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Life after the Palaces:

A Household Archaeology Approach to Mainland Greece during Late Helladic IIIC

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

by

Trevor Matthew Van Damme

2017

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ABSTRACT OF THE DISSERTATION

Life after the Palaces:

A Household Archaeology Approach to Mainland Greece during Late Helladic IIIC

by

Trevor Matthew Van Damme

Doctor of Philosophy in Archaeology

University of California, Los Angeles, 2017

Professor Sarah P. Morris, co-chair

Professor John K. Papadopoulos, co-chair

My dissertation examines the period after the collapse of the Mycenaean palatial system until the beginning of the Early Iron Age (1200–1050 BC). Traditionally identified as a ‘Dark Age,’ this period has been characterized as one of decline, stagnation, and relative egalitarianism in contrast with the palatial period. Recent research has begun to contradict these assumptions, demonstrating that international contacts continued in the post-palatial period and many communities continued to thrive. Drawing on the growing field of post-collapse literature and integrating elements of resilience and urban theory, my dissertation poses the following interrelated questions: Why do certain communities survive collapse? What made a resilient community? And what influenced the settlement pattern identified in the post-palatial period? I argue that the perception of abundance

(whether in terms of resources, opportunities, information, or technologies) played an integral role in shaping the landscape of Greece.

I take the site of ancient Eleon, a community in Boeotia, Greece, that survived the post-palatial collapse, but ultimately failed prior to the Early Iron Age, as a case study. I consider four different aspects of households: household size, storage capacity, household industry, and ceramic consumption. At Eleon, storage space was provided mainly by fired ceramic containers such as pithoi, vats, and bathtubs and unfired clay bins known as *kotselles*. Storage seems to have been on the scale of yearly subsistence. Evidence for textile production included two types of loom weight; a spool loom weight that is probably of foreign origin, and a heavy loom weight possibly used in the specialized production of very thick textiles like rugs. Ceramic evidence also suggests foreign influence and perhaps even a foreign potting community at Eleon. This includes the appearance of foreign shapes such as the carinated cup and handmade burnished ware. There are also close stylistic ties with the site of Xeropolis (Lefkandi). The architecture at Eleon, however, shows close ties with palatial Thebes, including the use of fired ceramic roof tiles, colonnaded hearth rooms, and a ramp. Overall, the analysis of Eleon presents the picture of a small self-sufficient settlement with weak ties to its neighboring communities. Many of the developments at Eleon derived from its contacts with the coast, making the community vulnerable to any shift in regional networks.

But how does Eleon differ from sites such as Kynos, Xeropolis and Tiryns that ultimately survived into the Early Iron Age? My research demonstrates that, in contrast to Eleon, these communities produced evidence for robust storage practices and abundant textile manufacture. Their location on the coast facilitated external contacts, both within local networks, as well as allowed them to develop links with foreign networks

of interaction. Such contacts allowed them primary access to new ideas and technologies, resulting in a more diverse and thereby more resilient community. This is reflected in the archaeological record, as these sites show early evidence for iron-working, the adoption of spool loom weights for weaving, and a variety of imported objects. While Eleon initially participated in this network of interaction, as demonstrated by close ceramic ties to Xeropolis in the early post-palatial period, changes to this network in LH IIIC Middle (c. 1150 BC) gradually resulted in the isolation of this inland settlement. It is likely that the contraction of the former palatial center at Thebes resulted in a diminished role for Eleon as a node between Thebes and the coast, and the inhabitants of Eleon left their homes seeking out more abundant opportunities, jobs, and resources elsewhere.

The dissertation of Trevor Matthew Van Damme is approved.

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2017

DEDICATION

The Wheel of Time turns, and Ages come and pass, leaving memories that become legend. Legend fades to myth, and even myth is long forgotten when the Age that gave it birth comes again.

Robert Jordan

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This dissertation could not have been completed without the constant support of my family and friends over the last five years. I thank my parents especially for never ceasing to support me, even as one degree turned into three. Many friendships have been forged along the way that will last for years to come, but I must thank those that helped me keep grounded through this entire process: Debby, Glenda, Julia, Kate, Matt, Sebastian, and at UCLA, the other members of my cohort: Rose, Richard, Jacob, and Marissa. A special thank you goes out to Brian for his companionship on numerous adventures along the way; here is to hoping for many more in the future. The journey that ends with the completion of this document began ten years ago when a farm boy from Manitoba boarded an airplane for Victoria, British Columbia; ostensibly to study Astronomy and Physics, but in reality embarking on a career in Archaeology. Those years would prove formative to my development as a scholar and a special debt of gratitude is owed to Brendan Burke for providing me with my first opportunity to excavate in Greece and for his inexorable friendship.

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INTRODUCTION

Thirty years ago it was possible, perhaps inevitable, that the ill-lit centuries between the fall of Mycenae and the emergence of historic times should be summed up briefly as an undifferentiated, apparently static, and relatively unimportant era. Since then decisive archaeological discoveries have provided adequate signposts to the tempo, stages, and direction of change in the years from 1150 to 750. In this age, it is now clear, the inhabitants of the Aegean settled on the patterns of thought which continued directly into historic times as the main marks of Greek civilization.

(Starr 1961, 78)

Even before the first trenches were dug at Xeropolis (Lefkandi)¹, Chester Starr accurately highlighted the importance of the post-palatial period of mainland Greece to the later development of Greek civilization. In his assessment, the post-palatial period was above-all characterized by a lack of *information*, not a lack of *innovation*. The excavation and initial publication of the major post-palatial site at Xeropolis appeared to support this conclusion, since, for the first time, it offered proof of continuous occupation from the Late Bronze Age to Early Iron Age, without any clear evidence for a sudden appearance of foreign peoples (Popham and Hackett 1968).

Continuous occupation was clear enough, but what was life in Greece really like after the palaces? Scholars largely ignored Starr's rebuke of the period after the fall of Mycenae as an "undifferentiated, apparently static, and relatively unimportant era." The Cambridge school of historical thought in particular, led by Vincent Desborough (1964,

¹ Throughout this study, I refer to the Late Bronze Age tell site located in the modern village of Lefkandi as Xeropolis in order to distinguish it from the well-known cemetery sites surrounding it, including the monumentalized protogeometric cemetery at Toumba. Various scholarly publications use Lefkandi, Lefkandi: Xeropolis, and Xeropolis interchangeably. While Xeropolis or "dry city" is not the ancient name of the settlement, it is a more neutral identifier than any of the previous proposed identifications. A more detailed discussion of the problem of the Bronze Age name of the site is included in chapters two and three.

1972), Anthony Snodgrass (1971, 1987), and Nicolas Coldstream (1977), collectively articulated the hypothesis of the ‘Dark Age’ of Greece. Although acknowledging the complexity and importance of this period, they construed it in terms of migrations, stagnation, and overall decline. These scholars envisaged a broken people struggling for their day-to-day survival. The one innovation of the period, iron working, was ascribed to necessity on account of an Aegean-wide bronze shortage triggered by the collapse of the neighboring states that had provided its constituent ingredients: copper and tin (Snodgrass 1971, 237-239). The other key innovation, the introduction of mechanically drawn circles that ushered in the Protogeometric style, was widely ascribed to foreign influences (Desborough 1972, 340-341)². On account of their observations, there was little reason to question their assessment that it was only in the eighth century BCE that important social and political developments began the inexorable progress towards the Classical Greek poleis.

