above the banded motifs, exactly on the lower section of the neck, is often located a collarete. This specific design (Fig. 16, p. 218) has particular similarities with the material that was found along the coastal sites, such as Sidon, Tell Kabri in the southern Levant, Tell Sukas⁵⁴⁰ and Ugarit⁵⁴¹ in coastal Syria. As illustrated in Fig. 2, p. 211, the pieces from Kamid el-Loz (II.1-2) include juglets with

⁵³⁷Maqdissi, Matoïan, and Nicolle, *Céramique de l'âge du bronze en Syrie. I, I.*, 50.

⁵³⁸H. Seeden, "Bronze Village Occupation at Busra, AUB Excavation on the Northwest Tell 1983-1984," *Berytus* 34 (1986): 51/pl.9 (1-4).

⁵³⁹Al-Maqdissi, Matoïan, and Nicolle, *Céramique de l'âge du bronze en Syrie. I, I.*, 35.

⁵⁴⁰Henrik Thrane, *Sūkās IV: A Middle Bronze Age Collective Grave on Tall Sūkās* (København: Kongelige Danske Videnskabernes Selskab, 1978), 34 fig. 80 fig. 82. Thrane 1978, 34 fig. 80 fig. 82

⁵⁴¹Claude F. A. Schaeffer and L. Courtois, *Ugaritica VII* (Paris; Leiden: Mission archéologique de Ras Shamra : P. Geuthner ; E.J. Brill, 1978), 209 fig. 4:2.

a rounded body, and vessels with a square-like upper shoulder section. The parallel bands and colurette design at the base of the neck of the vessels are often found on small juglets. The archaeological context of the Kamid el-Loz painted sherds is different from that of other sites. At Tell Sukka, this type of ware is found mainly in tombs⁵⁴² and the same can be said for the examples found in the sites of Tell Kabri were most of the painted ware was uncovered in Tombs 1045 and 1050.⁵⁴³ In Ugarit, such artifacts were found in the southern sector of Acropolis 223, on the upper layer of a Middle Bronze Age 2 grave.⁵⁴⁴ At Sidon, the samples were recovered in tomb 2.⁵⁴⁵ The Kamid el-Loz examples were found in room 7 of the Middle Bronze Age palace. This room has been interpreted as being part of the storage area of the building. In room 7 were retrieved several vessels that suggest a dining set assemblage, as already mentioned in Chapter II.

4.2 Interregional Interaction with the South and the East: The Carinated Bowls

The connections that Kamid el-Loz established with the southern Levant and southwestern Syria were well developed. The southern passages that led from this settlement to the south would have presented fewer natural obstacles. As mentioned in chapter III, one path connected the valley with the coast through the Jezzine Pass in the Lebanon Mountain; it then travelled via the Litani River to the settlement of Sidon and from there continued south, touching sites such as Ashkelon. Sidon, as recent archaeological evidence has shown, benefited from a trade relationship with Egypt, Crete and Cyprus.⁵⁴⁶ The second internal path ran from the valley plain to the south and had the first access point to the southern Levant via the site of Tell Dan. Tell Dan is one of the major sites of the Middle Bronze Age period in the southern Levant and it located close to the Lebanese and Syrian border. The location of Tell Dan in reference to the routes under discussion places the site on the same trajectory as the southern path, suggesting a possible trail that connected the southern Beqa'a with its major trading post located at the site of Tell Dibbin. Tell Dibbin is found directly at the border between the Beqa'a Valley and Palestine and on course to the settlement of Tell Dan and to Hazor. Paths leading to the east possibly followed the wadis along the Anti-Lebanon, crossed the Zabadani valley, reached the Janta and finally arrived at the Damascus area along the Barada river.

The material culture that was excavated during the previous seasons at Kamid el-Loz has brought forth a large amount of carinated bowls and platters. Based on these materials, the relations between Kamid el-Loz and its southern and eastern regions were close. The burnishing techniques adopted to decorate the body shape of the carinated bowls found in the palace at Kamid el-Loz suggest a shared decorative and productive technology with these regions.⁵⁴⁷

⁵⁴²Thrane, *Sūkās IV*, 35 fig.88.

⁵⁴³Aharon Kempinski et al., *Tel Kabri: The 1986-1993 Excavation Seasons* (Tel Aviv: Emery and Claire Yass Publications in Archaeology, Institute of Archaeology, Tel Aviv University, 2002), 124.

⁵⁴⁴Schaeffer and Courtois, *Ugaritica VII*, 27. Courtois 1978, 208

⁵⁴⁵Claude Doumet-Serhal, "The British Museum excavation at Sidon : markers for the chronology of the Early and Middle Bronze Age in Lebanon," in *The Bronze Age in the Lebanon: studies on the archaeology and chronology of Lebanon, Syria, and Egypt*, ed. Manfred Bietak, Ernst Czerny, and Institut français d'archéologie du Proche-Orient SCIEM 2000 (Program) (Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2008), 27.

⁵⁴⁶A discussion on the evidence attesting the interactions that took place at Sidon is available in: Doumet-Serhal et al., *Networking patterns of the Bronze and Iron Age Levant*.

⁵⁴⁷Amiran, *Ancient Pottery of the Holy Land; from Its Beginnings in the Neolithic Period to the End of the Iron Age*.

Carinated bowls are a chronological marker for the Middle Bronze Age.⁵⁴⁸ Generally, it is accepted to identify the carinated bowls with a sharp carination as characteristic of the Middle Bronze Age I period, while the bowls with a rounded body are a marker of the Middle Bronze Age II period.⁵⁴⁹ The carinated bowls from Kamid el-Loz, as already discussed in Chapter II, illustrate a rounded body or a S profile body shape; necks range in size from short to high and show simple rims or indented rims. Close similarities with the Middle Bronze Age II carinated bowls of Kamid el-Loz can be found at the southern Levantine sites of Tell Dan, Hazor,⁵⁵⁰ Beth Shean⁵⁵¹ and Shechem,⁵⁵² where it is possible to see some correspondence regarding the surface treatment applied to the vessels. The outer surface of the vessels, the interior of the rims and the necks of the carinated bowls were finely burnished. The same treatment is used for the open bowls, also known as platters. Horizontal and vertical lines are stressed on the outer surface of the carinated bowls and on the interior of the platters. The crosshatched pattern burnishing style is also adopted, as can be seen on the vessels of Shechem and Kamid el-Loz. In regard to the carinated bowls, connections with the east can be observed on two examples found in room 8, which are quite similar to one exemplar from Yabroud.⁵⁵³ These bowls, dated to the Middle Bronze Age II period, show identical body shapes and external burnishing decoration techniques.

4.3 Interregional Interaction with the South: Kamid el-Loz Scarabs and Scarab Impressions

Indications of an indirect Egyptian influence at Kamid el-Loz can be observed from the few scarab impression available at the site. A total of seven scarabs were found and are datable to the Middle Bronze Age II period. These were recovered during the 2008-2009 excavation seasons performed by the University of Freiburg and during the old excavations under the direction of Rolf Hachmann. Three scarab impressions were found during the excavation season of 2009 in the palace area and administrative area.⁵⁵⁴

The first scarab impression is located inside a medium-size bowl with a ring base that was recovered while removing the collapsed mud brick filling of room 7 of the palace (Fig 17a, p. 218).⁵⁵⁵ The location of this impression is atypical, as usually scarab impressions are found impressed on the handles of jars. In the Kamid el-Loz case, the impression is placed inside a platter with a ring base, suggesting the use of this vessel in a context different from that of a storage room. Unfortunately, the sealing is not very well preserved but five signs can be recognized on the frame of the simple oval contour. The hieroglyphs represented in the lower section can be identified with a *neb* sign, above which is a *djed* pillar with an *ankh* sign on each

⁵⁴⁸Ibid.

⁵⁴⁹Ibid.

⁵⁵⁰Yadin, Yigael James A. de Rothschild Expedition at Hazor, ed., *Hazor III-IV: An Account of the Third and Fourth Seasons of Excavations, 1957-1958 : Plates* (Jerusalem: At the Magnes Press, Hebrew University, 1961); Ben-Tor, Amnon James A. de Rothschild Expedition at Hazor et al., eds., *Hazor V: An Account of the Fifth Season of Excavation, 1968 : Text and Illustrations* ([Jerusalem]: Israel Exploration Society : Hebrew University of Jerusalem, 1997).

⁵⁵¹Maeir, "The Middle Bronze Age II Pottery."

⁵⁵²Cole, *Shechem I*.

⁵⁵³Ali Abou Assaf, "Rapport Préliminaire Sur Les Fouilles Des Tombes de Yabroud," *AAAS* 15, no. 2 (1965): pl. 7/ch 1537.

⁵⁵⁴Heinz et al., "Kamid El-Loz Report on the Excavations in 2008 and 2009," 104.

⁵⁵⁵Marleis Heinz, "Excavation Report." *BAAL*, 2010, 47 Abb.20.

side that may be translated: “all stability and life.” It could be possible to interpret the upper section as a representation of the bee (*bit*) and *sedje* sign. This combination, dated to the Middle Bronze Age II by Olga Tufnell, is very common in the Middle Kingdom⁵⁵⁶ and in the Middle Bronze Age in the Levant; parallels can be found at the site of Tell Ajjul in the southern Levant.⁵⁵⁷ The Kamid el-Loz impression was located on the inside of the vessel and was visible to the viewer. It can be suggested that the seal on this platter was affixed on the inside to express the ownership of the craftsman. For the same reason, on later period vessels, the impression was placed on the outside. It can be further proposed that it was either utilized to entertain guests or placed in plain sight for the general use of the residents of the palace.

The second and third scarab impressions were found on two jar handles. One is devoid of decorations or motifs (Fig. 17b, p. 218), while the other exemplifies a very simple design; the latter scarab impression is datable to the Middle Bronze Age II⁵⁵⁸ and illustrates what seems to resemble the Egyptian rope sign (Fig. 17c, p. 218).⁵⁵⁹

The scarabs and scarab impressions found during previous excavations are scarab KL 72:270 (Fig. 18, p. 218), KL 67:239 (Fig. 19, p. 218) and scarab impression KL 72:188 (Fig. 20, p. 218). Scarab KL 72:270 was recovered in Building level 14 of Kamid el-Loz and is dated to the Middle Bronze Age period. According to the scholars Kühne and Salje, this is an inscribed royal seal showing a scarab motif. The piece is dated between 1900-1800 BCE and parallels are available at Lahun.⁵⁶⁰ Scarabs with scarab signs in combination with other motifs are also found in the southern Levant, at sites such as Jericho,⁵⁶¹ Gezer,⁵⁶² Lachish⁵⁶³ and el-Ajjul.⁵⁶⁴ An additional Middle Bronze Age seal is KL 67:239. It was recovered in building level 15 and is an oval shaped scarab with papyrus motifs.⁵⁶⁵ Parallels for this scarab are found at Megiddo, Jericho and Tell Aviv. Scarab impression KL 72:188 shows undulated motifs divided by horizontal lines.⁵⁶⁶ Parallels for this impression are unavailable.

These scarab impressions show close parallels with Levantine examples, suggesting that it is a Levantine, rather than Egyptian, product. A close observation of the design and composition of the scarab imagery from Kamid el-Loz clearly suggests that these were produced in the southern Levant where close parallels for the Kamid el-Loz examples can be found at the site of Tell Ajjul. Whether these were made at Kamid el-Loz is yet to be determined, but an

⁵⁵⁶ Examples can be found at Tell Ajjul and are datable to the 13 Dynasty of Egypt.

⁵⁵⁷ Othmar Keel, *Corpus Der Stempelsiegel-Amulette Aus Palästina/Israel : Von Den Anfängen Bis Zur Perserzeit. Katalog Band I, Von Tell Abu Farag Bis Atlit.*, Orbis Biblicus et Orientalis, Series Archaeologica 13,1 (Freiburg, Schweiz : Universitätsverlag ; Göttingen : Vandenhoeck & Rupprecht, 1997), 127:63; Daphna Ben-Tor, *Scarabs, Chronology, and Interconnections: Egypt and Palestine in the Second Intermediate Period*, vol. 27, Series Archaeologica, 2007, pl. 78:27, 9.

⁵⁵⁸ Hartmut Kühne and Beate Salje, *Die Glyptik, Kāmid el-Lōz 15* (Bonn: Habelt, 1996), Nr. 84.

⁵⁵⁹ Alan Henderson Gardiner, *Egyptian Grammar : Being an Introduction to the Study of Hieroglyphs* (Oxford: London : Oxford University Press, on Behalf of the Griffith Institute Ashmolean Museum, 2001), Sect. V.7, 546.

⁵⁶⁰ Petrie W. M. Flinders, G. Brunton, and M. A. Murray, *Lahun II*, The Egyptian Research Account. Publications 33 (London: London, B. Quartich, 1923), taf. 64, 238.

⁵⁶¹ D. Kirkbride, “Scarabs,” in *Excavations at Jericho: The Tombs Excavated in 1955-1958*, ed. Kathleen Mary Kenyon, vol. 2, 1965, fig. 291 n.10; fig. 300 n. 31.

⁵⁶² R.A.S. Macalister, *Excavations of Gezer 1902-1905 and 1907-1909*, vol. I-III (London, 1912), pl.206 n. 42.

⁵⁶³ O. Tufnell, *Lachish IV (Tell Ed-Duweir): The Bronze Age* (London, 1958), pl.32 n.132.

⁵⁶⁴ Keel, *Corpus Der Stempelsiegel-Amulette Aus Palästina/Israel : Von Den Anfängen Bis Zur Perserzeit. Katalog Band I, Von Tell Abu Farag Bis Atlit.*, 145, n.117; p. 239 n. 401; p. 251 n. 439; p. 283 n. 529; p. 303 n. 591; p. 315 n. 624, p. 341 n. 697 and p. 425 n. 947.

⁵⁶⁵ Kühne and Salje, *Die Glyptik*, 145 n. 88.

⁵⁶⁶ *Ibid.*, 162 n. 107.

analysis on the clay used to fashion the handles of the jars and platters can help identify the clay source. It would be also interesting to identify a seal workshop. Parallels for the organization of the motifs present on scarab Fig. 24 can be observed on southern Levantine scarabs at the site of Tell Ajjul. Levantine scarabs were found across a large geographical area, with a major concentration in the Levant. Examples of scarabs are also available in northern Mesopotamia, at the site of Qal'at Šerqat/ Assur, which, according to Alexander Ahrens, should be considered as Levantine productions, especially seal scarab 4,⁵⁶⁷ which shares the same style of pillar and ankh motifs found in scarab (Fig. 17a, p. 218) from Kamid el-Loz. Egyptian artifacts at the site were not yet found, with the exception of an incised sherd of a jar, which Karin Kopensky believes has similarities with Egyptian examples.⁵⁶⁸

4.4 Interregional Interaction with the North: Kamid el-Loz Cylinder Seal Impressions

This section will include an analysis, when possible, of the probable connections that the site of Kamid el-Loz had with the northern and western regions of Syria. Based on the material culture found at Kamid el-Loz during the excavation seasons of 2009 and 2011, several assumptions can be made. The recovery of two very similar classical Syrian cylinder seal impressions has allowed for several interpretations on the palace organization and also regarding the presence of sharing motifs. The first sealing found in 2009 was impressed on the handle of a jar found in room 3 (Fig. 21, p. 219), also part of the storage area of the Middle Bronze Age palace. The second sealing was found in the administrative area (Fig. 22, p. 219). The superimposition of the two images demonstrates that they belong to the same cylinder seal. Both seals were applied to handles of jars. The recovery of these two sealings has led to the belief that, at Kamid el-Loz, there was an active circulation of materials and goods, both outgoing and incoming from the Syrian region. The administrative methods performed at Kamid el-Loz were similar to those put into act by its Syrian neighbors. In addition, Kamid el-Loz adopted motifs commonly used during this time period in the northern and coastal Levant. Exact parallels for this type of seal impression are unavailable; the motifs are, on the other hand, widely used and stylistically such motifs can be found in seal impressions from northern and western Syria.⁵⁶⁹

The seal impressions reproduce motifs that are typical of the northern Levantine artistic repertoire and also of southern Levantine influence, mainly represented by the Egyptianizing filling motifs. Besides providing testimony of the diverse influences that contributed to its artistic presentation, this seal is also informative of the motifs with which Kamid el-Loz came into contact. When both sealings are combined and overlaid, a clear sense of the entire scene of the impression can be captured.⁵⁷⁰ The seals depict an offering scene to a naked female goddess. The scene runs from right to left and begins with a two register section. The upper register displays a sphinx with fully upraised wings and an upraised paw. The tail curves and has a round end: the

⁵⁶⁷Alexander Ahrens, "'From a Country Far, Far Away...' – Remarks on the Middle Bronze Age Scarabs from Tomb Ass. 12949 at Qal'at Šerqat/Assur," in *Stories of Long Ago. Festschrift Für Michael D. Roaf*, ed. H.D. Baker, K. Kaniuth, and Adelheid Otto, vol. 397, (AOAT/Alter Orient Und Altes Testament (Münster, 2012), 3, Fig.2.

⁵⁶⁸ Personal communication

⁵⁶⁹Adelheid Otto, *Die Entstehung und Entwicklung der klassisch-syrischen Glyptik* (Berlin: De Gruyter, 2000).

⁵⁷⁰For another interpretation of this seal impression, see: Marlies Heinz and Julia Linke, "Hyperculture, Tradition and Identity: How to Communicate with Seals in Times of Global Action. A Middle Bronze Age Seal Impression from Kamid El-Loz," in *Materiality and Social Practice. Transformative Capacities of Intercultural Encounters*, ed. J. Maran and Ph. Stockhammer (Oxford: Oxbow Verlag, 2012), 185–90.

lion's mane recalls the Egyptian headdress and falls on both sides of the lion's shoulders. The face of the sphinx is characterized by a long rounded nose and the right ear is shown as a curved line. A half moon is placed in front of the beast's face. This motif is more likely of Levantine inspiration, because, as pointed out by scholars such as B. Teissier, the raised paw is characteristic of the Syro-Levantine glyptic.⁵⁷¹ The motif of the sphinx, as also pointed out by A. Otto, is of Syrian influence and differentiates from the Egyptian sphinx, which is often represented in the action of trampling. This image appears commonly in northern Syrian seals.⁵⁷² Below the sphinx is a guilloche motif framed by two lines; the upper line nicely works as a ground line for the sphinx. The guilloche represents a typical element that is seen in western Syrian seals.⁵⁷³ The framed guilloche separates the image of the sphinx from that of the standing and roaring lion. The latter is typified by a thick mane and a curly tail. A symbol, a horizontal figure-eight form, is placed above it. There follows an offering scene to a female naked goddess. Although the seal shows gaps, it is possible to determine that the scene is mainly composed by four individuals approaching a naked goddess.

After the sphinx and lion representations, there follows a male figure with long hair. It is not clear if the figure is wearing clothes, but a long tassel, possibly an ornament, can be seen between his legs, suggesting perhaps an adornment attached to his pelvis or a belt attached to a short kilt. Besides the absence of particular features on his body, it is possible to see that his right foot is placed taking a step forward and he is holding a quadruped animal. Of particular interest is the headdress, which is typified by horns, indicating the possibility that this figure is a deity, possibly identifiable with the god Dagan, a god that was particularly worshiped in the Levant.⁵⁷⁴ It is difficult to define the attributes of Dagan because this god is often identified as a weather god or the god of fertility. Otto has pointed out that this god is seen in seals in combination with the "naked deity."

The sequence continues with the figure of a shorter person. By comparing this figure with the analogous and better defined image visible on the second seal impression, it is possible to suggest that the figure is wearing a dress that reaches down to his knees and is possibly holding an Egyptian staff on the right hand and on the other hand what seems to be a floral motif, a lotus flower on a straight stem. Comparisons for this motif on seals in the Levant during the Middle Bronze Age can be seen on a seal from the collection of Yale (NBC),⁵⁷⁵ and in two seals from the seal collection of Montreal (MFA).⁵⁷⁶ Teissier indicated that such symbols are also found on Egyptian offering scenes or Egyptian flower offering scenes, such as in the Middle Kingdom scene that depicts Mentuhotpe offering a lotus to Hathor from the Denderah.⁵⁷⁷ These motifs are also present on Levantine scarabs, and, according to Teissier, this motif can stand for fertility, as

⁵⁷¹Braemer and Al-Maqdissi, "La Ceramique du Bronze Moyen dans la Syrie du Sud."

⁵⁷²Otto, *Die Entstehung und Entwicklung der klassisch-syrischen Glyptik*, 257.

⁵⁷³*Ibid.*, 274.

⁵⁷⁴Lluís Feliu and Wilfred G. E. Watson, *The God Dagan in Bronze Age Syria* (Leiden; Boston, MA: Brill, 2003).

⁵⁷⁵Yale (NBC) Hematite 22x15/14 discussed by B. Buchanan, *Early Near Eastern Seals in the Yale Babylonian Collection*. (New Haven; London: Yale University Press, 1981), seal n.1218 and presented by Beatrice Teissier, *Egyptian Iconography on Syro-Palestinian Cylinder Seals of the Middle Bronze Age* (Fribourg, Switzerland; Göttingen: University Press; Vandenhoeck & Ruprecht, 1996), 52 seal 13.

⁵⁷⁶Montreal (MFA) Siliceous limonite 20x9 discussed by Theophile James Meek, *Ancient Oriental Seals in the Royal Ontario Museum*. (Beirut: American Press, 1943), 25 n. 2, and presented by Teissier, *Egyptian Iconography on Syro-Palestinian Cylinder Seals of the Middle Bronze Age*, 53 n.25. Teissier 1996 p. 52 n. 19; Montreal (MFA) Siliceous magnetite 19x10 discussed by Meek 1943 n.3.

⁵⁷⁷Labib Habachi, "King Nebhepetre Mentuhotep: His Monuments, Place in History, Deification and Unusual Representations in Form of Gods," *ASAE* 19 (1963): fig. 7.

it is very often associated to Egyptian goddesses.⁵⁷⁸ In the case of the Kamid el-Loz seal, it can be deemed as an offering to the naked divinity and can represent fertility as well.

Next is another male figure clothed in a knee length dress. The garment is folded, giving it more volume. His left hand is raised in a gesture of salutation towards the “naked deity.” Between the naked lady and the male figure are several Egyptianizing motifs: an Egyptian emblem, which resembles a *was* scepter, and above it a hawk in his proper right profile, distinguished by a curved nose and displaying spread wings. This motif fills the space between the heads of the naked figure and the male offerer. Below the *was* scepter is a vulture oriented towards the male figure represented with an exaggeratedly round nose. Thanks to the representation of this bird with its wings extended and the scepter, the space that exists between the naked deity and the male figure is filled entirely. The “naked deity” is depicted with upper and lower body in a frontal view, with her hands crossed and placed flatly across her chest, while the head is turned to the proper right. All the figures of this scene are intended to advance towards the naked lady who faces them as they approach. The elaborate offering scene is composed of several symbolic motifs that fill the spaces between the figures. These motifs are also known as filling motifs, although some may have a more functional or symbolic role in the seal.

The seals illustrate a combination of motifs that are commonly found in a class of seals pertaining to the northern Syrian area and which are also known as classical-Syrian glyptic.⁵⁷⁹ Exact parallels for the composition of these two seals are not available, but parallels for the motif of the naked deity are visible in several seal collections attributed to the northern Syrian styles.⁵⁸⁰ The female naked deity is a motif which appears more often in the Northern Levant.⁵⁸¹ The guilloche is also a known motif used to separate scenes from sub-scenes.⁵⁸² The lion motif is found in western Syria.⁵⁸³ Sphinxes are well attested in northern seal iconography.⁵⁸⁴ The sphinx from Kamid el-Loz demonstrates closer parallels to the iconography that can be encountered in seals with Egyptianizing motifs, in particular, the headdress recalls the *menes* used by the pharaohs, parallels for which can be found in Jericho.⁵⁸⁵

The sealing recovered in 2011 provides additional information regarding the figures that were not visible in the first sealing found. The outline of the small figure of a person is clearer in the second seal as is also the tall figure with long hair and the image of a human figure holding an animal. The presence of two similar seal impressions suggest the frequent use of the seal in procedures of administration and organization, and it can also lead to hypothesize the possibility that the seal was actually produced at Kamid el-Loz. Taking into consideration that the retrieval of such a seal occurred within the palace, of interest is the fact that there is a specific selection of themes chosen for this depiction, that is, a “naked deity” and an offering scene. The archaeological context for the first sealing strengthens the proposition that the room in which this sealing was found was used for storing purposes and for the preparation of food. The second sealing was found in the so-called administrative area and it is not possible at the moment to indicate the function of this area.

⁵⁷⁸Lluís Feliu and Wilfred G. E. Watson, *The God Dagan in Bronze Age Syria* (Leiden; Boston, MA: Brill, 2003).

⁵⁷⁹Otto, *Die Entstehung und Entwicklung der klassisch-syrischen Glyptik*. Otto 2000

⁵⁸⁰*Ibid.*; taf. 14, 15

⁵⁸¹*Ibid.*, 206–207.

⁵⁸²*Ibid.*, 274

⁵⁸³*Ibid.*; 254-55

⁵⁸⁴Teissier, *Egyptian Iconography on Syro-Palestinian Cylinder Seals of the Middle Bronze Age*.

⁵⁸⁵*Ibid.*; 115, fig. 242

Seal impressions found at Kamid el-Loz during the 1977-1981 excavation seasons are also good indicators of the class of objects that were circulating in the valley. Sealing KL 67:362 was found in Building period 14 and depicts praying individuals followed by two registers of motifs with two ibexes above a register filled with guilloches.⁵⁸⁶ This seal impression is also very close to the northern Syrian style seals.

The presence of such seals attests the existence of a northern route that ran through the Beqa'a Valley along the plain, where most of the Middle Bronze Age settlements were documented. This route would have reached the sites of Hermil IV and V and, from here, it was possible to reach Tell Nebi Mend, in the northern Levant, allowing for the circulation of artistic ideas along this route.

5 International Interactions of the Beqa'a Valley

5.1 The Interactions of the Beqa'a Valley and Kamid el Loz with the West: Painted Ware, Cypriot Ware and Minoan Ware

Kamid el-Loz's relationships with the west propose a very interesting issue. These interactions had varying degrees of intensity. The perceptible connection with the coastal Levantine ceramic production of the Beqa'a Valley is proven, as suggested earlier, by the presence of the Painted Ware and the TYW. On the other hand, further west, a limited interaction with the Mediterranean islands, namely Cyprus and Crete, is apparent from the lack or limited amount of evidence found.

Proof of connections between the Beqa'a Valley and Crete is at the moment absent. Nonetheless, there is evidence to the fact that the coastal settlements in the central Levant were, to a certain degree, engaged indirectly with the Aegean island. In fact, a total of 22 Minoan ware examples were found in Sidon, Beirut⁵⁸⁷ and Byblos (Table 4, 228). The 22 specimens included the typical Kamares wares, among which were recognized 15 cups, five bridge spouted jars and one coarse ware jar.⁵⁸⁸ At Sidon was uncovered a Minoan cup in phase 2 (Middle Bronze Age I/2 part = Middle Bronze Age IIA)⁵⁸⁹ and, according to MacGillivray, the cup was manufactured during the Middle Minoan IIA period.⁵⁹⁰ At Byblos is attested a bridge-spouted jar datable to the Middle Minoan II period found in 1955 in the excavation for the foundations of a house.⁵⁹¹ According to Leila Badre, Byblos produced circa 10 fragments of Kamares but all had uncertain

⁵⁸⁶Kühne and Salje, *Die Glyptik*, 53 Abb 5 Taf. 4 Karte 12.

⁵⁸⁷Peter Warren and Vronwy Hankey, *Aegean Bronze Age Chronology* (Bedminster, Bristol: Bristol Classical Press, 1989), 134–5, pl. 12a.

⁵⁸⁸Robert B. Koehl, "Minoan Kamares Wares in the Levant," in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.*, ed. Joan Aruz and Kim Benzel (New Haven, Conn.; London: Yale University Press, 2009), 59–60.

⁵⁸⁹The most recent Chronology for the site of Sidon is available in Doumet-Serhal, "The British Museum excavation at Sidon: markers for the chronology of the Early and Middle Bronze Age in Lebanon."

⁵⁹⁰J.A. Mac Gillivray, "A Middle Minoan Cup from Sidon," *Archaeology and History in Lebanon* 18 (2003): 20–24; J. A MacGillivray, "The Minoan Sidon Cup," in *The Bronze Age in the Lebanon: Studies on the Archaeology and Chronology of Lebanon, Syria, and Egypt*, ed. Manfred Bietak and Ernst Czerny (Wien: Österreichische Akademie der Wissenschaften, Denkschriften der Gesamtkademie, 2008), 44–49.

⁵⁹¹Virolleaud, Naville, and Pottier, "Un hypogée de la XIIe dynastie égyptienne à Byblos;" D.C. Baramki, "A Tomb of the Early and Middle Bronze Age at Byblos," *Bulletin Du Musée Du Beyrouth* 26 (1973): 27–30; Dunand, *Fouilles de Byblos T. 1, [I], T. 1, [I]*, 191, pl. 177 no. 2986; Claude F. A Schaeffer, *Stratigraphie comparée et chronologie de l'Asie Occidentale (IIIe et IIe millénaires)* (London: Oxford University Press, 1948), 66, fig. 74:2–4.

contexts.⁵⁹² Further south, Minoan artifacts are attested in sites such as Ashkelon⁵⁹³ and Hazor⁵⁹⁴ in the southern Levant. Further north in Syria, Minoan artifacts were recovered at sites such as Ugarit,⁵⁹⁵ Tell Sukas⁵⁹⁶ and Qatna.⁵⁹⁷ These artifacts are mostly found in burials or directly outside of them, and were possibly placed there as offerings from the family to the deceased as is the case at Sidon. Additionally, the main recipients of this category of vessels are the coastal sites located in the central Levant. Sidon, Byblos and Beirut were important sites during the Middle Bronze Age and played a role as ports in the central Levantine coastal strip. From the Minoan artifacts found on the coast, it appears that these objects were able, although in a limited number, to circulate between the coastal sites and the Mediterranean islands, favoring in this way a certain level of communication and exchange among groups. The Beqa'a Valley, on the contrary, seems to have been excluded from this exchange of material. Up to now, in the Beqa'a Valley, artifacts of the Minoan period have not been found. Excavations conducted at Baalbeck, Tell Hizzin and Tell el-Ghassil in the Northern Beqa'a have not reported such finds, and the same situation is true for the southern and central Beqa'a Valley. Although excavations are ongoing at Kamid el-Loz, the team has not identified any imports from Crete. It is possible that, when the Middle Bronze Age I levels are uncovered, we will be able to determine if, indeed, Minoan artifacts circulated in the Beqa'a Valley during this time period. MacGillivray has suggested that the presence of a limited amount of Minoan ware in Sidon is indicative of an idea of appreciation for its style and rarity.⁵⁹⁸ The presence of such artifacts in the Levant, and predominantly in the coastal area, suggests not only, as many scholars have proposed (e.g. Doumet-Serhal), the existence of connections between the coast and Greece, but also, an interest in this type of object.

Connections with Cyprus can be delineated by the occurrence of so-called White Painted Ware and Bichrome Ware (Table 5, p. 228). These vessels of the Cypriot type were found throughout the coastal strip of the central Levant, with a relevant number present at the sites of Tell Arqa and Sidon.⁵⁹⁹ Maritime traffic was well developed in the Middle Bronze Age between Cyprus and the Levantine shore, as attested by the incidence of these artifacts in several coastal sites. In fact, Cyprus was a strategic stop to reach the Aegean islands and was known for its

⁵⁹²Robert S Merrillees, "The First Appearance of Kamares Wares in the Levant," *Egypt and the Levant* 13 (2003): 127–42.

⁵⁹³Stager 2002, 357; Lawrence E. Stager, J. David Schloen, David M. Master, *Ashkelon I: Introduction and Overview (1985-2006)* (Winona Lake: Eisenbrauns, 2008), p. 231. In the latter report, the Kamares Ware found was a rim fragment of a classical Kamare Ware wavy-line cup that came from the Moat Deposit and is dated to the Middle Minoan IIB period (p. 231)

⁵⁹⁴ Trude Dothan, Sharon Zuckerman and Yuval Goren. "Kamare Ware at Hazor" *Israel Exploration Journal*, Vol. 50, No. 1/2 (2000), pp. 1-15. The Hazor Kamare Wares were found in Area C in the lower city. The A spiral-decorated sherd was found fragmented and was attributed to the Classical Kamare ware phase MM II B and MM IIIA

⁵⁹⁵Claude F. A. Schaeffer, *Ugaritica II: nouvelles études relatives aux découvertes de Ras Shamra*. (Paris: P. Geuthner, 1949), 256, fig. 109A pl. 38. At Ugarit was found a juglet of the Kamare ware type dated to the MM IIB and a cup and a rim dated to the MM II A

⁵⁹⁶A.H. Sørensen, "Approaching Levantine Shores. Aspects of Cretan Contact with Cyprus during the MB-LBI Periods," *Proceedings of the Danish Institute at Athens* 6 (2009): 44. At Tell Sukas were found sherds dated to the MM – LM I period.

⁵⁹⁷Robert Du Mesnil du Buisson, "Les Ruines D'el-Mishrifé Au Nord-Est de Homs," *Syria* 7 (1926): 324, fig. 41. At Qatna was recovered a Kamare Ware cup and was dated to the MMII.

⁵⁹⁸MacGillivray, "The Minoan Sidon Cup," 48.

⁵⁹⁹Thalman et al., *Tell Arqa - I*.

richness in copper.⁶⁰⁰ Cyprus was known in the Middle Bronze Age texts of Mari as Alashiya⁶⁰¹ and is mentioned in relation to the exchange of copper between Cyprus, the Levant and Mesopotamia. A recent study on the Cypriot ware in the central Levant was compiled by Hanna Charaf,⁶⁰² where she outlines the presence and types of Cypriot imported vessels available in Lebanon. According to Charaf, fourteen Lebanese sites have produced at least 370 Middle and Late Cypriot ceramic vessels. They were found in sites, such as Sidon, Tell Arqa, Beirut, Tell el-Ghassil, Serepta, Tyre, Qrayé, Majdalouna, Kamid el-Loz, Tell Hizzin, Byblos, Tell Kiri and Kafer Djarra; one example was found at the Beiteddine Museum. The vessels and sherds found in Lebanon range in style and shape: White Painted III, IV-VI, V/VI and VI. In Lebanon, the painted ware type was manifest on closed-shaped categories, such as jars, juglets, teapots, and *askoi*.⁶⁰³

The central Levantine coastal strip seems to have been more involved in interactions with Cyprus, as suggested by the Cypriot ware recovered in greater numbers at the site of Sidon and Tell Arqa. Tell Arqa, located on the northern coast of the central Levant, is geographically closer to Cyprus, allowing for the intensive circulation of the Cypriot ware in the north.⁶⁰⁴ The probability of the circulation of Cypriot goods in the Beqa'a can be advanced by taking in consideration the presence of northern paths that ran from the northern coast to the valley. Notwithstanding the presence of paths that allowed for the exchange of goods, the pattern of international interactions for the Beqa'a Valley differs from that of the coast. In fact, at the moment we have very little evidence of interaction between the Beqa'a and Cyprus, with only one fragment of White Painted ware V/VI from Kamid el-Loz and a White Painted Ware style VI sherd from Tell Hizzin,⁶⁰⁵ with no other information provided. Another Cypriot ware found in the Beqa'a is the Bichrome Wheel-Made Ware. Hanan Charaf declares to have identified at least 10 Bichrome Wheel-Made Ware from the site of Tell el-Ghassil.⁶⁰⁶ Three Kamid el-Loz Cypriot ware sherds were found from the sondages performed in room 9 and 6 of the Middle Bronze Age palace during the excavation season of 2009. The three fragments are characterized by light red oblique parallel lines crossing other parallel lines on a light cream washed background (n. I-i-15/16 75). The amount of vessels and sherds from Cyprus present in the Beqa'a is a relatively small number, 13 pieces against the 368 found along the coastal strip. These data suggest that the valley's dealings with Cyprus were not as well developed as they were with the coast. Since accessibility to this class of vessels was probably available, it can be inferred that the limited number found in the Beqa'a may be attributed to a lower level of interest for the Cypriot ware or to the lack of affordability of the vessels and/or the goods that they were carrying. In fact, based on the Cypriot Ware excavated from other sites, it is known that these were found in different contexts that range from burial, especially in the case of the White Painted Ware juglets, to transportation, as in the case of jars that could have been used to transport oils.

⁶⁰⁰Hara Georgiou, "Relations Between Cyprus and the Near East in the Middle and Late Bronze Age," *Levant* 11, no. 1 (1979): 84–100.

⁶⁰¹Y. Lynn Holmes, "The Location of Alashiya," *Journal of the American Oriental Society* 91, no. 3 (1971): 426–29; Bernard A. Knapp, "The Onomastica of Alashiya," *New Journal of Cyprian Studies* 1 (1982): 1–20; A Bernard Knapp, "Alashiya, Caphtor/Keftiu, and Eastern Mediterranean Trade: Recent Studies in Cypriote Archaeology and History," *Journal of Field Archaeology* 12, no. 2 (1985): 231–50.

⁶⁰²Hanan Charaf, "Cypriot Imported Pottery from the Middle Bronze Age in Lebanon," 147.

⁶⁰³*Ibid.*

⁶⁰⁴*Ibid.*

⁶⁰⁵Hanan Charaf, "Cypriot Imported Pottery from the Middle Bronze Age in Lebanon," 149.

⁶⁰⁶*Ibid.*, 154–155.

It is possible that the ongoing excavation of the Middle Bronze Age levels at Kamid el-Loz will deliver more Cypriot ware besides that already retrieved. This supposition is corroborated by the few examples that were also found in Jordan and divulged by Charaf.⁶⁰⁷ It is important to note the limited amount of Cypriot imports present and the absence of Minoan artifacts. At first glance, it is possible to propose that the Cypriot ware traveled through the coast into the Beqa'a and southern internal Levantine areas via an indirect route. Tell Arqa is located in a strategic location and the recovery of circa 110 pieces of Cypriot ware suggests that the site could have played an intermediary role in the circulation of such artifacts into the Beqa'a.

Several scenarios may be presently put forth to explain the limited presence of such artifacts in the inland valley. One, there was a lack of interest for the possession of such imported materials, whereas, on the contrary, in the coastal sites there was an appreciation for these objects (as suggested by the cup of Sidon, a Kamares ware piece found at the site that, however, may have been unique). Minoan Ware was also found at the inland site of Qatna.⁶⁰⁸ Possibly, such objects reached the site through the Orontes' river path.⁶⁰⁹ In this way, these types of objects circulating in the Near East would have reached places like Qatna and Jordan. On the other hand, it may be possible to assume that the mountains surrounding the valley would have posed an impressive obstacle, resulting in the few examples of the Cypriot ware and the absence of Minoan ware in the Beqa'a Valley. Analyzing the situation further to the east, it would appear that neither Cypriot nor Minoan ware was documented in southern Syria. We can imagine that the crossing of the Lebanon and Anti-Lebanon Mountains would have required a voyage following intricate paths and, consequentially, the expenditure of extra time and effort. The difficulty of crossing the mountain barriers that surrounded the valley, however, seems not to have been an insurmountable obstacle, as attested by the presence of the LPW, TYW, the Cypriot Ware and the Egyptianizing motifs in this region. Therefore, another explanation for the limited amount of Cypriot ware or the lack of Minoan ware could be that the coastal sites, as direct recipients and therefore only possible distributors of this merchandise, were "unwilling" to share these much valued objects with other regions, thus accounting for its absence in the hinterlands of the Beqa'a Valley. If this theory is accepted, it is possible to say that the few pieces recovered of Cypriot Ware and the absence of the Minoan artifacts in the valley attest to the high appreciation for these objects by the coastal sites and confirms the major role that these settlements played in the circulation of goods into the inland area. Tell Arqa, from the study conducted by Charaf, is the site where a great amount of Cypriot ware was recovered, hinting that this site in the northern Levant was probably also the direct recipient of these goods, favored as it was by its geographical position.

⁶⁰⁷Ibid., 147–66.8/15/15 1:54 AM

⁶⁰⁸Claude F. A. Schaeffer, *Stratigraphie comparée et chronologie de l'Asie Occidentale (IIIe et IIe millénaires)* (London: Oxford University Press, 1948), 117, fig. 102; Robert Du Mesnil du Buisson, *Le Site Archéologique de Mishrifé-Qatna*. (Paris: E. de Boccard, 1935), 66, fig. 15–16; Marian H. Feldman, "Qatnas Beziehungen zur Ägäis," in *Schätze Des Alten Syrien: Die Entdeckung Des Königreichs Qatna*, ed. Michel Al-Maqdissi, D. Morandi Bonacossi, and Peter Pfälzner (Stuttgart: Landesmuseum Württemberg: Theiss, 2009), 250–53.

⁶⁰⁹Marlies Heinz and Marian H. Feldman, *Representations of Political Power Case Histories from Times of Change and Dissolving Order in the Ancient Near East* (Winona Lake, Ind.: Eisenbrauns, 2007), 54.

5.2 The Interactions of the Beqa'a Valley and Kamid el-Loz with Egypt: The Construction of an East-West Route

5.2a The Wall Paintings from Tell Sakka and Tell el-Burak

Central Levantine coastal sites were particularly engaged with Egypt both, directly and indirectly. Sites such as Sidon, Tell Fadaous-Fakhariba and Byblos have reported the presence of Egyptian imports mainly in the form of ceramic vessels.⁶¹⁰ In addition to the presence of Egyptian imports, there was a strong influence exerted by Egyptian styles on the artistic production of the central Levant, both along the coast and inland. This influence is visible on the wall paintings recovered at Tell Sakka, Syria and Tell el-Burak, Lebanon, and will be discussed in more detail below.

To the west of the Beqa'a Valley, across the Lebanese Mountains, the Egyptianized wall paintings of the palace of Tell Burak can be found. This palace is datable to the Middle Bronze Age IIA and Middle Bronze Age IIB⁶¹¹ (ca. 1800 and 1775 BCE). This site, located south of Sidon, had most probably succumbed to the influence of the international cultural atmosphere that was affecting the Near East during this time period, brought about by the increasing circulation of objects, people and knowledge.

At Tell Burak, the remains of wall paintings measuring 2.5–3.0 m were found in room 10 of the Middle Bronze Age palace (Fig. 23, p. 220). These remnants are datable to the 19th century BCE transition between the Middle Bronze Age IIA and Middle Bronze Age IIB, according to H. Sader.⁶¹² Light and dark red, blue, black, brown on a white plaster lime background are the main colors employed by the artist.⁶¹³ Two parallel red lines run across the bottom of the wall and on the side, connecting room 9 and 13. These lines create a frame for the drawing. Two friezes on the eastern wall were identified. A tree motif is repeated alternatively between the lines of the upper frieze, while the lower frieze is composed of red, blue, brown, and black lines with alternating groups of three black lines. Inside the latter are lozenge motifs inscribed within a circle. Between these two friezes, two superimposed black animals, possibly dog figures, are represented, suggesting that this scene was meant to recreate a hunting view.

In the corner of the eastern and southern walls, a winding tree is painted in dark red; on its left side is a standing goat eating leaves from a tree. The tree is found on top of what seems to be a hill, as suggested by the shape of the plaster in this corner area. The lower frieze with lozenges is badly preserved but below is visible an ascending row of motifs painted red and black that seems to represent human figures. From the excavated evidence, it appears that the floor of the room was also plastered and painted with red bands and red leaves. On the top register are animal motifs portraying a possible hunting episode composed of two black dogs chasing horned animals; these last are represented in a red color.

The Tell el-Burak wall painting composition illustrates several Egyptian motifs alongside other motifs that denote a more Near Eastern style. On the upper register of the composition,

⁶¹⁰For more information on the Egyptian pottery from Tell Fadaous see: Genz, "Middle Bronze Age Pottery from Tell Fadaous — Kfarabida, Lebanon." On the Egyptian ceramic vessels from Sidon see: Doumet-Serhal, "Tracing Sidon's Mediterranean Networks in the Second Millennium B.C.: Receiving, Transmitting, and Assimilating. Twelve Years of British Museum Excavations;" Bader et al., "An Egyptian Jar from Sidon in Its Egyptian Context: Some Fresh Evidence."

⁶¹¹The Chronology for the site of Tell Burak follows the southern Levantine chronology.

⁶¹²Hélène, Sader, "Palace Architecture in Tell El-Burak-Lebanon: Some Evidence for Egyptian-Mesopotamian-Levantine Interconnections," 177.

⁶¹³Hélène, Sader and Kamlah, Jens, "Tell El-Burak: A New Middle Bronze Age Site from Lebanon," 136.

there is a representation of a hunting scene with running dogs, a motif that is common in ancient Egypt and is seen in diverse artistic representation, for example, in the pre-dynastic period (3000 BCE), Oxford Palette, now located at the Ashmolean Museum (no. E3294), where the bodies of two dogs are facing each other. Furthermore, dogs are also linked to the god Anubis, one of the gods worshiped in Egypt.⁶¹⁴ In the lower register are males wearing a kilt following the Egyptian cannons but the hairstyle does not recall the typical Egyptian wig. Additionally, it may be possible to conjecture that one of them is shown holding a *was* scepter, which in Egyptian iconography is often handled by Egyptian gods. Although the style of the wall painting is close to the Egyptian artistic caliber, it lacks the precision of the standardized proportions that are typical of the Egyptian wall paintings and the understanding of the correct use of symbols.

To the east of the Beqa'a Valley, across the Anti-Lebanon mountains, are documented several Middle Bronze Age settlements,⁶¹⁵ among which is the site Tell Sakka where a Middle Bronze Age palace was documented. Here were recovered Egyptianized wall paintings,⁶¹⁶ which were found on the walls enclosing the columned courtyard⁶¹⁷ of a palatial building and depict two bearded men (Fig. 24, p. 221), a human head with a crown of Egyptian inspiration (Fig. 24, p. 221), a goat eating leaves from a bush (Fig. 25, p. 221) and a hand holding an arc.

At Tell Sakka, Egyptian motifs are adopted in the portrayal of royal and divine iconography, for example, in the depiction of the Egyptian horned Atef crown placed on the head of a male figure in profile view, possibly representing a prince. The Atef crown symbolizes the divine authority embodied in the pharaoh. Other images recall more local motifs and landscapes, such as a goat climbing a tree in the process of eating leaves, women with colorful dresses (as Asiatic women were often depicted by the Egyptians) and bearded male figures. Although fragmentary, the most striking image is the figure wearing the horned Atef crown (Fig. 24, p. 221), a headdress that is often represented in Levantine glyptic. In Egypt, this crown is characteristic of Osiris. The crown was worn by the king during the Jubilee Festival and in a mortuary context when the king was assimilated to Osiris. For this reason, the crown has a divine connotation and symbolizes rejuvenation. In the Levantine seals, this iconography seems to be perceived as a divine horned crown, as it was easily associated with Levantine deities whose main characteristic was to display a divine horned headdress. In the Tell Sakka representation, the Atef crown was selected to portray and perpetuate the idea of the divine aspect of the youthful Egyptian looking male. The combination of motifs, as exemplified in this interpretation, well illustrates the outcome of the use of refined imagery of Egyptian inspiration mixed with visual representations that are of local origin. In the case of Tell Sakka, the Atef crown is assimilated into the artistic repertoire of the wall painting along with images of local inspiration, such as the goat eating leaves from a tree. In addition to the Egyptian elements, there are also Mesopotamian motifs present. The image of the goat eating from a tree is a motif found in earlier Mesopotamian artworks. In the case of the Tell Sakka ram, a close relationship can be

⁶¹⁴Barbara Watterson, *The Gods of Ancient Egypt* (New York, N.Y.: Facts on File, 1984).

⁶¹⁵On South-western Syrian Middle Bronze Age settlement see Lehmann, *Bibliographie der archäologischen Fundstellen und Surveys in Syrien und Libanon* and Michel Al-Maqdissi, "Chronique Des Activités Archéologiques En Syrie (I)," *Syria* 70, no. 3/4 (January 1, 1993): 443–560.

⁶¹⁶Taraqji, "Nouvelles Découvertes Sur Les Relations Avec l'Égypte À Tell Sakka Età Keswé, Dans La Région de Damas"; A. Taraqji, "Wall Painting Fragments: Tell Sakka," in *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.* (New York: Metropolitan Museum, 2008), 128–29.

⁶¹⁷Marlies Heinz and Marian H Feldman, *Representations of Political Power Case Histories from Times of Change and Dissolving Order in the Ancient Near East* (Winona Lake, Ind.: Eisenbrauns, 2007), 51; Taraqji, "Nouvelles Découvertes Sur Les Relations Avec l'Égypte À Tell Sakka Età Keswé, Dans La Région de Damas," fig.12.

formulated on the use of this motif with the Ram behind the Thicket of Ur, dated to the 2600 BCE.

The Tell Burak site is also well positioned on the way to the possible path that connected the southern coast of the central Levant with the Beqa'a Valley and the route that led to Damascus. As discussed in chapter III, it is possible to trace a path that started from Kamid el-Loz in the Beqa'a Valley, traveled through the Jazzine Pass and reached sites such as Sidon and, consequentially, Tell el-Burak further south. The Beqa'a Valley was connected to the east by a route which intercepted several Middle Bronze Age settlements located along the Anti-Lebanon mountain area, in the proximity of Tell al-Rahib and Tell Satiya al-Yamin. It was possible to then proceed inland by crossing the Zabadani area and reaching Yanta, and thereafter arrive in the Damascus area by following the Barada river. The discovery of the Tell el-Burak palace has led to several interesting reflections regarding interaction in terms of shared technologies, circulation of motifs and architectural techniques. It would not be surprising if connections could be drawn between the wall paintings of Tell el-Burak and those available at Tell Sakka in southwestern Syria. These two settlements were positioned on the route that linked the Beqa'a valley to the west with the coastal settlements of the Levant and to the east with southwestern Syria. It is possible that these two settlements received, through the network of paths that characterized this region, the artistic and cultural ideas that gave rise to the aforementioned wall paintings (see discussion below).

5.2b Seal Impressions of Kamid el-Loz with Egyptianizing Motifs

Although wall paintings in the Beqa'a Valley have not been found, Egyptianizing imagery is known to have circulated, as testified by the presence of scarab impressions and seal impressions found at Kamid el-Loz during the excavations conducted between 1977-1981. Here, the Middle Bronze Age seal impressions upon which the iconographic repertoire perfectly reflects the use of Egyptianizing motifs will be discussed. Impression KL 67:144 (Fig. 27, p. 222) shows a seated figure receiving two other individuals. Between the seated figure and the first standing person is a table. The first standing figure is offering a capride to the seated person and the second person approaching the seated one is holding a tall staff with a *was* scepter. The figures of the impression are elongated and the contours are not defined.⁶¹⁸ Seal KL 72:271 (Fig. 28, p. 222) was recovered in building phase 13/14 of Kamid el-Loz. It illustrates a figure with a long dress piercing a cobra; the head of this figure is elongated with a beak-shaped nose. Behind this figure is an individual with an Egyptianized style hair dress, wearing a kilt and holding a lance. The imagery visible in these seals is clearly close to the Egyptian style but the composition does not follow Egyptian artistic standards. Although it is not possible to determine if these seals were produced locally in a workshop at the site of Kamid el-Loz, these artifacts inform on the class of imagery that was circulating in the valley.⁶¹⁹ The seals of Kamid el-Loz suggest the site's engagement with extra-valley communities and its exposure to foreign motifs. This is true, in particular, in regard to the Egyptian and or Egyptianizing imagery.

This engagement was possible through the use of routes that facilitated the transmission of such images. In chapter III, the possible routes that may have been used during the Middle

⁶¹⁸Kühne and Salje, *Die Glyptik*, 37.

⁶¹⁹*Ibid.*, 41; 125 f. 253, 316 Taf. 22, 385; Martin Metzger, *Zehn Jahre Ausgrabungen Auf Dem Tell Kamid El-Loz, Libanon (1964-1974)*, Sonderdrucke 1, 1977, 11, Abb.7.

Bronze Age were proposed. Based on trade routes analysis, the circulation of material culture and ideas was possible through the use of southern and western routes that connected the southern Beqa'a Valley with the southern Levant through posts at sites such as Tell Dibbin. These posts facilitated the connections with other southern Levantine sites such as Tell Dan and Hazor. To the west, as mentioned before, the Beqa'a was most probably connected with Sidon and Tell Burak through the Jazzine pass, allowing for the circulation of ideas and objects. Archaeological evidence proves that Egyptian material and, more specifically, Egyptian ceramic vessels and jars reached some of the major settlements of the coastal sites of the southern coast of the central Levant, among which we must cite the site of Sidon.⁶²⁰ The ports of Sidon, Beirut, Byblos and most probably another port located in the vicinity of Tell Arqa facilitated the exchange of goods. These sites were importing and exporting goods, as evidenced by the presence of jars from Tell Arqa at Tell el-Daba'a, Egypt.⁶²¹ The central Levant and Egypt established relationships that were based on both economic and political interests. The political relationships are mainly evidenced by the luxury goods recovered at Byblos which were probably being exchanged as gifts among high ranking officials. These relations suggest an elevated level of interaction that facilitated the circulation of Egyptian iconography, including royal iconography (royal crowns), floral motifs (papyrus and lotus)⁶²² and daily life motifs (hunting scenes). These images are the most commonly found in the Levant and circulated mainly through portable objects such as scarabs, or with locals that came in contact with the Egyptians, or with Egyptians traveling around the region. In any case, the impact of these images on the local culture was so great that it was included into the local artistic repertoire of the Levant, indicating that the relations between Egypt and the Near East began to assume a more complex relationship, with initial attempts at forming diplomatic relations among great powers.

5.2c Discussion

The impact of the circulation of objects and ideas through trading routes can be seen not only at the economic and political level but also socially. The best example is represented by the previously discussed wall paintings of Tell el-Burak and Tell Sakka, respectively found in Lebanon and southwestern Syria and both located along the west-east route trajectory that was delineated in chapter III and that connected the Beqa'a Valley to the west coast and the eastern lands of southwestern Syria. The wall paintings from Tell el-Burak and Tell Sakka can be understood as conveying a message to the viewer loaded with social meanings. As Alfred Gell has suggested in his study on the lavish decoration found on the Trobriand canoes, imagery can work as an extension of the producer's agency which, he argues, was an implicit but significant factor in trade and barter negotiations.⁶²³ He describes the imagery of the canoes as a means of thought-control. In this sense, traveling visual ideas can be a method through which the person who produces or orders their production can convey a message and influence the thoughts of the viewers. Seen in this light, the scenes on the Tell Sakka and Tell el-Burak wall paintings

⁶²⁰Bader et al., "An Egyptian Jar from Sidon in Its Egyptian Context: Some Fresh Evidence."

⁶²¹Karin Kopetzky, "Pottery from Tell Arqa Found in Egypt and Its Chronological Context." *Archaeology & History in Lebanon* 26–27 (2007): 17–58.

⁶²²John H Taylor, "Scarabs from the Bronze Age Tombs at Sidon (Lebanon)," *Levant* 36, no. 1 (2004): 155–58.

⁶²³Alfred Gell, *The Art of Anthropology: Essays and Diagrams* (London; New Brunswick, NJ: The Athlone Press, 1999), 40–63.

represent an achievement in foreign policy.⁶²⁴ The non-local images were integrated into different social contexts, for example, in palaces and on public buildings, to convey potent messages to both the elite class and the general community. To reach this goal, the imagery had to be modified from the original in order for it to be incorporated into the new cultural environment. The transformation of motifs occurs at two levels. At an intellectual level, motifs are perceived in a specific manner, related to the historical and emotional knowledge of the individual. At an artistic level, the motifs and images are transformed into a readapted design. The imagery presented on the wall paintings embodies not only the effects of past practices but it also represents a proactive effort to influence social structuration. Both the Tell Sakka and Tell el-Burak paintings illustrate motifs that were common in the Near East at the time. These illustrations convey an amalgamation of local and international scenes that over time became part of the artistic repertoire of the area and reflected the culture of the period.

Conclusions

From the data collected, it is possible to conclude that Kamid el-Loz and the Beqa'a Valley engaged in three forms of interaction that reached different degrees of involvement, during the Middle Bronze Age in the Levant.

The first form of interaction is local. Strong connections can be evinced between the material culture recovered at Kamid el-Loz and that of other Middle Bronze Age settlements in the Beqa'a, confirming a common adoption of motifs and technology. Close relations can be assumed for the sites that were explored and documented⁶²⁵ in the Beqa'a Valley, such as Tell el-Ghassil and Tell Hizzin and, to a certain degree, also Baalbeck. The material unearthed from these sites, located mainly in the northern portion of the Beqa'a, reveal a close association with the ceramic material from Kamid el-Loz. Three main elements are particularly important: the decoration techniques, the profile of the jar rims and the body profile of the carinated bowls. The profiled rim jars from Kamid el-Loz reveal close parallels with the jars documented at Tell el-Ghassil; these jars with a wide neck are characterized by a profiled rim and are medium in size. There is also a strong correlation between the burnishing techniques applied on platters and bowls at the site of Kamid el-Loz and the methods used at other sites. The corpora of vessels available from Tell Hizzin evidence an affinity with the vessels from Kamid el-Loz. For example, a form of decoration in use at Kamid el-loz and present on the vessels at the site of Tell Hizzin is the painted geometric motif.

The second form of interaction is an interregional connection between Kamid el-Loz, the coastal settlements and the eastern sites immediately outside the valley. The settlement of Kamid el-Loz, located in an area where physical borders marked its western and eastern inflow and outflow of interaction, benefited from the circulation throughout the valley of goods and material culture and took advantage of the technical knowledge that was exchanged between the southern Levant and the Beqa'a. This can be seen in the production of the carinated bowls and in the

⁶²⁴Marian H Feldman, "Frescos, Exotica, and the Reinvention of Northern Levantine Kingdoms during the Second Millennium B.C.E.," in *Representations of Political Power: Case Histories from Times of Change and Dissolving Order in the Ancient Near East*, ed. Marleis Heinz and Marian H Feldman (Winona Lake, Ind.: Eisenbrauns, 2007), 39–66.

⁶²⁵Of the three northern Beqa'a Valley sites explored, only Tell el-Ghassil was properly documented, the material from Baalbeck derived from a sounding and the artifacts from Tell Hizzin have been recently reanalyzed.

artistic knowledge received from the exchange of motifs, such as linear patterns and Egyptianizing imageries. In this way, the settlement was able to develop its own local artistic ideas. This fact can be observed in the production of various pottery types and in the application of unique motifs. There is also a continuation in the use of the Levantine Painted Ware until the end of the Middle Bronze Age II, unlike most of the coastal Levantine sites. As mentioned earlier, connections to the coastal areas are clearly manifest in the production of certain types of ceramic vessels. Shared practices in the decorations of fine small juglets indicate a predilection for specific motifs and pattern combinations which are discernible in the Levantine Painted Ware collection available at Kamid el-Loz. The fact that objects, such as the Levantine Painted Ware, were circulating in this space and time facilitated the adoption of shared practices.

The third form of interaction may be deemed of international intensity and refers mostly to the relationships that the Beqa'a Valley and Kamid el-Loz developed with Egypt and the islands of Cyprus and Crete. Presently, a plausible suggestion is that, rather than direct associations with these areas, there existed only indirect connections. The Beqa'a Valley seems to have had very limited accessibility to items from the regions aforementioned, or a low level of interest in obtaining these objects. At the moment, the artifacts that illustrate possible connections with Cyprus and Egypt are near imitations, as in the case of the Cyprus White Painted Ware and the Egyptian motifs seen on the scarabs that are southern Levantine productions. The material culture deriving from the settlements situated at crossroads evidence a strong, indirect influence exerted by Egypt through the Egyptianized material culture that traveled from the coastal sites and the southern Levant. The predomination of these motifs may have been due to the development of trading routes running along a northern and southern corridor from the southern Levant to the Beqa'a Valley, through the site of Tell Dan. From the coastal sites located west of the valley, an additional trading passage would have led to the settlements that formed in the region of Damascus. Several types of images traveled through these areas: symbols related to protection, to the ideology of royalty or to daily life. The settlements along the coast flourished thanks to their commercial activities with distant lands and, because of these extensive contacts, were able to absorb external cultural influences, especially from Egypt. These foreign persuasions were then transformed and included into their local production. This mix of extrinsic and local motifs became the reflection and expression of the culture of the settlements along the coast. Over time, the Egyptian imagery adopted by these communities became more and more common and was included on objects circulating among diverse social classes and in more remote areas.

Proof of relations between the Beqa'a Valley and Crete are absent. All the artifacts documented were recovered in the coastal area and belong to the class of ceramic vessels of the Kamares ware type, a typical Middle Bronze Age ceramic vessel of Cretan production. This ware was found along the coast of the central Levant in sites such as Sidon and Byblos. No Kamares ware was found in the valley in spite of the fact that, as demonstrated in chapter III, accessibility to the coastal settlements where Minoan ware was present existed through routes that allowed the circulation of objects and goods.

CHAPTER V

This study was designed to determine the characteristics of the network system that furnished connections between the Beqa'a Valley and its neighboring regions during the Middle Bronze Age (2000-1550 BCE). As a case study for this research, the material culture deriving from the site of Kamid el-Loz, a settlement located in the southern sector of the Beqa'a Valley, was analyzed. Kamid el-Loz was discussed in terms of ceramic vessel economy to explore aspects of the economic exchange system of the valley. With the examination of the ceramic vessels found mainly in the Middle Bronze Age II (1700-1550 BCE) palace, it was possible to discuss aspects relevant to ceramic production, consumption and circulation. Together with these aspects, the landscape of the Beqa'a Valley was also taken in consideration to pinpoint the possible trading paths that may have facilitated and contributed to the circulation of artifacts and ideas, delineating in this manner, both the inner and outer valley relationships and their intensity.

Due to the abundance of data available from the coastal area of the central Levant, present day Lebanon, scholarship has focused on making connections between the Middle Bronze Age coastal culture and its interactions with Egypt and the Mediterranean Islands. Excavation activities are presently in progress in this area and recently some of the sites that have received great attention are Tell el-Burak, Sidon, Tyre, Tell Fadous-Kfarabida and Tell Arqa. These efforts are providing a clearer picture of the coastal central Levantine Middle Bronze Age societies. But, while the coast has received much attention, there has been a lack of archaeological research for the Bronze Age sites identified in the region of the Beqa'a Valley. This dearth of research may be attributed to the difficult socio-political situation of the area which has prevented the performance of excavations and to the complicated bureaucracy, which does not make readily available permits to conduct additional surveys and in-depth research in the valley. In past years, the archaeological surveys for the identification of Middle Bronze Age sites that have been performed have recognized circa 65 sites throughout the Beqa'a Valley. Among these, only three sites, Tell Hizzin, Tell el-Ghassil and Kamid el-Loz, have received some archaeological attention. Kamid el-Loz is still under excavation by the Freiburg University of Germany. The absence of archaeological research geared to explore the Bronze Age in the Beqa'a Valley has greatly limited our understanding of this area during the Middle Bronze Age. Most importantly, the settlement's relevance in the formation of trade routes in the hinterlands has been overlooked. Scholars, discouraged by the lack of textual and archaeological evidence for this area, have based their discussions on Middle Bronze Age trade on the information available from the sites of Mari and Kanesh where abundant archaeological and textual documentation is available.

This gap in our knowledge has prompted this research on exchange systems in the Beqa'a Valley during the Middle Bronze Age and has made use of the data available from the recently uncovered Middle Bronze Age levels at the site of Kamid el-Loz. Two main research questions concern this study: How can the material culture and the geographical setting of Kamid el-Loz shed light on the economic systems of the central Levant and southwestern Syria during the Middle Bronze Age? And, to what degree was the Beqa'a Valley integrated into the cultural milieu of the eastern Mediterranean during the Middle Bronze Age?

To answer these questions, I have re-examined the concept of trade and exchange from previous studies on ancient economy. Many scholars in the past would have agreed that the need for natural resources and the desire to establish political and economic relationships constituted the main incentives for the construction of trade routes. In 1963, Karl Polanyi, in his book "Port

of Trade,” contributed to the study of ancient trade by introducing the notion that totality and the social whole were necessary elements to understand social dynamics. This interpretation reflected a scholarly tradition that was rigidly functionalist and did not leave space for agency. Recently, scholars have commenced to make use of different approaches and resources to piece together the complexity of trade and exchange. Historical and archaeological approaches have contributed to redefine the notion of trade and exchange. In particular, archaeology has added another dimension to the traditional understanding of trade and exchange, as it considers several factors, such as increases in agricultural production, population growth, expansion of craft production, increased regional exchange, and a series of changes resulting from taxation in money, including intensified long distance commerce, expansion of coinage, and urbanization. These factors reflect economic, social, political and environmental motivations that are relevant for the participants. In this study of Middle Bronze Age trade and exchange systems, I have combined “multiple lines of evidence” to arrive at conclusions. The three main lines of evidence used here are the analysis of the material culture of Kamid el-Loz, the study of the Beqa’a Valley landscape and textual examination. These elements have contributed to the identification of the factors that led to the development of trade routes and to the determination of the types of exchange systems that were present in the Beqa’a Valley area. The various lines of evidence mentioned here are discussed in chapters II (ceramic vessels), III (landscape and topography) and IV (material artifacts with a visual dimension, including seals, wall paintings, and ceramic decoration).

Over the course of this research, as mentioned before, a wide-ranging examination of the material culture from Kamid el-Loz and a study of the Beqa’a Valley’s topography were performed. The material culture viewed in unison with the topographical features of the valley allowed for an interpretation that incorporated landscape and its influence upon the societies that inhabited this region, as well as the impact that the people living in these communities had on the landscape of the valley. In other words, the material culture here is seen as the result of a society that shaped and was shaped by its natural surroundings. The data collected from the analyses conducted were extensively discussed in the three chapters (chapters 2-4) that contain the main data set in support of the primary arguments of this dissertation.

For this study, I have availed myself of two social science theoretical approaches. The first is the *chaîne opératoire* approach, more specifically, the extended understanding of the several stages that constitute the life-history of an artifact. Scholars initially adopted the *chaîne opératoire* approach in the 1960’s to investigate the technological implications in the production of an artifact. André Leroi-Gourhan, Heather Lechtmann, Robert S. Merrill, and Pierre Lemonnier are some of the main contributors to the notion of *chaîne opératoire*, a concept that stresses the active role of materials in technological actions. Originally, this approach aimed to study the numerous stages involved in the production of an object and the embedded social act in each process. Later, the *chaîne opératoire* approach took on a more extended purpose and course of action, wherein the step-by step physical actions and material processes were analyzed along with the manner in which ancient technicians proceeded, prepared, modified, shaped, used, repaired, reworked, recycled and ultimately discarded their material culture. Maria A. Dobres is one of the prominent scholars who assumed this later version of the *chaîne opératoire* approach.

The second approach used for the study of the material culture of Kamid el-Loz is the study of landscape based on the latest interpretations of landscape archaeology. For this purpose, an analysis on the natural and cultural landscape of the Beqa’a Valley was executed to identify the trading routes that were possibly utilized during the Middle Bronze Age. After geo-

positioning 65 sites that were identified from previous surveys by Kuschke (1954, 1972), Copeland and Wescombe (1965, 1966), and Marfoe (1978), the physical elements of the mountains and the valley, such as elevation, slope percentage, natural sources, natural obstacles and weather, were taken in consideration. This data was processed with the Geographical Information System (GIS) software and 10 maps delineating the possible trading routes were generated. The landscape of the Beqa'a Valley was analyzed in consideration of both the human and natural agency that defined the valley and the communities which lived there.

An analysis was performed on the ceramic vessels recovered in the 9 rooms of the Middle Bronze Age II palace uncovered at Kamid el-Loz. This study revealed several aspects of the ceramic vessel economy of the site, which was characterized by a semi-specialized ceramic production organization, where both specialized and mass produced ceramic vessels, such as platters and carinated bowls, were manufactured. A typology for the ceramic vessels of Kamid el-Loz was presented; carinated bowls, platters, storage jars, juglets and cooking ware constituted the major types of ceramic vessels found at the palace. The main source of production can be identified in the Beqa'a Valley plain. Although a ceramic workshop has not yet been found at Kamid el-Loz, two clay sources located at Aita al Fhakar and Kefraya, two modern day villages located in the vicinity of the site, have been identified and can be proposed as possible sources of clay for the Middle Bronze Age settlement.

Three forms of consumption were recognized from the analysis of the archaeological context of the ceramic vessels. The palace, in fact, emblemizes its social complexity in the variety of its ceramic vessels, the examination of which sheds light on the social functions conducted in some of the rooms of the palace. The results of this analysis have indicated that these rooms were areas dedicated to the storage of goods, as suggested by the large amount of jars found in the palace. In the same rooms, and in particular in room 7, were preserved an array of serving vessels composed of platters, carinated bowls and stands. These vessels were typically used for communal feasting. Other vessels recovered in burial contexts indicate that these were also important elements in relation to afterlife consumption, as by the presence of painted and unpainted vessels recovered in tombs. Finally, there is the social practice of employing the disposed ceramic vessels for a new purpose, one quite different from their original use, that is, to be applied on the surface of walls or *tannurs*.

The Beqa'a Valley landscape presents natural challenges to the development of trade routes as it is bordered by the Lebanese and Anti-Lebanon mountains to the east and west. A close study of the topography of the valley, however, provides reason to believe that crossing the mountains was not only possible but likely. The topographical study was accomplished through the analysis of satellite images and the geo-positioning of the sites recognized in previous surveys. The data, analyzed with GIS software, have revealed the possible existence of routes leading to the four cardinal points. The eight routes that have been suggested have as their departing points the site of Kamid el-Loz. Three lead to the west (1. Kamid el-Loz to Sidon through the Jazzine Pass; 2. Kamid el-Loz to Beirut through the Chouf and Ain Zala forest; 3. Kamid el-Loz to Tell Arqa), 3 routes lead to the east (1. Kamid el-Loz to Damascus via the Zabadani area; 2. Kamid el-Loz to Damascus through the Rift Valley and the Janta Mountains; 3. Kamid el-Loz to Damascus through Serghey) and two lead to the south-north trajectory (1. Kamid el-Loz to Tel Dan via Tell Dibbin; 2. Kamid el-loz to Homs by following the Assi River).

Particular attention was given to the paths running from east to west and back. To the west, the possible use of a route traveling from Kamid el-Loz or from the Beqa'a Valley plain to Beirut is further corroborated by a concentration of sites, Tell Shtura, Tell Taanayel, Tell

Djidita, Tell Kasra and Tell Qabb Elyas, located at the foothill of the Lebanese mountain. These sites were most probably outposts where travelers could rest before starting their journey across the mountain to reach the coastal ports in the area of Beirut. This was also the case for some coastal sites running from the southern Levant to the northern Levant. The eastern access point was most probably located in the vicinity of the site of Anjar. From here, it was possible to follow the Barada river path and reach the settlements that had developed in the area which is now modern Damascus, Syria. Among these settlements we must mention the site of Tell Sakka with its palace. In addition, southern and northern paths were clearly well developed thanks to the low elevation of the Beqa'a plain and the presence of the Litani and Assi rivers. To reach the north, it was possible to follow the Assi river and easily reach Homs or sites such as Tell Nebi Mend in Syria. Paths to the south took travelers to sites such as Tell Dibbin in the southern Beqa'a and Tel Dan and Hazor in the southern Levant.

The aforementioned routes, discussed in detail in chapter III, facilitated the development of a well-functioning trading network and the circulation of objects and ideas discussed in chapter IV. The material culture from the site of Kamid el-Loz, that is, the painted ceramic vessels, carinated bowls, seal impressions and scarab impressions, and the wall paintings from Tell Sakka, support the existence of at least three forms of interaction: local, interregional and international. In the first case, the Beqa'a Valley developed strong local connections with the settlements beyond the mountainous borders that enclosed it, adopting common motifs and technology, the use of which is suggested by the ceramic vessels from Tell Hizzin and Tell el-Ghassil. This is particularly visible on the carinated bowls and the Levantine Painted Ware originating from these sites.

Kamid el-Loz and the Beqa'a Valley were entertaining inter-regional interactions with the coastal settlements and the eastern communities immediately outside the valley itself. The settlement of Kamid el-Loz, located in an area where physical borders marked its western and eastern inflow and outflow of interaction, benefited from the circulation throughout the valley of goods and material culture and took advantage of the technical knowledge that was exchanged between the southern Levant and the Beqa'a Valley. This can be seen in the production of the carinated bowls and in the artistic knowledge received from the exchange of motifs, such as linear patterns and Egyptianizing imageries. Through this exchange of ideas and technology, the site was also able to develop its own local culture. This fact can be observed in the production of various pottery types and the application of unique motifs. There is also a continuation in the use of the Levantine Painted Ware until the end of the Middle Bronze Age II, unlike in most of the coastal Levantine settlements. As mentioned earlier, connections to the coastal areas are clearly manifest in the production of certain types of ceramic vessels. Shared practices in the decorations of fine small juglets indicate a predilection for specific motifs and pattern combinations which are discernible in the Levantine Painted Ware collection available at Kamid el-Loz. The fact that artifacts, such as the Levantine Painted Ware, were circulating in this space and time, facilitated the adoption of shared practices.

The third form of interaction was of an international nature. These interactions were established between the Beqa'a Valley and Kamid el-Loz with Egypt and Cyprus. At present, these interactions are believed to be indirect. The artifacts that illustrate possible connections with Cyprus and Egypt are near imitations, as in the case of the Cyprus White Painted Ware and the Egyptian motifs seen on the scarabs belonging to the southern Levantine productions group. The material culture deriving from settlements at crossroads evidence a strong, indirect influence exerted by Egypt through the Egyptianized material culture that traveled from the coastal sites

and the southern Levant. The circulation of these motifs was facilitated by the development of trading routes running along a northern and southern corridor but also through trading passages along a west to east trajectory. The wall paintings of Tell Sakka in Syria suggest the existence of eastern routes from the Beqa'a Valley to Damascus and the transfer of Egyptian motifs to Tell Sakka. Several types of images circulated through these areas, symbols related to the ideology of royalty or to daily life and protection symbols. These foreign influences were then transformed and included in the local production. This mix of extrinsic and local motifs became the reflection and expression of the culture of the settlement in which they were adopted. Proof of relations between the Beqa'a Valley and Crete are absent.

In spite of the scarce evidence on the Middle Bronze Age in the Beqa'a Valley due to the limited research activity that has taken place in this region, in this study, an attempt has been made to present some observations on the potential involvement of the Beqa'a Valley in the development of trading routes leading to the hinterlands of Syria and the neighboring regions. Data deriving from the site of Kamid el-Loz has been presented to support the idea that the Beqa'a Valley was quite involved in the Middle Bronze Age exchange system.

As the research unfolded, several future research questions that would help to clarify the trade paths that have been indicated in this work have emerged. A survey at the steps of the Lebanese mountains where a concentration of sites, for example, Tell Schtura, Tell Taanayel, Tell Djidita, Tell Kasra and Tell Qabb Elyas, were identified, would help to define the role and importance of these settlements in the development of Middle Bronze Age trading routes that journeyed towards the west. A survey would also be essential for the sites located at the footsteps of the Anti-Lebanese mountains. Additionally, an excavation of the sites, specifically of Tell Qabb Elyas, could lead to interesting discussions on the material that circulated in the area and the possible role of the site as a resting point prior to accessing the Lebanese mountains.