Remarkably, and despite mounting evidence to challenge this ‘Dark Age’ hypothesis, it is still widely held among Classical historians and dominates contemporary narratives of the post-palatial period. Ian Morris (2009), for instance, continues to argue vociferously that it was only during the eighth century BCE that Greece was able to recover from its several centuries-long economic slump. Telling is his comparison of the eighth century BCE with the Industrial Revolution, in which he argues (2009, 65) that “there are few episodes in world history...when a society experienced such profound change in the course of a hundred years.” Morris (2009, 65) asserts that previous challenges to the ‘Dark Age’ hypothesis “systematically avoided...economic and social issues.” One of the

² Although Desborough does accept that it was strongly local in character.

goals of the present work therefore is to demonstrate that economics cannot be reduced simply to debatable wealth indicators such as household size or imports, but rather requires a contextualized analysis of household storage and production, the underpinnings of the ancient economy.

In the first publication of their finds from the modern town of Lefkandi, Mervyn Popham and Hugh Sackett (1968, 4) emphasized the issue of continuity of occupation as one of their main research goals, since narratives of a Dorian invasion and displacement of Pelasgian peoples on the Greek mainland were widespread in historical narratives of their day. The question of continuity of peoples between the Late Bronze Age and Iron Age is no longer of paramount importance in Greek archaeology, because it is clear that there was no dramatic replacement of the local population as originally envisaged. The decipherment of Linear B in 1952 demonstrated that the administrative language of prehistoric Greece was Greek and, thus, at least some element of the population has continued to occupy the mainland since the Late Bronze Age (see Chadwick 1967). It is only fitting therefore, that the post-palatial period receive closer attention for its important role in the development of the poleis, simultaneously emphasizing continuities and discontinuities as important contributing factors. Rather than casting the post-palatial period as an extended collapse, my own research focuses on the resilience of people, institutions, and communities.

The present study finds its place within a larger body of scholarship questioning the explanatory value of collapse in historical and popular narrative alike (e.g., Diamond 2005). Scholars working across the globe have challenged collapse as antiquated, overly focused on continuous progress or economic growth, and potentially misleading as to the

“success” or “failure” of societies (e.g., McAnany and Yoffee 2010, Faulseit 2016). Post-collapse periods are demonstrably integral to the reorganization and regeneration of state-level societies. They are characterized by increased social and geographic mobility, innovations (whether technological or ideological), and opportunities. The present work argues that Greece is far from exceptional in this regard. Understanding post-palatial societies is important precisely because it has global relevance. Furthermore, this study demonstrates that the years from 1200-1050 BCE, far from being a period of decline and stagnation, were unprecedented in terms of innovation and social transformation. I argue that increased mobility resulted in the introduction of new technologies and new ideas that shaped the social development of the Greek mainland during the subsequent centuries.

The Goal of the Present Study

Although scholars have recently focused greater attention on the post-palatial period of Greece and Crete, including the development of new research projects excavating post-palatial settlements, the role of the household in the post-palatial economies of mainland Greece has continued to be overlooked. While this has historically been the result of a lack of published data, enough sites have now produced final publications or comprehensive reports of their findings that a broader analysis can be performed for the first time. My study fills this gap. I argue that domestic production, storage capacities, and consumption patterns serve as a more reliable indicator of household wealth than foreign imports or luxury goods. While much of the household data for post-palatial Greece is flawed, in the sense that completely excavated and published households of this period remain rare, I

contend that the available data sets contradict the picture of a recession spanning multiple centuries. Rather, the domestic economy of Greece appears to have been quite stable in the aftermath of the palatial collapse. This suggests that communities successfully mitigated the effects of palatial collapse. Yet this observation poses new questions: why did some communities continue to be abandoned? Why did a few communities (i.e. Tiryns, Xeropolis) grow in size? I would argue that the blanket explanation of current ‘Dark Age’ hypothesis does not account for this patterning.

Recent scholarship including an article by Emilio Arena (2015) and a book by Margaretha Kramer-Hajos (2016) has continued to emphasize the role of “non-palatial” or “peripheral” centers in the post-palatial period. This kind of scholarship rests on the legacy of world-systems theory that became prominent in the 1980s and 1990s, despite criticisms over its application to pre-capitalist societies (cf. Hall and Chase-Dunn 1993). Such arguments hinge on the apparent success of “non-palatial” areas in the post-palatial period. Growing evidence suggests that many palatial centers thrived in the post-palatial period, however, with Tiryns likely growing to its peak size around 1150-1100 BCE. Furthermore, Mycenaean economies, featuring a handful of centers of 20-30 hectares and 10,000 or so individuals, can hardly be viewed through the lens of urbanism, let alone capitalism (Bintliff 2002b). In the present study, therefore, I propose a new model derived from contemporary anthropological thought that emphasizes abundance as a motivating concept for human actors in post-collapse periods. This model has already been successfully applied by Monica Smith (2012) to early hominid quarrying patterns, the domestication of cereals, and the emergence of urbanism. I contend that post-collapse

periods offer an ideal environment in which abundance, or at least perceived abundance, played an important role in the choice of habitation sites.

Ancient Eleon

My study uses the site of ancient Eleon in Boeotia as a case study for understanding the successes and failures of settlements in the wake of palatial collapse. Located just outside the modern Greek village of Arma on the National Highway connecting Athens and Thebes, Eleon is and always has been located on an important corridor of movement. A comparison between the household assemblage at Eleon and those at other sites across mainland Greece offers tentative hypotheses why some communities proved more successful during the post-palatial period. Eleon is an ideal case study precisely because, although initially successful, it ultimately failed.



Figure 0.1: *The polygonal wall along the eastern side of the acropolis at ancient Eleon (Courtesy of the Eastern Boeotia Archaeological Project).*

The archaeological site today associated with ancient Eleon was first described by William Leake (1835, 466-469). After passing by the site, Leake identified it with the historical site of ancient Pharae and made a quick sketch of its standing remains. Heinrich N. Ulrichs was the first to make the identification of the acropolis at Arma (formerly Dhritsa/Dritza/Andritza) with the historical site of ancient Eleon, relying on a careful

study of the local topography (1863, 78-80)³. This identification was upheld by Frazer (1913, 65), and more recently by Fossey (1988, 94-95). Unfortunately, we still have no certain epigraphic identification of the site and it does not appear to have minted coins that might help secure an identification (see Kraay 1976, 108-114). Despite boasting a monumental polygonal wall (figure 0.1), no scholarly exploration of the acropolis proper took place prior to the start of the joint Canadian and Greek program of excavations in 2011.⁴ While the site of Eleon was visited by a number of the general surveys of the 1960s and 70s and generally acknowledged to be one of the most important Mycenaean sites in the region (Hope Simpson and Dickinson 1979, 247), no focused work was performed at the site until the beginning of the Eastern Boeotia Archaeological Project.

The early accounts are, therefore, an important source of information on the lower town and the extent of the site, elements that have been modified through road construction, water diversion, and agricultural activities over the last two centuries. Leake's (1835, 466) early drawing of the acropolis wall is an important documentation of its state of preservation in the 19th century and demonstrates that the acropolis wall has suffered only minor damage since his visit, since only two additional stones have been displaced. The same cannot be said for the lower town. Leake reports that the wall of the

³ A great deal of confusion is caused by the shifting use of modern and ancient place names to describe individual sites. The modern village of Ἄρμα/Arma is located at the foot of the acropolis identified with ancient Eleon. The modern village of Ελεώνας/Eleonas is located to the northwest of the ancient acropolis, much closer to the ancient acropolis associated with the site of ancient Harma.