Future research could also clarify the settlement distribution patterns between coast and hinterlands. Marfoe did not provide the size of the tells for the Middle Bronze Age period in his survey reports. Defining their size could help establish whether there was a switch in the distribution of the settlements from the coast to the hinterlands and identify shifts in settlement patterns. Also, a discussion related to the size of settlements in terms of hierarchies could emerge. This would enable the formulation of hypotheses on the different roles that larger sites might have had in the development of the Beqa'a Valley trade and also where these settlements were located. Finally, further excavation work in this area would provide insight into the nature of these settlements, that is, whether they were simple agricultural centers organized around a small village or urbanized city centers.

Additional research is also required on the ceramic vessels, especially in relation to the performance of supplementary materials science analyses. The unstable socio-political situation that has recently developed in this area has prevented the exportation from Lebanon of additional samples and, therefore, their analysis. Presently, excavations at Kamid el-Loz are at a halt because of the danger posed by the war in nearby Syria, but when the activities resume, a primary goal will be to comprehend the context in which the Levantine Painted ware was utilized at the site and to verify if this type of ceramic vessel was in use from the Middle Bronze Age I to the Middle Bronze Age II period.

A major contribution of this project to the archaeology of the Middle Bronze Age Levant is the reconstruction of the ceramic vessel economy of Kamid el-Loz and the formulation of an accurate site chronology. This information will enable the creation of a better concordance between the material culture emanating from southwestern Syria and the coastal sites in

Lebanon. The reconstruction of ancient networking trails will present a model for Near Eastern archaeologists to use to understand exchange networks across the region, especially in the central Levant. Finally, determining the level of foreign interaction among settlements belonging to three different geographic areas will contribute to the social sciences by providing insight into how ancient societies received and reacted to external cultural influences.

Notwithstanding the relative lack of research in the Beqa'a Valley and the limited attention given to the reconstruction of the Bronze Age period in this area, this work demonstrates the potential of a study of trade routes in a crossroads region. The routes delineated in the dissertation's chapters indicate the possibility of paths that were running from the Beqa'a Valley to the east and to the west and which contributed to the circulation of material culture and goods from the coastal Levant, through the valley and into the hinterlands of southwestern Syria. These conclusions were reached by conducting a detailed analysis of the material culture of Kamid el-Loz, a settlement located in the Beqa'a Valley, whose urban complexity can be clearly deduced from the study of the ceramic found in the Middle Bronze Age palace and which also fully supports the engagement in trade by the settlements found along the mapped routes.

Bibliography

- Aaron A. Burke. "Introduction to the Levant during the Middle Bronze Age." In *The Oxford Handbook of the Archaeology of the Levant C. 8000-332 BCE*, edited by Margreet L Steiner and Ann E Killebrew, 403–13. Oxford: Oxford University Press, 2014.
- Abdullah, F. "La Découverte D'un Premier Texte. Cunéiforme Á Damas, Tell Sakka: Revision Historique." *Damascus University Journal* 27, no. (3+4) (2011): 31–34.
- Abou Assaf, Ali. "Rapport Préliminaire Sur Les Fouilles Des Tombes de Yabroud." *AAAS* 15, no. 2 (1965): 59–80.
- Ahrens, Alexander. "A »Hyksos Connection«? Thoughts on the Date of Dispatch of Some of the Middle Kingdom Objects Found in the Northern Levant." In *Egypt and the Levant – the Crossroads. Proceedings of an International Conference on the Relations of Egypt and the Near East in the Bronze Age Held in Prague, September 1–3, 2010*, edited by J. Mynařová, 21–40. Prague: Charles University; Czech Institute of Egyptology, 2011.
- . "From a Country Far, Far Away... ' – Remarks on the Middle Bronze Age Scarabs from Tomb Ass. 12949 at Qal'at Šerqat/Assur." In *Stories of Long Ago. Festschrift Für Michael D. Roaf*, edited by H.D. Baker, K. Kaniuth, and Adelheid Otto, 397:1–9. Münster, 2012.
- . "The Egyptian Objects from Tell Hizzin: An Archaeological and Historical Reassessment." *Bulletin d'Archéologie et d'Architecture Libanaises*, in press.
- Alberti, Maria Emanuela, and Serena Sabatini. *Exchange Networks and Local Transformations*. Havertown: Oxbow Books, 2012.
- Albright, William Foxwell. *The Archaeology of Palestine*. London: Pelican, 1960.
- Alcock, Susan E. *Archaeologies of the Greek Past: Landscape, Monuments, and Memories*. Cambridge, UK; New York, NY, USA: Cambridge University Press, 2002.
- Alcock, Susan E., and John F. Cherry. *Side-by-Side Survey: Comparative Regional Studies in the Mediterranean World*. Oxford: Oxbow, 2004.
- Al-Maqdissi, Michel. "Chronique Des Activités Archéologiques En Syrie (I)." *Syria* 70, no. 3/4 (January 1, 1993): 443–560.
- Al-Rawi, Farouk N. H., and A. R George. "Back to the Cedar Forest the Beginning and End of Tablet V of the Standard Babylonian Epic of Gilgameš." *Journal of Cuneiform Studies* 66 (2014): 69–90.
- Altaweel, M. "The Use of ASTER Satellite Imagery in Archaeological Contexts." *Archeological Prospection* 12, no. 3 (2005): 151–66.
- Altenmüller, H., and A.M. Moussa. "Die Inschrift Amenemhets II. Aus Dem Ptah-Tempel von Memphis." *SAK* 18 (1991): 1–48.
- Amiran, Ruth. *Ancient Pottery of the Holy Land; from Its Beginnings in the Neolithic Period to the End of the Iron Age*. [New Brunswick, N.J.: Rutgers University Press, 1970.
- . "Tell El-Yahudiyeh Ware in Syria." *Israel Exploration Journal* 7, no. 2 (1957): 93–97.
- Amnon Ben-Tor. "The Ceremonial Precinct in the Upper City of Hazor." *Near Eastern Archaeology* 76, no. 2 (2013): 81–91.
- Anderson, William Paul, University of Pennsylvania, and University Museum. *Sarepta I: The Late Bronze and Iron Age Strata of Area II, Y: The University Museum of the University of Pennsylvania Excavations at Sarafand, Lebanon*. Beyrouth: Distribution, Département des publications de l'Université libanaise, 1988.

- Andersson, E., E. Felluca, M-L. Nosch, and L. Peyronel. "New Perspectives on Bronze Age Textile Production in the Eastern Mediterranean. The First Results with Ebla as a Pilot Study." In *Proceedings of the 6th International Congress of the Archaeology of the Ancient Near East: 5 May-10 May 2009, "Sapienza", Universita Di Roma*, edited by International Congress on the Archaeology of the Ancient Near East, Paolo Matthiae, and Licia Romano, 1:159–76. Wiesbaden: Harrassowitz, 2010.
- Anschuetz, K. F. "Not Waiting for the Rain: Integrated Systems of Water Management for Intensive Agricultural Production in North-Central New Mexico." University of Michigan, 1998.
- Appadurai, Arjun. "Gastro-Politics in Hindu South Asia." *Amerethn American Ethnologist* 8, no. 3 (1981): 494–511.
- Archi, Alfonso. "Cult of the Ancestors and Tutelary God at Ebla." In *Focus: A Semitic/Afrasian Gathering in Remembrance of Albert Ehrman*, edited by Y. L. Arbetman, 103–12. Amsterdam/Philadelphia: John Benjamins Publishing Company, 1998.
- Arnold, D., F. Arnold, and S. Allen. "Canaanite Imports at Lisht, the Middle Kingdom Capital of Egypt." *Agypten Und Levant* 5 (1995): 13–32.
- Arnold, Dean E. *Ceramic Theory and Cultural Process*. Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1985.
- Artzy, Michal. "Incense, Camels and Collared Rim Jars: Desert Trade Routes and Maritime Outlets in the Second Millennium." *Oxford Journal of Archaeology* 13, no. 2 (1994): 121–47.
- Artzy, Michal, and Ezra S Marcus. "Stratified Cypriote Pottery in MBIIa Context at Tel Nami." In *Studies in Honor of Vassos Karageorghis*, edited by G. Ioannides, 103–10, 1992.
- Aruz, Joan, Sarah B Graff, and Yelena Rakic, eds. *Cultures in Contact: From Mesopotamia to the Mediterranean in the Second Millennium B.C.* New York; New Haven, Conn.: Metropolitan Museum of Art ; distributed by Yale University Press, 2013.
- Ashmore, Wendy, and 272-286. "Construction and Cosmology: Politics and Ideology in Lowland Maya Settlement Patterns." In *Word and Image in Maya Culture: Explorations in Language, Writing, and Representation*, edited by William F Hanks and Don Stephen Rice. Salt Lake City: University of Utah Press, 1989.
- Ashmore, Wendy, and Arthur Bernard Knapp. *Archaeologies of Landscape: Contemporary Perspectives*. Malden, Mass.: Blackwell, 1999.
- Aslyhan Yener K. "Strategic Industries and Tin in the Ancient near East: Anatolia Updated." *TUBA-AR TUBA-AR* 12, no. 12 (2009): 143–54.
- Aston, David A. "A History of Tell El-Yahudiyeh Typology." In *The Bronze Age in the Lebanon: studies on the archaeology and chronology of Lebanon, Syria, and Egypt*, edited by Manfred Bietak, Ernst Czerny, and Institut français d'archéologie du Proche-Orient SCIAM 2000 (Program), 165–91. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2008.
- Aston, David A, Manfred Bietak, and Aren Maeir. *The classification and chronology of Tell el-Yahudiya Ware*. Wien: Verl. der Österr. Akad. der Wiss., 2012.
- Atici, Levent, Fikri Kulakoğlu, Gojko Barjamovic, Andrew S Fairbairn, and American Schools of Oriental Research, eds. *Current Research at Kueltepe-Kanesh: An Interdisciplinary and Integrative Approach to Trade Networks, Internationalism, and Identity*. Journal of Cuneiform Studies, Supplemental Series 4. Atlanta : Lockwood Press, 2014.

- Aubet, María Eugenia. *Commerce and Colonization in the Ancient Near East*. Cambridge; New York: Cambridge University Press, 2013.
- . *The Phoenicians and the West: politics, colonies, and trade*. Cambridge [England]; New York: Cambridge University Press, 1993.
- Avnimelech, Moshe A. *Bibliography of Levant Geology: Including Cyprus, Hatay, Israel, Jordania, Lebanon, Sinai and Syria*. Jerusalem: Israel Program for Scientific Translations, 1965.
- Bader, Bettina. “The Egyptian Jars from Sidon in Their Egyptian Context.” *Archaeology & History in Lebanon*, no. 18 (2003): 31–37.
- Bader, Bettina, Karine Kopetzky, Irene Forstner- Muller, and Claude Doumet-Serhal. “An Egyptian Jar from Sidon in Its Egyptian Context: Some Fresh Evidence.” *Archaeology & History in Lebanon*, no. 29 (2009): 79–83.
- Badre, Leila. “Tell El-Ghassil: Tomb 1.” In *Archéologie Au Levant. Recueil À La Mémoire de Roger Saidah*, edited by Roger Saidah, 123–32. Lyon, 1982.
http://www.persee.fr/web/ouvrages/home/prescript/article/mom_0244-5689_1982_ant_12_1_1194.
- Badreshany, Kamal. “The Middle Bronze Age Pottery From Tell El-Burak, Lebanon,” 2005.
- Badreshany, Kamal, and J. Kamlah. “The Middle Bronze Age Pottery From Tell El-Burak.” *Berytus* 53–54 (2013): 81–113.
- Bagh, T. “The Relationship between Levantine Painted Ware, Syro/Cilician Ware and Khabur Ware and the Chronological Implications.” *The Synchronisation of Civilisations in the Eastern Mediterranean in the Second Millennium BC II. Österreichische Akademie Der Wissenschaften, Denkschriften Der Gesamtakademie* 29 (2000): 219–37.
- Bagh, Tine. “Levantine Painted Ware from the Middle Bronze Age Tombs at Sidon.” *Archaeology & History in Lebanon* 20 (2004): 40–57.
- . *Tell El-Dab‘a XXIII: Levantine Painted Ware from Egypt and the Levant*. Vol. 37. Untersuchungen Der Zweigstelle Kairo Des Österreichischen Archäologischen Instituts, 2013.
- Baker, Heather D, Kai Kaniuth, and Adelheid Otto. *Stories of Long Ago. Festschrift Für Michael D. Roaf*. Münster: Ugarit-Verlag, 2012.
- Baramki, D.C. “A Tomb of the Early and Middle Bronze Age at Byblos.” *Bulletin Du Musee Du Beyrouth* 26 (1973): 27–30.
- Barāmki, Dīmītrī. *Preliminary Report on the Excavations at Tell El Ghassil*. Beyrouth, 1961.
- Barber, E. J. W. *Prehistoric Textiles: The Development of Cloth in the Neolithic and Bronze Ages with Special Reference to the Aegean*. Princeton, N.J.: Princeton University Press, 1991.
- Barjamovic, Gojko Johansen. *A Journey Through Anatolia in 1865 BC*. Kayseri büyükşehir belediyesi, 2011.
- Barnes, John Tristan. “Painting the Wine-Dark Sea: Traveling Aegean Fresco Artists in the Middle and Late Bronze Age Eastern Mediterranean.” University of Missouri–Columbia, 2008. <https://mospace.library.umsystem.edu/xmlui/handle/10355/5762>.
- Barrett, Caitlín E. “The Perceived Value of Minoan and Minoanizing Pottery in Egypt.” *Journal of Mediterranean Archaeology* 22, no. 2 (2009).
- Bartl, Karin. “Ancient Settlements in the Plain of Akkar/Northern Lebanon. First Results of Archaeological Survey Work in 1997 and 1999.” *Occident and Orient*, March 2002, 2–4.

- Bartl, Karin, and A. Chaaya. "Akkar Survey 1997. Archaeological Surface Investigations in the Plain of Akkar/Northern Lebanon, Preliminary Results." *BAAL* 3 (1997): 169–79.
- Baruch, Brandl. "Evidence of Egyptian Colonization in the Southern Coastal Plain and Lowlands of Caanaan during the EB I Period." In *The Nile Delta in Transition: 4th - 3rd Millennium B.C. : Proceedings of the Seminar Held in Cairo, 21-24 October 1990, at the Netherlands Institute of Archaeology and Arabic Studies*, edited by Edwin C.M Brink van den, 441–76. Tel Aviv: van den Brink, 1992.
- Beck, A., M. Abdulkarim, G. Philip, and D. Donoghue. "Evaluation of Corona and Ikonos high resolution satellite imagery for archaeological prospection in western Syria." *Antiquity* 81 (2007): 161–75.
- Belmonte Marín, Juan Antonio. *Die Orts- und Gewässernamen der Texte aus Syrien im 2. Jt. v. Chr.* Wiesbaden: Ludwig Reichert Verlag, 2001.
- Ben-Tor, Amnon. "New Light on the Relations between Egypt and Southern Palestine during the Early Bronze Age." *Bulletin of the American Schools of Oriental Research*, no. 281 (1991): 3–10.
- . "The Relations between Egypt and the Land of Canaan during the Third Millennium B. C." *American Journal of Archaeology* 85, no. 4 (1981): 449–52.
- . "The Trade Relations of Palestine in the Early Bronze Age." *Journal of the Economic and Social History of the Orient* 29, no. 1 (1986): 1–27.
- Ben-Tor, Daphna. *Scarabs, Chronology, and Interconnections : Egypt and Palestine in the Second Intermediate Period.* Orbis Biblicus et Orientalis., Series Archaeologica 27. Fribourg : Academic Press ; Göttingen : Vandenhoeck & Ruprecht, 2007.
- Berg, Ina. "Exploring the Chaîne Opératoire of Ceramics through X-Radiography." In *Archaeological Ceramics: A Review of Current Research*, edited by Simona Scarcella, European Association of Archaeologists, and Annual Meeting, 1–10. Oxford, England: Archaeopress, 2011.
- Bietak, Manfred, Ernst Czerny, and Institut français d'archéologie du Proche-Orient SCIEM 2000 (Program). *The Bronze Age in the Lebanon studies on the archaeology and chronology of Lebanon, Syria, and Egypt.* Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2008.
- Bietak, Manfred, Österreichische Akademie der Wissenschaften, and International Conference on MB IIA Ceramic Material, eds. "Pottery of the Early Middle Bronze Age at Tell Arqa and in the Northern Levant." In *The Middle Bronze Age in the Levant: Proceedings of an International Conference on MB IIA Ceramic Material, Vienna, 24th-26th of January 2001.* Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2002.
- . , eds. *The Middle Bronze Age in the Levant: Proceedings of an International Conference on MB IIA Ceramic Material, Vienna, 24th-26th of January 2001.* Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2002.
- Biga, Maria-Giovanna. "La Fête À Ébla (Syrie, Xxive Siècle Av J.-C.)." *Journal Asiatique* 299, no. 2 (2011): 479–94.
- Biran, Avraham. *Dan I: A Chronicle of the Excavations, the Pottery Neolithic, the Early Bronze Age and the Middle Bronze Age Tombs.* Annual of the Nelson Glueck School of Biblical Archaeology. Jerusalem: Nelson Glueck School of Biblical Archaeology, Hebrew Union College-Jewish Institute of Religion, 1996.
- . "Tell Er-Ridan. Notes and News." *Israel Exploration Journal* 24 (1974): 142.

- Bitelli, G. "Remote Sensing and Integration with Other Geomatic Techniques in Archaeology." In *Satellite Remote Sensing a New Tool for Archaeology*, edited by Rosa Lasaponara and Nicola Masini, 113–27. New York: Springer, 2012.
- Blackman, M. James, Gil J Stein, and Pamela B Vandiver. *The Standardization Hypothesis and Ceramic Mass Production: Technological, Compositional, and Metric Indexes of Craft Specialization at Tell Leilan, Syria*. Washington, D.C.: Society for American Archaeology], 1993.
- Boileau, Marie-Claude. *Production et distribution des céramiques au IIIe millénaire en Syrie du nord-est: étude technologique des céramiques de tell'Atij et tell Gudeda = Pottery production and distribution in third millennium northeast Syria*. [Paris]: Éd. de la Maison des Sciences de l'Homme [u.a.], 2005.
- . *Production et distribution des céramiques au IIIe millénaire en Syrie du nord-est: étude technologique des céramiques de tell'Atij et tell Gudeda = Pottery production and distribution in third millennium northeast Syria*. [Paris]: Éd. de la Maison des Sciences de l'Homme [u.a.], 2005.
- Bonatz, D. *Mountains and Plains: Archaeological Survey in the Hinterland of Kamid Al-Loz / Lebanon: Report on the First Campaign*. Orientalisches Seminar - Vorderasiatische Archäologie., 2001.
- Bonatz, D. "Preliminary Remarks on an Archaeological Survey in the Anti-Lebanon." *BAAL* 6 (2002): 283–307.
- Bonnet, H. "Zur Herkunft der Sogenannten Tell El-Jahudiye-Vasen." *ZAS* 59 (1924): 119–30.
- Bourdieu, Pierre, and Richard Nice. *The Logic of Practice*. Stanford: Stanford University Press, 2003.
- Bradley, Richard. *Altering the Earth: The Origins of Monuments in Britain and Continental Europe: The Rhind Lectures, 1991-92*. Edinburgh: Society of Antiquaries of Scotland, 1993.
- . *Rock Art and the Prehistory of Atlantic Europe Signing the Land*. London; New York: Routledge, 1997.
- . "Ruined Buildings, Ruined Stones: Enclosures, Tombs and Natural Places in the Neolithic of South-west England." *World Archaeology* 30, no. 1 (1998): 13–22.
- . *The Significance of Monuments on the Shaping of Human Experience in Neolithic and Bronze Age Europe*. London; New York: Routledge, 1998.
- Bradley, Richard, and Richard Chambers. "A New Study of the Cursus Complex at Dorchester on Thames." *Oxford Journal of Archaeology* 7, no. 3 (1988): 271–89.
- Braemer, Frank, and Michel Al-Maqdissi. "La Céramique du Bronze Moyen dans la Syrie du Sud." In *Céramique de l'Age du Bronze en Syrie. I*, edited by Michel Al-Maqdissi, Valérie Matoïan, and Christophe Nicolle, Vol. 161. Beyrouth: Institut français d'archéologie du Proche-Orient, 2002.
- Brandl, B. "Evidence for Egyptian Colonization in the Southern Coastal Plain and Lowlands of Canaan during the EB I Period." In *The Nile Delta in Transition: 4th.-3rd. Millennium B.C. : Proceedings of the Seminar Held in Cairo, 21-24 October 1990, at the Netherlands Institute of Archaeology and Arabic Studies*, edited by Edwin C. M. van den Brink, 441–77. Tel Aviv: distributed by the Israel Exploration Society, 1992.
- Branting, Scott, and Joshua Trampier. "Geospatial Data and Theory in Archaeology: A View from CAMEL." In *Space - Archaeology's Final Frontier? An Intercontinental Approach*, edited by R.B. Salisbury and D. Keeler, 272–89. Newcastle: Cambridge Scholars, 2007.

- Brink, Edwin C. M. van den, and Thomas Evan Levy. *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.* London; New York: Leicester University Press, 2002.
- Brumfiel, Elizabeth M. "Weaving and Cooking: Women's Production in Aztec Mexico." In *Engendering Archaeology: Women and Prehistory*, edited by Joan M Gero and Margaret Wright Conkey, 224–51. Oxford, UK; Cambridge, Mass., USA: B. Blackwell, 1991.
- Brumfiel, Elizabeth M, and Timothy K Earle. "Specialization, Exchange, and Complex Societies: An Introduction." In *Specialization, Exchange, and Complex Societies*, edited by Elizabeth M Brumfiel and Timothy K Earle, 1–9. Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1987.
- Brysbaert, Ann. *The Power of Technology in the Bronze Age Eastern Mediterranean: The Case of the Painted Plaster.* London; Oakville, CT: Equinox Pub., 2008.
- Buchanan, B. *Early Near Eastern Seals in the Yale Babylonian Collection.* New Haven; London: Yale University Press, 1981.
- Bücher, Karl. *Die Entstehung der Volkswirtschaft: Vorträge und Aufsätze.* Tübingen: H. Laupp, 1922.
- Buttimer, Anne. *Society and Milieu in the French Geographic Tradition.* Chicago: Published for the Association of American Geographers by Rand McNally, 1971.
- Calligaro T, Coquinot Y, Pichon L, Pierrat-Bonnefois G, De Campos P, Re A, and Angelici D. "Characterization of the Lapis Lazuli from the Egyptian Treasure of Tôd and Its Alteration Using External M-PIXE and M-IBIL." *Nucl Instrum Methods Phys Res Sect B Nuclear Instruments and Methods in Physics Research, Section B: Beam Interactions with Materials and Atoms* 318, no. PART A (2014): 139–44.
- Casana, Jesse, and Jackson Cothren. "Stereo Analysis, DEM Extraction and Orthorectification of CORONA Satellite Imagery: Archaeological Applications from the Near East." *Antiquity* 82, no. 317 (September 2008): 732–49.
- Charaf, Hanan. "Cypriot Imported Pottery from the Middle Bronze Age in Lebanon." *Berytus.* 53–54 (2011 2010): 147–66.
- . "The Tell el Yahudeya Ware from Tell Arqa." In *The classification and chronology of Tell el-Yahudiya Ware*, edited by David A Aston, Manfred Bietak, and Aren Maeir, 591–600. Wien: Verl. der Österr. Akad. der Wiss., 2012.
- Charpin, D. "Samsi-Adad's Lebanon Campaign: Royal Inscriptions and Archival Text." *The Canadian Society for Mesopotamian Studies* 4 (October 2009): 5–12.
- Chehab, M. "Les Tombe Phéniciennes. Majdalouna." *Bulletin Du Musee de Beyrouth* IV (1940): 37–53.
- . *Tombe Phénicienne de Sin El Fil: Melanges Offerts a M.R. Dussaud.* Vol. II, 1939.
- Cherry, John F, and J.L. Davis. "The Cyclades and the Greek Mainland in LCI: The Evidence of the Pottery." *American Journal of Archaeology* 86 (1982): 333–41.
- Clarke, J. M. "Akha Feasting: An Ethnoarchaeological Perspective." In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power*, edited by Michael Dietler and B. Hayden, 144–67. Washington, D.C.: Smithsonian Institution Press, 2001.
- Cline, Eric H. *The Oxford Handbook of the Bronze Age Aegean (ca. 3000-1000 BC).* New York: Oxford University Press, 2010.
- Cline, Eric H, Assaf Yasur-Landau, and Nurith Goshen. "New Fragments of Aegean-Style Painted Plaster from Tel Kabri, Israel." *American Journal of Archaeology* 115, no. 2 (2011): 245–61.

- Cohen, Susan L. *Canaanites, Chronologies, and Connections: The Relationship of Middle Bronze IIA Canaan to Middle Kingdom Egypt*. Winona Lake, Ind.: Eisenbrauns, 2002.
- Cole, Dan P. *Shechem I: The Middle Bronze IIB Pottery*. [Ann Arbor, Mich.]; Winona Lake, IN: American Schools of Oriental Research ; Distributed by Eisenbrauns, 1984.
- Collins, S. “A Monumental Building at Sidon: Room 3, Context 971.” *AHL* 24 (2006): 106–13.
- Colonna d’Istria, Laurent. “Wool Economy in the Royal Archive of Mari during the Šakkanakku Period.” In *Wool Economy in the Ancient Near East and the Aegean: From the Beginnings of Sheep Husbandry to Institutional Textile Industry*, edited by Catherine Breniquet and Cécile Michel, Vol. 17, in press.
- Comer, Douglas C, and Michael J Harrower. *Mapping Archaeological Landscapes from Space*. New York, NY: Springer, 2013.
- Conneller, Chantal. *An Archaeology of Materials Substantial Transformations in Early Prehistoric Europe*. New York: Routledge, 2011.
- Conolly, James, and Mark Lake. *Geographical Information Systems in Archaeology*. Cambridge, UK; New York: Cambridge University Press, 2006.
- Copeland, L. “Natufian Sites in Lebanon.” In *The Natufian Culture in the Levant*, edited by O. Bar-Yosef and F.R. Valla, 27–42. Michigan: Ann Arbor, 1991.
- . *Neolithic Village Sites in the South Beqaa, Lebanon*. Beyrouth, 1969.
- Copeland, Lorraine, and Peter J Wescombe. *Inventory of Stone-Age Sites in Lebanon*. Mélanges de l’Université Saint-Joseph, T. 41, fasc. 2 ; T. 42, Fasc. 1. Beyrouth: Impr. catholique, 1965.
- Copeland, L, and P.J. Wescombe. *Inventory of Stone-Age Sites in Lebanon*. Vol. t. 41, fasc. 2: t. 42, fasc. 1. Université Saint-Joseph, Beirut, Syria. Mélanges.,. Beyrouth: Impr. Catholique, 1965.
- Cornelius, Izak. “The Commercial Relations of Canaan in the Second Millennium BC- A Discussion of the Cuneiform Texts from Mari and Ugarit.” In *The Holy Land in History and Thought: Papers Submitted to the International Conference on the Relations between the Holy Land and the World Outside It, Johannesburg, 1986*, edited by Sharon, Moshe International Conference on the Relations between the Holy Land and the World Outside It, 14–32. Leiden; New York: E.J. Brill, 1988.
- Costin, Cathy Lynne. “Craft Specialization: Issues in Defining, Documenting, and Explaining the Organization of Production.” *Archmeththeo Archaeological Method and Theory* 3 (1991): 1–56.
- Costin, Cathy Lynnex. “From Chiefdom to Empire State: Ceramic Economy among the Prehispanic Wanka of Highland Peru,” 1986.
- Crowfoot, Elisabeth. “Textiles, Matting and Basketry.” In *Excavations at Jericho IV*, edited by Kathleen Mary Kenyon, 546–50. London, 1982.
- Curtis, John, Qais Hussein Raheed, Hugo Clarke, Abdulamir M. Al Hamdani, Elizabeth Stone, Margarete Van Ess, Paul Collins, and Mehsein Ali. “An Assessment of Archaeological Sites in June 2008: An Iraqi-British Project.” *Iraq* 70 (2008): 215–37.
- Daamen, Winnie, and Serge P Hoogendoorn. “Experimental Research of Pedestrian Walking Behavior.” *Transportation Research Record.*, no. 1828 (2003): 20–30.
- Dalley, Stephanie. *Mari and Karana: Two Old Babylonian Cities*. London; New York: Longman, 1984.
- Darvill, Thimoty C. “Ever Increasing Circles: The Sacred Geographies of Stonehenge and Its Landscape.” *Science and Stonehenge.*, 1999, 167–202.

- Darwish, T., I. Jooma, M. Awad, M. AbouDaher, and J. Msann. "Inventory and Management of Lebanese Soils Geographical Database of Euro-Mediterranean Countries." *The Libanese Science Journal* 6, no. 2 (2005).
- David, Bruno, and Edward Casey E. "Place in Landscape Archaeology: A Western Philosophical Prelude." In *Handbook of Landscape Archaeology*, edited by Julian Thomas, 44–50. Walnut Creek, CA: Left Coast Press, 2008.
- Davies, W. Vivian. *Egypt, the Aegean and the Levant: Interconnections in the Second Millennium BC*. London: British Museum Press, 1995.
- Davis, James William. *The Fossil Fishes of the Chalk of Mount Lebanon, in Syria*. Dublin: Royal Dublin Society, 1887.
- Delage, Christophe. *Chert Availability and Prehistoric Exploitation in the Near East*. Oxford: John and Erica Hedges, 2007.
- Dercksen, Jan Gerrit. *The Old Assyrian Copper Trade in Anatolia*. [Istanbul]: Nederlands Historisch-Archaeologisch Instituut te Istanbul, 1996.
- Dever, William G. "Archaeological Sources for the History of Palestine: The Middle Bronze Age: The Zenith of the Urban Canaanite Era." *The Biblical Archaeologist* 50, no. 3 (September 1, 1987): 149–77.
- Dietler, Michael. "Drink: The Role of Drinking in the Political Economy and the Case of Early Iron Age France." *Journal of Anthropological Archaeology* 9 (1990): 352–406.
- Dietler, Michael, and Ingrid Herbich. "Habitus et reproduction sociale des techniques: l'intelligence du style en archéologie et en ethnoarchéologie." In *De la préhistoire aux missiles balistiques: l'intelligence sociale des techniques*, edited by Bruno Latour and Pierre Lemonier, 202–27. Paris: La Découverte, 1994.
- . "Habitus, Techniques, Style: An Integrated Approach to Social Understanding of Material Culture and Boundaries." In *The Archaeology of Social Boundaries*, edited by Miriam T Stark, 232–63. Washington, [D.C.]: Smithsonian Institution Press, 1998.
- Dobres, Marcia-Anne. *Technology and Social Agency: Outlining a Practice Framework for Archaeology*. Oxford, UK; Malden, Mass.: Blackwell Publishers, 2000.
- Dobres, Marcia-Anne, and Christopher R Hoffman. *The Social Dynamics of Technology: Practice, Politics, and World Views*. Washington: Smithsonian Institution Press, 1999.
- Dossin, Georges. *Le royaume de Qatna au XVIIIe siècle avant notre ère d'après les "Archives royales de Mari"*. Bulletin Académie royale des sciences, XL. [Brussels]: [Académie Royale de Belgique], 1954.
- . "Les Archives Économiques Du Palais de Mari." *Syria Syria* 20, no. 2 (1939): 97–113.
- . "Une mention de Cananéens dans une lettre de Mari." *Syria* 50, no. 3/4 (1973): 277–82.
- Doumet-Serha, Claude, and Jwana Shahud. "A Middle Bronze Age Temple in Sidon. Ritual and Communal Feasting." In *Ritual, religion and reason: studies in the ancient world in honour of Paolo Xella*, edited by Paolo Xella, Oswald Loretz, Sergio Ribichini, Wilfred G. E Watson, and José A Zamora, 33–60, 2013.
- Doumet-Serhal, Claude. "Bronze Artifacts from Burial 42 at Sidon." *Archaeology & History in Lebanon* 18 (2003): 38–57.
- . *Decade: a decade of archaeology and history in the Lebanon (1995 - 2004)*. Beirut: The Lebanese British Friends of the National Museum, 2004.
- . "Le Bronze Moyen II B: L'Evidence de Tell el-Ghassil." *Berytus* 42 (1996 1995): 37–70.

- . *Les fouilles de Tell El-Ghassil de 1972 à 1974: étude du matériel*. Beyrouth: Institut français d'archéologie du Proche-Orient, 1996.
- . *Sidon 15 Years of Excavations : On the Occasion of the Exhibition Sidon "The Best of 15 Years" 3 September - 3 November 2013 Sidon*. Beirut : The Lebanese British Friends of the National Museum, 2013, 2013.
- . "Sidon during the Bronze Age: Burials, Rituals and Feasting Grounds at the 'College Site.'" *Near Eastern Archaeology* 73, no. 2/3 (2010): 114–29.
- . "Sidon during the Bronze Age: Burials, Rituals and Feasting Grounds at the 'College Site.'" *Neareastarch Near Eastern Archaeology* 73, no. 2/3 (2010): 114–29.
- . "Sidon (Lebanon): Twenty Middle Bronze Age Burials from the 2001 Season of Excavation." *Levant* 36, no. 1 (2004): 89–154.
- . "The British Museum excavation at Sidon : markers for the chronology of the Early and Middle Bronze Age in Lebanon." In *The Bronze Age in the Lebanon: studies on the archaeology and chronology of Lebanon, Syria, and Egypt*, edited by Manfred Bietak, Ernst Czerny, and Institut français d'archéologie du Proche-Orient SCIEM 2000 (Program), 11–44. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2008.
- . "Tracing Sidon's Mediterranean Networks in the Second Millennium B.C.: Receiving, Transmitting, and Assimilating. Twelve Years of British Museum Excavations." In *Cultures in Contact: From Mesopotamia to the Mediterranean in the Second Millennium BC*, edited by Joan Aruz, Sarah B Graff, and Yelena Rakic, 132–41. Yale University Press, 2013.
- . "Warrior Burial 27 at Sidon." *Archaeology & History in Lebanon* 20 (2004): 21–29.
- Doumet-Serhal, Claude, and Vassos Karageorghis. *Sidon: les fouilles du British Museum de 1998 à 2005*. PERSEE, 2006.
- Doumet-Serhal, Claude, K. Kopetzky, and Irene Forstner- Muller. "Egyptian Pottery of the Late 12th and Early 13th Dynasty from Sidon." *Archaeology & History in Lebanon* 24 (2008): 49–60.
- Doumet-Serhal, Claude, Anne Rabate, Andrea Resek, and England) Lebanese British Friends of the National Museum (London, eds. *Networking patterns of the Bronze and Iron Age Levant: the Lebanon and its Mediterranean connections*. [London, England]; Beirut: Lebanese British Friends of the National Museum ; Printed ACPP, 2008.
- Doyel, David E, Society for American Archaeology, and Meeting, eds. *Anasazi Regional Organization and the Chaco System*. Albuquerque, N.M.: Maxwell Museum of Anthropology, 2001.
- Drennan, Robert D. "Long-Distance Transport Costs in Pre-Hispanic Mesoamerica." *American Anthropologist* 86, no. 1 (1984): 105–12.
- Du Mesnil du Buisson, Robert. *Le Site Archéologique de Mishrifé-Qatna*. Paris: E. de Boccard, 1935.
- . "Les Ruines D'el-Mishrifé Au Nord-Est de Homs." *Syria* 7 (1926): 289–325.
- Dunand, Maurice. *Fouilles de Byblos*. Paris: P. Geuthner, 1937.
- . *Fouilles de Byblos T. 1, T. 1*. Paris: P. Geuthner, 1939.
- . *Fouilles de Byblos. T. 2, T. 2*. Paris: Librairie d'Amérique et d'Orient Adrien Maisonneuve, 1950.
- Dunand, Maurice, and H Tabet. *Byblos: Its History, Ruins and Legends*. Beirut; Paris: Catholic Press ; Librairie Adrien-Maisonneuve [distributor], 1964.

- Durand, Jean-Marie. *Les Documents épistolaires du palais de Mari ; présenté et traduits par Jean-Marie Durand*. Paris: Éd. du Cerf, 1997.
- . *Les Documents épistolaires du palais de Mari ; présenté et traduits par Jean-Marie Durand*. Paris: Éd. du Cerf, 1999.
- . *Les documents épistolaires du palais de Mari. Tome II Tome II*. Paris: les Éd. du Cerf, 1998.
- Durand, J.-M. *La nomenclature des habits et des textiles dans les textes de Mari*. Paris: CNRS Éditions, 2009.
- . *La nomenclature des habits et des textiles dans les textes de Mari*. Paris: CNRS Éditions, 2009.
- Esse, Douglas L. *Subsistence, Trade, and Social Change in Early Bronze Age Palestine*. Chicago, Ill.: Oriental Institute of the University of Chicago, 1991.
- Esse, Douglas L, and P.K. Hopke. "Levantine Trade in the Early Bronze Age: From Pots to People." In *Proceedings of the 24th International Archaeometry Symposium*, edited by J.S. Olin and M. James Blackman, 327–39. Washington, D.C., 1986.
- Ezra, E., Marcus, Porath, Y., Schiestl, R., and et al. "The Middle Kingdom Egyptian Pottery from the Middle Bronze Age IIA Tel Ifshar." *Agypten und Levant* 18 (2008): 203–19.
- Falconer, Steven E. "Rural Responses to Early Urbanism: Bronze Age Household and Village Economy at Tell El-Hayyat, Jordan." *Journal of Field Archaeology* 22, no. 4 (1995): 399–419.
- Falconer, Steven E, Bonnie Magness-Gardiner, and Mary C Metzger. "Preliminary Report of the First Season of the Tell El-Hayyat Project." *Bulletin of the American Schools of Oriental Research*, no. 255 (1984): 49–74.
- Feldman, Marian H. "Frescos, Exotica, and the Reinvention of Northern Levantine Kingdoms during the Second Millennium B.C.E." In *Representations of Political Power : Case Histories from Times of Change and Dissolving Order in the Ancient Near East*, edited by Marleis Heinz and Marian H Feldman, 39–66. Winona Lake, Ind. : Eisenbrauns, 2007.
- . "Handled Pans from Ebla and the Evidence of Anatolian Connections." Rome, 2014.
- . "Qatnas Beziehungen Zur Ägäis." In *Schätze Des Alten Syrien: Die Entdeckung Des Königreichs Qatna*, edited by Michel Al-Maqdissi, D. Morandi Bonacossi, and Peter Pfälzner, 250–53. Stuttgart : Landesmuseum Württemberg : Theiss, 2009.
- Feliu, Lluís, and Wilfred G. E Watson. *The God Dagan in Bronze Age Syria*. Leiden; Boston, MA: Brill, 2003.
- Finkelstein, Israel, David Ussishkin, and Baruch Halpern. *Megiddo III: The 1992-1996 Seasons*. Tel Aviv: Emery and Claire Yass Publications in Archaeology, Institute of Archaeology, Tel Aviv University, 2000.
- Firth, Raymond. "Primitive Economics of the New Zealand Maori,." E.P. Dutton and Company, 1929.
- Flammini, Roxana. "Elite Emulation and Patronage Relationships in the Middle Bronze: The Egyptianized Dynasty of Byblos." *Tel Aviv* 37, no. 2 (November 2010): 154–68.
- Foster, G.L. "Trade, Social Conflict, and Social Integration: Rethinking Some Old Ideas on Exchange." In *Economic Exchange and Social Interaction in Southeast Asia: Perspectives from Prehistory, History, and Ethnography*, edited by Karl L Hutterer, 3–22. Ann Arbor: Center for South and Southeast Asian Studies, University of Michigan, 1977.