⁴ Only two brief excavations had taken place in the vicinity of the acropolis of Eleon prior to 2011. Both of these explored graves in cemeteries north of the site. The first, a three-day rescue operation undertaken by Nikolaos Pappadakis in one of the cemeteries north of the acropolis, was in response to illegal excavations (Pappadakis 1911, 140). He describes burials with grave goods similar to those being excavated around the same time at Rhitsona (i.e., late sixth or early fifth century BCE). A more recent rescue operation took place in 2003 near the modern settlement of Eleonas and also found Late Archaic through Classical graves (Aravantinos 2001-2004; Aravantinos 2009b, 223, fig. 352, 227, fig. 360-361; Aravantinos 2010, 174-175, 177). These, however, are more likely to be associated with the ancient site of Harma, lying around a kilometer to the north of the site.

lower town was “in many places visible, enclosing a slope to the south and the west of the acropolis...” (Leake 1835, 466). Today, this wall has all but vanished. During the survey of the area surrounding the acropolis from 2007-2010, only orthogonal blocks piled in field rows attested to a former enceinte. Inside this same area, Ulrichs reports seeing rectangular foundations and notes that the church located by the spring was built on a well-preserved ancient foundation (Ulrichs 1840, 80; compare Fossey 1988, 91). In the same general area, Leake reports a sculpted rectangular base with a cutting in the top, possibly for a tripod (Leake 1835, 467). Unfortunately, the recent field survey failed to uncover much additional evidence for the lower town.



Figure 0.2: Main excavation area at ancient Eleon at close of 2016 season (Courtesy of the Eastern Boeotia Archaeological Project).

The Eastern Boeotia Archaeological Project was conceived as an intensive survey of the ancient acropolis of Eleon and its hinterland (Aravantinos et al. 2016). Particular focus was paid to the adjacent cemeteries, including the famous Tanagra cemeteries of Dendron and Gephyra. From 2007-2010, over 1,453 separate tracts were walked and diagnostic sherds were retained for analysis. The results demonstrated that the acropolis was in use from the Early Bronze Age through Late Classical periods, with a brief reuse of the acropolis during the Late Byzantine/Early Ottoman period.



Figure 0.3: Boeotian kylix ware kylix from the ramp area at Eleon (Courtesy of the Eastern Boeotia Archaeological Project).

Since 2011, targeted excavation in the northeastern area of the acropolis has produced a stratified sequence of habitation in the Northwest and Southwest Sectors (figure 0.2). These mainly date to the post-palatial period making it an ideal case study in post-collapse resilience (see below). In the Gate area, repeated renewals of a lime plaster ramp are interspersed with votive material including figurines, miniature vessels, and Boeotian kylix ware lekanes and kylikes (figure 0.3), which demonstrate frequent remodeling throughout the sixth century BCE.⁵ Finally, just north of the gate area,

⁵ Although the date of the gate's original configuration is currently unknown, it is possible that this was the Mycenaean gateway. The entire entrance-system was, however, extensively modified on at least three

excavations in 2013 revealed by chance the southern limit of an Early Mycenaean burial enclosure. Excavations since then have focused on the exploration and preservation of this important monument.

Terms and Definitions

This study covers a number of topics that require terminology to be defined more fully.

The question of elite versus non-elite architecture, as well as domestic versus administrative structures, is not simple. Elite versus non-elite is a modern categorization, which is not always related to the self-definition of the ancient inhabitants. Various levels of social status appear to have existed in palatial period Greece, although determining the relative status of the various groups or officials is challenging (cf. Kilian 1988b). In the post-palatial period, it is clear that social and political changes took place. It is likely that some households survived the transition to the post-palatial period and that competition for status formed a major part of life after the palaces. The use of ‘elite’ in this dissertation serves only to highlight households which deviate from the norm in having exceptionally large storage and productive capacities. These households may in fact have had little or no authority over other households, however, and the reader is urged caution in assigning too much political meaning to such artifactual distributions.

A related problem is the use of palace, palatial, and non-palatial in current academic literature. The term ‘palace’ is used to refer to both an architectural unit and, frequently, the authorities who made use of it. Often the two are conflated to such an

occasions during the sixth century BCE. This recalls comparable developments on the Athenian Acropolis in the late sixth/early fifth centuries BCE (see Wright 1994; Eiteljorg, II 1993).

extent that the collapse of the palatial system has been taken to demonstrate the collapse of palatial authority or government as well. This need not be true. While palatial ideology as expressed through the construction of a large megaron structure with central hearth flanked by columns does appear to have ceased in the post-palatial period, the continued execution of the Tiryns master plan for the settlement suggests, at least here, that some of the authorities involved were members of the former palatial system. Palatial and non-palatial are frequently used in different manners as well. This opposition can be used at the regional scale to define central (palatial) and peripheral (non-palatial) areas, but it is also frequently applied to communities thus a city like Thebes is palatial because it hosted a palace, whereas secondary and tertiary communities are non-palatial entities (even though they were part of palatial polities!). To alleviate the possible confusions that arise from this, I use the term *second order center*⁶ to refer those settlements that show evidence for involvement in palatial bureaucracy. Non-palatial is therefore restricted to its use on a regional scale to define areas excluded from palatial interactions.

Structure and Summary

This study begins with a discussion in chapter one of the theoretical and methodological approaches that inform our understanding of the post-palatial period. Particular attention is paid to the application of resilience theory to the understanding of post-collapse societies globally. Resilience theory offers a paradigm that rejects the solely pejorative narrative of collapse in terms of decline, stagnation, or failure (e.g., Diamond

⁶ I follow here Sarah Liko's (2012, esp. 144-147) use of the term *second order center* to define those settlements, which through the presence of limited quantities of administrative documents, palatially inspired architecture (e.g., columned hearths, frecoes), craft production, and evidence for trade are shown to have close ties to the regional palace.

2005), and instead highlights collapse as a period of increased mobility, new opportunities, and innovations in social structures, technologies, and people.

From this point the dissertation is divided into two parts reflecting different scales of analysis. Chapters two and three focus on broader landscapes of settlement during the palatial and post-palatial periods. In chapter two, I review the archaeology of central Greece during the palatial and post-palatial periods. I highlight my research on previously excavated ceramic assemblages and emphasize the problems posed by incomplete publication for developing historical narratives for the post-palatial period in the region. Chapter three assesses the political organization of Boeotia prior to collapse. By interrogating the nature of palatial interactions with second order centers, through an analysis of Linear B texts found at Thebes, I argue that post-palatial settlements in Boeotia were relatively well-positioned to survive in the post-palatial period.

Chapters four through six form a second part focused on the household as a unit of analysis. I begin in chapter four with an examination of previously excavated and published post-palatial households paying particular attention to storage features, ceramics, and small finds. This body of research informs my interpretation in chapter five of a domestic complex excavated at the site of ancient Eleon. This material has only been recently excavated and these conclusions are part of the ongoing work of the Eastern Boeotian Archaeological Project.⁷ A more detailed assessment of post-palatial household storage, consumption, and production then follows in chapter six. This assessment reveals interesting patterns that indicate a reasonably complex economic system continued to function in the post-palatial period of mainland Greece. I conclude by

⁷ I would like to thank the director, Alexandra Charami and co-directors, Brendan Burke and Bryan Burns, for permission to utilize the data published here for the first time.

arguing that abundance was a major motivating factor in the reconfiguration of the post-palatial landscape of mainland Greece: a conclusion based on the volume of storage in households across mainland Greece, the diverse diet of the inhabitants, the widespread distribution of bronze artifacts, the evidence for large-scale domestic craft production, and the wide ranging external contacts evidenced by imported objects, foreign scripts, and new technologies (some demonstrably originating abroad).

CHAPTER ONE

PALATIAL COLLAPSE AND HOUSEHOLD RESILIENCE

“The Mycenaean world was not quite a cultural unit, nor was it ever a political unit complete in itself.”

(Vermeule 1972, 271)

Emily Vermeule’s assessment of mainland Greece in the Late Bronze Age is succinct but insightful. Despite generations of scholarship, it remains difficult to draw neat boundaries around the Mycenaean culture (Feuer 2011). Furthermore, the evidence from Linear B archives found at Knossos and Pylos, as well as scattered deposits at Thebes, Mycenae, Tiryns, and most recently Ayios Vasileios and Volos (Aravantinos and Vasilogamvrou 2012; Skafida et al. 2012), strongly suggests a patchwork of independent polities (see Bennett 2011). Despite attempts by Joachim Latacz (2004, 238-249) and Jorrit Kelder (2010) to demonstrate the hegemony of a single state, whether Thebes or Mycenae, there is little evidence to support such a notion outside a few sporadic letters exchanged by an “Ahhiyawan” king with a Hittite king.⁸ These texts, part of a corpus of letters, annals, and oracles labelled as the Ahhiyawa texts due to the presence of the eponymous placename Ahhiyawa, are chronologically disparate and notoriously difficult to date with certainty (Beckman et al. 2011). Although these texts imply a single, centralized authority by analogy with contemporary Near Eastern kingdoms, it is important to realize that the heterarchical power dynamics of other contemporary states, such as Cyprus (e.g., Keswani 1996; Peltenberg and Iacovou 2012), are not reflected in the Late Bronze Age

⁸ On the identification of *Ahhiyawa* with a Mycenaean polity/polities, see Hawkins 1998. A more recent discussion concerning the identification of an Early Iron Age polity in southern Anatolia with Hiyawa appears to have no bearing on the location of the Late Bronze Age state (for the state of that debate, see Yakubovich 2015 with previous bibliography).

correspondance between rulers either.⁹ While interesting for understanding the political situation of western Anatolia during the Late Bronze Age therefore, the Ahhiyawa texts tell us little about the political situation on mainland Greece. Indeed, what Vermeule highlights in the above passage is the remarkable variability still seen in the Mycenaean palaces throughout their short-lived existence from around 1350-1200 BCE.

In this chapter, I review the rise and fall of the Mycenaean civilization. Particular attention is paid to the palatial collapse and its use in the archaeological discourse of collapse. I argue that collapse was a complex process, not a single event. Next, I introduce resilience theory as a heuristic device for understanding the collapse of the palace system and the development of the polis. My own approach begins not with the palaces, but at the household level in order to understand what life was like for those living through the socio-economic restructuring and regeneration that took place during the post-palatial period (1200-1050 BCE). Recent approaches utilizing household archaeology in Mesoamerica have shown its utility in interrogating social change in complex societies, particularly in understanding the collapse and regeneration of states/polities (e.g., Masson and Peraza Lope 2010; Faulseit 2012; Masson et al. 2016). Finally, I conclude by presenting two contrasting models for the Late Bronze Age, one focused on scarcity, or the ‘Dark Ages’ hypothesis, and another focused on abundance, the ‘seeking abundance’ hypothesis. The former model suggests that the post-palatial Aegean was defined by limited resources, contacts, and low innovation. The latter views the Aegean as naturally

⁹ Cyprus appears in the Ahhiyawa texts as *Alashiya*. Despite abundant evidence for heterarchical power relationships during this period, the textual record refers to Cyprus as a united entity. Interestingly, petrographic analysis of Amarna letters sent to the Egyptian court from Alashiya suggests that many originate from a single center, possibly the area of the historical city of Alasios and the modern city of Alassa (Goren et al. 2003). Although they authors take this as evidence of a centralized authority on the island, it is important to note that at least two sources for these documents are attested (Goren et al. 2003, esp. 249), suggesting the picture might not be nearly so neat.

abundant and holds that the shifting settlement pattern of the post-palatial period reflects human actors seeking out locations rich in resources, opportunities, and innovation.

Chronologies

<i>Table 1.1: Late Bronze Age Aegean mainland chronology</i>		
<i>General period</i>	<i>Ceramic chronology</i>	<i>Absolute dates (BCE)</i>
Early Mycenaean	Late Helladic (LH) I	~1700-1500
	LH IIA	1500-1450
	LH IIB	1450-1400
	LH IIIA1	1400-1350
Palatial	LH IIIA2	1350-1300
	LH IIIB1	1300-1250
	LH IIIB2	1250-1200
Post-palatial	LH IIIC Early	1200-1150
	LH IIIC Middle	1150-1100
	LH IIIC Late/Submycenaean	1100-1050

A brief outline of the chronological designations used throughout this study is necessary from the outset. In this dissertation, I refer to three general periods: the early Mycenaean (Late Helladic [LH] I-LH IIIA1), the palatial (LH IIIA2-LH IIIB2), and the post-palatial (LH IIIC). I present here a table outlining these periods (table 1.1), their ceramic chronology, and their absolute dating. I rely heavily on the radiometric dating of the beginning and the end of the Late Bronze Age. The absolute dating of the Late Bronze Age including the controversies of the dating of the Thera eruption in no way affects the argumentation, since in terms of radiometric dating, during the post-palatial period there is little discrepancy between the traditional low chronology and the high chronology.¹⁰

¹⁰ See Sturt Manning's (2014; Manning et al. 2014) most recent work for an updated bibliography of the debate. An important resource for the calibration of the Aegean chronological sequence with the more robust dendrochronological sequences of central Europe remains Jung 2006.

More critical to the present work is the correlation of regional LH IIIC chronologies into an interregional post-palatial framework. This will be addressed in greater detail below.

Table 1.2: Comparative ceramic chronologies of LH IIIC (Modified from Mountjoy 1999, 39, Tab. II)

<i>Eleon</i>	<i>Xeropolis</i>	<i>Mycenae</i>	<i>Tiryns</i>	<i>Kynos</i>	<i>Rutter 1977</i>	<i>Mountjoy 1999</i>	<i>Absolute Chronology</i>
SW Structure B	LH IIIB?	?	LH IIIB2 Spät	9?	1	Transitional	ends 1200
NW Unburnt Destruction	1a	Early	Früh	8	2	LH IIIC Early	1190
NW Fire Destruction	1b	Tower			3		1170
SW Structure C	2a	Developed	Entwickelt	7	4a	LH IIIC Middle	1150
		Advanced	Fortgeschritten		4b		1130
Abandoned	2b	Final	Spät	6	5a	LH IIIC Late	1100>
	3						
	Chaliothis Skoubris Cemetery	present?	Submykenisch	5	5b	Submycenaean	1070-1040/20

The post-palatial period was originally subdivided by Arne Furumark into two successive stages, LH IIIC:1 and LH IIIC:2, based on stylistic development (Furumark 1941, 541-582). Later research into the material led him to sub-divide further LH IIIC:1 into LH IIIC:1a, LH IIIC:1b, LH IIIC:1c, which roughly approximate the tripartite division used today (Furumark 1944). But Furumark's work was severely hampered by the limited material from stratified excavations available at that time (essentially limited to the Granary at Mycenae and Asine). Even in the case of a carefully controlled excavation the amount of chronological information that can be gained from chamber tomb cemeteries

is often limited due to the constant mixing of finds (e.g., Iakovides 1969-1970).¹¹ A further complicating factor is the increased regionalism of stylistic trends during the post-palatial period (Mountjoy 1986, 134-135, 156-158, 182), a process that likely began already in LH III B across much of the mainland (Sherratt 1980), but comes into sharper focus in the post-palatial periods. This has resulted in the production of a number of site-specific chronologies, which are summarized in the succeeding table (table 1.2). Thus it is only with the publication of the preliminary stratigraphic assessment of Xeropolis (Popham and Milburn 1971), and numerous stratified deposits since then, that a number of further refinements to Furumark's original chronological scheme have been made. The five-phase system advocated by Jeremy Rutter based on his analysis of stratified settlement materials, including his own work at Korakou (Rutter 1974), seems to fit the available data particularly well (Rutter 1977). Unfortunately this has not been applied widely in publications and a great deal of debate still exists surrounding the precise periodization and phasing of post-palatial Greece (e.g., Deger-Jalkotzy and Zavadil 2003, 2007; Deger-Jalkotzy and Bächle 2009). Penelope Mountjoy's terminology is the most widely applied due to the widespread use of her reference works, *Mycenaean Decorated Pottery: A Guide to Identification* (1986) and *Mycenaean Regional Decorated Pottery* (1999). In the present dissertation, therefore, whenever speaking in generalizing terms, I will normally follow her designations. When dealing with specific sites in chapters two and four, however, site-specific chronologies will frequently be used. I invite the reader to refer back to table 1.2 for clarification when necessary.