- Fowler, A. P., and J.R. Stein. "The Anasazi Great House in Space, Time and Paradigm." In *Anasazi Regional Organization and the Chaco System*, edited by David Elmond Doyel, 101–22. Albuquerque, N.M.: Maxwell Museum of Anthropology, 1992.
- Frank, A. "Spatial Concepts, Geometric Data Models, and Geometric Data Structures." *Computers & Geosciences* 18, no. 4 (1992): 409–17.
- Franke, Detlef. "The Late Middle Kingdom (Thirteenth to Seventeenth Dynasties): The Chronological Framework." *Journal of Egyptian History* 1, no. 2 (2008): 267–87.
- Frankel, David. "Inter-site Relationships in the Middle Bronze Age of Cyprus." *World Archaeology* 6, no. 2 (1974): 190–208.
- . *Middle Cypriot White Painted Pottery. An Analytical Study of the Decoration*. Göteborg: P. Åström (S. vägen 61), 1974.
- . "Pottery Production in Prehistoric Bronze Age Cyprus: Assessing the Problem." *Journal of Mediterranean Archaeology* 1, no. 2 (1988): 27–55.
- Frankenstein, S. "The Phoenicians in the Far West: A Function of Neo-Assyrian Imperialism." In *Power and Propaganda. A Symposium on Ancient Empires*, edited by M. T. Larsen, 263–94. Copenhagen, 1979.
- Freidel, David A, Linda Schele, Joy Parker, and Jay I. Kislak Reference Collection (Library of Congress). *Maya Cosmos: Three Thousand Years on the Shaman's Path*. New York: W. Morrow, 1993.
- Gale, Noel H., and Zofia Anna Stos-Gale. "Cross-Cultural Minoan Networks and the Development of Metallurgy in Bronze Age Crete." In *Metals and Mines: Studies in Archaeometallurgy*, edited by Susan La Niece, Duncan R Hook, P. T Craddock, and British Museum, 103–11. London: Archetype Publications in association with the British Museum, 2007.
- Galling, K. "Berichte: Archäologisch-Historische Ergebnisse Einer Reise in Syrien Und Libanon Im Spatherbst 1952." *Zeitschrift Des Deutschen Palastina-Vereins* 69 (1953): 88–93.
- Gardiner Sir, Alan Henderson. *Egyptian Grammar : Being an Introduction to the Study of Hieroglyphs*. Oxford: London : Oxford University Press, on Behalf of the Griffith Institute Ashmolean Museum, 2001.
- Gell, Alfred. *The Art of Anthropology: Essays and Diagrams*. London; New Brunswick, NJ: The Athlone Press, 1999.
- Genz, Hermann. "Excavation at Tell Fadaous-Kfarabida: Preliminary Report on the 2009 Season of Excavation." *BAAL* 13 (2009): 71–124.
- . "Middle Bronze Age Pottery from Tell Fadous — Kfarabida, Lebanon." *Berytus*. 53 (2010): 187–90.
- . "The Middle Bronze Age Pottery from Baalbek." *BAAL* IV: (2008): 127–49.
- Genz, Hermann, and et. al. "Excavation at Tell Fadaous-Kfarabida: Preliminary Report on the 2009 Season of Excavation." *Bulletin d'Archéologie et d'Architecture Libanaise* 13 (2009): 71–124.
- Genz, Hermann, Sader, Hélène. "Middle Bronze Age Pottery from Tell Hizzin, Lebanon." *Berytus* 53 (2010): 133.
- Genz H, El-Zaatari S, Cakirlar C, Riehl S, and Badreshany K. "A Middle Bronze Age Burial from Tell Fadous-Kfarabida, Lebanon." *Agypten Und Levante* 20 (2010): 183–206.
- Georgiou, Hara. "Relations Between Cyprus and the Near East in the Middle and Late Bronze Age." *Levant* 11, no. 1 (1979): 84–100.

- Gerstenblith, Patty. *The Levant at the Beginning of the Middle Bronze Age*. Winona Lake: Ind. : Eisenbrauns, 1983.
- Gibson, McGuire. "Cultural Tragedy in Iraq: A Report on the Looting of Museums, Archives, and Sites." *International Foundation for Art Research Journal* 6, no. 1–2 (2004): 30–37.
- Giddens, Anthony. *The Constitution of Society: Outline of the Theory of Structuration*. Berkeley: University of California Press, 1984.
- Gilchrist, Roberta. "Archaeological Biographies: Realizing Human Lifecycles, -Courses and -Histories." *RWAR World Archaeology* 31, no. 3 (2000): 325–28.
- Gill, David W. J. "Silver Anchors and Cargoes of Oil: Some Observations on Phoenician Trade in the Western Mediterranean." *Papers of the British School at Rome* 56 (January 1, 1988): 1–12.
- Gleba, Margarita, and Daffydd Griffiths. "Textile Remains from a Middle Bronze Age Burial in Sidon." *Archaeology & History in Lebanon*, no. 34/35 (December 2011): 285–96.
- Goedicke, Hans. "Abi-Sha(i)'s Representation in Beni Hasan." *Journal of the American Research Center in Egypt* 21 (January 1, 1984): 203–10.
- Goetze, Albrecht. "Remarks on the Old Babylonian Itinerary." *Journal of Cuneiform Studies* 18, no. 4 (1964): 114–19.
- . "Tuttul in a 'Cappadocian' Proper Name." *Jcunestud Journal of Cuneiform Studies* 7, no. 3 (1953): 110.
- Gojko Barjamovic. "The Geography of Trade Assyrian Colonies in Anatolia c.1975-1725 BC and The Study of Early Interregional Networks of Exchange." In *Anatolia and the Jazira during the Old Assyrian Period*, edited by Jan Gerrit Dercksen and Nederlands Instituut voor het Nabije Oosten, 87–100. Leiden: Nederlands Instituut voor het Nabije Oosten, 2008.
- Goshen, N. Yasur-Landau, and H.E Cline. "Textile Production in Palatial and Non Palatial Contexts: The Case of Tel Kabri." In *Textile Production and Consumption in the Ancient Near East: Archaeology, Epigraphy, Iconography*, edited by Marie-Louise Nosch, H Koefoed, and Eva B. Andersson Strand, 2013.
- Götze, Albrecht. "An Old Babylonian Itinerary." *Journal of Cuneiform Studies* 7, no. 2 (1953): 51–72.
- Greene, Kevin. *The Archaeology of the Roman Economy*. Berkeley: University of California Press, 1986.
- Green, Stanton W, and Stephen M Perlman. *The Archaeology of Frontiers and Boundaries*. Orlando: Academic Press, 1985.
- Groneberg, Brigitte, Jean Robert Kupper, W. F Leemans, and Marten Stol. *Die Orts- und Gewässernamen der altbabylonischen Zeit*. Wiesbaden: L. Reichert, 1980.
- Guigues, Paul-Emile. "Lébé'a, Kafer-Garra, Qrayé: nécropoles de la région sidonienne." *Bulletin du Musée de Beyruth* 1 (1937): 35–76.
- Guigues, P.E. "Lebe'a, Kafer Garra, Qraye': Necropoles de La Region Sidonienne." *Bulletin Du Musée de Beyruoth* 2 (1938): 27–72.
- . "Lebe'a, Kafer Garra, Qraye': Necropoles de La Region Sidonienne (suite)." *Bulletin Du Musée de Beyruoth* 3 (1939): 53–63.
- Haaland, Randi. "Porridge and Pot, Bread and Oven: Food Ways and Symbolism in Africa and the Near East from the Neolithic to the Present." *Cambridge Archaeological Journal* 17, no. 2 (2007): 165–82.

- Habachi, Labib. "King Nebhepetre Mentuhotep: His Monuments, Place in History, Deification and Unusual Representations in Form of Gods." *ASAE* 19 (1963): 16–52.
- Hachmann, Rolf. *Bericht über die Ergebnisse der Ausgrabungen in Kāmid el -Loz (Libanon) in den Jahren 1966 und 1967*. Bonn: R. Habelt, 1970.
- . "Der Palasteines Syrischen Klein Königs der Späten Bronzezeit in Kāmid el-Lōz." In *Palast und Hütte: Beiträge zum Bauen und Wohnen im Altertum von Archäologen, Vor- und Frühgeschichtlern : Tagungsbeiträge eines Symposiums der Alexander von Humboldt-Stiftung, Bonn-Bad Godesberg, veranstaltet vom 25.-30. November 1979 in Berlin*, edited by Alexander von Humboldt-Stiftung, Symposium, Dietrich Papenfuss, and Volker Michael Strocka, 21–41. Mainz am Rhein: P. von Zabern, 1982.
- Hajar, L, M Haidar-Boustani, C Khater, R Cheddadi, and "Paleoenvironment" in Honour of Aharon Horowitz. "Environmental Changes in Lebanon during the Holocene: Man vs. Climate Impacts." *Journal of Arid Environments* 74, no. 7 (2010): 746–55.
- Hajar, L, C Khater, and R Cheddadi. "Vegetation Changes during the Late Pleistocene and Holocene in Lebanon: A Pollen Record from the Bekaa Valley." *The Holocene The Holocene* 18, no. 7 (2008): 1089–99.
- Hallo, William W. "The Road to Emar." *Journal of Cuneiform Studies* XVIII, no. 3 (1964): 57–88.
- Hall, Robert L. *An Archaeology of the Soul: North American Indian Belief and Ritual*. Urbana: University of Illinois Press, 1997.
- . "Medicine Wheels, Sun Circles, and the Magic of the World Center Shrines." *Plains Anthropologist* 30, no. 109 (1985): 181–93.
- Hamdani, A. "Protecting and Recording Our Archaeological Heritage in South Iraq." *Near Eastern Archaeology* 71 (2008): 221–30.
- Harmanşah, Ömür. *Cities and the Shaping of Memory in the Ancient Near East*, 2013.
- Hastorf, Christine A, and Sissel Johannessen. "Pre-Hispanic Political Change and the Role of Maize in the Central Andes of Peru." *AMAN American Anthropologist* 95, no. 1 (1993): 115–38.
- Hayden, Brian, and Suzanne Villeneuve. "A Century of Feasting Studies." *Annual Review of Anthropology* 40, no. 1 (2011): 433–49.
- Hegmon, Michelle. "Technology, Style, and Social Practices: Archaeological Approaches." In *The Archaeology of Social Boundaries*, edited by Miriam T Stark, 264–80. Washington, [D.C.]: Smithsonian Institution Press, 1998.
- Heimpel, Wolfgang. *Letters to the King of Mari a New Translation, with Historical Introduction, Notes, and Commentary*. Winona Lake, Ind.: Eisenbrauns, 2003.
- Heinz, Marleis, and et. al. "Kamid El-Loz in the Beqa'a' Plain/ Lebanon Continuity and Change in the Settlement of a Region." *Bulletin d'Archéologie et d'Architecture Libanaises*, 2001, 5–95.
- Heinz, Marleis, Elisabeth Wagner, Julia Linke, Alexandra Walther, Antonietta Catanzariti, Jan-Matthias Muller, and Martin Weber. "Kamid El-Loz Report on the Excavations in 2008 and 2009." *Bulletin d'Archéologie et d'Architecture Libanaises* 14 (2010): 103–29.
- Heinz, Marlies. *Libanon Treffpunkt der Kulturen ; eine archäologische Perspektive*. Berlin; Münster: Lit, 2010.
- . *Tell Atchana/Alalakh: die Schriften VII-XVII*. Kevelaer; Neukirchen-Vluyn: Butzon & Bercker ; Neukirchener, 1992.

- Heinz, Marlies, and Marian H Feldman. *Representations of Political Power Case Histories from Times of Change and Dissolving Order in the Ancient Near East*. Winona Lake, Ind.: Eisenbrauns, 2007.
- Heinz, Marlies, Sabina Kulemann-Ossen, Julia Linke, and Elisabeth Wagner. *Kamid El-Loz Intermediary Between Cultures: More Than Ten Years of Archaeological Research in Kamid El-Loz (1997 to 2007)*. Beyrouth: Ministère de la culture, Direction générale des antiquités, 2010.
- Heinz, Marlies, and Julia Linke. "Hyperculture, Tradition and Identity: How to Communicate with Seals in Times of Global Action. A Middle Bronze Age Seal Impression from Kamid El-Loz." In *Materiality and Social Practice. Transformative Capacities of Intercultural Encounters*, edited by J. Maran and Ph. Stockhammer, 185–90. Oxford: Oxbow Verlag, 2012.
- Heinz, Marlies, Elisabeth Wagner-Durand, Julia Linke, and Antonietta Catanzariti. "Kamid El-Loz: Report on the Excavations 2010 and 2011." *Bulletin d'Archéologie et d'Architecture Libanaises* 15 (2015 2011): 29–108.
- Helck, Wolfgang. *Die Beziehungen Ägyptens Zu Vorderasien I, 3. Und 2. Jahrtausend v. Chr.* Ägyptologische Abhandlungen 5. Wiesbaden, 1971.
- . *Wirtschaftsgeschichte des Alten Ägypten im 3. und 2. Jahrtausend vor Chr.* Leiden; Köln: E.J. Brill, 1975.
- Herrmann, Virginia Rimmer, J. David Schloen, and Marian H Feldman, eds. "Religious, Communal, and Political Feasting in the Ancient Middle East." In *In Remembrance of Me: Feasting with the Dead in the Ancient Middle East*, 63–68. Chicago: Oriental Institute, 2014.
- Hester, Thomas R, and Robert F Heizer. *Making Stone Vases: Ethnoarchaeological Studies at an Alabaster Workshop in Upper Egypt*. Malibu: Undena Publications, 1981.
- Hodder, Ian. "Converging Traditions: The Search for Symbolic Meanings in Archaeology and Geography." In *Landscape and Culture: Geographical and Archaeological Perspectives*, edited by J. Malcolm Wagstaff, 134–45. Oxford [Oxfordshire]; New York, NY, USA: B. Blackwell, 1987.
- . "Regression Analysis of Some Trade and Marketing Patterns." *World Archaeology* 6, no. 2 (October 1, 1974): 172–89.
- . "Trade and Exchange: Definitions, Identification and Function." In *Models and Methods in Regional Exchange*, edited by Robert E Fry, 151–56. Washington, D.C.: Society for American Archaeology, 1980.
- Holmes, Y. Lynn. "The Location of Alashiya." *Jameroresoci Journal of the American Oriental Society* 91, no. 3 (1971): 426–29.
- Homberg, C, and Martina Bachmann. *Evolution of the Levant Margin and Western Arabia Platform since the Mesozoic*. London: Geological Society, 2010.
- Horowitz, Wayne, Wasserman, Nathan. "An Old Babylonian Letter from Hazor with Mention of Mari and Ekallatum." *Israel Exploration Journal* 50, no. 3/4 (2000): 169–74.
- Horowitz, Wayne, Takayoshi Oshima, and Seth L Sanders. *Cuneiform in Canaan: Cuneiform Sources from the Land of Israel in Ancient Times*. Jerusalem: Israel Exploration Society : Hebrew University of Jerusalem, 2006.
- Hritz, Carrie. "Contributions of GIS and Satellite-Based Remote Sensing to Landscape Archaeology in the Middle East." *J Archaeol Res Journal of Archaeological Research* 22, no. 3 (2014): 229–76.

- . “Remote Sensing of Cultural Heritage in Iraq: A Case Study of Isin.” *TAARII Newsletter* 3 (2008): 1–8.
- Huntington, Richard, and Peter Metcalf. *Celebrations of Death: The Anthropology of Mortuary Ritual*. Cambridge [England]; New York: Cambridge University Press, 1979.
- Ilan, David. “Middle Bronze Age Painted Pottery from Tel Dan.” *Levant* 28, no. 1 (1996): 157–76.
- Ingold, Tim. “Culture and the Perception of Environment.” In *Bush Base: Forest Farm: Culture, Environment, and Development*, edited by Elisabeth Croll and David J Parkin, 39–56. London; New York: Routledge, 1992.
- . “The Temporality of the Landscape.” *World Archaeology* 25, no. 2 (1993): 152–74.
- James A. de Rothschild Expedition at Hazor, Ben-Tor, Amnon, Ruhama Bonfil, Baruch Arensburg, and Alan Paris, eds. *Hazor V: An Account of the Fifth Season of Excavation, 1968: Text and Illustrations*. [Jerusalem]: Israel Exploration Society: Hebrew University of Jerusalem, 1997.
- James A. de Rothschild Expedition at Hazor, Yigael Yadin, and Shimon Angress. *Hazor II: An Account of the Second Season of Excavations, 1956*. Jerusalem: Magnes Press, Hebrew University, 1960.
- James A. de Rothschild Expedition at Hazor, Yadin, Yigael, ed. *Hazor III-IV: An Account of the Third and Fourth Seasons of Excavations, 1957-1958: Plates*. Jerusalem: At the Magnes Press, Hebrew University, 1961.
- Jidejian, Nina. *Byblos Through the Ages*. Beirut: Dar el-Machreq Publishers; [distribution Librairie Orientale, 1968.
- . *Sidon through the Ages: With a Foreword by Maurice Dunand*. Beirut: Dar El-Machreq Publ., 1971.
- Jirku, Anton. *Neue Forschungen in Syrien und Palästina*, 1934.
- Joukowsky, Martha, and American University of Beirut. Faculty of Arts and Sciences. Department of History and Archaeology. “The Pottery of Tell El Ghassil in the Beqa’a: A Comparative Study and Analysis of the Iron Age and Bronze Age Wares.” 1972.
- Junker, Hermann. *Der Nubische Ursprung Der Sogenannten Tell El-Jahudiye-Vasen*. Sitzungsberichte (Akademie Der Wissenschaften in Wien. Philosophisch-Historische Klasse), 198 Bd 3 Abh. Wien, A. Hölder, 1921.
- Kantor, Helene. “Egypt.” In *Chronologies in Old World Archaeology*, edited by Robert W Ehrich, 2:17–46. Chicago and London: University of Chicago Press, 1992.
- Kaplan, J. “Excavations in the Abattoir Hill, Tel Aviv.” *Alon (Bulletin of the Department of Antiquities of the State of Israel)* V–VI (1957): 39–40.
- Kaplan, J. “The Archaeology and History of Tel Aviv-Jaffa.” *Biblical Archaeologist* 35 (1972): 66–95.
- Kaplan, Maureen F. *The Origin and Distribution of Tell El Yahudiyeh Ware*. Göteborg: P. Åströms, 1980.
- Karl Hecker. “Der Weg nach Kaniš.” *Zeitschrift für Assyriologie und Vorderasiatische Archäologie* 70, no. 2 (1980): 185–97.
- Keel, Othmar. *Corpus Der Stempelsiegel-Amulette Aus Palästina/Israel: Von Den Anfängen Bis Zur Perserzeit. Katalog Band I, Von Tell Abu Farag Bis Atlit*. Orbis Biblicus et Orientalis, Series Archaeologica 13,1. Freiburg, Schweiz: Universitätsverlag; Göttingen: Vandenhoeck & Rupprecht, 1997.

- Kempinski, Aharon, N Angel-Zohar, Na'ama Scheftelowitz, and Ronit Oren. *Tel Kabri: The 1986-1993 Excavation Seasons*. Tel Aviv: Emery and Claire Yass Publications in Archaeology, Institute of Archaeology, Tel Aviv University, 2002.
- Kennedy, D. "Declassified Satellite Photographs and Archaeology in the Middle East: Case Studies from Turkey." *Antiquity* 72 (1998): 553–71.
- Kenyon, Kathleen Mary, Elisabeth Crowfoot, and British School of Archaeology in Jerusalem. *Excavations at Jericho*. London: British School of Archaeology in Jerusalem, 1960.
- Kenyon, Kathleen M, Richard Burleigh, and Thomas A Holland. *Excavations at Jericho: Architecture and Stratigraphy of the Tell*. Vol. VII. London: British School of Archaeology in Jerusalem, 1981.
- Kenyon, Kathleen M, and Thomas A Holland. *The Pottery Phases of the Tell and Other Finds*. London: British School of Archaeology in Jerusalem, 1983.
- Khair, Kamal, Nizar Aker, and Khalil Zahrudine. "Hydrogeologic Units Of Lebanon." *Applied Hydrogeology* 1, no. 2 (January 1, 1992): 34–49.
- Killebrew, A. "Pottery Kilns from Deir El-Balah and Tel Mique-Ekron." In *Retrieving the Past: Essays on Archaeological Research and Methodology in Honor of Gus W. Van Beek*, edited by Joe D Seger and Gus W Van Beek, 135–62. Winona Lake, Ind.: Eisenbrauns, 1996.
- Killebrew, Ann. "Approaches to Reconstructing the Ancient Potters' Craft during the Late Bronze and Iron Ages in Eretz Israel: A Description of the Ancient Pottery Manufacturing Process and Its Implications for Archaeological Research in Israel," 1989.
- Killebrew, Ann E. "Pottery Kilns from Deir El-Balah and Tel Mique-Ekron." In *Retrieving the Past: Essays on Archaeological Research and Methodology in Honor of Gus W. Van Beek*, edited by Joe D Seger and Gus W Van Beek, 135–62. Winona Lake, Ind.: Eisenbrauns, 1996.
- Kirkbride, D. "Scarabs." In *Excavations at Jericho: The Tombs Excavated in 1955-1958*, edited by Kathleen Mary Kenyon, 2:580–655, 1965.
- Kislev, M. E, M Artzy, and E Marcus. "Import of an Aegean Food Plant to a Middle Bronze IIA Coastal Site in Israel." *Levant* 25, no. 1 (1993): 145–54.
- Kitchen, K. A. "Byblos, Egypt, and Mari in the Early Second Millennium B.C." *Orientalia* 36, no. 1 (1967): 39–54.
- Klengel, Horst. *Geschichte Syriens im 2. Jahrtausend v. u. Z.* Berlin: Akademie-Verlag, 1965.
- . *Geschichte Syriens im 2. Jahrtausend v. u. Z.* Berlin, Akademie-Verlag, 1969.
- . "Qatna – Ein Historischer Überblick." *MDOG* 132 (2000): 239–52.
- Kletter, R., and A. Gorzalczany. "A Middle Bronze Age II Type of Pottery Kiln from the Coastal Plain of Israel." *Levant* 33, no. 1 (2001): 95–104.
- Knapp, A. Bernard. "Alashiya, Caphtor/Keftiu, and Eastern Mediterranean Trade: Recent Studies in Cypriote Archaeology and History." *Journal of Field Archaeology* 12, no. 2 (1985): 231–50.
- . "Ethnicity, Entrepreneurship, and Exchange: Mediterranean Inter-Island Relations in the Late Bronze Age." *The Annual of the British School at Athens* 85 (1990): 115–53.
- . "Hoards D'oeuvres: Of Metals & Men on Bronze Age Cyprus." *Oxford Journal of Archaeology* 7, no. 2 (1988): 147–76.
- . "Production, Exchange, and Socio-Political Complexity on Bronze Age Cyprus." *Oxford Journal of Archaeology* 5, no. 1 (1986): 35–60.
- . "Thalassocracies in Bronze Age Eastern Mediterranean Trade: Making and Breaking a Myth." *World Archaeology* 24, no. 3 (1993): 332–47.

- Knapp, A. Bernard, and John F Cherry. "Archaeological Science, Statistics, and Cultural Solutions: Trade Patterns in the Bronze Age Eastern Mediterranean." *Archaeometry*, 1991, 183–98.
- Knapp, Bernard A. "The Onomastica of Alashiya." *New Journal of Cyprian Studies* 1 (1982): 1–20.
- Koehl, Robert B. "Minoan Kamares Wares in the Levant." In *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.*, edited by Joan Aruz and Kim Benzel, 59–60. New Haven, Conn.; London: Yale University Press, 2009.
- Kopetzky, Karin. "Egyptian Pottery from the Middle Bronze Age in Lebanon." *Berytus*. 53 (2010): 167.
- . "Pottery from Tell Arqa Found in Egypt and Its Chronological Context." *Archaeology & History in Lebanon* 26–27 (2007): 17–58.
- Kopytoff, Igor. "The Cultural Biography of Things: Commoditization as Process." In *The Social Life of Things: Commodities in Cultural Perspective*, edited by Arjun Appadurai, Ethnohistory Workshop, Ethnohistory Workshop, and Symposium on the Relationship between Commodities and Culture, 64–91. Cambridge [Cambridgeshire]; New York: Cambridge University Press, 1986.
- Krader, Lawrence. "The Asiatic Mode of Production." *Intejpoli International Journal of Politics* 10, no. 2/3 (1980): 99–128.
- Kühne, Hartmut, and Beate Salje. *Die Glyptik*. Kāmid el-Lōz 15. Bonn: Habelt, 1996.
- Kuhrt, Amelie. "The Old Assyrian Merchants." In *Trade, Traders and the Ancient City*, edited by Helen Parkins and Christopher John Smith, 16–30. London: Routledge, 2012.
- Kupper, Jean Robert. "Le Bois a Mari." *Bulletin on Sumerian Agriculture* 6 (1992): 163–70.
- Kuschke, Arnulf. "Beiträge Zur Siedlungsgeschichte Der Biḳā'." *Zeitschrift Des Deutschen Palästina-Vereins* 70, no. 2 (1954): 104–29.
- . "Beiträge Zur Siedlungsgeschichte Der Biḳā'." *Zeitschrift Des Deutschen Palästina-Vereins* 71 (1955): 97–110.
- . "Beiträge Zur Siedlungsgeschichte Der Biḳā' (Fortsetzung Und Schluß)." *Zeitschrift Des Deutschen Palästina-Vereins* 74, no. 2 (January 1, 1958): 81–120.
- Kuschke, Arnulf, Siegfried Mittmann, Uwe Müller, and Ingrid Azoury. *Archäologischer Survey in Der Nördlichen Biqāc, Herbst 1972*. Wiesbaden: L. Reichert, 1976.
- Lambrou-Phillipson, Connie. "Seafaring in the Bronze Age Mediterranean: The Parameters Involved in Maritime Travel." *Aegaeum* 7 (1991): 11–20.
- Laneri, Nicola, ed. *Performing Death: Social Analyses of Funerary Traditions in the Ancient Near East and Mediterranean*. Chicago: The Oriental Institute of the University of Chicago, 2007.
- Laneri, Nicola, Peter Pfälzner, and Stefano Valentini, eds. *Looking North: The Socioeconomic Dynamics of Northern Mesopotamian and Anatolian Regions during the Late Third and Early Second Millennium BC*. Wiesbaden: Harrassowitz Verlag, 2012.
- Larsen, Mogens Trolle. *Old Assyrian Caravan Procedures*. Istanbul: Nederlands Historisch-Archaeologisch Instituut in het Nabije Oosten, 1967.
- Larsen, M. T. "Caravans and Trade in Ancient Mesopotamia and Asia Minor." *Bulletin of the Canadian Society of Mesopotamian Studies* 4 (1982): 33–45.
- Lassen, Agnete Kjeldal Wisti. "Textile and Traders. A Study of the Technology, Organization and Socioeconomic of Textile Production in Anatolia in the Middle Bronze Age C. 2000–1700 BCE." University of Copenhagen, 2008.

- Lassen, W.A. "Technology and Palace Economy in Middle Bronze Age Anatolia: The Case of the Crescent Shaped Loom Weight." In *Textile Production and Consumption in the Ancient Near East: Archaeology, Epigraphy, Iconography*, edited by Marie-Louise Nosch, H Koefoed, and Eva B. Andersson Strand, 78–92. Oxford UK: Oxbow, 2013.
- Lauinger, Jacob. "Archival Practices at Old Babylonian/Middle Bronze Age Alalakh (level VII)," 2007.
- Lazzari, Marisa. "Landscape of Circulation in Northwest Argentina: The Working of Obsidian and Ceramics during the First Millennium AD." In *Social Archaeologies of Trade and Exchange Exploring Relationships among People, Places, and Things*, edited by Alexander A Bauer and Anna Agbe-Davies, 49–68. Walnut Creek, Calif.: Left Coast Press, 2010. <http://public.eblib.com/EBLPublic/PublicView.do?ptiID=677754>.
- Lechtman, Heather, and Robert S Merrill. *Material Culture Styles, Organization, and Dynamics of Technology*. Proceedings of the American Ethnological Society. St. Paul: West Pub. Co., 1977.
- Leemans, W. F. *Foreign Trade in the Old Babylonian Period, as Revealed by Texts from Southern Mesopotamia*. Leiden: E.J. Brill, 1960.
- . "Old Babylonian Letters and Economic History A Review Article with a Digression on Foreign Trade." *Journal of the Economic and Social History of the Orient* 11, no. 2 (1968).
- Lehmann, Gunnar. *Bibliographie der archäologischen Fundstellen und Surveys in Syrien und Libanon*. Rahden/Westf.: Leidorf, 2002.
- Lerberghe, Karel van, and T Boiy. *Ancient Near East, a life!: festschrift Karel Van Lerberghe*. Leuven: Uitgeverij Peeters en Departement Oosterse Studies, 2012.
- Leroi-Gourhan, André. *Évolution et Techniques*. Paris: A. Michel, 1943.
- . *Gesture and Speech*. Cambridge, Mass.: MIT Press, 1993.
- . *Le Geste et la Parole*. Paris: A. Michel, 1964.
- . *L'Homme et la Matière*. Paris: A. Michel, 1943.
- . *Treasures of Prehistoric Art*. New York: H. N. Abrams, 1967.
- Lev-Yadun, Simcha, Artzy, Michal. "Wood Remains from Tel Nami, a Middle Bronze IIA and Late Bronze IIB Port, Local Exploitation of Trees and Levantine Cedar Trade." *Economic Botany* 50, no. 3 (1996): 310–17.
- Linares, Olga F. *Ecology and the Arts in Ancient Panama: On the Development of Social Rank and Symbolism in the Central Provinces*. Studies in Pre-Columbian Art and Archaeology 17. Washington: Dumbarton Oaks, Trustees for Harvard University, 1977.
- Liverani, Mario. "Elementi Irrazionali nel Commercio Amarniano." *Oriens Antiquus* 11 (1972): 297–317.
- . *International Relations in the Ancient Near East, 1600-1100 B.C.* Houndmills, Basingstoke, Hampshire; New York: Palgrave, 2001.
- . *Prestige and Interest: International Relations in the Near East Ca. 1600-1100 B.C.* Padova: Sargon, 1990.
- Low, Setha M. "Embodied Space(s): Anthropological Theories of Body, Space, and Culture." *Space and Culture* 6, no. 1 (2003): 9–18.
- Macalister, R.A.S. *Excavations of Gezer 1902-1905 and 1907-1909*. Vol. I–III. London, 1912.
- Mac Gillivray, J.A. "A Middle Minoan Cup from Sidon." *Archaeology and History in Lebanon* 18 (2003): 20–24.

- MacGillivray, J. A. "A Minoan Jar Fragment from Sidon." *Archaeology & History in the Lebanon* 34–35 (2012 2011): 1–2.
- . *Knossos: Pottery Groups of the Old Palace Period*. London: British School at Athens, 1998.
- Mac Gillivray, J.A. "Lebanon and Protopalatial Crete: Pottery, Chronology and People." *BAAL-Hors-Series VI* (2009): 187–93.
- MacGillivray, J. A. "The Minoan Sidon Cup." In *The Bronze Age in the Lebanon: Studies on the Archaeology and Chronology of Lebanon, Syria, and Egypt*, edited by Manfred Bietak and Ernst Czerny, 44–49. Wien: Österreichische Akademie der Wissenschaften, Denkschriften der Gesamtakademie, 2008.
- Maddin, Robert, Tamara Stech Wheeler, and D. James Muhly. *Tin in the Ancient Near East: Old Questions and New Finds*. Vol. Expedition. [s.l.]: [s.n.], 1977.
- Maier, Aren M. "The Political and Economic Status of MB II Hazor and MB II Trade: An Inter- and Intra-Regional View." *Palestine Exploration Quarterly Palestine Exploration Quarterly* 132, no. 1 (2000): 37–58.
- Maier, M.A. "The Middle Bronze Age II Pottery." In *Excavations at Tel Beth-Shean: 1989-1996/2 The Middle and Late Bronze Age Strata in Area R.*, edited by 'Ammîhay Māzār, 242–389. Jerusalem: Israel Exploration Soc., 2007.
- Magness-Gardiner, B, and Steven Falconer. "Community, Polity, and Temple in a Middle Bronze Age Levantine Village." *Journal of Mediterranean Archaeology* 7, no. 2 (1994): 127–64.
- Maguire, Louise C. "The Classification of Middle Bronze Age Painted Pottery: Ware, Styles." In *Cypriot Ceramics: Reading the Prehistoric Record*, edited by Jane Atwood Barlow, Diane Bolger, Barbara Kling, University of Pennsylvania, and University Museum of Archaeology and Anthropology, 59–65. Philadelphia, PA: University Museum of Archaeology and Anthropology, University of Pennsylvania, 1991.
- Maier, M. A. "The Middle Bronze Age II Pottery." In *Excavations at Tel Beth-Shean, 1989-1996. Volume II, Volume II*, edited by Amihay Mazar and Robert A Mullins, 242–389. Jerusalem: Israel Exploration Society : Institute of Archaeology, the Hebrew University of Jerusalem, 2007.
- . "The Political and Economic Status of MBII Hazor and MBII Trade: An Inter- and Intra-Regional View." *Palestine Exploration Quarterly* 132 (2000): 37–58.
- . "Tomb 1181: A Multiple-Interment Burial Cave of the Transitional Middle Bronze Age IIA-B." In *Hazor V: An Account of the Fifth Season of Excavation, 1968 : Text and Illustrations*, edited by Amnon Ben-Tor, Baruch Arensburg, and Alan Paris, 295–340. [Jerusalem]: Israel Exploration Society : Hebrew University of Jerusalem, 1997.
- Malamat, A. "Mari and Its Relations with the Eastern Mediterranean." In *Boundaries of the Ancient Near Eastern World: A Tribute to Cyrus Gordon*, edited by Meir Lubetski, Claire Gottlieb, and Sharon Keller, 411–18. Sheffield, England, 1998.
- . "Syro-Palestinian Destinations in a Mari Tin Inventory." *Israel Exploration Journal* 21, no. 1 (January 1, 1971): 31–38.
- Mallowan, M. E. L. "Phoenician Carrying Trade, Syria." *Antiquity* 13, no. 49 (March 1939): 86–87.
- Maqdissi, Michel al-, Valérie Matoïan, and Christophe Nicolle. *Céramique de l'âge du bronze en Syrie. I, I.* Beyrouth: Institut français d'archéologie du Proche-Orient, 2002.