¹¹ More recent studies of chamber tomb cemeteries has produced important bioarchaeological evidence pertaining to social practices, ideology, and diet (e.g., Iezzi 2006, 2009; Moutafi 2015).

The end of the post-palatial period is traditionally defined by the emergence of the Protogeometric style, one of the key elements of which is the appearance of mechanically-drawn circles produced by means of a pivoted multiple brush (see Papadopoulos et al. 1998). This has typically been seen as an Athenian innovation (Desborough 1972, 41-43), although its origins have been challenged and attempts have been made to push it back into the post-palatial period (Jacob-Felsch 1988; Dickinson 2006, 124).¹² This transition is more difficult to place with certainty due to the lack of well-dated contexts. A recent article by Michael Toffolo *et alii* (2013, 10) has placed the transition to the Early Iron Age as late as 1020/1000 BCE, but this is based on a fairly small number of samples. It is interesting to note that dates obtained from Protogeometric pyres at Torone in the Chalkidike were slightly earlier (Papadopoulos et al. 2011). Similar results were suggested for the site of Kastanas, with the transition being placed around 1070/1040 BCE, but it is important to note that this result is not from absolute dating of the Submycenaean phase itself, which is only present in mixed ceramic deposits at this site, but rather from reasoned guesses about the length of LH IIIC settlement phases derived from other sites (Weninger and Jung 2009, 389-393). At present, a date around 1050 BCE for the end of the Late Bronze Age still seems the best compromise.

The Rise of the Palatial Elite

Mycenaean palatial culture was the product of an indigenous mainland tradition, which adopted and adapted elements of Middle and Late Bronze Age Cretan art, architecture, writing, and ideology to suit their own needs (see Wright 2008). This was not a single,

¹² Jacob-Felsch has since changed her position on Kalapodi (see Jacob-Felsch 1996). See further discussion in Lis 2009a; Papadopoulos et al. 2011.

wholesale adaptation, but a rather stochastic and opportunistic one that saw the early adoption of Cretan (i.e., Minoan) material culture in regions closer to Crete, such as the Argolid and southern Laconia (Dickinson 1974). In Boeotia there was a long delay in the widespread acceptance of these foreign trends. Coastal regions of mainland Greece adopted Minoan-style lustrous decorated pottery long before inland centers, and southern areas in advance of Central Greece. In fact, throughout much of Boeotia, the transition from traditional grey Minyan, matt-painted, and bichrome/polychrome wares probably did not take place until LH IIA (Goldman 1931, 235-236; Fossey 1988, 420; Mathioudaki 2010; Hale 2016, 283). Although important inland centers, such as Thebes, appear to have adopted Minoanizing elements earlier than second order centers such as ancient Eleon, there is little securely identified LH I material from Boeotia (see Mountjoy 1999). This point is underscored by John Fossey's chart of site incidence by period (Fossey 1988, 409, fig. 52), which shows a drop from 50 MH sites to 4 LH I. While partly due to the fact that Fossey does not distinguish between subphases of the MH and this is a much longer period of time than LH I, this still cannot account for the total discrepancy. There is patently a problem in the archaeological visibility of LH I assemblages from sherd evidence. This has been confirmed in recent excavations at Eleon, where the earliest Mycenaean lustrous decorated pottery is apparently LH IIA in date. As Bartłomiej Lis has shown through an analysis of cooking wares in the early Mycenaean period, the adoption of innovative ceramic assemblages is complicated, involving aspects of ideology and social standing (Lis 2017). Such evidence challenges the notion of a uniform Mycenaean culture. This is important because it demonstrates a regionalism that persisted throughout the palatial and post-palatial period. Thus, we can undermine the notion that

the effects of collapse in one region can be easily applied to others, like Boeotia, in the Late Bronze Age.

The palatial system coalesced slowly after the Middle Helladic period and Grave Circles A and B at Mycenae are typically seen to mark the beginning of the transition to a more centralized and hereditary bureaucracy in the Late Bronze Age (Dickinson 1977, 1983, 1989). Although these cemeteries remain unrivalled for the quantity and quality of their finds, it is now clear that the grave circles at Mycenae are only part of a much broader shift to communal burial practices observed towards the end of the Middle Bronze Age throughout Greece that involved the creation of formalized burial plots and the continuous elaboration of graves (e.g., Boyd 2002, 2016; Voutsaki 2010; Papadimitrou 2015; Moutafi and Voutsaki 2016; Davis and Stocker 2016). Yet the widespread nature of this phenomenon masks significant regional variation in the timing and construction of mortuary space between regions (e.g., Bennet and Galanakis 2005). In central Greece, built chamber tombs dating to MH III/LH I have been found at Xeropolis (Sapouna-Sakelleraki 1995), Dramezi (Blegen 1939), and most recently Mitrou (Van de Moortel and Zahou 2012; Maran and Van de Moortel 2014; Van de Moortel 2016). Grave enclosures are attested at Orchomenos (Spyropoulos 1974, 322-323), on the north shore of Lake Paralimni (Spyropoulos 1971b, 327-328, figs. 12-13), and in the last three years a large and impressive burial enclosure has emerged at ancient Eleon (Charami et al. 2015; forthcoming). This enclosure at Eleon is approximately 7.0 by 17.0 m in length and contains several graves with multiple and single inhumations. The largest graves appear to have been marked by uncarved orthostats functioning as grave stelai, at least two of which remain standing in situ. While nothing similar has yet appeared at Thebes, there is

evidence for the formation of formalized cemeteries on top of the Kadmeia. While these graves are typically poorly furnished, their grouping seems to suggest kinship played an important role in social organization (Aravantinos and Psaraki 2010; Andrikou 2014). In both the Argolid and Boeotia, the early Mycenaean period eventually sees the rise of competing elite groups that engaged in conspicuous consumption.¹³ In the Argolid these transitions seem to have taken place at an earlier date, likely by MH III, relying on networks of foreign contacts to acquire luxury goods that were transformed into ideologically charged markers of status (Burns 2010). In Thebes, a few shaft grave-like burials attest to the emergence of similar elite groups engaging in conspicuous wealth displays (Kassimi-Soutou 1980; Christopoulou 1988), but these are nowhere on the same scale of wealth and date later than similar shaft graves in the Argolid.

Although the exact manner in which the palatial system came into being is still largely reliant on conjecture and probably varied between polities, the standard narrative relies heavily on the best documented Mycenaean palatial polity, Pylos. While much of our understanding of Pylos in its final days comes from the large Linear B archive preserved by the devastating fire that ended the palatial bureaucracy there, its earlier history has been reconstructed by means of both extensive and intensive survey projects that have documented shifting settlement and mortuary patterns throughout the Late Bronze Age of Messenia (McDonald and Rapp, Jr. 1972; Carothers 1992; Davis et al. 1997; Davis 1998; Zavadil 2013; Hope Simpson 2014; Cosmopoulos 2016). Based on these data, a narrative has been presented that shows the emergence of these elite groups to have taken place at roughly the same time across Messenia. Several key settlements show the

¹³ For a detailed treatment of central Greece, see Phialon 2011.

construction of monumental tholos tombs and elaborate architectural complexes, likely meant to house an elite family in life and death (e.g., Zavadil 2013; Davis and Stocker 2016). These sites all seem to experience similar destruction events during the course of LH IIIA. This has been linked to the increasing dominance of the Pylian elites over other sites (Bennet 1999; Bennet and Shelmerdine 2001; Shelmerdine 2015). Because these events are marked by destruction deposits, it appears that coercion rather than cooperation was the primary means by which this was accomplished. Indeed, the Battle Fresco from Hall 64 at Pylos may display this ideology of expansionist conquest iconographically, depicting skin clad warriors dominated by well-armed soldiers in boar's tusk helmets (Lang 1969, 22 H 64; further discussed by Davis and Bennet 1999). At Pylos there is evidence for massive communal feasting with perhaps thousands of participants (Bendall 2004; Halstead and Isaakidou 2004; Palaima 2004; Stocker and Davis 2004; Hruby 2006).

In terms of architecture, this elite group asserted their dominance through the construction of impressive architectural complexes known in the scholarly literature of the Bronze Age Aegean as palaces (see Wright 2006; Galaty and Parkinson 2007). Within each palace there is a large tripartite hall with central hearth and four columns known by the Homeric term *megaron*, denoting simultaneously a large room in the household, as well as in the collective a large domestic structure. This architectural unit is considered the hallmark of the palatial elite, with canonical examples, nearly identical in plan, having been excavated at Mycenae (Wace 1949), Pylos (Blegen and Rawson 1966), and Tiryns (Schliemann 1885), as well as architectural imitations at second order centers such as

Dimini (Adrimi-Sismani 2003, 2006, 2016, 46-51),¹⁴ Iklaina (Shelmerdine 2015), Mouriatada (Mylonas 1960, 201-206, fig. 3, pl. 157b), and Midea (Walberg 2007). This architectural unit can be viewed as an elaborate version of the LH II-III A corridor houses, such as those at the Menelaion in Laconia, Phylakopi on Melos, and House He at Gournia (Pantou 2014, with bibliography).¹⁵ Whether a similar trajectory was followed in Boeotia, however, remains unclear. Keramopoulos (1917, 337-346, 353-356) proposed an Old and New Palace of Thebes: the first destroyed when Semele bore Dionysos and the second destroyed by the Epigoni. He based this on Pausanias' description of the remains of two ancient palaces that had been turned into sanctuaries (9.12.3-4, 9.16.5). It is impossible to know if these actually referred to prehistoric remains, however, since neither sanctuary has been identified archaeologically. His interpretation sought to fit his impressive archaeological finds into this framework and created the myth of the two archaeological palaces, which was unfortunately followed for several decades and still occasionally misleads today (e.g., Symeonoglou 1985, 40-50; Dakouri-Hild 2001, 107).¹⁶ These "palaces" consisted of similarly oriented architecture irrespective of ceramic dating (Dakouri-Hild 2010, 698). While the House of Kadmos is certainly an example of an elite residence, it is not a palace in the canonical use of the word in Mycenaeanology.¹⁷ The

¹⁴ Although Panagiota Pantou (2010) has argued for a heterarchical power structure for the Mycenaean centers located around the Bay of Volos during the Late Bronze Age, the recent publication of Linear B tablets at Volos (Skafida et al. 2012) strongly suggests the presence of a palatial center here.

¹⁵ This form has strong indigenous roots, likely originating from the Early Bronze Age corridor houses of the mainland, although the path of transmission is difficult to trace and assess (see Shaw 1987).

¹⁶ Spyropoulos (1975, 58-81) rejected the argument that both palaces had been found, instead linking multiple individual plots chronologically to form a single super-sized palace. He believed the second palace had yet to be found. Thus, although not outwardly rejecting the mythological interpretation, he did move the discussion back to the archaeological remains.

¹⁷ Beyond the presence of a typical megaron-style hall, palaces are defined by the presence of Linear B tablets, elaborate wall frescoes, and abundant storage facilities. The House of Kadmos, while impressive, lacks evidence for records kept on Linear B tablets, or a megaron-style hall.

remains of the Treasury Room and Archive Room, may, however, be part of a large palatial complex (see Chapter 2), but these are clearly LH IIIB in date and tell us little about the development of the palace. It is interesting that sites in Boeotia have thus far failed to produce much evidence for destructions like those seen in Messenia. This may indicate that alternative inducements were used to establish palatial authority there (of course this could also be due to the limited amount of palatial period material excavated outside Thebes).

Once established, the palaces served as the central hub for a complex bureaucracy of officials and dependent or semi-dependent laborers, including slaves. At the top of the pyramid was a single individual¹⁸, the *wanax* (Myc. Greek *wa-na-ka*), who is attested provisioning public feasts, and appointing a public official,¹⁹ but is otherwise scarcely attested acting in an official capacity (Palaima 2006; Nakassis 2012).²⁰ At Pylos, where

¹⁸ See Kilian 1988.

¹⁹ Tablet **PY Ta 711** has been widely interpreted as the appointment of a public official by the wanax, but the meaning of the verbal form *te-ke* is not certain (nicely summarized by Duhoux 2008, 314-317). There is some recent evidence to suggest that funerary equipment may have been stored in the palace that was not intended for burial (Lis 2016).

²⁰ There are of course numerous references to commodities, land, or individuals qualified as *wa-na-ka-te-ro* (Palaima 1997), attesting to the economic interests and general elite status of the wanax's estate in terms of the ability to mobilize labor and produce value added commodities. These documents tell us little about his role in Mycenaean administration. Several tablets preserve the form *wa-na-ka-te* (**KN Ga(1) 675**; **PY Fr 1220.2**; **Fr 1227**; **Fr 1235.1**; **Un 1426.2**), a dative form that implies the delivery of commodities to the wanax. These cannot be considered taxes, however, as in almost all cases the quantities are small and limited to perfumed oil and an aromatic spice (coriander?). Tablet PY Un 2.1 contains the phrase *mu-jo-me-no*, *e-pi*, *wa-na-ka-te*, likely a temporal clause "on the occasion of the initiation of the wanax" at the religious site of *pa-ki-ja-ne* (**PY Un 2.1**; Ventris and Chadwick 1973, 221). Given the further associations in these tablets with a distribution of oil to *po-ti-ni-ja* (PY Fr 1235.2), the chief female deity of the Pylian kingdom, and the *ki-ri-te-wi-ja* (**PY Un 1426.6**), probably a cult title (cf. Aura Jorro 1985, 363), it seems far more likely that these refer to a religious role of the wanax, although this need not be an ancestral wanax (Lupack 2014). One further form, *wa-na-ke-te*, occurs on a tablet from Thebes (**X 105.2**), likely a variant spelling of *wa-na-ka-te*. Here the wanax is the recipient of *to-sa*, *ko-na* perhaps to be translated at "so much/many of cups" (Duhoux 2014). The context of this receipt is, however, unfortunately vague. The wanax also appears to be exempted from at least some taxes (e.g., **PY Na 334**), perhaps on account of his official role.