- Marcus, E. S. "A Petrographic Analysis of Storage Jars From Tel Nami, Israel: Ceramic Production and Trade Networks of the Middle Bronze IIA Period (CA. 2000-1750, BC)." *Materials Research Society Symposia Proceedings*. 352 (1995): 597.
- Marcus, Ezra. "The Southern Levant and Maritime Trade during the Middle Bronze IIA Period." *Aharon Kempinski Memorial Volume: Studies in Archaeology and Related Disciplines, Beer Sheva, Studies by the Department of Bible and Ancient Near East, Vol 15* (2002): 241–63.
- Marcus, Ezra S. "Early Seafaring and Maritime Activity in the Southern Levant from Prehistory through the Third Millennium B.C.E." In *Egypt and the Levant: Interrelations from the 4th through the Early 3rd Millennium B.C.E.*, edited by Edwin C. M. van den Brink and Thomas Evan Levy, 403–17. London; New York: Leicester University Press, 2002.
- . "Tel Nami: A Study of a Middle Bronze IIA Period Coastal Settlement." s.n.], 1991.
- Marcus, Ezra S., Yosef Porath, Robert Schiestl, Anne Seiler, and Samuel M. Paley. "The Middle Kingdom Egyptian Pottery from Middle Bronze Age IIA Tel Ifshar." *Ägypten Und Levante* 18 (2008): 203–19.
- Marcus, Ezra S., Recanati Institute for Maritime Studies, and University of Haifa. "Amenemhet II and the Sea: Maritime Aspects of the Mit Rahina (Memphis) Inscription." *Ägypten und Levante* 17 (2007): 137–90. doi:10.1553/AEundL17s137.
- Marfoe, Leon. "Between Qadesh and Kumidi a History of Frontier Settlement and Land Use in the Biqa', Lebanon," 1978.
- . "Cedar Forest to Silver Mountain: Social Change and the Development of Long-Distance Trade in Early Near Eastern Societies." In *Centre and Periphery in the Ancient World*, edited by Michael Rowlands, Mogens T. Larsen, and Kristian Kristiansen, 25–35. Cambridge: Cambridge University Press, 1987.
- . *Kāmid El-Lōz 13. The Prehistoric and Early Historic Context of the Site : Catalog and Commentary*. Bonn: Habelt, 1995.
- Marfoe, Leon, and Rolf Hachmann. *Kamid El-Loz 14. Settlement History of the Biqa' up to the Iron Age*. Saarbrücker Beiträge Zur Altertumskunde 53. Bonn: Habelt, 1998.
- Marriner, N, C Morhange, D Borschneck, C Flaux, and Geoarchaeology of Egypt and the Mediterranean: reconstructing Holocene landscapes and human occupation history. "Holocene Sedimentary Sources in Southern Lebanon, Eastern Mediterranean." *Quaternary International* 266 (2012): 105–16.
- Marriner, N, C Morhange, and C Doumet-Serhal. "Geoarchaeology of Sidon's Ancient Harbours, Phoenicia." *Journal of Archaeological Science* 33, no. 11 (2006): 1514–35.
- Martian, L., C. Mazzoli, V. Michielin, D. M Bonacossi, M. Luciani, and G. Molin. "The Provenance and Production Technology of Bronze Age and Iron Age Pottery from Tell Mishrife/ Qatna (Syria)." *Archaeometry* 47, no. 4 (2005): 723–44.
- Martin, Mario AS, and Rachel Ben-Dov. "Egyptian and Egyptian-Style Pottery at Tel Dan." *Egypt and the Levant*, 2007, 191–203.
- Marx, Karl. *Grundrisse. Foundations of the Critique of Political Economy*. New York: Vintage Books, 1973.
- Mauss, Marcel, and E. E Evans-Pritchard. *The Gift: Forms and Functions of Exchange in Archaic Societies*. New York: Norton, 1967.
- Mayhew, Anne, Neale, Walter C, and David W Tandy. "Markets in the Ancient Near East: A Challenge to Silver's Argument and Use of Evidence." *J. Eco. History The Journal of Economic History* 45, no. 01 (1985).

- Mazzoni, S. "Handled Pans from Ebla and the Evidence of Anatolian Connections." In *Variatio delectat: Iran und der Westen : Gedenkschrift für Peter Calmeyer*, edited by Peter Calmeyer and Reinhard Dittmann, 403–27. Münster: Ugarit-Verlag, 2000.
- McGovern, Patrick E, Stuart J Fleming, and Solomon H Katz, eds. *The Origins and Ancient History of Wine*. Amsterdam, The Netherlands: Gordon and Breach Publishers, 1996.
- McGovern, Patrick E. *The Foreign Relations of the "Hyksos": A Neutron Activation Study of Middle Bronze Age Pottery from the Eastern Mediterranean*. Oxford, England: Archaeopress, 2000.
- McGovern, Patrick E., and Garman Harbottl. "Hyksos" Trade Connection between Tell El-Dab'a (Avaris) and the Levant: A Neutron Activation Study of the Canaanite Jar." In *The Hyksos: New Historical and Archaeological Perspectives*, edited by Eliezer D Oren, 141–57. Philadelphia: University Museum, University of Pennsylvania, 1997.
- Meek, Theophile James. *Ancient Oriental Seals in the Royal Ontario Museum*. Beirut: American Press, 1943.
- Menze, B.H, and J.A Ur. "Detection of Ancient Settlement Mounds: Archaeological Survey Based on the SRTM Terrain Model." *Photogrammetric Engineering & Remote Sensing* 72 (2006): 1–15.
- Menze BH, and Ur JA. "Mapping Patterns of Long-Term Settlement in Northern Mesopotamia at a Large Scale." *Proceedings of the National Academy of Sciences of the United States of America* 109, no. 14 (2012): 778–87.
- Merrillees, Robert S. "The First Appearance of Kamares Wares in the Levant." *Egypt and the Levant* 13 (2003): 127–42.
- Merrillees, R. S. *Trade and Transcendence in the Bronze Age Levant: Three Studies*. Göteborg: P. Åström [S. vägen 61], 1974.
- Merrillees, R. S., and J. N. Tubb. "A Syro-Cilician Jug from Middle Bronze Age Cyprus." *Report of the Department of Antiquities, Cyprus 1979*, 1979, 223–29.
- Mesozoic Fishes (Conference), Arratia Fuentes, Gloria, and Andrea Tintori, eds. *Mesozoic Fishes. Proceedings of the International Meeting, Serpiano, 2001* 3, 3,. München: F. Pfeil, 2004.
- Metzger, Martin. *Kāmid el-Lōz 17. Die Mittelbronzezeitlichen Tempelanlagen T4 und T5*. Bonn: Habelt, 2012.
- . *Zehn Jahre Ausgrabungen Auf Dem Tell Kamid El-Loz, Libanon (1964-1974)*. Sonderdrucke 1, 1977.
- Meyer, Eduard. *Geschichte des Altertums*,. Stuttgart; und Berlin: J.G. Cotta, 1907.
- Michel, Cécile, and Marie-Louise Nosch. *Textile Terminologies: In the Ancient Near East and Mediterranean from the Third to the First Millennia BC*. Oxford: Oxbow, 2010.
- Michellini-Tocci, F. *La Siria nell'età di Mari*. Roma: Centro di studi semitici, Università, 1960.
- Mikesell, Marvin W. "The Deforestation of Mount Lebanon." *Geogrevi Geographical Review* 59, no. 1 (1969): 1–28.
- Milevski, I. "Local Exchange in the Southern Levant during the Early Bronze Age: A Political Economy Viewpoint." *Antiguo Oriente* 7 (2009): 125–60.
- Milevski, Ianir. *Early Bronze Age Goods Exchange in the Southern Levant: A Marxist Perspective*. London; Oakville, CT: Equinox Pub., 2011.
- Militello, P. "Textile Industry and Minoan Palaces." In *Ancient Textiles: Production, Craft and Society*, edited by C. Gillis and M.-L. B. Nosch, Proceedings of the First International Conference on Ancient Textiles:36–45. Oxford, n.d.

- Millard, A. R. "Cypriot Copper in Babylonia, c.1745 B.C." *Jcunestud Journal of Cuneiform Studies* 25, no. 4 (1973): 211–14.
- Miller, Daniel. *Acknowledging Consumption a Review of New Studies*. London; New York: Routledge, 1995.
- . *Consumption and Its Consequences*. Cambridge: Polity, 2012.
- Mills, Barbara J, and Patricia L Crown. *Ceramic Production in the American Southwest*. Tucson: University of Arizona Press, 1995.
- Miron, R. "'mittelbronzezeitlichen' Gräber am Nordhang des Tells." In *Bericht über die Ergebnisse der Ausgrabungen in Kāmid el-Lōz in den Jahren 1971 bis 1974*, edited by Rolf Hachmann and Rudolf Echt, 101–21. Bonn: R. Habelt, 1982.
- Mitchell, W. J. T. *Landscape and Power*. Chicago: University of Chicago Press, 1994.
- Monroe, Christopher Mountfort. *Scales of Fate: Trade, Tradition, and Transformation in the Eastern Mediterranean, Ca. 1350-1175 BCE*. Münster: Ugarit-Verlag, 2009.
- Montet, Pierre. *Byblos et l'Égypte. Quatre Campagnes de Fouilles À Gebeil, 1921-1922-1923-1924. (Texte-Atlas)*. Bibliothèque Archéologique et Historique 11. Paris: P. Geuthner, 1928.
- Moorey, P. R. S. *Ancient Mesopotamian Materials and Industries: The Archaeological Evidence*. Oxford; New York: Clarendon Press, 1994.
- Moorey, P.R.S. "The Emergence of the Light, Horse-Drawn Chariot in the Near-East c.2000-1500 B.C." *Weaponry and Warfare World Archaeology* 18, no. 2 (1986): 196–215.
- Morris, Edward Craig. "Maize Beer in the Economics, Politics, and Religion of the Inka Empire." In *Fermented Food Beverages in Nutrition*, edited by Clifford Felix Gastineau, William J Darby, Thomas Bourne Turner, and International Symposium on Fermented Food Beverages in Nutrition, 21–34. New York: Academic Press, 1979.
- Moscatti, Sabatino, and Frederick Mario Fales. *L'Alba della Civiltà 2*. Torino: Unione tip. ed. torinese.
- MOS Symposium, Jan Gerrit Dercksen, and Middle Eastern Studies Programme, eds. *Trade and Finance in Ancient Mesopotamia: Proceedings of the First MOS Symposium (Leiden 1997)*. [Istanbul]; Leiden, Nederland: Nederlands Historisch-Archaeologisch Instituut te Istanbul ; Nederlands Instituut voor het Nabije Oosten, 1999.
- Muhly, James D. "Sources of tin and the beginnings of bronze metallurgy." *American Journal of Archaeology* 89 (1985): 275–91.
- Muhly, James David. *Copper and Tin; the Distribution of Mineral Resources and the Nature of the Metals Trade in the Bronze Age*. New Haven: Connecticut Academy of Arts and Sciences; to be obtained from Archon Books, Hamden, 1973.
- Muhly, J. D. "Tin Trade Routes of the Bronze Age: New Evidence and New Techniques Aid in the Study of Metal Sources of the Ancient World." *American Scientist* 61, no. 4 (1973): 404–13.
- Mullin, David. *Places in between: The Archaeology of Social, Cultural and Geographical Borders and Borderlands*. Oxford, UK; Oakville, CT: Oxbow Books, 2011.
- Mullins, Paul R. "The Archaeology of Consumption." *Annual Review of Anthropology* 40 (2011): 133–44.
- Nabil, Ali. "Pottery Production and Distribution: An Ethnographic Observation at Aita El-Foukhar, Anti-Lebanon." *BAAL* 6 (2002): 300–307.
- Nam, Roger S. *Portrayals of Economic Exchange in the Book of Kings*. Vol. 112. Biblical Interpretation Series. Leiden ; Boston : Brill, 2012.

- Newberry, Percy E, F. Ll Griffith, and G. Willoughby Fraser. *Beni Hassan*. London: Sold by K. Paul, Trench, Trübner, 1893.
- Niehr, Herbert. "The Royal Funeral in Ancient Syria. A Comparative View on the Tombs in the Palaces of Qatna, Kumidi and Ugarit." *Semlang Journal of Northwest Semitic Languages* 32, no. 2 (2006): 1–24.
- Niemeier, Barbara, and Wolf-Dietrich Niemeier. "Aegean Frescos in Syria-Palestine: Alalakh and Tel Kabri." In *The Wall Paintings of Thera: Proceedings of the First International Symposium : Petros M. Nomikos Conference Centre, Thera, Hellas, 30 August-4 September 1997*, edited by Susan Sherratt, 763–802. Piraeus, Greece: Petros M. Nomikos and the Thera Foundation, 2000.
- . "The Frescoes in the Middle Bronze Age Palace." In *Tel Kabri: The 1986-1993 Excavation Seasons*, edited by N Angel-Zohar, Aharon Kempinski, Ronit Oren, and Na'ama Scheftelowitz, 254–85. Tel Aviv: Emery and Claire Yass Publ. in Archaeology, 2002.
- Niemeier, Wolf-Dietrich, and Barbara Niemeier. "Minoan Frescoes in the Eastern Mediterranean." *Aegaeum* 18 (1998): 69–97.
- Nigro, Lorenzo. "Coordinating the MB I Pottery Horizon of Syrian and Palestine." In *Proceedings of the First Internatinal Congress on the Archaeology of the Ancient Near East. Rome, May 18th-23rd 1998*, edited by Paolo Matthiae, Alessandra Enea, Luca Peyronel, and Frances Pinnock, 1187–1212. Roma, 2000.
- . "The Eighteenth Century BC Princes of Byblos and Ebla and the Chronology of the Middle Bronze Age." *BAAL* VI (2009): 159–75.
- . "The MB Pottery Horizon of Tell Mardikh/Ancient Ebla in a Chronological Perspective." In *The Middle Bronze Age in the Levant: Proceedings of an International Conference on MB IIA Ceramic Material, Vienna, 24th-26th of January 2001*, edited by Manfred Bietak, Österreichische Akademie der Wissenschaften, and International Conference on MB IIA Ceramic Material. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2002.
- Oka, Rahul, Kusimba, Chapurukha. "The Archaeology of Trading Systems, Part 1: Towards a New Trade Synthesis." *Journal of Archaeological Research* 16, no. 4 (2008): 339–95.
- Oosten, Jarich. "Landscape and Cosmology." *Archaeological Dialogues* 4, no. 02 (1997).
- Oppenheim, A. Leo. *The Interpretation of Dreams in the Ancient Near East: With a Translation of an Assyrian Dream-Book*. Philadelphia: American Philosophical Society, 1956.
- Oppenheim, Leo. "A Bird's-Eye View of Mesopotamia Economic History." In *Trade and Market in the Early Empires: Economies in History and Theory*, edited by Karl Polany, Conrad Maynadier Arensberg, and Harry W Pearson, 27–37. Chicago: Free Press, 1957.
- Orton, Clive, Paul Tyers, and A. G Vince. *Pottery in Archaeology*. Cambridge; New York, NY, USA: Cambridge University Press, 1993.
- Otto, Adelheid. *Die Entstehung und Entwicklung der klassisch-syrischen Glyptik*. Berlin: De Gruyter, 2000.
- Paley, S.M., and Porath, Y. "Early Middle Bronze Age IIA Remains at Tel El-Ifshar, Israel: A Preliminary Report." In *The Hyksos: New Historical and Archaeological Perspectives*, edited by Eliezer D Oren and International Seminar on Cultural Interconnections in the Ancient Near East, 369–78. Philadelphia: University Museum, University of Pennsylvania, 1997.

- Parker, AJ. "Shipwrecks and Ancient Trade in the Mediterranean." *Archaeological Review from Cambridge* 3 (1984): 99–113.
- Parrot, André. "Les peintures du Palais de Mari." *Syria : revue d'art oriental et d'archéologie* 4 (1937): 325–54.
- Pedersen, Ralph K. "Emerging Maritime for the Bronze Age in Lebanon." *Zeitschrift Fur Unterwasserarchaeologie* 12, no. 1 (2012): 5–10.
- Petrie, W. M. Flinders. *Ancient Gaza I: Tell El Ajjul*. London: British School of Archaeology in Egypt, 1931.
- . *Methods and Aims in Archaeology*. London Macmillan [u.a.], 1904.
- Peyronel, Luca, and Missione archeologica italiana in Siria. *Gli strumenti di tessitura dall'età del bronzo all'epoca persiana*. Roma: Università degli studi di Roma "La Sapienza," 2004.
- Pfälzner, Peter. "Between the Aegean and Syria: The Wall Paintings from the Royal Palace of Qatna." In *Fundstellen: gesammelte Schriften zur Archäologie und Geschichte Altvorderasiens ad honorem Hartmut Kühne*, edited by Hartmut Kühne, Dominik Bonatz, Rainer Maria Czichon, and Florian Janoscha Kreppner, 95–118. Wiesbaden: Harrassowitz, 2008.
- . "Syria's Royal Tombs Uncovered." *Current World Archaeology*, no. 15 (2006): 12–22.
- Philip, G., A. Beck, and N. Galiatsatos. "CORONA Satellite Photography: An Archaeological application from the Middle East." *Antiquity* 76 (2002): 109–18.
- Pitard, Wayne T. "The 'Libation Installations' of the Tombs at Ugarit." *Biblarch The Biblical Archaeologist* 57, no. 1 (1994): 20–37.
- Podany, Amanda H. *Brotherhood of Kings: How International Relations Shaped the Ancient Near East*. Oxford; New York: Oxford University Press, 2010.
- Polanyi, Karl. "L'economia come processo istituzionale." *Economia, politica e società / a cura di Nicolò Addario e Alessandro Cavalli*, 1990.
- . "Ports of Trade in Early Societies." *The Journal of Economic History* 23, no. 1 (1963): 30–45.
- . *Primitive, Archaic, and Modern Economies; Essays of Karl Polanyi*. Garden City, N.Y.: Anchor Books, 1968.
- . *The Great Transformation*. Boston: Beacon Press, 1957.
- . *Trade and Market in the Early Empires; Economies in History and Theory*. Glencoe, Ill.: Free Press, 1957.
- . "Traders and Trade." In *Ancient Civilization and Trade*, edited by Jeremy A Sabloff, C. C Lamberg-Karlovsky, and School of American Research (Santa Fe, 133–54. Albuquerque: University of New Mexico Press, 1975.
- Polanyi, Karl, and Harry W Pearson. *The Livelihood of Man*. New York: Academic Press, 1977.
- Pollock, Susan. "Feasts, Funerals, and Fast Food in Early Mesopotamian States." In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, edited by Tamara L Bray, 17–38. New York: Kluwer Academic/Plenum, 2003.
- Pons Mellado, Esther. "Trade of Metals between Egypt and Other Countries from the Old until the New Kingdom." *Chronique d'Egypte* 81, no. 161–162 (2010): 7–16.
- Porada, E. "Remarks on the Tod Trasure in Egypt." In *Societies and Languages of the Ancient Near East: Studies in Honom of I.M. Diakonoff*, edited by M.A. Dandamayev, Mogens T. Larsen, and J. Nicholas Postgate, 285–303. Warminster: GB : Aris and Phillips, 1982.
- Porat, N. "Petrography of Pottery from Southern Israel and Sinai." In *L'urbanisation de La Palestine A L'âge Du Bronze Ancien: Bilan et Perspectives Des Recherches Actuelles* :

- Actes Du Colloque d'Emmaüs (20-24 Octobre 1986)*, edited by Pierre R. de Miroschedji, 169–88. Oxford: BAR International Series, 1989.
- Porat, Naomi. “Composition of Pottery: Application to the Study of the Interrelations between Canaan and Egypt during the 3rd Millennium B.C.” Hebrew University of Jerusalem, 1989.
- Potts, Daniel T. *A Companion to the Archaeology of the Ancient Near East*. Malden, Mass.: Wiley-Blackwell, 2012.
- Powers, W.K., and M.N. Powers. “Metaphysical Aspects of an Oglala Food System.” In *Food in the Social Order: Studies of Food and Festivities in Three American Communities*, edited by Mary Douglas. New York: Russell Sage Foundation, 1984.
- Pryor, Frederic L. *The Origins of the Economy: A Comparative Study of Distribution in Primitive and Peasant Economies*. New York: Academic Press, 1977.
- Raban, Avner. “Minoan and Canaanite Harbours.” *Aegaeum* 7 (1991): 129–46.
- Raith, Michael M, and Peter, Reinhardt, Jürgen Raase. *Guide to Thin Section Microscopy*, 2011.
- Ratnagar, Shereen, and Shereen Ratnagar. *Trading Encounters: From the Euphrates to the Indus in the Bronze Age*. New Delhi: Oxford University Press, 2004.
- Ratzel, F. “Die Deutsche Landschaft.” *Halbmonatshefte der Deutschen Rundschau* 4 (96 1895): 407–28.
- Regev, Johanna, Pierre de Miroschedji, Raphael Greenberg, Eliot Braun, Zvi Greenhut, and Elisabetta Boaretto. “Chronology of the Early Bronze Age in the Southern Levant: New Analysis for a High Chronology.” *Radiocarbon* 54, no. 3–4 (2012): 525–66.
- Reisner, George A. *Excavations at Kerma*. Vol. 5. 6. Studies, Harvard African; Harvard African Studies. Cambridge : Peabody Museum of Harvard University, 1923.
- Rencontre assyriologique internationale, Hawkins, John David, ed. *Trade in the Ancient Near East: Papers*. London: British School of Archaeology in Iraq, 1977.
- Renfrew, Colin A. “Trade as Action at a Distance: Questions of Integration and Communication.” In *Ancient Civilization and Trade*, edited by Jeremy A Sabloff and C.C Lamberg-Karlovsky, 3–60. Albuquerque, N.M.: University of New Mexico Press, 1975.
- Renger, Johannes M. “Institutional, Communal, and Individual Ownership or Possession of Arable in Ancient Mesopotamia from the End of the Fourth to the End of the First Millennium B.C.” *Chicago-Kent Law Review* 71, no. 1 (1995): 269–319.
- Research Seminar in Archaeology and Related Subjects, Renfrew, Colin, ed. *The Explanation of Culture Change: Models in Prehistory; Proceedings*. [Pittsburgh: University of Pittsburgh Press, 1973.
- Rice, Prudence. “Change and Conservatism in Pottery Producing Systems.” In *The Many Dimensions of Pottery: Ceramics in Archaeology and Anthropology*, edited by Sander Ernst van der Leeuw, Alison C Pritchard, and Universiteit van Amsterdam, 231–88. Amsterdam: Universiteit van Amsterdam, 1984.
- . “Specialization, Standardization and Diversity: A Retrospective.” In *The Ceramic Legacy of Anna O. Shepard*, edited by Ronald L Bishop and Frederick W Lange, 257–79. Niwot, Colo.: University Press of Colorado, 1991.
- Rice, Prudence M. “Evolution of Specialized Pottery Production: A Trial Model.” *Current Anthropology* 22, no. 3 (1981).
- . *Pots and Potters: Current Approaches in Ceramic Archaeology*. Los Angeles: Institute of Archaeology, University of California, Los Angeles, 1984a.
- . *Pottery Analysis: A Sourcebook*. Chicago: University of Chicago Press, 1987.

- Rice, Prudence M, and Marian E Saffer. *Analysis, Technical and Ethnographic Approaches to Pottery Production and Use*. Gainesville, Fla.: Florida State Museum of the University of Florida, 1982.
- Richards, C. “Henges and Water: Towards an Elemental Understanding of Monumentality and Landscape in Late Neolithic Britain.” *Journal of Material Culture Journal of Material Culture* 1, no. 3 (1996): 313–36.
- Richards, Colin. “Monuments as Landscape: Creating the Centre of the World in Late Neolithic Orkney.” *World Archaeology* 28, no. 2 (1990): 190–208.
- Richter, T. “Bericht Uber 2001 in Qatna Gemachte Inschriftenfunde.” *Mitteilungen Der Deutschen Orientgesellschaft Zu Berlin* 134 (n.d.): 247–55.
- . “Qatna. A. Nach Schriftlichen Quellen.” *RIA* 11 (2006): 159–61.
- Roberts, Brian K. *Landscapes of Settlement Prehistory to the Present*. London; New York: Routledge, 1996.
- Roseberry, W. “Political Economy.” *Annual Review of Anthropology* 17, no. 1 (1988): 161–85.
- Rothfield, Lawrence. *The Rape of Mesopotamia behind the Looting of the Iraq Museum*. Chicago: University of Chicago Press, 2009.
- Roux, Valentine, and Daniela Corbetta. *The Potter’s Wheel: Craft Specialization and Technical Competence*. New Delhi: Oxford & IBH Pub. Co., 1989.
- Rowlands, Michael, Mogens Larsen, Kristian Kristiansen, and Mogens T. Larsen, eds. “Commercial Networks in the Ancient Near East.” In *Centre and Periphery in the Ancient World*, 47–56. Cambridge [etc.]: Cambridge University Press, 1987.
- Ryholt, K. S. B. *The Political Situation in Egypt during the Second Intermediate Period: C. 1800-1550 B.C.* Copenhagen: Museum Tusulanum Press, 1997.
- Sader, Helen. “Palace Architecture in Tell El-Burak-Lebanon: Some Evidence for Egyptian-Mesopotamian-Levantine Interconnections.” *Bulletin d’Archéologie et d’Architecture Libanaises Hors-Série VI* (2009): 177–86.
- . “Tell Hizzin in the Biqā‘: New Evidence from an Old Excavation”.” In *Proceedings of the 6th International Conference on the Archaeology of the Ancient Near East*, 636. University of Rome-Italy., in press.
- Sader, Hélène, and Kamlah Jens. “Tell El-Burak: A New Middle Bronze Age Site from Lebanon.” *Near Eastern Archaeology* 73, no. 2/3 (2010): 130–41.
- Saghieh, Muntaha. *Byblos in the Third Millennium B.C.: A Reconstruction of the Stratigraphy and a Study of the Cultural Connections*. Warminster: Aris & Phillips, 1983.
- Sasson, Jack M. “A Sketch of North Syrian Economic Relations in the Middle Bronze Age.” *Journal of the Economic and Social History of the Orient* 9, no. 3 (1966): 161–81.
- Sauer, Carl Ortwin. *The Morphology of Landscape*. Berkeley, Calif.: University of California Press, 1925.
- Sayeh, A. H., and A. J. Salib. “Some Physical and Chemical Properties of Soils in the Beqa’a Plain, Lebanon.” *Journal of Soil Science* 20, no. 1 (1969): 167–75.
- Scandone Matthiae, G. *Da Athribus à Biblo: Modi di Contatto tra Egitto e Costa Siriana*. Verona; Essedue Edizioni, 1990.
- . “I Vasi Egiziani in Pietra dal Palazzo Reale G.” *Studi Eblaiti* 4 (1981): 99–127.
- Schaeffer, Claude F. A. *Stratigraphie comparée et chronologie de l’Asie Occidentale (IIIe et IIe millénaires)*. London: Oxford University Press, 1948.
- Schaeffer, Claude F.-A. *Ugaritica II; Nouvelles études relatives aux découvertes de Ras Shamra*. Paris: P. Geuthner, 1949.

- Schaeffer, Claude F. A., and L. Courtois. *Ugaritica VII*. Paris; Leiden: Mission Archéologique de Ras Shamra : P. Geuthner ; E.J. Brill, 1978.
- Schroeder, B. "Natufian in the Central Béqaa Valley, Lebanon." In *The Natufian Culture in the Levant*, edited by O. Bar-Yosef and F.R. Valla, 43–80. Michigan: Ann Arbor, 1991.
- Seeden, H. "Bronze Village Occupation at Busra, AUB Excavation on the Northwest Tell 1983-1984." *Berytus* 34 (1986): 11–81.
- Sellet, Frederic. "Chaîne Opératoire; the Concept and Its Applications." *Lithic Technology* 18, no. 1/2 (1993): 106–12.
- Senior, Louise Marie. "Time and Technological Change: Ceramic Production, Labor, and Economic Transformation in a Third Millennium Complex Society (Tell Leilan, Syria)," 1998.
- Sharvit, Jacob, Ehud Galili, B. Rosen, and Edwin C.M Brink van den. "Predynastic Maritime Traffic Along the Carmel Coast of Israel: A Submerged Find Grom North Atlit Bay." In *In Quest of Ancient Settlements and Landscapes: Archaeological Studies in Honour of Ram Gophna*, edited by R Gophna, Edwin C. M. van den Brink, and Eli Yannai, 159–66. Tel Aviv: Ramot Pub., Tel Aviv University, 2002.
- Shea, William H. "Artistic Balance among the Beni Hasan Asiatics." *Biblarch The Biblical Archaeologist* 44, no. 4 (1981): 219–28.
- Shepard, Anna Osler. *Ceramics for the Archaeologist*. Washington: Carnegie Institution of Washington, 1956.
- Sherratt, Andrew, and Susan Sherratt. "From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems." In *Bronze Age Trade in the Mediterranean: Papers Presented at the Conference Held at Rewley House, Oxford, in December 1989*, edited by N.H. Gale, Vol. 90. Jonsered: P. Åströms Förlag, 1991.
- Shove, Elizabeth, Frank Trentmann, and Richard R Wilk. *Time, Consumption and Everyday Life Practice, Materiality and Culture*. Oxford; New York: Berg, 2009.
- Silver, Morris. "Karl Polanyi and Markets in the Ancient Near East: The Challenge of the Evidence." *The Journal of Economic History* 43, no. 04 (1983): 795–829.
- Singer-Avitz, L, and Y Levi. "An MB IIA Kiln at the Nahal Soreq Site." *'Atiqot XXI* (1992): 9–17.
- Sinopoli, Carla M. *Approaches to Archaeological Ceramics*. New York: Plenum Press, 1991.
- Smith, Adam T. *The Political Landscape Constellations of Authority in Early Complex Polities*. Berkeley: University of California Press, 2003. <http://site.ebrary.com/id/10062317>.
- Smith, Adam Thomas. *Imperial Archipelago the Making of the Urartian Landscape in Southern Transcaucasia*. Ann Arbor, 1996.
- Smith, Marion F. "Function from Whole Vessel Shape: A Method and an Application to Anasazi Black Mesa, Arizona." *Ameranth American Anthropologist* 90, no. 4 (1988): 912–23.
- Smith, Michael E. "Aztec Feasts, Rituals, and Markets: Political Uses of Ceramic Vessels in a Commercial Economy." In *The Archaeology and Politics of Food and Feasting in Early States and Empires*, edited by Tamara L Bray, 235–68. New York: Kluwer Academic/Plenum, 2003.
- . "The Archaeology of Ancient State Economies." *Annual Review of Anthropology* 33, no. 1 (2004): 73–102.
- Sollberger, Edmond, and Jean Robert. Kupper. *Inscriptions Royales Sumériennes et Akkadiennes*. Littératures Anciennes Du Proche-Orient.3. Paris: Éditions du Cerf, 1971.

- Sommer, Michael. "The Beqa'a Valley in Antiquity. A Regional-Historic Survey." *Bulletin d'Archéologie et d'Architecture Libanaises* 5 (2001): 71–91.
- Sørensen, A.H. "Approaching Levantine Shores. Aspects of Cretan Contacts with Cyprus during the MB-LBI Periods." *Proceedings of the Danish Institute at Athens* 6 (2009): 9–55.
- Sowada, K., and Peter Grave. *Egypt in the Eastern Mediterranean during the Old Kingdom: An Archaeological Perspective*. Fribourg; Göttingen: Academic Press ; Vandenhoeck & Ruprecht, 2009.
- Stager, L. E. "Port Power in the Early and the Middle Bronze Age: The Organization of Maritime Trade and Hinterland Production." In *Studies in the Archaeology of Israel and Neighboring Lands: In Memory of Douglas L. Esse*, edited by Samuel R. Wolff and Douglas L. Esse, *Studies in ancient oriental civilization / Oriental Institute of the University of Chicago*:625–38. Chicago: Oriental Institute of the University of Chicago, 2001. <http://oi.uchicago.edu/pdf/SAOC59.pdf>.
- . "The Periodization of Palestine from Neolithic through Early Bronze Times." In *Chronologies in Old World Archaeology*, edited by Robert W Ehrich, 3rd ed., 22–41. Chicago and London: University of Chicago Press, 1992.
- Stanish, Charles, Edmundo de la Vega, Michael Moseley, Patrick Ryan Williams, Cecilia Chávez J., Benjamin Vining, and Karl LaFavre. "Tiwanaku Trade Patterns in Southern Peru." *Journal of Anthropological Archaeology* 29, no. 4 (December 2010): 524–32.
- Stark, Miriam T. "Technical Choices and Social Boundaries in Material Culture Patterning: An Introduction." In *The Archaeology of Social Boundaries*, 1–11. Washington, [D.C.]: Smithsonian Institution Press, 1998.
- . *The Archaeology of Social Boundaries*. Washington, [D.C.]: Smithsonian Institution Press, 1998.
- Stark, Miriam T, Mark D. Elson, and Jeffery J. Clark. "Social Boundaries and Technical Choices in Tonto Basin Prehistory." In *The Archaeologies of Social Boundaries*, edited by Miriam T Stark, 208–31. Washington, D.C.: Smithsonian Institution Press, 1998.
- Stein, Gil J. "Theoretical Model for Political Economy and Social Identity in the Old Assyrian Trading Colonies of Anatolia." *TÜBA-AR XI* (2008): 25–40.
- . "Understanding Ancient State Societies in the Old World." In *Archaeology at the Millennium: A Sourcebook*, edited by GM Feinman and TD Price, 353–80. New York: Kluwer, 2001.
- Stein, J.R., and S.H. Lekson. "Anasazi Ritual Landscapes." In *Anasazi Regional Organization and the Chaco System*, edited by David Elmond Doyel. Albuquerque, N.M.: Maxwell Museum of Anthropology, 1992.
- Stone E.C. "Patterns of Looting in Southern Iraq." *Antiquity* 82, no. 315 (2008): 125–38.
- Stone, G.D. "Agricultural Abandonment: A Comparative Study in Historical Ecology." In *Abandonment of Settlements and Regions: Ethnoarchaeological and Archaeological Approaches*, edited by Catherine M Cameron and Steve A Tomka, 74–81. Cambridge; New York: Cambridge University Press, 1993.
- Stone, Glenn Davis. *Settlement Ecology: The Social and Spatial Organization of Kofyar Agriculture*. Tucson: University of Arizona Press, 1996.
- Suzuki, Hikaru. *The Price of Death: The Funeral Industry in Contemporary Japan*. Stanford, Calif.: Stanford University Press, 2000.

- Swapp, Susan. "Scanning Electron Microscopy (SEM)." *Geochemical Instrumentation and Analysis*, 2013.
http://serc.carleton.edu/research_education/geochemsheets/techniques/SEM.html.
- Taraqji, A. "Nouvelles Découvertes Sur Les Relations Avec l'Égypte À Tell Sakka Età Keswé, Dans La Région de Damas." *Bulletin de La Societe Francaise d'Égyptologie* 144 (1999): 27–43.
- . "Wall Painting Fragments: Tell Sakka." In *Beyond Babylon: Art, Trade, and Diplomacy in the Second Millennium B.C.*, 128–29. New York: Metropolitan Museum, 2008.
- Taylor, John H. "Scarabs from the Bronze Age Tombs at Sidon (Lebanon)." *Levant* 36, no. 1 (2004): 155–58.
- Teissier, Beatrice. *Ancient Near Eastern Cylinder Seals from the Marcopoli Collection*. Berkeley: University of California Press : Summa Publications, 1984.
- . *Egyptian Iconography on Syro-Palestinian Cylinder Seals of the Middle Bronze Age*. Fribourg, Switzerland; Göttingen: University Press ; Vandenhoeck & Ruprecht, 1996.
- Thalmann, Jean-Paul. "Pottery of the Early Middle Bronze Age at Tell Arqa and in the Northern Levant." In *The Middle Bronze Age in the Levant: Proceedings of an International Conference on MB IIA Ceramic Material, Vienna, 24th-26th of January 2001*, edited by Manfred Bietak, Österreichische Akademie der Wissenschaften, and International Conference on MB IIA Ceramic Material, 363–77. Wien: Verlag der Österreichischen Akademie der Wissenschaften, 2002.
- . "Tell Arqa: A Prosperous City during the Bronze Age." *Neareastarch Near Eastern Archaeology* 73, no. 2/3 (2010): 86–101.
- . "Transporter et Conserver: Jarres de L'Age Du Bronze a Tell Arqa." *Archaeology & History in the Lebanon* 17 (2003): 25–37.
- Thalmann, Jean-Paul, Hanan Charaf-Mullins, Eric Coqueugniot, and Guillaume Gernez. *Tell Arqa - I: les niveaux de l'âge du bronze*. Beyrouth: Institut Français du Proche-Orient, 2006.
- Thomason, Allison Karmel. "Her Share of the Profits: Women, Agency, and Textile Production at Kültepe/Kanesh in the Early Second Millennium BC." In *Textile Production and Consumption in the Ancient Near East: Archaeology, Epigraphy, Iconography*, edited by Marie-Louise Nosch, H Koefoed, and Eva B. Andersson Strand, 93–112. Oxford – Oakville, 2013.
- Thrane, Henrik. *Sūkās IV: A Middle Bronze Age Collective Grave on Tall Sūkās*. København: Kongelige Danske Videnskabernes Selskab, 1978.
- Tilley, Christopher Y. *A Phenomenology of Landscape: Places, Paths, and Monuments*. Oxford, UK; Providence, R.I.: Berg, 1994.
- Tite, M. S. "Ceramic Production, Provenance and Use – A Review." *Archaeometry* 50, no. 2 (2008): 216–31.
- Tite, M. S. "Pottery Production, Distribution, and Consumption-The Contribution of the Physical Sciences." *Journal of Archaeological Method and Theory* 6, no. 3 (1999): 181–233.
- Tourtellot, Gair, and Jeremy A. Sabloff. "Exchange Systems among the Ancient Maya." *American Antiquity* 37, no. 1 (January 1, 1972): 126–35.
- Tubb, J. N. "The MBIIA Period in Palestine: Its Relationship with Syria and Its Origin." *Levant* 15 (1983): 49–62.
- Tufnell, O. *Lachish IV (Tell Ed-Duweir): The Bronze Age*. 2 vols. London, 1958.