we have the most complete record, Dimitri Nakassis (2013, 36) has estimated that there are 779 distinct, named individuals. But the tablets also record substantial numbers of nameless individuals, many of whom are women, referred to by occupational designations or ethnics (Olsen 2014). Thus, each palace recorded thousands of annual transactions made between the palatial authorities and their subjects. It is easy to see why early interpretations of the palace's role in the Late Bronze Age economy were inclined to see it as highly centralized and redistributive (e.g., Finley 1979, 62; Renfrew 1972, 296-297). Since the publication of *Rethinking Mycenaean Palaces* (Galaty and Parkinson, ed. 1999), later updated and expanded as *Rethinking Mycenaean Palaces II* (Galaty and Parkinson 2007), scholars have increasingly argued against this model (de Fidio 2001; Nakassis 2010). Recent works have emphasized market economies and reciprocal relationships at work during the Late Bronze Age and emphasized the limited range of interests that the preserved Linear B texts cover (Galaty et al. 2011; Nakassis et al. 2011, 2013; Galaty et al. 2016). Thus, it can now be demonstrated that only a small portion of the total economic system fell under the purview of palatial control or even involvement. Rather than all-powerful economic juggernauts, the palaces are more *primi inter pares*, very wealthy, and capable of commanding resources in the form of labor and taxation, but otherwise operating like a super-sized version of a typical Mycenaean household. Of course, the palatial archives preserved by the conflagrations that mark their demise only preserve a snapshot of the operation of the palatial system in its final year of operation. While the wanax (and by extension the palace) was the single largest landholder and contributor to public feasts, he was not so wealthy as to be without equals. Indeed, the recent prosopography of Pylos by Nakassis demonstrates quite clearly that there are many other

wealthy individuals scattered throughout the Pylian kingdom engaged in a broad range of economic activities (Nakassis 2013). This view is supported archaeologically by the Ivory Houses at Mycenae²¹, which, despite their plural designation, appear to be a single residence for an elite family engaged in multiple spheres of economic activities (Burns 2007).

The evidence from the Linear B tablets outside of Pylos indicates that similar administrative systems were in operation elsewhere. But we cannot assume a ‘one size fits all’ model. There are a number of material culture indicators that suggest there was a good deal of variation in the Mycenaean polities. Susan Sherratt has demonstrated that even at the height of the palatial period, there was variation to be seen between the pottery of different Mycenaean polities (Sherratt 1980). It has long been pointed out that within Boeotia, there is only a single LH III tholos tomb at Orchomenos, a pattern that marks a sharp contrast with Messenia, the Argolid, and Attica (Pelon 1976). Although taphonomy could be argued to play a role in this distinction, the unparalleled size and elaboration of the chamber tombs on the Megalo Kastelli Hill in Thebes would speak against it. While the Mycenaean polities were united around a common ideology, therefore, they were not clones of one another. Administrations made choices independently from one another that are likely to have had real consequences for their peoples. As Olsen points out, there seems to be some difference in the role of women between Pylos and Knossos, likely due to the fact that much of the population on Crete continued on much as they had before a Mycenaean-style administration was imposed there (Olsen 2014, 196-197, 255-260).²² If

²¹ Here I use the term applied to them in their final publication by Iphigenia Tournavitou (1995).

²² The nature of Mycenaean control has been long debated. Those in favor of a Mycenaean presence in the administration of Crete point to the adoption of a foreign script and administrative language, Mycenaean

only more Linear B texts survived from Mycenae, Tiryns, and Thebes, then the distinctions between these polities are likely to have been magnified as well (Nakassis et al. 2010, 247).

It All Came Crashing Down

In the decades prior to 1200 B.C.E., several important changes had already begun to take root in the Aegean (see Rutter 1992). The palatial collapse is often portrayed as a singular moment, “the collapse”. But, as noted by Galaty and Parkinson (2007, 14-15), “collapse was an even more variable, complex event (or process) than originally realized.” Often in Aegean archaeology, the “palace” has become an inclusive term, lumping together the agency of a whole array of elite individuals that would have handled the day-to-day affairs of such polities, along with the architectural complexes that housed these elites. It is important to distinguish clearly what is meant by palatial collapse therefore, since palatial destructions are often portrayed as resulting in the complete disintegration of both the physical structure and the bureaucracy they hosted. I follow here Jan Crielaard’s (2011) argument that the collapse of the Mycenaean palaces was a long process that is more complex than frequently suggested. It seems clear that the administrations did not simultaneously disappear, but rather various degrees of survival and reorganization can be observed in the archaeological record.

titles and state officials, the movement of bulk shipments of commodities to the mainland in the form of transport stirrup jars, the adoption of Mycenaean iconographic motifs, and the appearance of Mycenaean burial practices (e.g. Driessen 1990; Maran 2005; Driessen and Langhor 2007; Kardamaki et al. 2016). While these simultaneously occurring phenomena have been critiqued individually (e.g., Preston 2004), a comprehensive explanation for their apparent adoption as a package deserves greater attention. Most recent efforts to refute a Mycenaean presence on Crete have relied on strontium isotope analyses to demonstrate the local origins of those buried in the chamber tombs around Knossos (Nafplioti 2012 with previous bibliography).

It is apparent that multiple palatial destructions took place over the course of the Late Bronze Age. At least two occurred at Knossos: the first in LM II, and the second in LM IIIA2/early in IIIB1 (Driessen 2008, 70-72 with bibliography; Skelton 2008, 2011; Skelton and Firth 2016; Firth and Skelton 2016a, 2016b). Since Knossos is unique in having been a Minoan palatial center prior to the establishment of Mycenaean palatial elites there, this relatively early destruction date has not received the attention it merits. The very recent discovery of Linear B texts at what is almost certainly a palatial complex at Ayios Vasileos has been preliminarily assigned a destruction date in LH IIIA1-A2 (Petraikos 2016, 25), giving evidence for a second such early destruction. This suggests that there were a series of such failed palatial polities, long before the LH IIIB2. Even for the other palaces, the archaeological evidence suggests that the final destructions are not a single contemporaneous event, but rather took place over a period of time (Mountjoy 1997; Vitale 2006, 200, table 2). A problem that continues to hamper direct comparison of destruction assemblages is the need for a greater understanding of regionalism. For instance, the destruction levels at Gla and Thebes frequently contain monochrome deep bowls, which are not found in the destruction levels at Mycenae. This suggests that either A) this style originated in Boeotia before the Argolid (i.e. regional developments did not proceed in lockstep), or B) the destructions in Boeotia took place at a slightly later date. Thus, while it is convenient to speak of collapse as a singular event, it conflates the archaeological evidence for regional variation in the duration and response to collapse (Crielaard 2011).

The cause of the Mycenaean collapse has been exhaustively discussed and the reader is referred to the extensive discussions in Robert Drews' *The End of the Bronze*

Age: Changes in Warfare and the Catastrophe ca. 1200 B.C. (1993), Guy Middleton's *The Collapse of Palatial Society in LBA Greece and the Postpalatial Period* (2010), and most recently in Eric Cline's broad treatment of the eastern Mediterranean collapses in *1177 B.C. The Year Civilization Collapsed* (2014). It will suffice here to point out that the best fit for the evidence remains a multi-causal explanation (see Knapp and Manning 2016 for a commentary on and critique of recent scholarship). What is clear from the archaeological record is that the destruction of the Mycenaean palace system took place during a wave of social transformations that swept across the Eastern Mediterranean world (Cline 2014). Although outdated notions of invaders can be discarded outright, it is clear that this was a time of increased social mobility. Whether this was driven by climatic or seismological factors is irrelevant to the outcome. Thousands of individuals, both fully and semi-dependent workers, were suddenly left without economic means. This dissertation examines the evidence from excavated households to understand where these people went and how their lives were transformed.