- Twiss, Katheryn C. "Transformations in an Early Agricultural Society: Feasting in the Southern Levantine Pre-Pottery Neolithic." *Journal of Anthropological Archaeology* 27, no. 4 (2008): 418–42.
- Ur, Jason A, and McGuire Gibson. *Tell Hamoukar*. Chicago: Oriental Institute of the University of Chicago, 2010.
- Van De Mierop, Marc. "Economic Theories and the Ancient Near East." In *Commerce and Monetary Systems in the Ancient World. Means of Transformation and Cultural Interaction. Proceeding of the Fifth Annual Symposium of the Assyrian and Babylonian Intellectual Heritage Project. Held in Innsbruck, Austria, October 3rd-8th, 2002*, edited by Robert Rollinger and Christoph Ulf, 5:54–64. Stuttgart: Franz Steiner Verlag, 2004.
- Van Ess, M., H. Becker, J. Fassbinder, R. Kiefl, I. Lingenfelder, G. Schreier, and A. Zevenbergens. "Detection of looting activities at archaeological sites in Iraq using Ikonos imagery." In *Angewandte Geoinformatik 2006: Beiträge zum 18. AGIT-Symposium Salzburg*, edited by Josef Strobl, T. Blaschke, and G. Griesebner, 668–78. Heidelberg: Wichmann, 2006.
- Veenhof, Klaas R. "Ancient Assur: The City, Its Traders, and Its Commercial Network." *Journal of the Economic and Social History of the Orient* 53, no. 1/2 (2010): 39–82.
- Verheyen, Willy, and Diego de la Rosa. "Mediterranean Soils: In Land Use and Land Cover." *Encyclopedia of Life Support Systems*. Oxford, UK: Encyclopedia of Life Support Cultural Organization, 2005.
- Villard, P. "Un Roi de Mari À Ugarit." *Ugarit-Forschungen* 18 (1986): 387–412.
- Virolleaud, Charles, Edouard Naville, and Edmond Pottier. "Un hypogée de la XIIe dynastie égyptienne à Byblos." *Syria* III (1922): 273–90.
- Vita, Juan-Pablo. *Reyes de Damasco en la época de El-Amarna*. ISIMU 7. Universidad Autónoma de Madrid, 2009.
- Vitto, Fanny, and Gershon Edelstein. "Ridan, Tel." In *NEAEHL*, 1283, 1993.
- Von Ruden, Constance. "Beyond the East-West Dichtomy in Syrian Levantine Wall Paintings." In *Critical Approaches to Ancient Near Eastern Art*, edited by Brian A Brown and Marian H Feldman, 54–78. Boston: De Gruyter, 2014.
- Wagner-Durand, Elisabeth. "The Life of the Dead in Kamid El-Loz/Lebanon – The Burials with a View to the Settlement History." In *Contextualizing Grave Inventories in the Ancient Near East*, edited by Peter Pfälzner, 51–72. Wiesbaden: Harrassowitz Verlag, 2014.
- Wagstaff, J. Malcolm. "Three Friends in Lebanon, April, 1802." *Archaeology & History in Lebanon* 12, no. Autumn (2000): 13–19.
- Walley, C.D. "Mesozoic and Cenozoic Paleogeographic Maps of the Lebanon Area." In *The Paleotectonic Atlas of the Peritethyan Domain: European Geophysical Society CD-ROM.*, edited by Gérard Maurice Stampfli, G. Borel, W. Cavazza, J. Mosar, and P.A. Ziegler. [S.l.]: European Geophysical Society, 2000.
- Walley, C. D. "Some Outstanding Issues in the Geology of Lebanon and Their Importance in the Tectonic Evolution of the Levantine Region." *Tectonophysics-Amsterdam MS-* 298, no. 1–3 (1998): 37–62.
- Walley, C. D. "The Lebanon Passive Margin and the Evolution of the Levantine Neo-Tethys." In *Peri-Tethyan rift/wrench basins and passive margins*, edited by Peter A Ziegler, 407–39. Paris: Publications Scientifiques du Muséum, 2001.

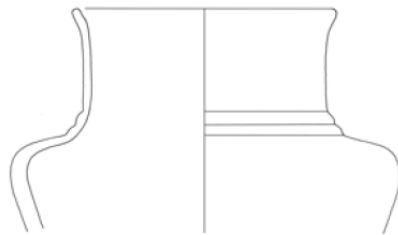
- Walley, Christopher D. "A Braided Strike-Slip Model for the Northern Continuation of the Dead Sea Fault and Its Implications for Levantine Tectonics." *Tectonophysics* 145, no. 1–2 (1988): 63–72.
- Ward, William Smith. "Egypt and the East Mediterranean from Predynastic Times to the End of the Old Kingdom." *Journal of the Economic and Social History of the Orient* 6 (1963): 1–57.
- Warren, Peter, and Vronwy Hankey. *Aegean Bronze Age Chronology*. Bedminster, Bristol: Bristol Classical Press, 1989.
- Watterson, Barbara. *The Gods of Ancient Egypt*. New York, N.Y.: Facts on File, 1984.
- Weinstein, J.M. "A Statuette of the Princess Sobeknefru at Tell Gezer." *BASOR* 213 (1974): 49–57.
- . "Egyptian Relations with Palestine in the Middle Kingdom." *BASOR* 217 (1975): 1–16.
- Wheatley, David, and Mark Gillings. *Spatial Technology and Archaeology: The Archaeological Applications of GIS*. CRC Press, 2003.
- Whittlesey, Stephanie Michelle, Richard Ciolek-Torrello, Jeffrey H Altschul, United States, Bureau of Reclamation, and Phoenix Area Office. *Vanishing River: Landscapes and Lives of the Lower Verde Valley : The Lower Verde Archaeological Project : Overview, Synthesis, and Conclusions*. Tucson, Ariz.: SRI Press, 1998.
- Wilkinson, K., A.R. Beck, and G. Philip. "Satellite Imagery as a Resource in the Prospection Forarchaeological Sites in Syria." *Geoarchaeology* 21 (2006): 735–50.
- Wilkinson, Toby A. H. *Royal Annals of Ancient Egypt: The Palermo Stone and Its Associated Fragments*. London; New York: Kegan Paul International : Distributed by Columbia University Press, 2000.
- Will, Elizabeth Lyding. "Production, Distribution And Disposal Of Roman Amphoras." In *Ceramic Production and Distribution: An Integrated Approach*, edited by George J Bey and Christopher A Pool, 262–74. Boulder: Westview Press, 1992.
- Winter, Irene. "Thera Paintings and the Ancient Near East. The Private and Public Domains of Wall Decoration." In *The Wall Paintings of Thera: Proceedings of the First International Symposium : Petros M. Nomikos Conference Centre Thera, Hellas, 30 August - 4 September 1997*, edited by Susan Sherrat, 745–62. Piraeus, Greece: Petros M. Nomikos and The Thera Foundation, 2000.
- Wiseman, D. J. *The Alalakh Tablets*. London: British Institute of Archaeology at Ankara, 1953.
- W. M. Flinders Sir, Petrie, G. Brunton, and M. A. Murray. *Lahun II*. The Egyptian Research Account. Publications 33. London: London, B. Quartich, 1923.
- Wolf, Eric R. *Europe and the People without History*. Berkeley: University of California Press, 1982.
- Wood, Bryant G. *The Sociology of Pottery in Ancient Palestine the Ceramic Industry and the Diffusion of Ceramic Style in the Bronze and Iron Ages*. Sheffield, England: JSOT Press for the American Schools of Oriental Research, 1990.
- Wright, Mary. "Contacts between Egypt and Syro-Palestine during Old Kingdom." *Biblical Archaeologist* 51, no. 3 (1988): 143–61.
- Yadin, Yigael, Yohanan Aharoni, Ruth Amiran, Trude Krakauer Dothan, Immanuel Dunayevsky, Jean Perrot, and Shimon Angress. *Hazor II: An Account of the Second Season of Excavations, 1956: The James A. de Rothschild Expedition at Hazor*. Jerusalem: The Magnes Press, the Hebrew University, 1960.

- Yahalom-Mack, Naama, Ehud Galili, Irina Segal, Adi Eliyahu-Behar, Elisabetta Boaretto, Sana Shilstein, and Israel Finkelstein. "New Insights into Levantine Copper Trade Analysis of Ingots from the Bronze and Iron Ages in Israel." *Journal of Archaeological Science* 45 (2014): 159–77.
- Yasuda, Y, H Kitagawa, and T Nakagawa. "The Earliest Record of Major Anthropogenic Deforestation in the Ghab Valley, Northwest Syria: A Palynological Study." *Quaternary International : The Journal of the International Union for Quaternary Research*. 73–74 (2000): 127–36.
- "ArchAtlas: Archaeological Atlas Project." *ArchAtlas: Archaeological Atlas Project*, July 14, 2015. <http://www.archatlas.org/Home.php>.
- "Corona Atlas of the Middle East." *Corona Atlas of the Middle East*, July 14, 2015. <http://corona.cast.uark.edu/index.html>.
- "The First Appearances of Kamares Ware in the Levant." *Egypt and the Levant* 13 (2004).
- Yener, K. Aslihan. *The Domestication of Metals: The Rise of Complex Metal Industries in Anatolia*. Leiden; Boston: Brill, 2000.
- Yon, Marguerite. *Dictionnaire Illustré Multilingue de la Céramique du Proche Orient Ancien*. Lyon; Paris: Maison de l'Orient ; Diffusion de Boccard, 1981.
- . *The City of Ugarit at Tell Ras Shamra*. Winona Lake, Ind.: Eisenbrauns, 2006.
- Zaccagnini, Carlo. "Aspects of Ceremonial Exchange in the Near East during the Late Second Millennium BC." In *Centre and Periphery in the Ancient World*, edited by Michael Rowlands, 57–65. Cambridge: Cambridge University Press, 2009.
- . "La Circolazione Dei Beni." In *L'Alba Della Civiltà. 2*, edited by Sabatino Moscati and Frederick Mario Fales, 423–582. Torino: Unione tip. ed. Torinese., 1976.
- . *Lo Scambio dei Doni nel Vicino Oriente durante i secoli XV-XIII*. Roma: Centro per le antichità e la storia dell'arte del Vicino Oriente, 1973.
- . *Mercanti e Politica nel Mondo Antico*. Roma: L'Erma di Bretschneider, 2003.
- . "Modo di Produzione Asiatico e Vicino Oriente Antico. Appunti per una Discussione" *DialArch*, no. 3/3 (1981): 3–65.
- . "Patterns of Mobility among Ancient near Eastern Craftsmen." *Jneareaststud Journal of Near Eastern Studies* 42, no. 4 (1983): 245–64.
- Zevulun, U. "Tell El-Yahudiyah Juglets from a Potter's Refuse Pit at Afula." *Eretz-Israel* 21 (1990): 174–90.
- Ziffer, Irit. *At That Time the Canaanites Were in the Land*. Tel-Aviv: Eretz Israel Museum, 1990.
- . "From Achemhöyük to Megiddo: The Banquet Scene in the Art of the Levant in the Second Millennium BCE." *Tel Aviv: Journal of the Institute of Archaeology of Tel Aviv University* *Tel Aviv: Journal of the Institute of Archaeology of Tel Aviv University* 2005, no. 2 (2005): 133–67.
- . "From Achemhöyük to Megiddo: The Banquet Scene in the Art of the Levant in the Second Millennium BCE." *Tel Aviv* 2005, no. 2 (September 1, 2005): 133–67.
- 松本 健和田 久彦. "Report on the Archaeological Survey in the Hilly Area of Akkar Region in North Lebanon." *ラフイダン*. 22 (2001): 93–111.

APPENDIX

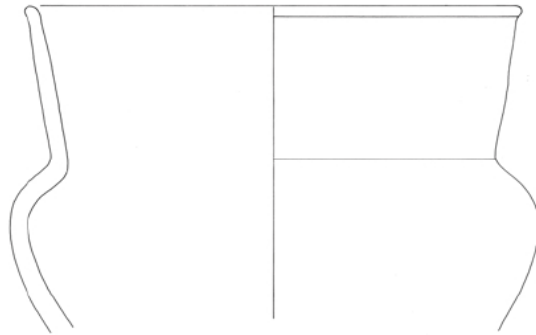
BOWLS

<i>TYPE I Bc Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
<p>Exteriorly burnished carinated bowls evince a tall neck and an everted rim that is internally indented, usually medium to small in size.</p> <p>External Treatment: The rims and the interior of the vessels are finely burnished.</p> <p>Base: Flat, disc or a ring base.</p> <p>Medium to fine ware with mineral inclusions (sand and fine sand with a low percentage of fine gravel) Wheel Made Diam. 12</p>	<p>Palace Area n. 4 III a 15 FS 24 10.09. 07 Room 8</p> <p>III a 16/N 21.08.08 FS 38 pot B</p> <p>III a 16/N vessel 2, 21.08.08</p>	<p>Beqa'a Valley: Tell el-Ghasill, <i>niveau X</i> (pl. 12 n.2) Southern Syria: Yabroud, Tomb 1, (Braemer and al-Maqdissi 2002, 44 planche XIV:55). Southern Levant: Shechem (Cole 1984) Tell Dan (Ilan, 219, fig. 4.78 vessels from St. IX.)</p>	<p>Palace Phase II MBA II</p>	<p>3</p>



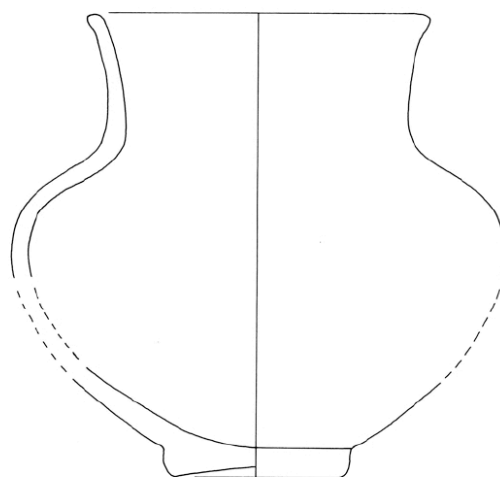
n. 1

<i>TYPE 2 Bc Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
Carinated bowls with tall neck and simple rounded rim, externally undercut External and Internal Treatment: Vertical burnished patterns on the exterior of the neck as well as on the rim and on the interior Medium to fine Ware Wheel Made Diam. 6 H. 10 cm	Palace Area III a 16 FS 26 n. 28 III a 16/N FS 43 23.8.8 n. 28, 29, 45 III a 15 FS 19 (07) Room 7-8 Administrative Area	Not available	Palace Phase 2 MBA II	4



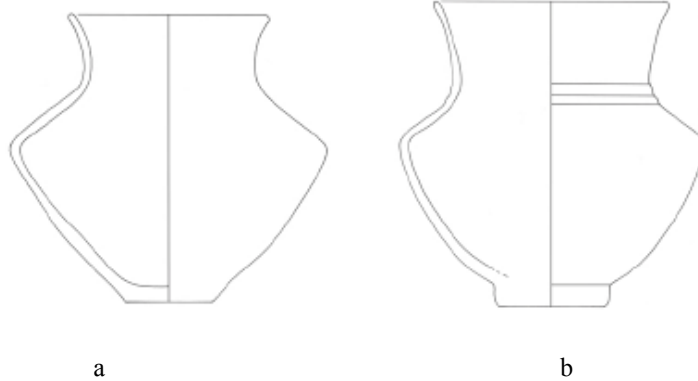
n. 2

<i>TYPE 3 Bc Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
Carinated bowl with a tall neck and everted simple rim with an external undercut line, S shape body profile and concave base External Treatment: Burnished Medium Ware Wheel Made Diam 7 H. 10	Palace Area: III a 16 FS 4 30.08.07 n. 3 room 7 FS 16 room 8 FS 38 Administrative area	Beqa'a Valley: Tell el-Ghassil <i>niveau X</i> (Doumet-Serhal 1996, 194 pl. 12) Southern Levant: Shechem (Cole 1984, 124 Pl. 14 n.i-f; <i>ibid</i> 129, pl 15 n.a)	MBA II Palace Phase II	4



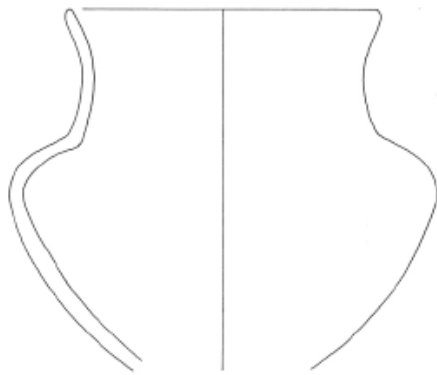
n. 3

<i>TYPE 4 Bc Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
<p>This carinated bowl has a sharp angular shoulder and a simple everted rim. Some examples show ridges at the base of the neck .B) Flat base</p> <p>Fine and Medium ware Diam. 7 cm H. 10 cm</p>	<p>Palace Area III a 16 Fs 26 n. 38 07 III a 16 FS 26 n. 24 III a 16 FS 23 n. 9 III a 16/N FS 38 21.08.08 pot A</p>	<p>Southwestern Syria: Yabroud (Bremer et al. 2002, 44 n.55) Lebanese coast: Tell Arqa phase M (Thalmann 2006, pl.98, n.1-19)</p>	<p>MBA II Palace Phase II</p>	<p>5</p>

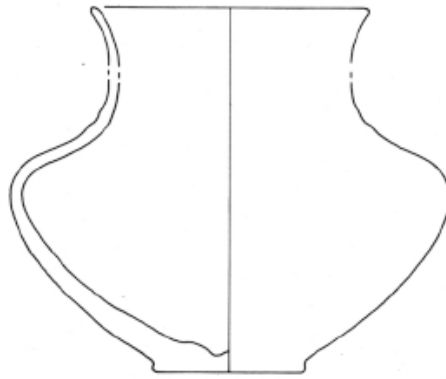


n. 4

<i>TYPE 5 Bc Carinated Bowl Table</i>				
Description	Location	Comparisons	Date	Counts
Carinated bowl with incurved walls and rounded rim Some of this type of carinated bowls will show a more exaggerated S shape body profile. Disc Base Fine and Medium Ware	Palace III a 16/N 21.8.08 Fs 38 I-15/16 (FS 25). Administrative area.	Northern Levant: Alalakh level VII (Heinz 1992).	MBA II Palace Phase II	3



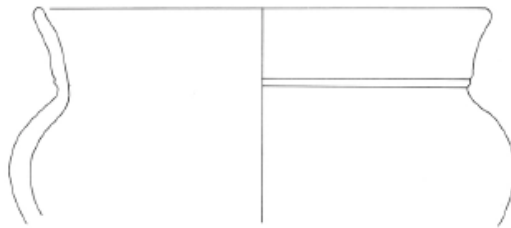
a



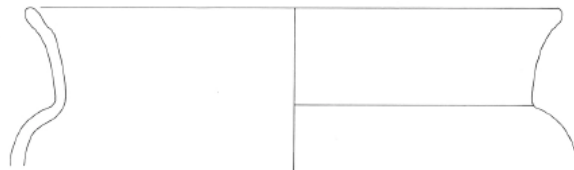
b

n. 5

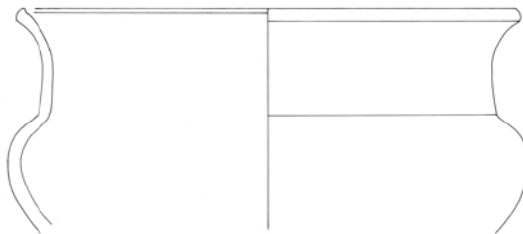
<i>TYPE 6 Bc Carinated Bowl Table</i>				
Description	Location	Comparisons	Date	Counts
<p>This bowl has a short neck and an everted rim, internally indented; the rim is curved out. Other examples of bowls show an indented rim, which can be either straight or everted, with ridges below the short neck. Rounded shoulders mainly characterized the body. External Treatment: Burnished</p> <p>Fine to Medium Ware Wheel Made Mesurments diam. 13 cm h. 10 cm</p>	<p>III a 15 FS 21 (07) III a 15 FS 11, 3/9/07 III a 16 FS 26 n. 26 III a 16/N FS 38 pot D 21.8.8 III a 16/N FS 43 23. 8 08 n 24 III-b-15/16 FS 1, n.7-10. 17.09.10</p>	<p>South-western Syrian Yabroud (Braemer et al. 2002, pl. 45 n. 62Abou Assaf 1965; pl. 7/14; Aboud Assaf 1967: pl. III/15)</p>	<p>MBA II</p>	<p>6</p>



n. 6a



n. 6b



n. 6c

<i>TYPE 7 Bc Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
Bowls with short neck and simple everted rim Medium Ware	Palace Area III a 15 FS 24 10. 09 07 n. 1 I-i-15 FS 20 n. 6, 9.8.08	Shechem Stratum XVIII (Cole 1984, fig. a, b Bc A. 11 plate 16 p. 131)	MBA II	2



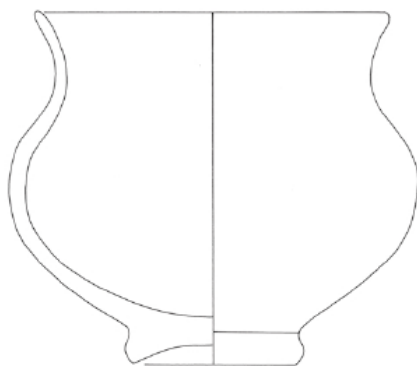
n. 7

<i>TYPE 8 Bc Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
Small size bowl characterized by a sharp carination and an everted squared rim. Fine to Medium Ware	Administrative area (FS 20 20.16.2011)	Kamid el-Loz (Marfoe 1995 fig. 65 p. 115 n.1-2) Tell el-Ghassil in <i>Niveau XI</i> (Doumet-Serhal 1996, pl. 184 n.7) MBA I period. South-western Syrian Mtoune (Braemer et al. 2002 pl. XIV n. 52, p. 44)	MB I/II	1



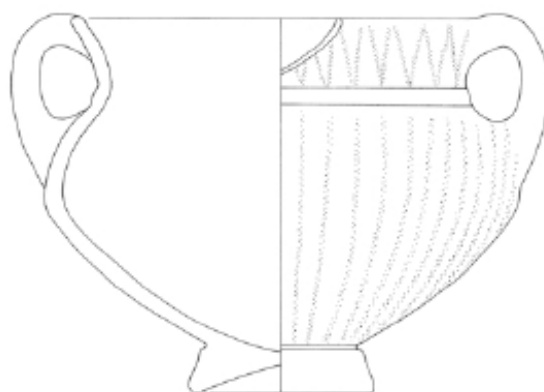
n. 8

<i>TYPE 9 BS Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
Bowl with S shape profile simple everted rim, an s profile body shape and a concave ring base	Palace Area III a 16 FS 26 n. 36 2007	Alalakh level VII. (Heinz, 1992, tafel 5:20)	MBA II	1



n. 9

<i>TYPE 10 Bh Carinated Bowl</i>					
Description	Location	Comparisons	Date	Counts	Mesurments
Concave vessel with two handles and a rounded rim Lighter brown clay color External treatment: Burnished vertically and burnished with a zig-zag pattern on the neck Medium Ware	Palace Area Room 8 III a 16/N FS 21	A possible comparison is available at Tell el-Daba.	MBA II	1	Diam. 12 H. 11.8 cm Base D. 6



n. 10

<i>TYPE 11 Bhm Carinated Bowl</i>				
Description	Location	Comparisons	Date	Counts
Rounded everted rim Hand Made Corse W	Palace Area Room 5	No parallels are available for this type of vessels.	MBA II	1



n. 11

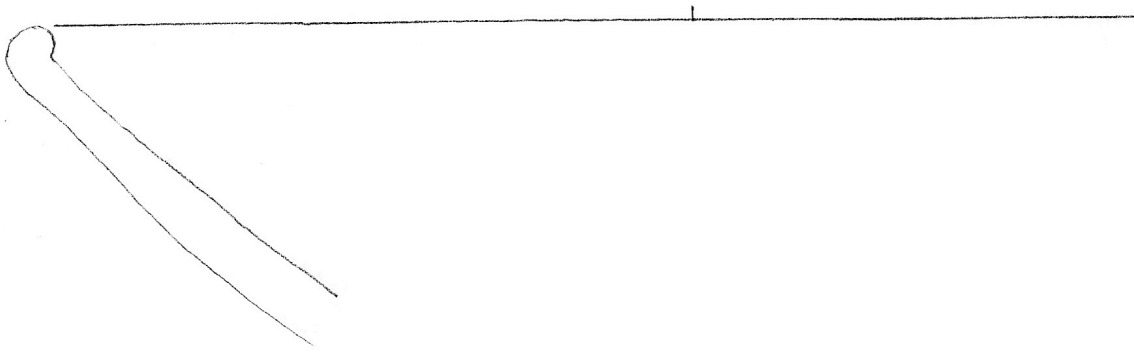
PLATTERS

<i>TYPE 1 Platter</i>				
Description	Location	Comparisons	Date	Counts
<p>Rim: Platter with sharp inverted rim and external rounded edge</p> <p>Base: Flat disk base, concave disk base, ring base</p> <p>Medium ware, medium fire and wheel made</p> <p>Diam. 30 cm H. 9 cm</p>	<p>Palace</p> <p>III-a-15 FS 16 1.09.07</p> <p>III-a-16 FS 25 05.09.07</p> <p>III-a-16 FS 26 n. 6,7, 2007</p> <p>III-a-16 FS 26 n. 1, 10</p> <p>III-a 16/N FS 1d n. 1, 07.08.08</p> <p>III-a-16/s FS 34 n. 5, 13.08.08</p> <p>I-i-15 FS 26 n. 28, 18.8.09</p> <p>I-i-15/16 FS 10 n. 6, 18.09.10</p> <p>Room 8</p> <p>III-a-16/N FS 12 n. 1, 14.08.08</p> <p>III-a-16/N FS 21 n.1-3, 16.08.08</p> <p>III-a-16 N FS 38 n. 63, 20.08.08</p> <p>Room 7</p> <p>III I-i-15/16 FS 16 n. 16</p> <p>Administrative area</p> <p>II-h-18/I-h-1 FS 20 sherds nos. 24, 26.</p>	<p>Beqa'a Valley</p> <p>Tell Ghassil Niveau X pl. 10 n.8 p. 192</p> <p>Southern Levant:</p> <p>Shechem Level XIX and XVIII (p. 103, Bp. 21 plate 2 fig, c, g, h)</p> <p>Beth Shean strata R-5-R4. (Maeir, 2007), 319. pl. 2 n. 7.</p> <p>Megiddo level XII(Amiran, n.7 p.93 plate 26.)</p>	<p>MBA II Phase 2</p>	<p>16</p>

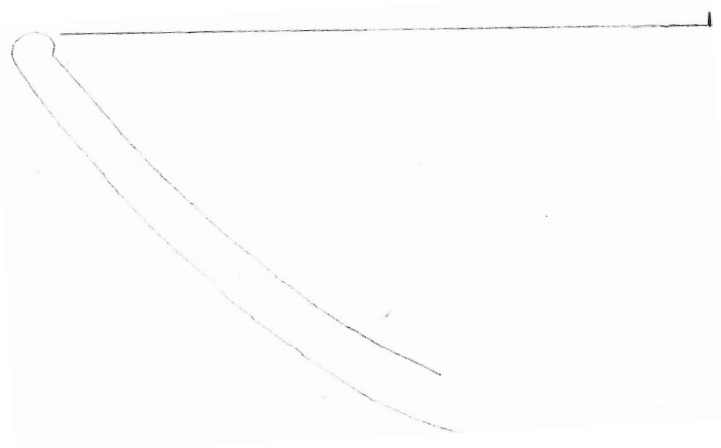
n. 1



<i>TYPE 2 Platter</i>				
Description	Location	Comparisons	Date	Counts
Rounded Inverted rim with slight interior indentation at the level of the rim Medium ware, medium fire and wheel made	Palace Area Room 8 – III a 16 FS 38 n. a/p, FS26 n.13, FS 4 n. 2) III a 16 N FS 38, n1-3; FS 43 n.15+17) Room 7 I-i-15/16 FS, 16 n. 26, 30 Administrative Area I/II h 18/1 FS 20 2011 n. 23 II-h-18/I-h-1 FS 19 n. 17; FS 20 n. 29	Southern Levant: Beth Shean (Maier, 2007 pl. 23 n.1).	MB II Phase 2	10

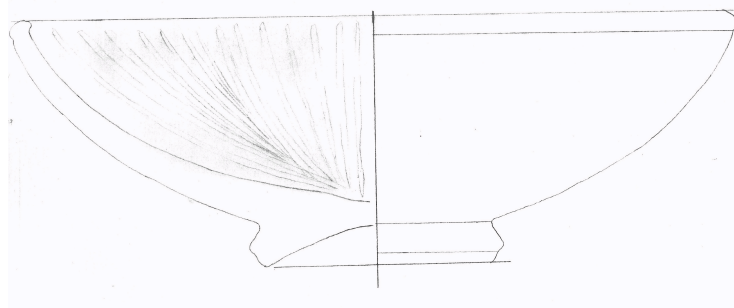


n. 2a



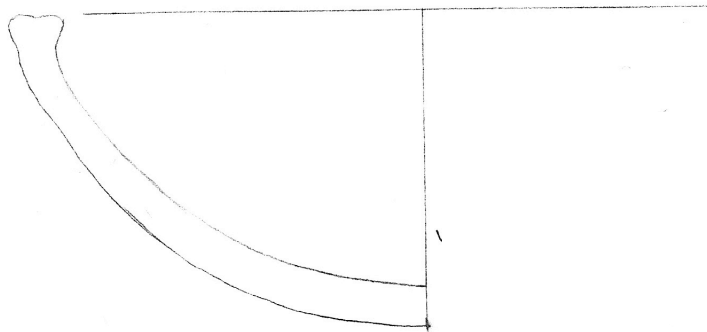
n. 2b

<i>TYPE 3 Platter</i>				
Description	Location	Comparisons	Date	Counts
Inverted rim with external profile, variation with squares and rounded rim Base: Ring base Exterior Treatment: Vertical burnishing Medium ware, medium fire and wheel made	Palace Area III a 16 FS 26 n. 21 III a 16/N FS 43 n. 18 III a 15 FS 19 n. 1 Palace area Room 7 Area I-I 15/16 FS 16 vessel 23 Administrative Area I/II/ h. 18/1. 2011 n. 1	Southern Levant Megiddo level X (Amiran P. 93, pl. 26 n.4). Central Levant Tell Arqa phase N, (Plate 81, n.1.) dated to the MBA I.	MBAII Phase	5

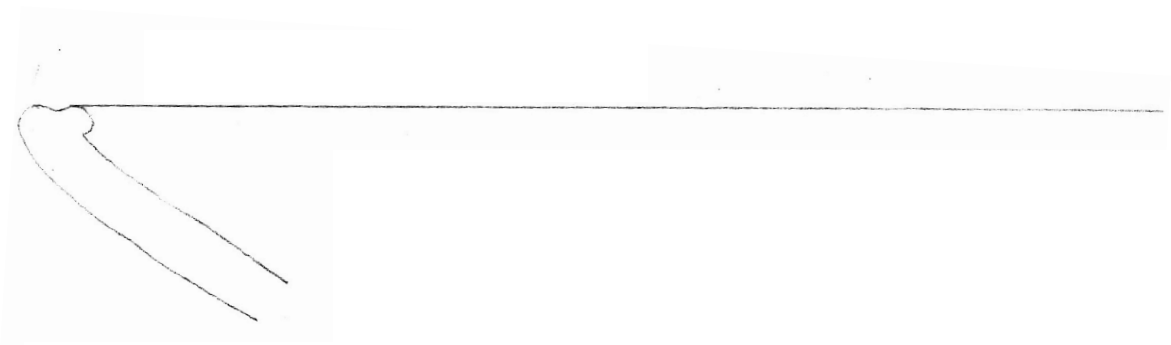


n. 3

<i>TYPE 4 Platter</i>				
Description	Location	Comparisons	Date	Counts
Squared inverted rim, ridge on top of the rim Base: Flat disc Rounded Medium ware, medium fire and wheel made. Diam. 20 cm	Palace Area III-a-16 FS 23 n. 4, 03.09.07 Room 7 I-i-15/16 FS 16 vessel 17 I-i-15/16 FS 16 vessel 21	Shechem Stratum 0 (Bp.32 fig. e, p. 105)	MBA II	3

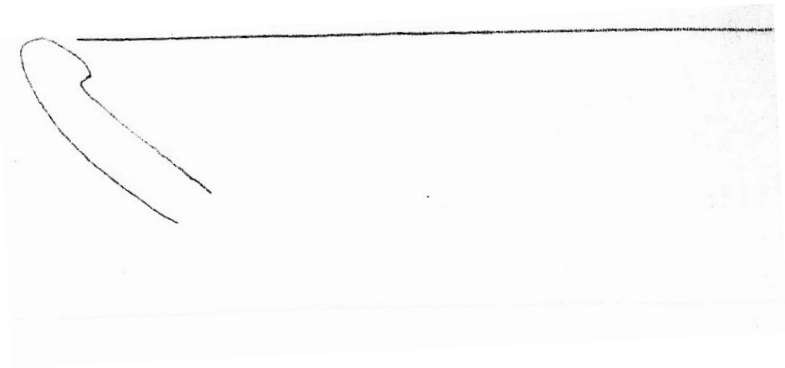


n. 4a

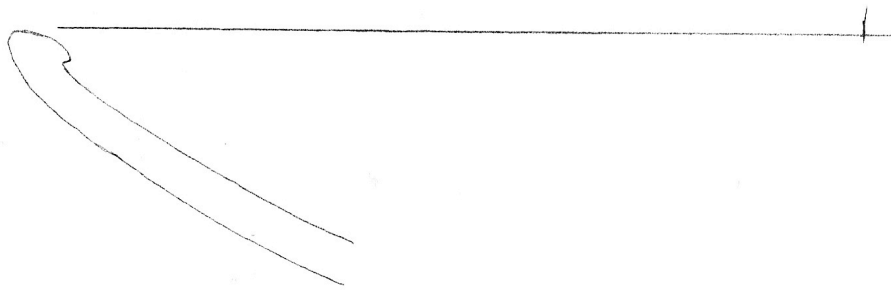


n. 4b

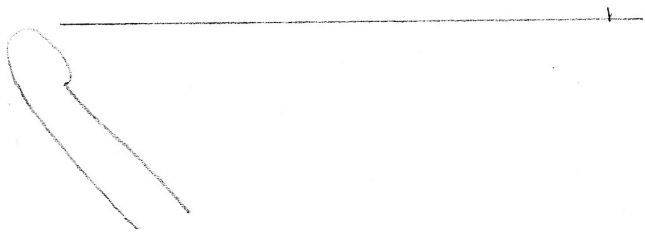
<i>TYPE 5 Platter</i>				
Description	Location	Comparisons	Date	Counts
Inverted rim with internal undercut Medium ware, medium fire and wheel made	Palace Area: I-i-15 FS 26 18.08.08 III-a-16 FS 26 n. 15 2007 Room 7 I-i-15/16 FS 16 vessel 33	Jericho H xlvi- xlvii fig. 25 p. 289	MBA II	3



n. 5a

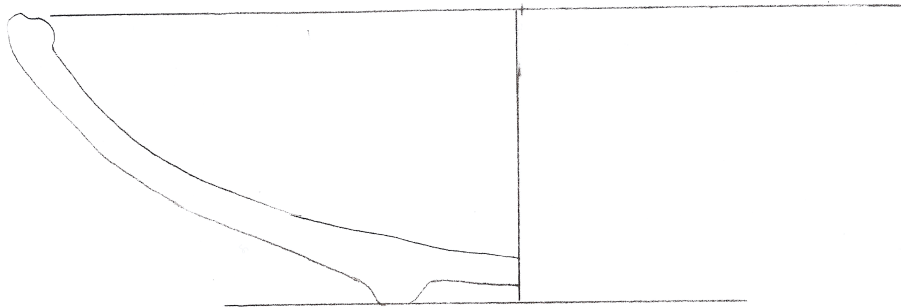


n.5b



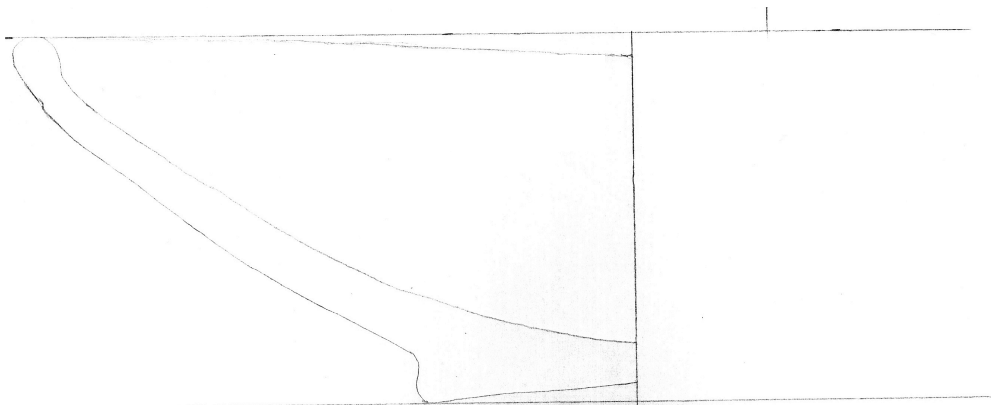
n.5c

<i>TYPE 6 Platter</i>				
Description	Location	Comparisons	Date	Counts
Inverted rim with internal profile	Palace Area Room 7	Parallels for this type of vessels are not available	MBA II	2
Ring Base	I-i-15/16 FS 16 vessel 13, 24			
Medium ware, medium fire and wheel made				



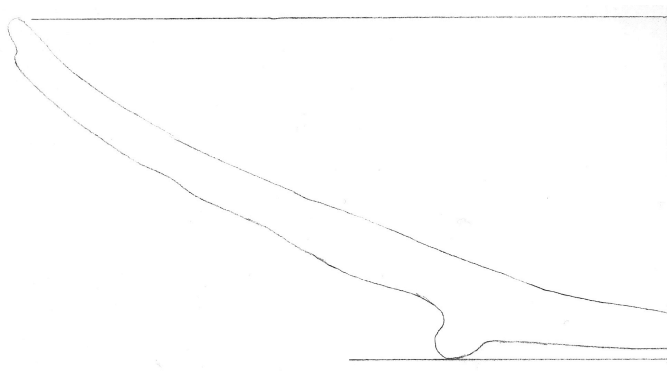
n.6

<i>TYPE 7 Platter</i>				
Description	Location	Comparisons	Date	Counts
Rounded inverted rim with external indentation	Palace Area: Room 7 I-i-15/16 FS 16 vessel 15	Parallels for this example are not available	MBA II	3
Disc Base Medium ware, medium fire and wheel made	Room 8 III a 16 FS 38 n. 62, 40			



n.7

<i>TYPE 8 Platter</i>				
Description	Location	Comparisons	Date	Counts
Platter with a rounded rim with external profile	Palace Area III-a-15 FS 25	Parallels for this type of platters are not available	MB II	3
Ring Base	Room 7 I-i-15/16 FS 16 vessel 14			
Medium ware, medium fire and wheel made	Room 8 III-a-16/N n. 18			



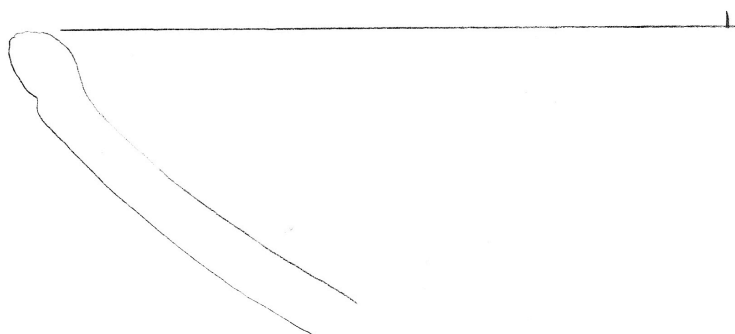
n.8

<i>TYPE 9 Platter</i>				
Description	Location	Comparisons	Date	Counts
Plain straight rounded rim	Palace Area I-i-15 FS 26 n. 39-40, 18.08.08	Shechem Stratum XVIII (Bp.11 fig. b plate 1 p. 101)	MBA II	3
Ring base Medium ware, medium fire and wheel made	I-i-15/16 FS 10 n.9 18.9.10			

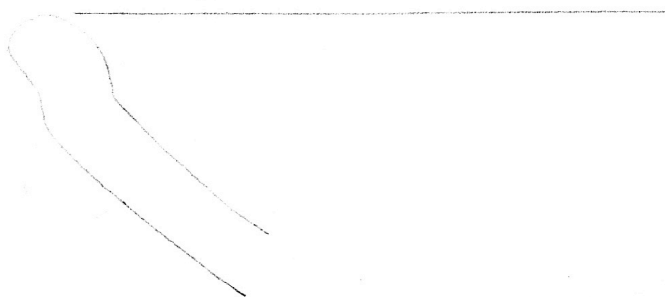


n.9

<i>TYPE 10 Platter</i>				
Description	Location	Comparisons	Date	Counts
Inverted rim, rounder external edge	Palace Area III-a-16 FS 23 n.1, 2, 3, 4, 5, 11 03.09.2007 III-a-16 FS 26 n. 9,16, 17, 20, 2007 Room 8	Shechem Stratum XX fig. g plate 5 p. 109	MBA II	19
Medium ware, medium fire and wheel made	III-a-FS 38 n. 62, 68, 60, 20, 40, 41 Room 7 I-i-15/16 FS 16 vessel 22, 27 I-i-15/16 FS 10 18.9.10 n. 2-4			



n.10a



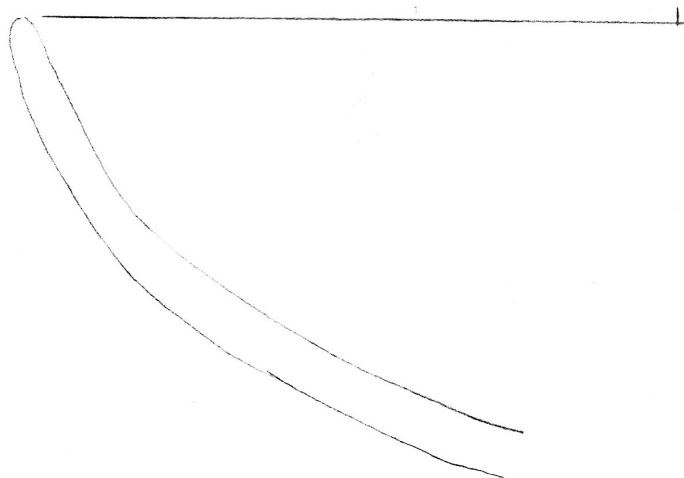
n.10b

<i>TYPE 11 Platter</i>				
Description	Location	Comparisons	Date	Counts
Platter characterized by a squared rim with external handles. Medium ware, medium fire and wheel made	Palace Area Room 7 I-i-15/16 vessel 25	Beqa'a Valley Tell el-Ghassil <i>niveau VI</i> . (Doumet-Serhal 1996, p. 234 pl. 52 n.5)	MBA II	1



n.11

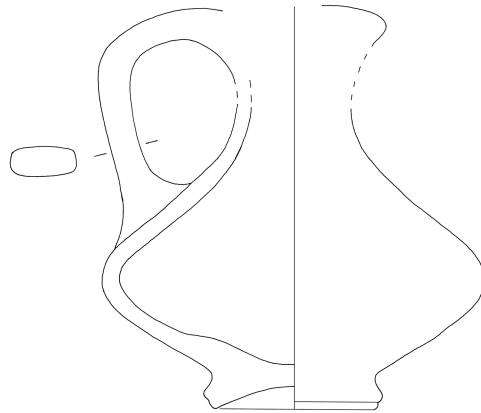
<i>TYPE 1 Platter</i>				
Description	Location	Comparisons	Date	Counts
Simple rounded rim	Palace Area III-a-15 FS 17 n. 4, 8.07.07 III-a-15 FS 25 n. 9,13, 2007	Southern Levant: Shechem Startum XIX fig. c plate 1 p. 101	MBA II	4
Medium ware, medium fire and wheel made	Room 7 I-i-15/16 FS 16/28 01.10.10 n. 7			



n.12

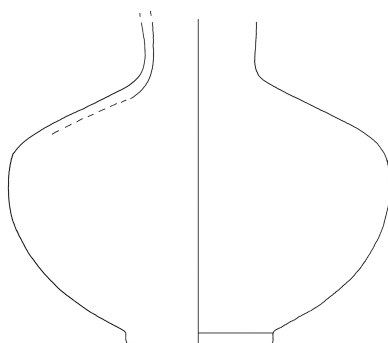
JUGLETS

<i>TYPE I Juglets</i>				
Description	Location	Comparisons	Date	Counts
Pyriiform Juglet with one sided handles Concave ring bases Diam. 10 cm	Palace Area Room 8	No comparisons are available	MBA II	1



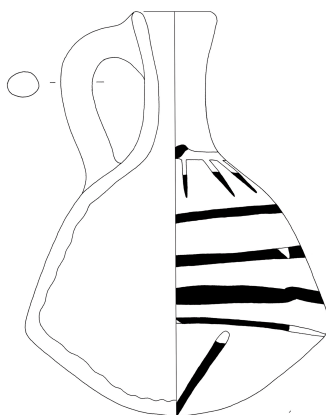
n. 1

<i>TYPE 2 Juglets</i>				
Description	Location	Comparisons	Date	Counts
Handless Pyriform juglet Flat base	Palace Area	No parallels are available	Phase 3 Old Palace period MB II	1



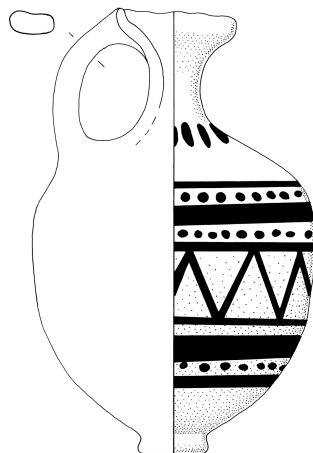
n.2

<i>TYPE 3 Juglets</i>				
Description	Location	Comparisons	Date	Counts
Simple rim, pyriform body and a rim to shoulder side handle Rounded base Diam. 8 H. 20 cm	Administrative area	No parallels are available	MBAII	1



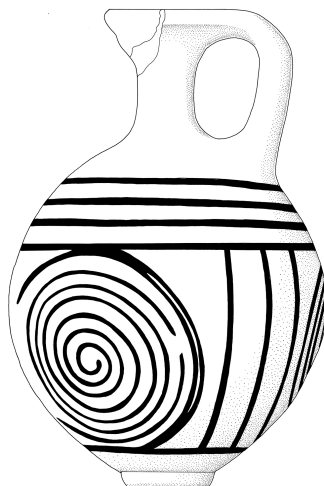
n. 3

<i>TYPE 4 Juglets</i>				
Description	Location	Comparisons	Date	Counts
Stepped rim One side handle from rim to shoulder Button flat base	Palace area III-a-16 N	Tell el-Ghassil 1996 Tell Dan 1996 Tell Sakka (Michel al-Maqdissi 2002, 46)	Middle Bronze Age, Palace phase 2/3	1



n. 4

<i>TYPE 5 Juglets</i>				
Description	Location	Comparisons	Date	Counts
Stepped rim, one side handle from rim to shoulder Flat base	Palace Area Child burial	Southwestern Syria: Tell Sakka (Michel al-Maqdissi 2002, 46)	Phase I MBA II	1

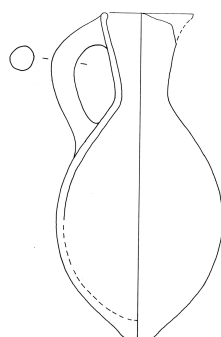


n. 5

<i>TYPE 6 Juglets</i>				
Description	Location	Comparisons	Date	Counts
Dipper juglets, with a rim to shoulder handle, rounded rim and pinched mouth Some examples also illustrate a more elongated body.	Palace Area, Room 8 - KL 12 vessel 3 IIIa-16/Nord FS 38) - I-i-15/16 vessels FS 19.2.2011. Administrative area Residential area - pit grave.	Southwestern Syria: Tell Sakka. (Michel al-Maqdissi 2002, 46:80.) Southern Levant Shechem Stratum XVII and XX	MBA II, Phase 2	6



n. 6a



n. 6b

JARS

<i>TYPE 1 Jar</i>				
Description	Location	Comparisons	Date	Counts
Jar with everted rim, internally and externally profiled Medium Ware Wheel Made Diam. 24 cm circa	Palace Area I-i-15/16 FS 27, n. 19	Comparisons for these jars not are available at the site	MBAII	3



n. 1

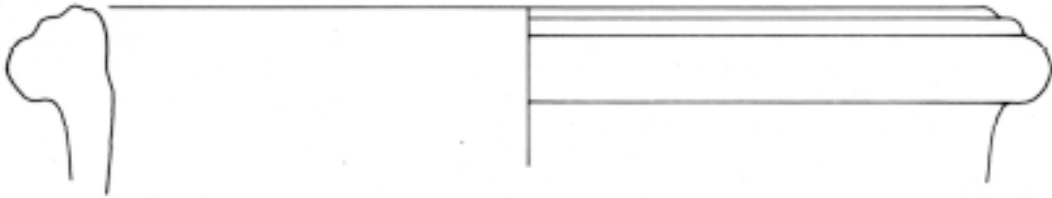


n. 2



n. 3

<i>TYPE 1 Jar</i>				
Description	Location	Comparisons	Date	Counts
Rim profiled internally and externally elaborated Diam. 30 cm	Palace Area I-i-15/16 FS 27 (sherd n. 21)	Shechem stratum XX (Cole 1984, 171, pl. 36 JI.44:j.)	MBAII	1



n. 4



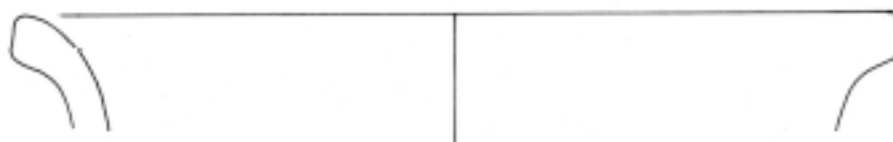
n. 5

<i>TYPE 1 Jars</i>				
Description	Location	Comparisons	Date	Counts
Jars with plain rims and rounded edges	Palace Area	Tell Ghassil <i>niveau IX</i> (Doumet-Serhal 1996, p. 212 pl. 30 n. 5)	MBAII	1



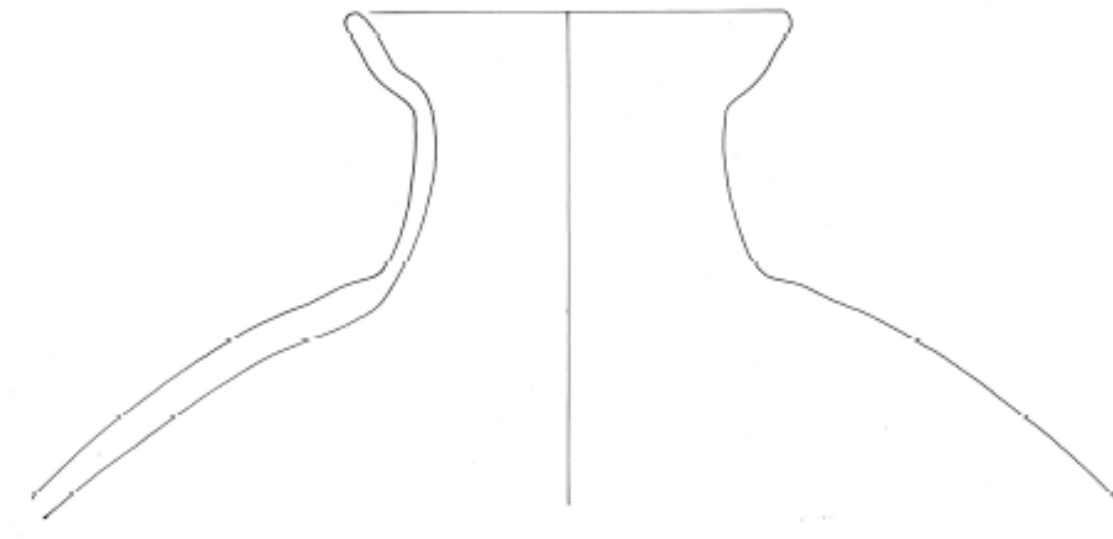
n. 6

<i>TYPE 1 Jar</i>				
Description	Location	Comparisons	Date	Counts
Jars with everted rims and squared profiles Diam. 20 cm	Room 8 founding spot (FS) 38.4.08	Central Levant Tell Arqa phase N, MBA I, (Thalmann 2006, planche 91 n.) Southwestern Syria Kom Masek MBAII period (Nicolle 2000, 63 planche XXVIII:54)	MBAII	1



n. 7

<i>TYPE 5 Jar</i>				
Description	Location	Comparisons	Date	Counts
Jars characterized by a tall neck and an everted rounded profiled rim Diam. 20 cm	Palace Area I-i-15/16 room 7 FS 16.	No comparisons are available	MBAII	1



n. 8

TYPE 6 Jar				
Description	Location	Comparisons	Date	Counts
<p>This jar exemplifies a rounded everted rim with a triangular section.</p> <p>Diam. 24 cm</p>	<p>Palace area I-i- 15/16 FS 19 (sherd n. 10)</p> <p>Administrative area (FS 8)</p>	<p>Beqa'a Valley</p> <p>Tell el-Ghassil <i>niveau VII</i> (Doumet-Serhal 1996, 230 pl. 48:8)</p>	<p>Common in the MBA I period. Some examples are, however, documented in the MBAII period.</p>	<p>2</p>



n. 9 a



n. 9 b



n. 9 c



n. 9 d



n. 9 e



n. 9 f

<i>TYPE 7 Jar</i>				
Description	Location	Comparisons	Date	Counts
Jar with everted rim and flattened edge	Palace Area	Tell Ghassil niveau X (Doumet-Serhal 1996, 198, pl. 16 fig. 28.)	MBA II	1



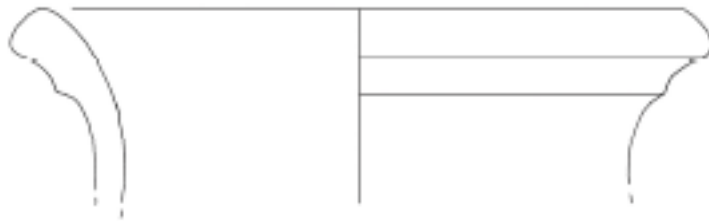
n. 10

TYPE 8 Jar				
Description	Location	Comparisons	Date	Counts
The rim is profiled externally with tapered edges	Palace Area	Tell el-Ghassil in <i>niveau</i> VII (Doumet-Serhal 1996, 229, pl. 47:1.) Tell Arqa phase N MBA I (Thalman 2006, planche 91:2.)	MB II/MBI	1



n. 11

<i>TYPE 9 Jar</i>				
Description	Location	Comparisons	Date	Counts
Everted rim profiled externally and with a tapered edge	Palace Area	Shechem (Cole 1984, pl.33 n.a.)	MBA II	1



n. 12

TYPE 10 Jar				
Description	Location	Comparisons	Date	Counts
Jars with an everted profiled rim	Palace Area Room 12 Room 11	Southern Levant, at the site of Shechem (Cole 1984, 181, pl. 41:p.) Hazor (Yadin 1961) Central Levant: Beirut Tell el-Ghassil <i>niveau</i> VIII. (Doumet-Serhal 1996, 221, pl. 39:3.)	MB II	2



n. 13a



n. 13b

<i>TYPE II Jar</i>				
Description	Location	Comparisons	Date	Counts
Jars characterized by an externally profiled everted rim with rounded edges	Palace area III a16 N. FS 38 Room 8 III a16 N. FS 38 (sherd n. 52-54, and n. 4)	Shechem level XX (Cole Cole 1984, 181, pl. 41:b,g.)	MBA II	3



n. 14a



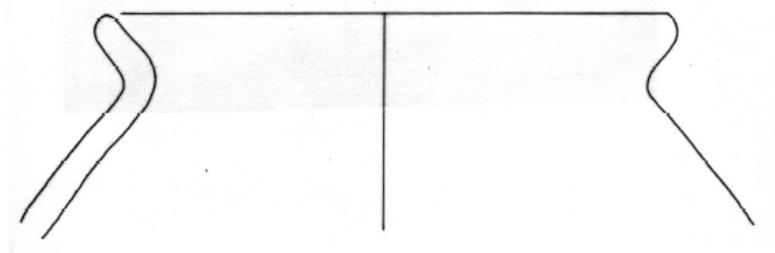
n. 14b



n. 14c

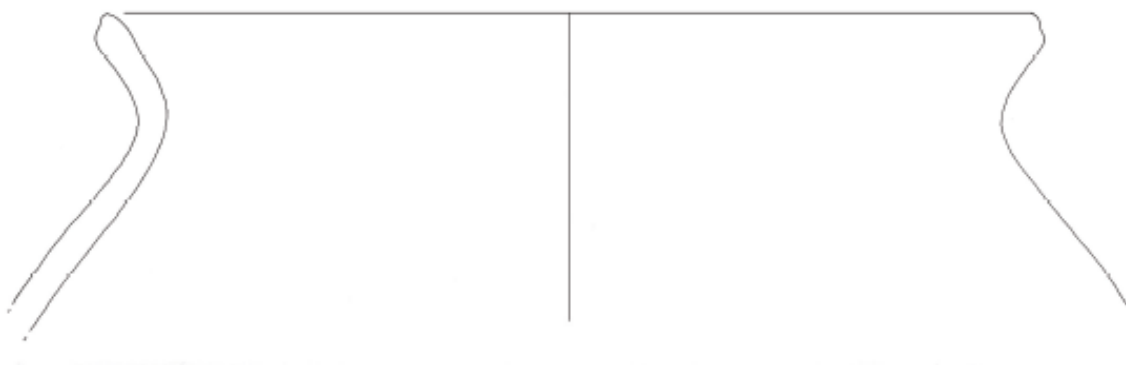
COOKING POT

<i>TYPE 1 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Cooking vessel with plain everted rims and wide open mouths Measurements: Diam. 20 cm	Palace Area III-a-15 FS 25, n. 64, 2007 I-li-16 FS 10 n. 43-44 I-li-15/16 FS 10 n. 61-62, 64 I-i-15/16 FS 3 (2011) Room 7 I-i-15/16 FS 16 vessel n. 467 I-i-15/16 FS 16 vessel 38 Administrative Area II/I h 18/1 FS 19 2011 n. 38	Kamid el Loz (excavation 1960s): Building phase 14 (Marfoe 1995, 119, fig. 69:5,8) Tell el-Ghassil (Doumet-Serhal 1996, 215 plate 33:22)	MB II	7



n. 1

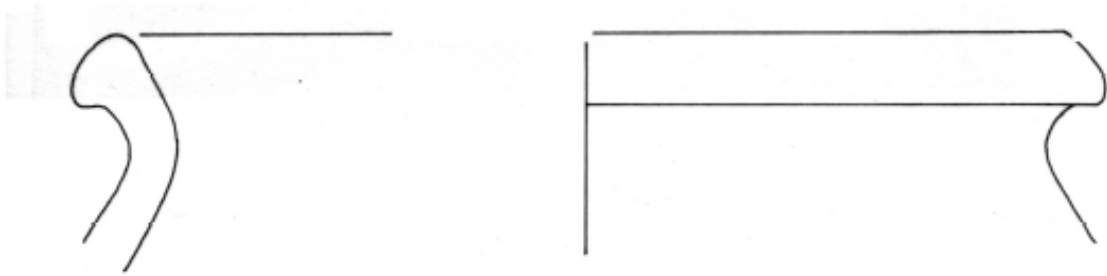
<i>TYPE 2 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Cooking vessel with everted rim and external ridge on the rim Measurements: Diam. 24 cm	Palace Area: I-i-15/16 FS 10 18.09.10 vessel n. 25. I i-15/16 FS 14 21.09.10 vessel n. 28 Administrative Area: (I-II h 18/1 FS 19 sherd n. 1)	Tell el-Ghassil (Doumet-Serhal 1996, plate 41:12 and plate 50 n.6)	MB II	3



n.2

TYPE 3 Cooking Ware

Description	Location	Comparisons	Date	Counts
Description: Cooking pots with a profiled everted rim (figs) with external projection Measurements: Diam. 20 cm	Palace Area I-i-15 FS 26 n. 46-49, 52-55 Room 8 III-a-16-N FS 38 n.46+47 Administrative Area (I-II h 18/1 FS 19 sherd n. 1)	Beqa'a' Valley Tell el-Ghassil (Doumet-Serhal 1996, plate 41:12 and plate 50 n.6)	MB II	4



n. 3

<i>TYPE 4 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Cooking pot with profiled everted rim There are a few subtypes for this vessel. Type 4.a shows an everted rim with a slight rounded external indentation. Type 4b, 4c and 4d demonstrate a more accentuated indentation on the rim. Measurements: Diam. 20cm	Palace Area and Administrative Area (II/I h 18/1 FS 19 sherd 11) type 4 a.	Beqa'a Valley Tell el-Ghassil (Doumet-Serhal 1996, pl. 30:14 and plate 31:12.) Central Levant: Tell Arqa phase M (Thalman 2006, planche 99:12)	MB II	5

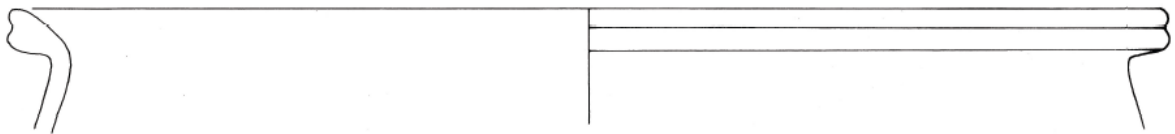
n. 4a



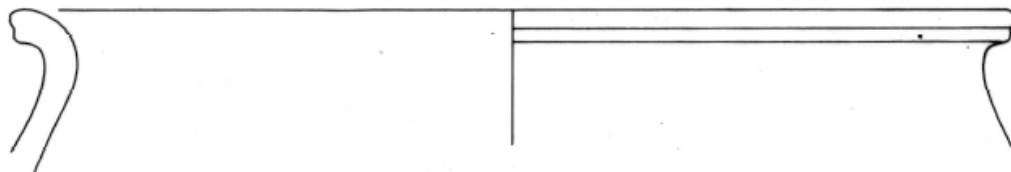
n. 4b



n. 4c



n. 4d



<i>TYPE 5 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Cooking vessel with everted upright-rim and internal indentation	Palace Area and Administrative area I/II h18/1 FS 21 sherds 14/15.	No parallels are available for this type of cooking vessel	MB II	2



n. 5

<i>TYPE 6 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Cooking pot which presents an everted rim and a profiled neck Diam. 20 cm	Palace Area	No Parallels are available for this type	MB II	1



n. 6

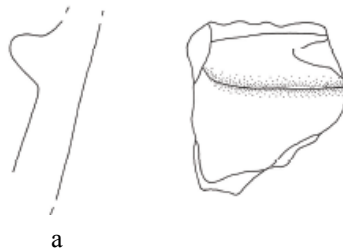
<i>TYPE 7 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Cooking vessels with incurved walls, a profiled rim with internal and external projection Diam. 24 cm	Palace Area	Beqa'a Valley: Kamid el-Loz temple T4a level. (Metzger 2012, Tafel 16:2) Southern Levant: Shechem (Cole 1984 113 plate 7 Bd B. 23 fig. d)	MB II	1



n. 7

<i>TYPE 8 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
<p>Flat base cooking pot with straight or incurved walls</p> <p>This type of cooking vessel can be divided into 4 additional subcategories. Type 8.a is characterized by straight curved walls; Type 8 b by straight walls; Type 8.c is a cooking bowl with curved walls and a pinched ledge. Type 8.d shows straight walls, with a simple ledge and, finally, type 8.d is mainly characterized by vestigial holes below the rounded rim and a simple squared profiled ledge; two sherds were found of this type. This type of vessel was already in use during the Early Bronze Age period and was adopted throughout the Middle Bronze Age period.</p>	<p>Palace Area and Administrative Area I-II h 18/1 FS 19 2011 sherds n. 36 (type 8.b)</p>	<p>Beqa'a Valley: Kamid el-Loz building level 21 (Marfoe 1995, 112 fig. 62:1-2.) Temple in level T4a (Metzger 2012, tafel 17:7). Baalbeck (Genz, 133:6)</p> <p>Southwestern Bosra, level 15 and 16 (Braemer and Maqdissi 2002, 37 plate VII) Southern Levant, Shechem stratum XX.(Cole 1984, p. 145, plate 23 Cf A.3 c,d)</p>	<p>MB I- MB II</p>	<p>6</p>

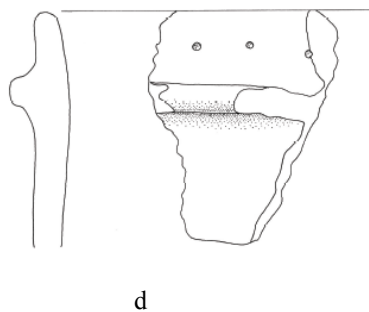
n. 8



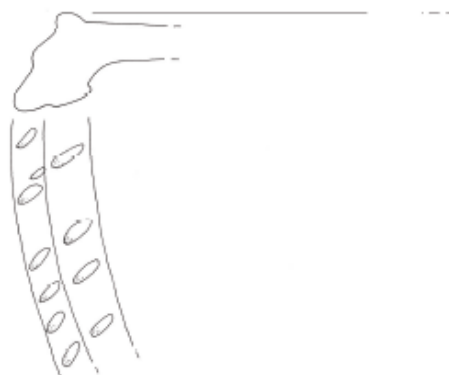
n. 8



n. 8

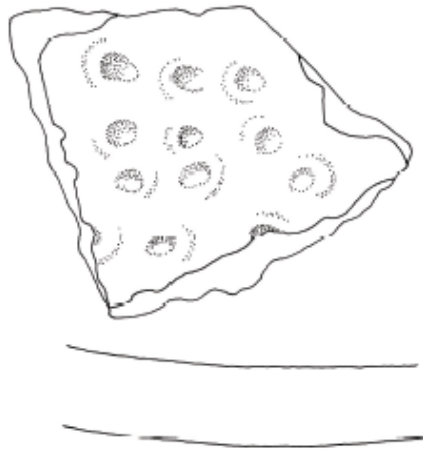


<i>TYPE 9 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Also known as baking trays and typically characterized by a perforated base and an elaborated rim	Palace Area Administrative Area	Beqa'a Valley Kamid el-Loz MBA Temple, level T4a. (Metzger 2012 tafel 25:7) Tell el-Ghassil. (Doumet-Serhal 1996, 293 pl. 111:6.) Central Levant: Tell Arqa in phase M. (Thalmann 2006, planche 105:11) Southern Levant: Hazor Stratum 3 area C (Yadin 1960, plate CXV:16,20.) Shechem, stratum XVIIIs (Cole 1984)	Late MBA II	2



n. 9

<i>TYPE 10 Cooking Ware</i>				
Description	Location	Comparisons	Date	Counts
Everted rim and two sided handles attached from shoulder to rim A complete version of this pot was found in room 8 and displays a rounded base.	Palace Area Room 8 IIIa16/N, FS28, 2008. Rooms 7	Tell el-Ghassil <i>niveau</i> VIII (Doumet-Serhal 222, pl. 40 n.11)	MB II Phase 2	2



n. 10

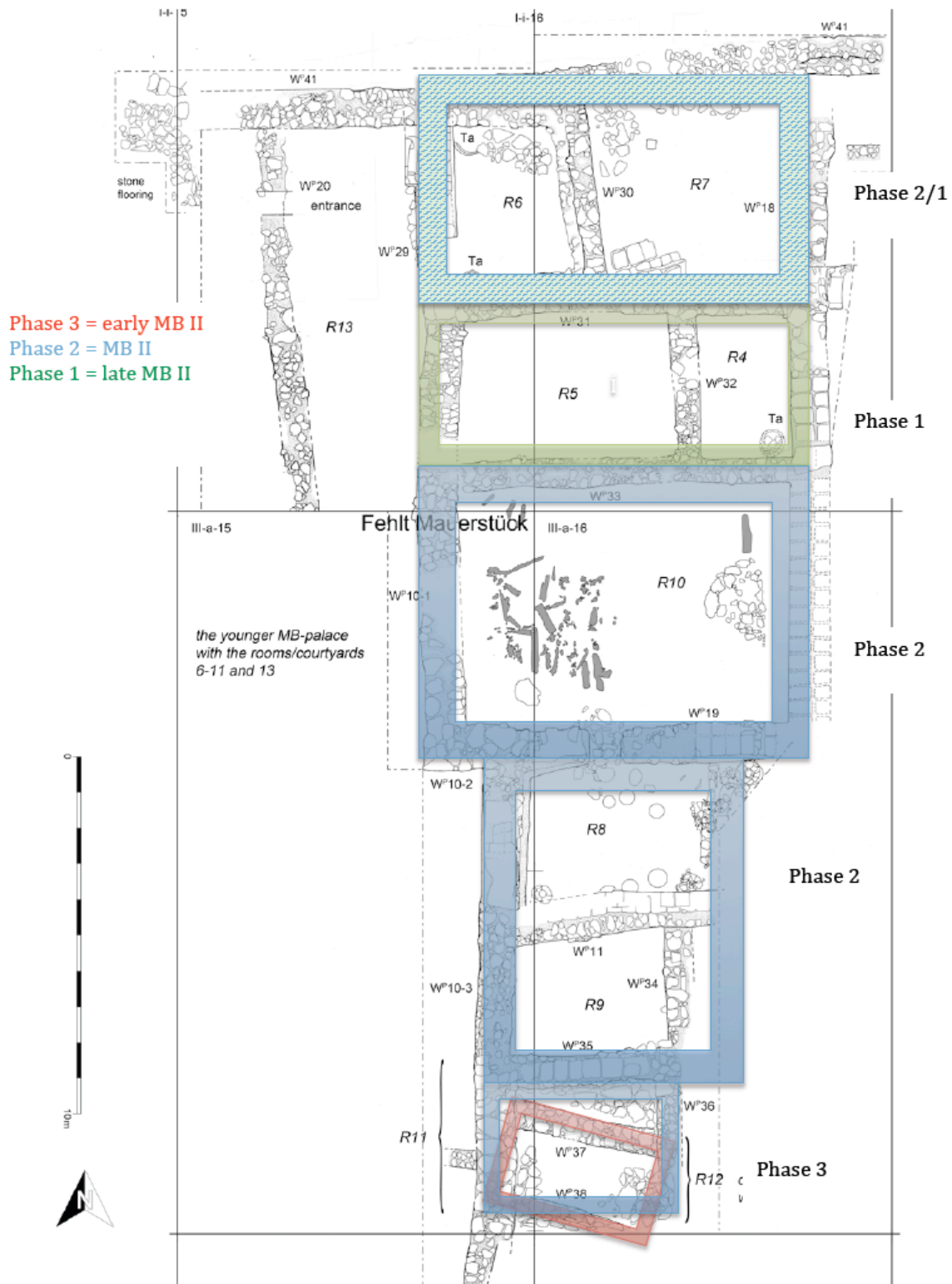
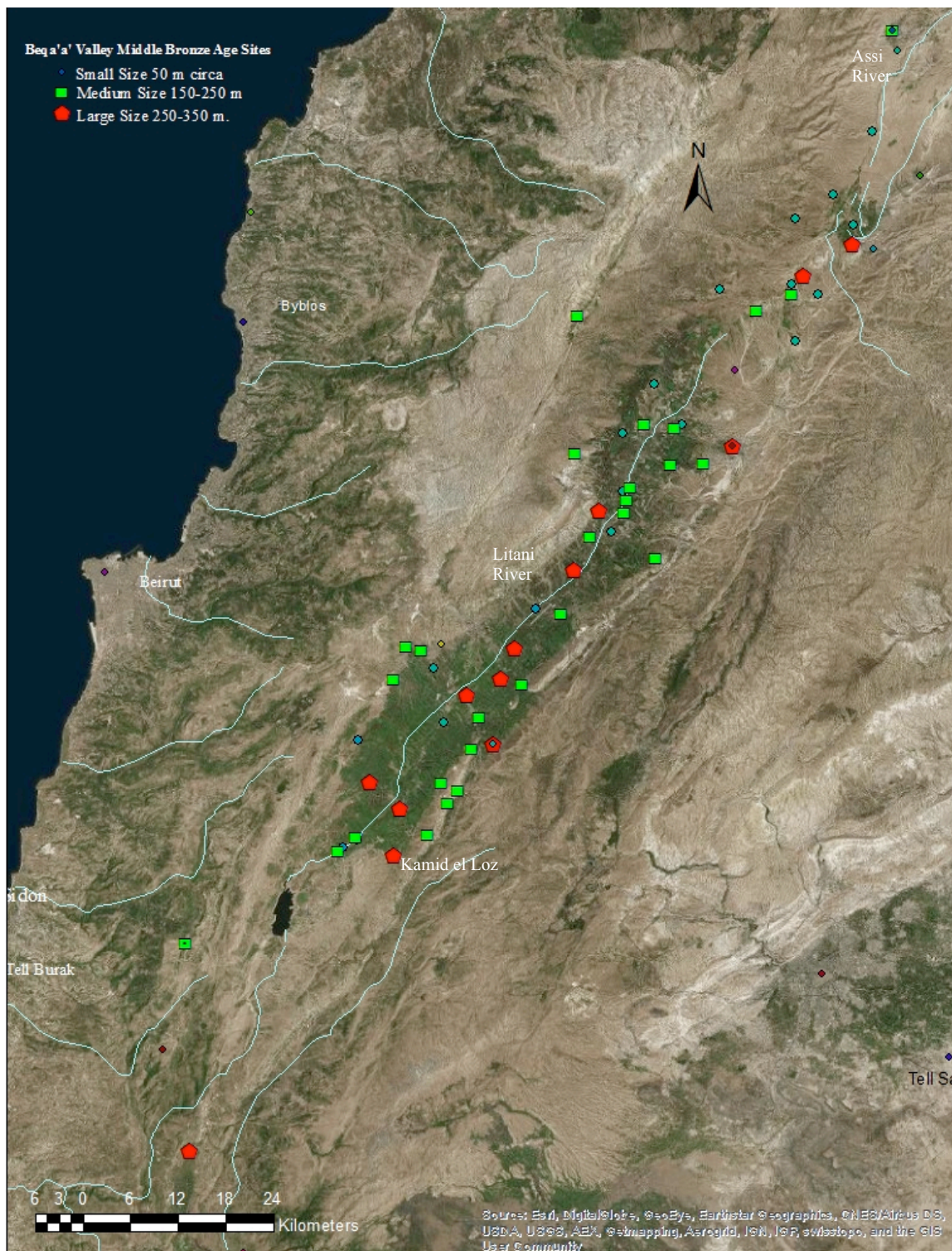
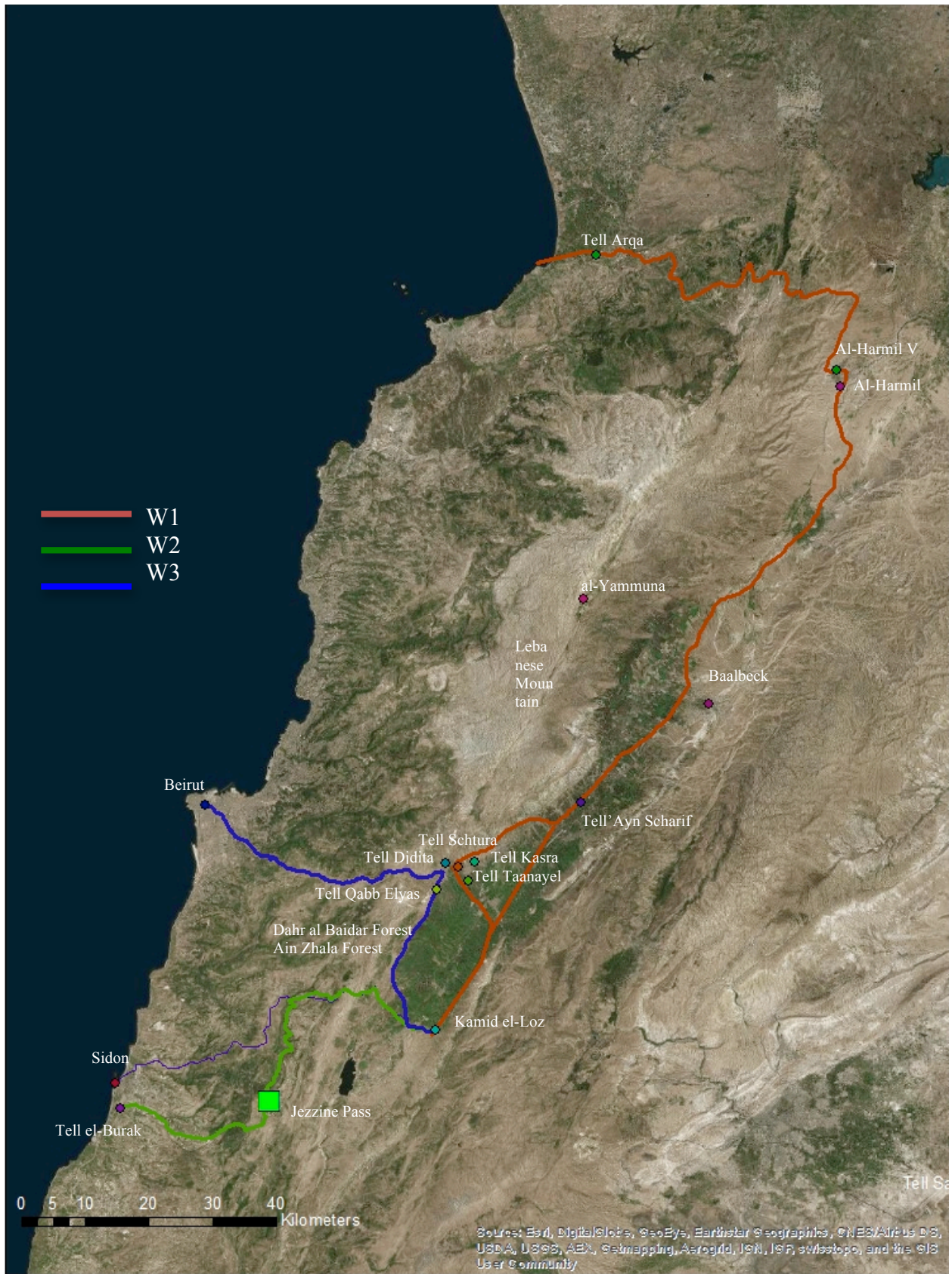


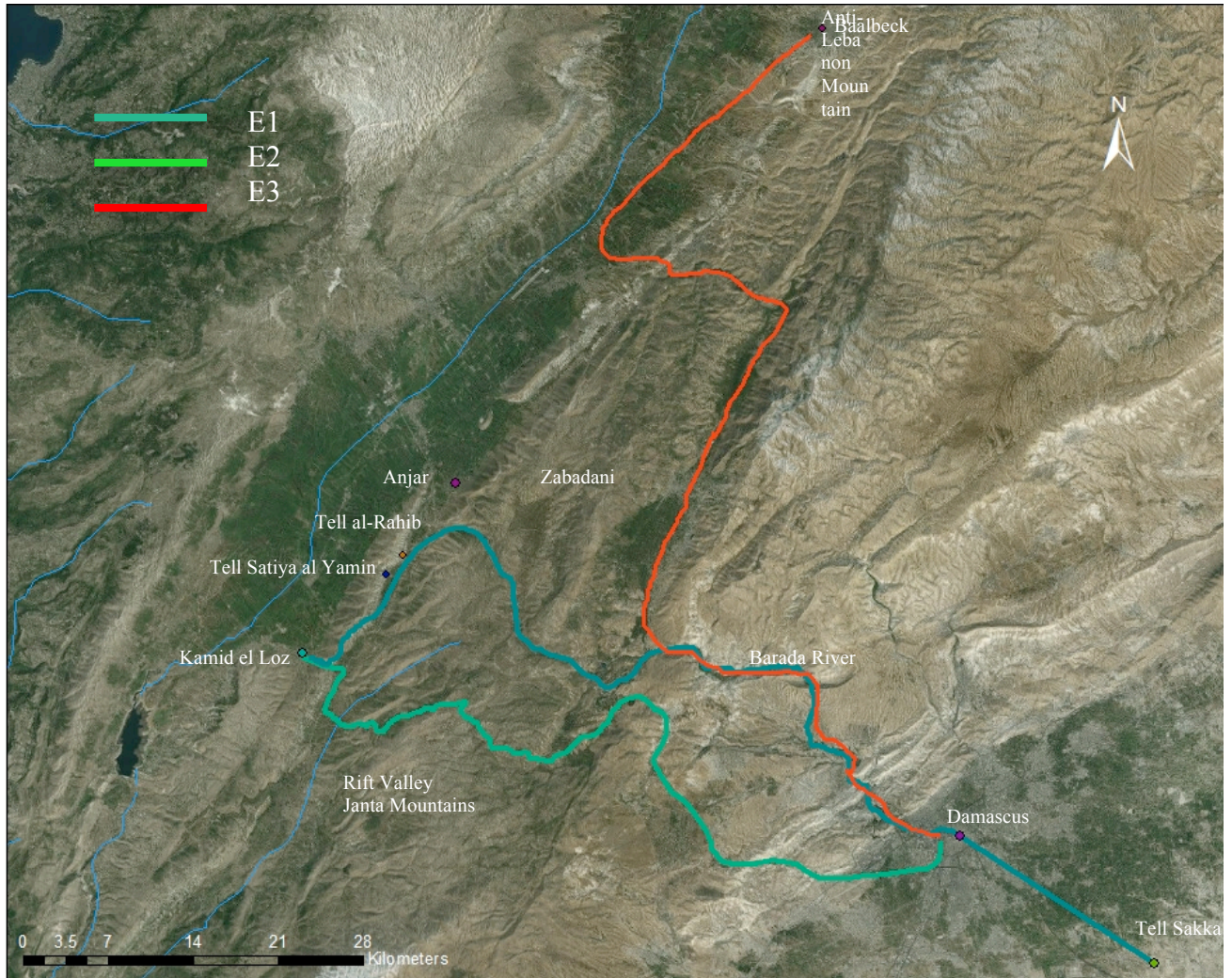
Fig.1 Middle Bronze Age Palace Phases



Map 1 Middle Bronze Age sites distribution



Map.2 The Beqa'a Valley – Beirut Routes



Map 3 The Beqa'a Valley-Damascus Routes



Map 4. The Beqa'a Valley–North-South Routes

Profile Elevations

P.1 W-S route elevations from Anjar to Damascus via the Zabadani (max el. 1379)



P.2 W-E route elevations from Kamid el-Loz to Damascus via the Janta Mountain (max. el. 1675)



P. 3 S-N route elevations from Kamid el-Loz to Baalbeck and Tell Arqa



P. 4 E-W route elevations from Kamid el-Loz to Sidon via the Jazzine Pass



P. 5 E-W route elevations from Kamid el-Loz to Beirut via the Dahr al Baidar River



P. 6 N-S route elevation form Tell Dibbin (Lebanon) to Tell Dan (Palestine)



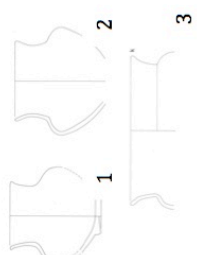





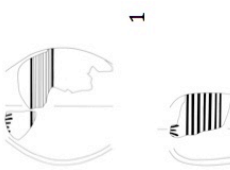


















2011-2010 excavation season	Lebanon Beqqa'a Valley Kamid el-Loz MBA II (1750-1550 BCE)	Lebanon Beqqa'a Valley	Lebanon	Southern Syria	Western Syria and Coast	Southern Levant
I Carinated Bowls Palace		Tell Hizzin MBA IIA-MBA IIB 	Tell Arqa MBA II/Phase M 1750-1550 BCE 	Yabroud MBA II 1800-1600 BCE 	Alalakh 1800-1600 BCE 	Shechem MBA IIB 1750-1655 BCE 
II Painted Ware Palace				Sidon MBA I phase 1 Early MB IIA  Beyruth, Kharij T. 2 MBA I 	Ugarit Ugarit-Moyen II 1900-1750 BCE  Sukas MBA II 	Tell Kabri MBA IIB 
III Painted Ware Palace		Tell Ghassil MBA II B 1700-1640 BCE  Tell Hizzin 	Sidon MBA I phase 1 Early MB IIA 	Sakka MBA II 1800-1600 BCE 	Ugarit Ugarit-Moyen 2 1900-1750 BCE 	Tell Dan Early MBA IIB 
IV Tell Yahudiyeh Ware		Tell Ghassil MBA II / LBA I 	Tell Arqa MBA II/Phase M 1750-1550 BCE 	Dhibin MBA II 	Ugarit Ugarit Moyen 2/3 1900-1600 BCE 	Megiddo MBA IIB 

Fig. 2 Comparative Ceramic Vessels Table of Kamid el-Loz ceramic vessels the

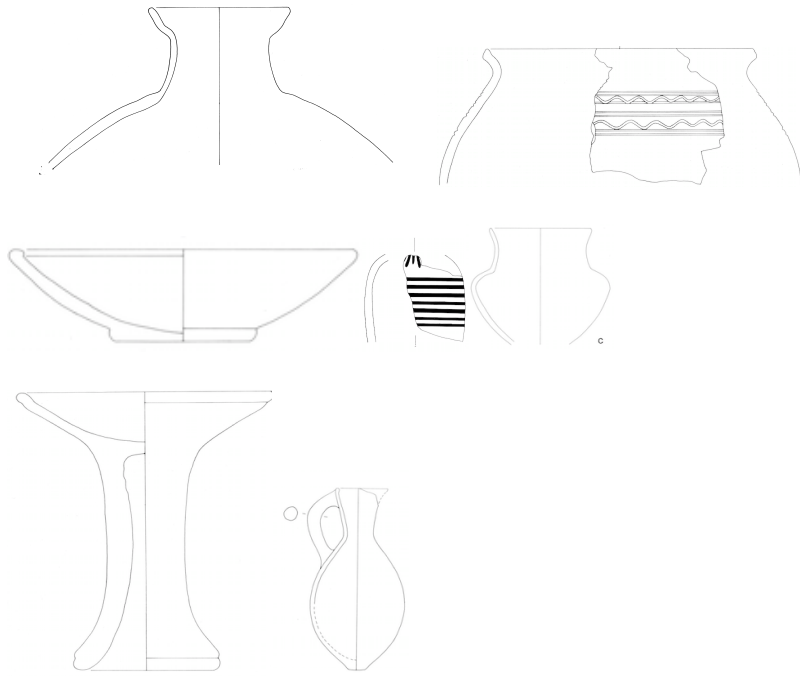


Fig. 3 Selection of Ceramic Vessels Room 7

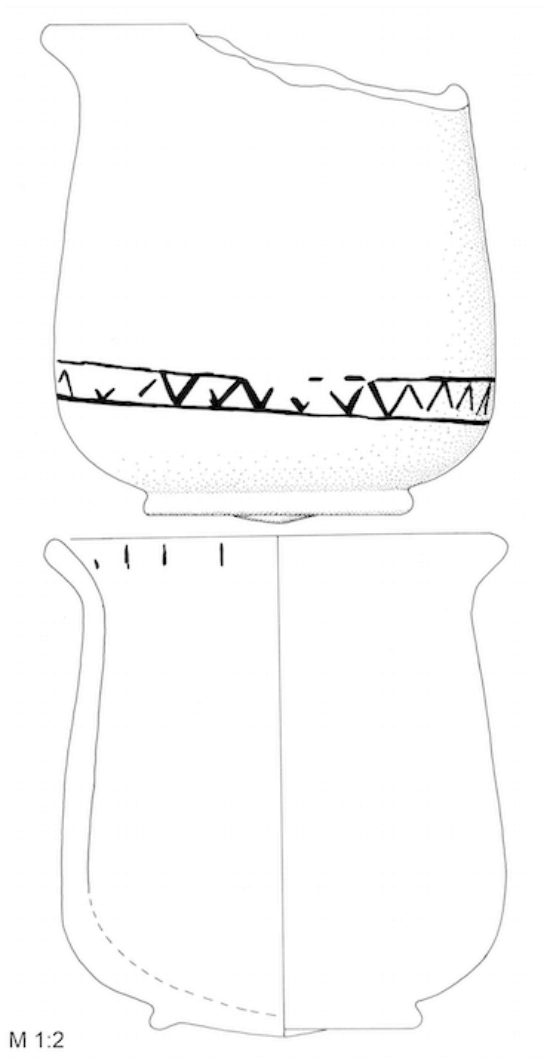


Fig. 4 Goblet



Fig. 5 Interior surface of a platter from Kamid el-Loz Palace room 7, showing vertical burnishing lines. (ProScope HR image)

Levantine Painted Ware



Painted Ware

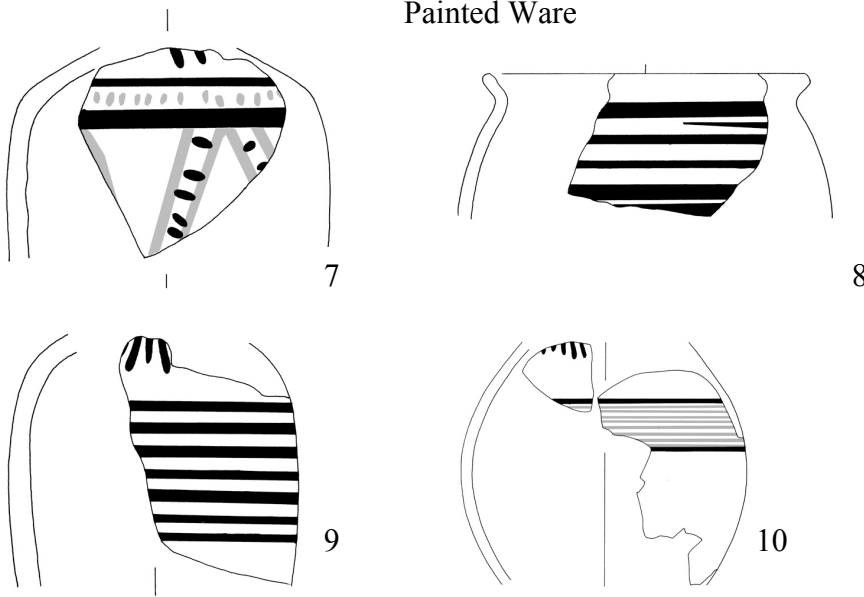


Fig. 6 Painted Ware and Levantine Painted Ware

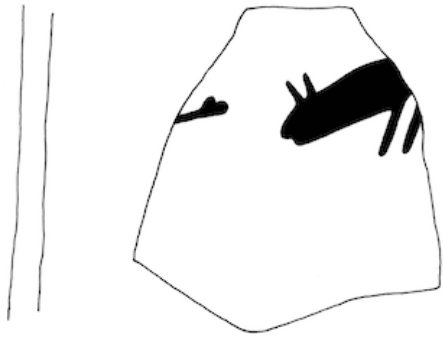
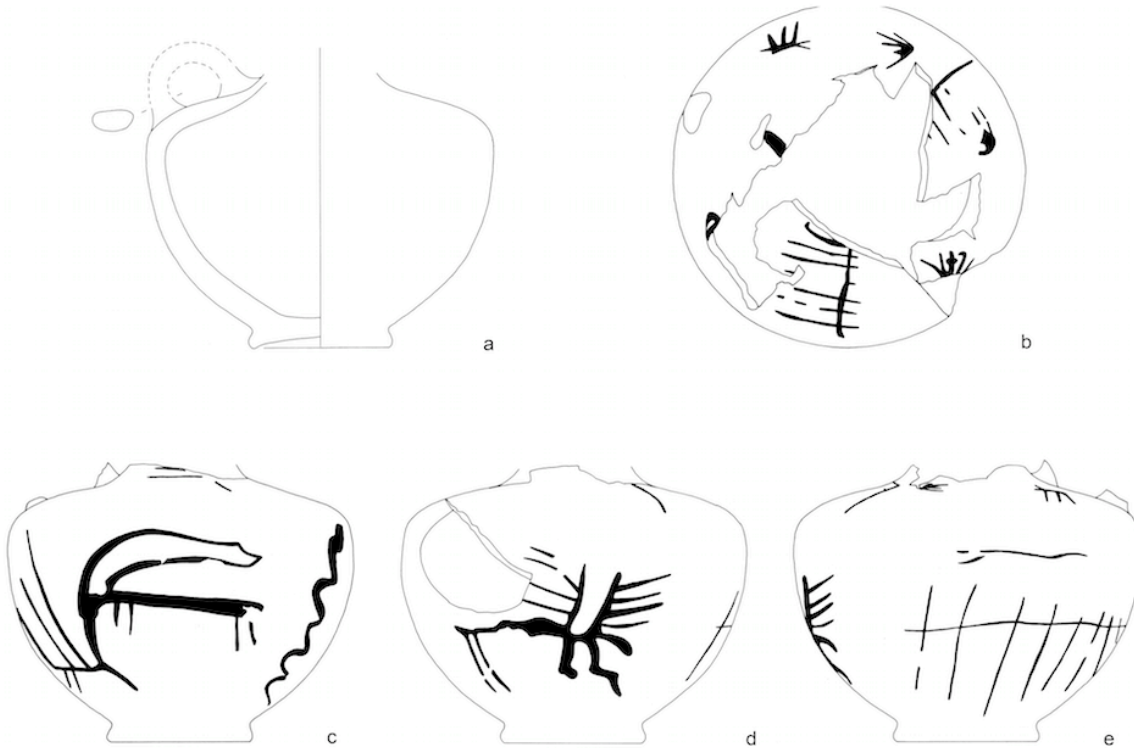


Fig. 7 Painted Sherd with Animal Motif



M 1:3

Fig. 8 Painted Juglet

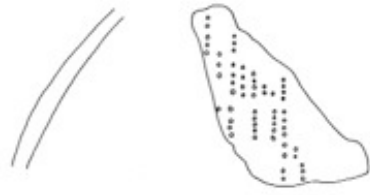


Fig. 9 TYW sherd from Kamid el-Loz



Fig. 10 TYW from Kamid el-Loz

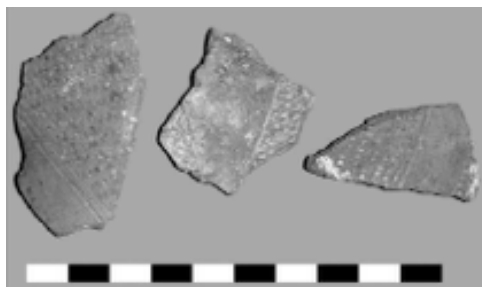


Fig. 11 TYW from Tell Hizzin



Fig. 12 TYW from Tell el-Ghassil



Fig.13 LPW Geometrical Style



Fig. 14 LPW Spiral Motif



Fig. 15 LPW Wavy Motifs

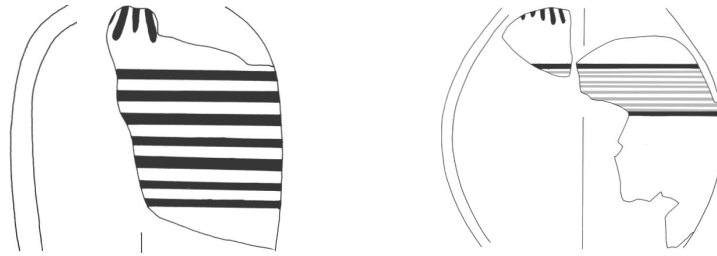


Fig. 16 Painted Ware

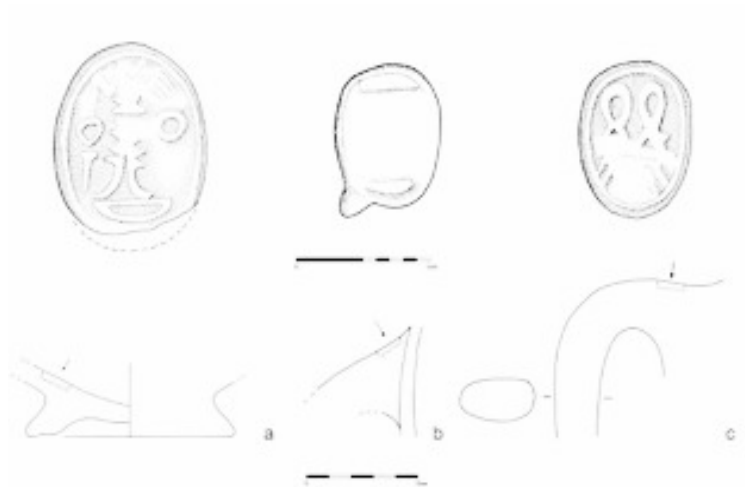


Fig.17 Scarab Impressions



Fig. 18
KL 72:270



Fig. 19
KL 72:188



Fig. 20
KL 67:239



Fig. 21 Seal Impression Palace Area



Fig. 22 Seal Impression Administrative Area

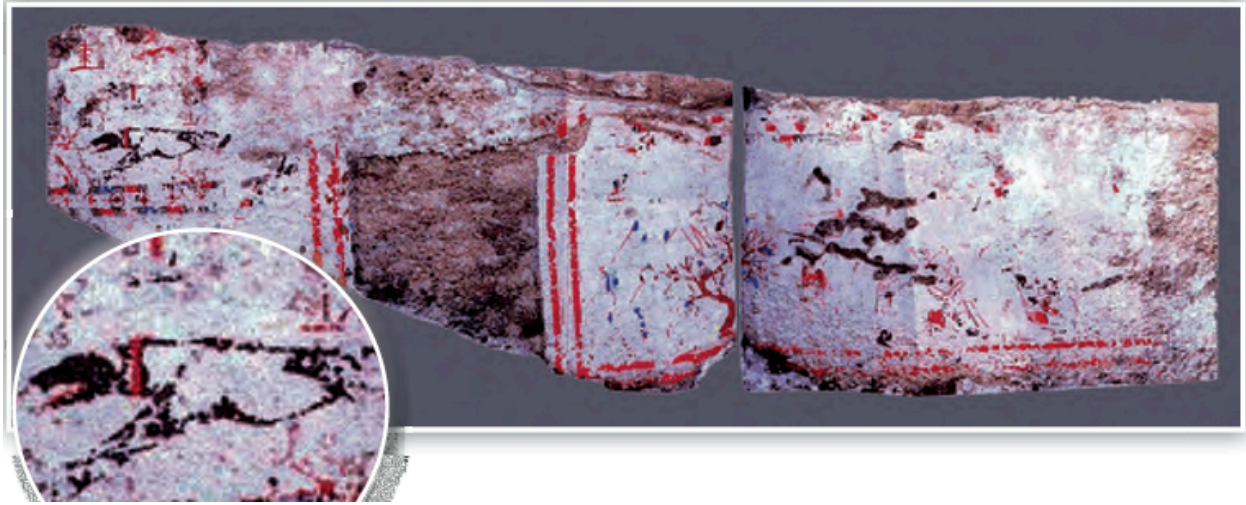


Fig. 23a Tell el-Burak Wall Paintings (Sader and Kamlah 2010)

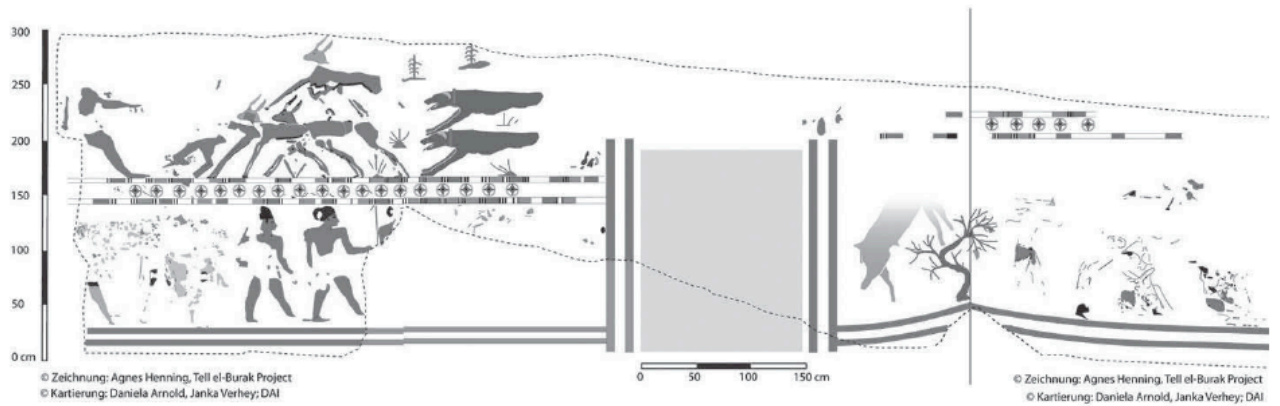


Fig. 23b Drawing of the Paintings of Tell el-Burak (Von Ruden 2013)



Fig. 24 Young Male with Atef Crown, *niveau IV* Middle Bronze Age II, Tell Sakka, Syria.
(Taraqji 2008).



Fig. 25 Goat eating from a bush, *niveau IV* Middle Bronze Age II, Tell Sakka, Syria
(Taraqji 2008).

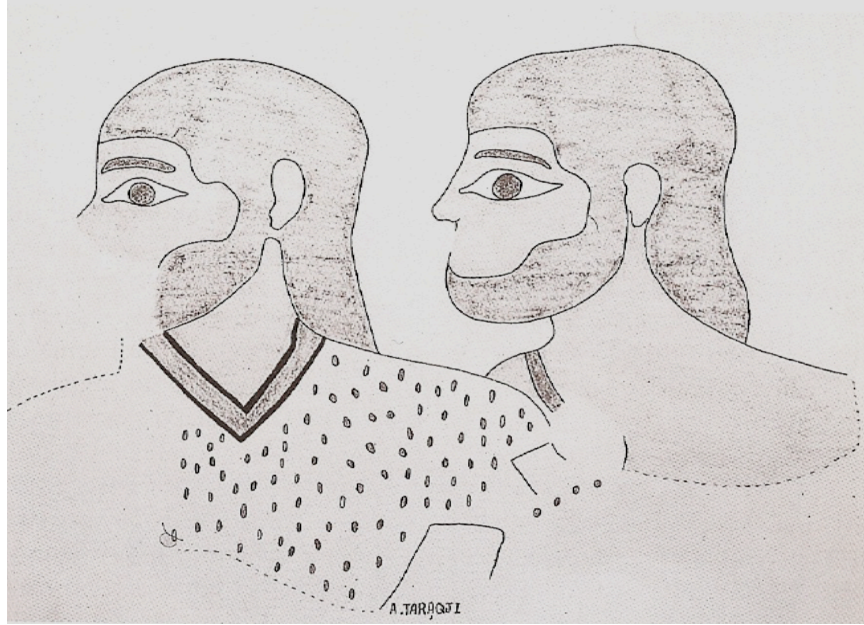


Fig. 26 Bearded Males (Taraqji 1999)



Fig. 27 KL 67:144 (Khune and Salje 1996)



Fig. 28 KL 72:271 (Khune and Salje 1996)

CHRONOLOGY									
Central Levant (Lebanon)		SOUTHERN AND NORTHERN BEQA'A			Cyprus	Southern Levant		Egypt	Syria
Coast									
MB I 2000-1750	Tell Arqa (2) MB I Niveau 14 Phase N 2000-1750 BCE	Tell el-Ghassil (6) MB IIA Niveau XI 1800-1750	Kamid el-Loz Building Level 21-22 Phase 8	MM IA -1975 MM IB 1975-1900 MM IIA 1900-1825 MM IIA 1900-1825	MCI-III 1900-1600	MB I (4) 2000-1850	MB IIA	12 Dynasty 2019- 1739	MB I Hama H Mardikh IIIA
	Sidon (3) MB II A/1 MB II A/2 Phase 1 and 2 MB II A/3 Phase 3								
MB II 1750-1550	Tell Arqa MB II Niveau 13 phase M 1750-1550 BCE	Tell el-Ghassil MB IIB Niveau X 1700-1640	Kamid el-Loz MBA Palace Phase 1-3	MM IIB 1825-1750		MB II 1750-1650	MB IIB Shechem (5) Stratum XX-XVII (ca 1750-1650 BCE)	13 Dynasty 1739 - 1570	MB II Mardikh IIIB Alalakh stratum VII
	Sidon MB I/II – MB II A/MB IIB phase 4 1750 BCE MB II/ III Phase 5-8	MB IIC Tell el-Ghassil Niveau IX – VIII 1640-1500	Building level Phase 6-7 (L.14-20) Temple T4	MM IIIA 1750-		MB III 1650-1500	Hazor V MB IIC Shechem (ca 1650-1550/1500) Hazor IV		

Table 1

Middle Bronze Age Sites

	SITES	LOCATION	INFORMATION (From Large to Small)	(M=Marfoe)- L	Date
1	Andjar I	Southern Beqa'a	370x310 m	154 (M)	MB
2	Tell Dibbin	Southern Beqa'a	with a buffer of 13.415 ha; total area 21.241 ha	1 (M)	MB
3	Marg 'Ayun	Southern Beqa'a	NA		MB
4	Kamid el-Loz	Southern Beqa'a	5.32 ha, 11.591 ha buffer, total 16.911 ha	136.158 (L)	MB
5	Tell Barr Elyas	Southern Beqa'a	340x220x27m/7.478 ha, 12.834 ha buffer, total, 20.312 ha	159 (M)	MB II
6	Tell el-Ghassil	Central Beqa'a	larger than 4.311 hectares, with a buffer of 10.682 ha		MB I/ MB II
7	Tell Ayn Scharif/Tell Ain	Southern Beqa'a	13.453 ha buffer, total 21.750 ha	206 (M)	MB I/ MB II
8	Tell Labwa III al	Northern Beqa'a	300x250 m	345 (M)	MB
9	Tell al Uyun I	Northern Beqa'a	300x160x22 m	322 (M)	MB
10	Tell Rayak		4.127 ha) with a buffer of 10.724 ha, for a total area of 14.851 ha	207 (M)	MB
11	Baalbeck	Northern Beqa'a'	c. 300 m diam	291 (M)	MB
12	Tell as Sirhan	Southern Beqa'a	8.445 ha buffer, total 10.625 ha	173 (M)	MB II
13	Tell Rachidiyeh	Southern Beqa'a'	about 11.8 ha, with a buffer of 15.8 ha		MB
14	Qasr Labwa	Northern Beqa'a'	290x210x70	344 (M)	MB
15	Tell Dalhamiya	Southern Beqa'a	270x230x21m	177 (M)	MB
16	Tell Dayr Zanun	Southern Beqa'a	250x210x17	170 (M)	MB
17	Tell ad Dar	Southern Beqa'a	250x200x16m	106 (M)	MB
18	Tell Ghazza	Southern Beqa'a	250x150x8m	107 (M)	MB
19	Tell Bir Dhakwa	Southern Beqa'a	10.949 ha buffer, total 15.011 ha	105 (M)	MB
20	Tell Satiya al-Yar	Southern Beqa'a	230x150x11m	143 (M)	MB
21	Tell Neba'a Faour I/Jall Mashnaqa	Central Beqa'a	4.68 ha, with a buffer of 11,134 ha, for a total area examined of 15.814 ha	183 (M) - 1	MB II
22	Tell Shtura/Tell Chtaura	Southern Beqa'a	210x200x10 m/3.464 ha, 9.739 ha buffer; total 13.203 ha	160 (M)	MB II
23	Tell al-Mathani	Northern Beqa'a'	210x150x5m	323 (M)	MB
24	Tell Haql al Khirt	Southern Beqa'a	200x250x5m	52 (M)	MB

Table 2.1

25	Tell Qabb Elyas	Southern Beqa'a	200x100x4-5 m	159 (M)	MB
26	Al Harmil V	Northern Beqa'a'	Circa 200	375 (M)	MB
27	Tell Hawasch as	Northern Beqa'a'	200x180x7m	292 (M)	MB
28	Tell Ayn Schat	Northern Beqa'a	200x160x15 m	309 (M)	MB
29	Al Yammuna	Northern Beqa'a	Medium (mesurments not p	289 (M)	MB
30	Tell ad Djisir I/Te	Southern Beqa'a	180x150x11m	51 (M) - 15	MB
31	Tell Adh-Dhur I,	Southern Beqa'a	150 m diam. X 4 m	54 (M)	MB
32	Tell ar Rhahib	Southern Beqa'a	150 m diam. X7 m	142 (M)	MB
33	Tell Ayn Khanzir	Southern Beqa'a	150 m. diam. X 5-7 m	140 (M)	MB
34	Tell Djdita	Southern Beqa'a	150x100m	400 (M)	MB
35	Tell Al-Alaq	Northern Beqa'a'	150m diam x ca 15m	270 (M)	MB
36	Tell al Istabl	Southern Beqa'a	140x130x8m	144 (M)	MB
37	Tell ez-Zaytun	Southern Beqa'a'	140x100m	12 (M) / 15	MB
38	Tell Addus/Tell /	Northern Beqa'a'	8.098 ha buffer, total 9.907 ha	293 (M)	MB I/ MB II
39	Tell Douris I	Northern Beqa'a	ca. 9.6 ha for the site and buffer combined	249	MB I/ MB II
40	Hawsch as-Sa'Sa	Southern Beqa'a	130x100 m	102 (M)	MB
41	Tell Taalabaya	Southern Beqa'a	125x125x8m.	174 (M)/16	MB I/MB II
42	Tell Ard at Tlaili	Northern Beqa'a'	120 x 80x3m	308 (M) 18	MB
43	Tell al-Hosn	Northern Beqa'a'	110x80x2 m	325 (M)	MB
44	Tell Ta'nayil	Southern Beqa'a	105x65x4 m	158 (M)	MB
45	Tell Khirbat al-M	Southern Beqa'a	80x50 m	327 (M)	MB
46	Tell Meouchi		1.008 ha, 6.772 ha buffer, 7.78 ha tota		MB II
47	Tell Ksara	Southern Beqa'a	80x50x3 m	188 (M)/ 16	MB
48	Tell al Ghabi	Southern Beqa'a	70x60x5m	193 (M)	MB
49	Tell Haql al Djan	Northern Beqa'a'	60x30x13 m	348 (M)	MB
50	Tell Ayn Ahla	Northern Beqa'a	60 m diam x1 m	326 (M)	MB
51	Tell Marah al-W	Northern Beqa'a'	60x40 m	362 (M)	MB
52	Tell Sugha	Northern Beqa'a'	55x25x4 m	343 (M)	MB
53	Haql al Baida	Northern Beqa'a'	50x30x3 m	349 (M)	MB
54	al Ftah II,	Southern Beqa'a	50 m diam	65 (M)	MB
55	Riha Station	Northern Beqa'a'	14 m diam x 3	313 (M)	MB
56	Khirbat Busaybis	Northern Beqa'a'	Small	374 (M)	MB
57	Saida I	Northern Beqa'a'	Small	274 (M)/18	MB II?
58	Khallit al Hazin \	Southern Beqa'a'	NA	9 (M)	MB
59	Tell Maqna II	Northern Beqa'a'	NA	294 (M)	MB
59	Ras Baalbeck II	Northern Beqa'a	NA	367 (M)	MB
60	Harmil IV	Northern Beqa'a	Tumuli field	376 (M)	MB

Table 2.2

61	Tell Frach		NA		MB
62	Tell Kabb el- Kro	East - Anti-Lebanon - Yanta	circa 200 x 125	14 (B, 2002)	MB
63	Site 23 A-B	East - Anti-Lebanon - Yanta Area	semicircular hilltop	B (2002)	MB
64	Site 44	East - Anti-Lebanon - Yanta Area		B (2002)	MB
65	Site 47	East - Anti-Lebanon - Yanta Area		B (2002)	MB

Table 2.3

Painted Ware and Tell Yahudeya Ware					
Motif	Type	Quantity	Registration Number	Context	Condition of Vessels
Geometric design	Juglet	1	FS 19 n.34+35.11 (Administrative area) FS59.2.09 Fig. 65.6	Palace Palace Room 9 Tomb (Marfoe)	Complete
Circle style	Juglet	11	S. 10.1.11 S 3 S	Palace (I-I 14/15, III a16 Nord) Administrative, building level 21 and tombs	Fragmented plus 3 complete juglets
Spiral motif	-	4	S 38.55.08 S10.11 (I-i-14/15) S 54.26.09 (I-i-15/16) ig. 61.6	Palace - Room 8 Palace Palace Residential Area (Marfoe)	
X Style	-	3	FS2.TS.R8 FS20.15 FS 18.4	Palace area (III-a-16) Test Trench S.R8 Residential Area	Fragmented
Linear Style	1 juglet	2	FS 1	Palace area (I-i-16)	1 Complete one fragmented
Wavy bands	Carinated bowls	1	FS 30.1	Palace area III-a-16	Fragmented
Collarrette and Bands	juglets	6	FS 37.1 FS 24.2 FS 16.399-406.10 FS 16.406.10 FS 33.10 Fig 61.1	Palace Room 7 Palace Palace Palace Administrative area Residential Area (marfoe)	Fragmented
Combination of undulated and horizontal bands	juglet	1	FS 4.5.11 (I-f—14)	Burial from the residential area	Complete
Tell Yahudeya Dotted patterns	-	1	FS25.27.11	Outer walls of the MB Palace	Fragmented
Tell Yahudeya Dotted pattern	juglet	1	KL 74:747	Temple phase T4a	Incomplete
Total Tell Yahudeya Ware: 2 Total Painted Ware: 23 Total: 24 pieces					

Table 3 Painted Ware and Tell Yahudeya Ware

MINOAN WARE PRESENT IN LEBANON		
Location	Quantity	
Beirut/Byblos	1	Vapheio cup? MMIIB/MMIIIA
Byblos	2	Cup rim MMIIA Base MMIIB
Area of Byblos	10	Fragmented pieces of Kamares, among which is the juglet characterized with wavy horizontal bands enclose three-leafed petals on the body (context is unclear).
Sidon	1	Cup found near a burial

Table 4 Minoan ware present in Lebanon

COAST		BEQA'A VALLEY	
Tell Kiri	3	Tell Hizzin	1
Tell Arqa	295	Kamid el-Loz	2
Byblos	2	Tell Ghassil	10
Beirut	4		
Sidon	14		
Kafer Djarra- Ruweise	2		
Serepta	16		
Tyre	18		
Beiteddine Museum	1		
Qraye	1		
Majdalouna	1		
Total 357		Total 13	

Table 5 Cypriot Imports in Lebanon