The Post-Palatial Period of Mainland Greece

The quantity of post-palatial material emerging over the last three decades is best encompassed in a series of conferences devoted to post-palatial ceramics and chronology (Deger-Jalkotzy and Zavadil 2003, 2007; Deger-Jalkotzy and Bächle 2009). While these offerings present much in the way of new material, there is little attempt made at synthesizing the data. The best recent treatment of the period is Oliver Dickinson's *The Aegean from the Bronze Age to Iron Age* (2006), which covers all aspects of material culture, from the years leading up to the collapse of the palaces through the Early Iron

Age. His focus, however, is on the broad social and technological changes that took place, as well as developments in material culture. Marina Thomatos gathers all the material available for the LH IIC Middle period and, although her book takes a holistic approach both in terms of material culture and households, there is no close contextual analysis of the material classes (Thomatos 2006). This dissertation fills these gaps and focuses on a contextualized reading of household assemblages dating to the post-palatial period. Trends in ceramic consumption are compared with storage patterns and textile production to create a more holistic model of the post-palatial household economy.

The post-palatial period saw several important developments, including the introduction of iron-working, although the exact mechanism and date of the transmission remains disputed (Dickinson 2006, 146-150). As mentioned above, the development of other techniques, such as the use of the pivoted multiple brush may also belong to this period, demonstrating that many of the “innovations” of the Protogeometric period need to be re-evaluated. Changes in textile production and the introduction of a handmade burnished class of pottery, formerly referred to as “Barbarian Ware” seem likely to have also occurred around this time (Rahmstorf 2011). Given the fact that these technologies show wide-ranging connections across the Mediterranean is a testament to the increased mobility of peoples and ideas in the post-palatial period.

One may assume that the disappearance of the palatial architectural complexes was accompanied by the complete dispersal of the palatial bureaucracy, but there is increasing evidence to the contrary. The most obvious of these is the erection of Building T at Tiryns. Built as it is, directly over top of the ruins of the palatial megaron, and with the renewal of the altar in the courtyard out front, Joseph Maran (2000, 2001, 2011) has

argued that the reconstructed and transformed megaron remained a central place in the community. While the large scale of this building is certainly impressive, in many ways it recalls the architecture of other households located throughout the Lower Town. Thus, we might view the rebuilt megaron as the home of a locally prominent family making a political claim to authority. Other evidence for the continuity in the administration of the post-palatial community at Tiryns comes from the expansion and development of the Lower Town along a plan conceived immediately prior to the palace's destruction. This commenced with the diversion of a local river away from the citadel by means of a long, deep canal and substantial dam at an advanced stage of LH IIIB2 (Zangger 1994; Maran 2009, 242-244, fig. 1).²³ The ultimate development of the Lower Town, however, was only carried out after the destruction of the palace. Thus, although the palaces burned, the people behind their facades (or at least their underlings) still managed to find some influence in the post-palatial world.

Rethinking Collapse

Collapse has frequently been treated from the vantage point of the elite residents of palatial centers (e.g., Drews 1993; Cline 2014). In this light, societal collapse has been defined by a lack of monumental construction and lack of manufacture of luxury goods that are equated with powerful elites. The lack of such evidence has been taken to indicate

²³ The dam was built at the confluence of three mountain streams, which were capable of forceful flooding during winter rains. Although Zangger had originally conceived of a catastrophic flood that necessitated the construction of the dam, more recent work by Maran has demonstrated that the dam was only built after episodic flooding throughout much of the palatial period. Although somewhat unobtrusive today, this project involved many man hours to complete on account of the deep channel and wide dam, requiring some 52,000 m³ of soil to be dug up and moved to form the dam in addition to a facing of Cyclopean masonry and clay to reinforce its inner and outer faces (Loader 1998, 101-109). The dating of the dam relies on the broader reorganization of the Lower Citadel and Lower Town that took place during the final stages of LH IIIB2 and were completed early in LH IIIC Early (Maran 2009, esp. 253-255).

that social institutions dissolved and populations dispersed. Recently, however, a number of scholars working in regions of the world as diverse as Mexico, Iraq, Easter Island, China, Cambodia and Peru have called this paradigm into question (e.g., Aimers 2007; Sabloff 2007; McAnany and Yoffee 2010; Faulseit 2012; Faulseit 2016). By examining the lives of non-elites in addition to elites, these scholars suggest that collapse is rarely society-wide, rather it is social institutions that collapse or reconfigure as they fail to adapt to the needs of the societies that they purport to benefit. Societies are, in and of themselves, remarkably resilient and adaptive to change; institutions often are not. In this light, collapse can be seen as a period of socio-economic reorganization resulting in a decrease in monumental building activity and restructuring of social hierarchies.

The collapse of a society is often regarded as a singular event, resulting in the abandonment of a particular way of life and marked by cultural discontinuity. Recently, however, scholars have begun to re-consider collapse as a period of socio-economic reorganization and emphasized the significant degree of continuity that is observed in many post-collapse cultures (e.g., Sabloff 2007; Yoffee 2010). The complexity of collapse is evident in the multiplicity of recent efforts to explain the collapse of the Mycenaean palatial system (Drews 1993; Nur and Cline 2000; Middleton 2010; Drake 2012; Cline 2014; Knapp and Manning 2016). In contrast to these works, which aim to explain socio-economic change from a top-down approach, my aim is to understand household resilience and human responses to risk during the periods of socio-economic turmoil accompanying collapse, and thereby explain the socio-economic changes from the bottom-up. Although focused on the Late Bronze Age site of ancient Eleon in Greece, my study is relevant to a large body of ongoing scholarship considering collapse and post-

collapse periods in various geographical regions and chronological periods (Tainter 1988; Diamond 2005; Aimers 2007; Sabloff 2007; McAnany and Yoffee 2010; Schwartz and Nichols 2010; Middleton 2012; Cline 2014).

Resilience Theory and Archaeology

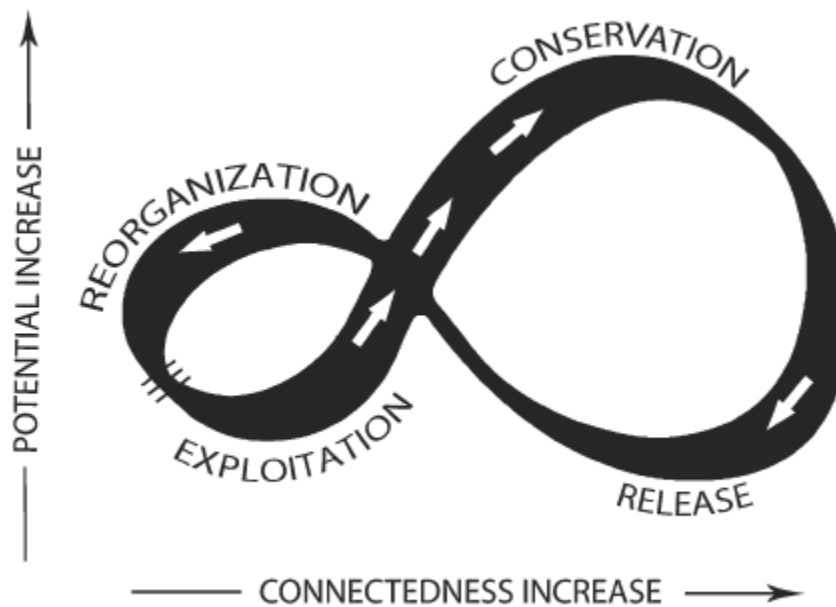


Figure 1.1: *Holling's model of the adaptive cycle (Weiberg and Finné 2013, fig. 10)*

Resilience theory “offers a framework for understanding that transformations, even the most socially and environmentally dislocating changes, are not chaotic and idiosyncratic but, rather, are governed by particular dynamics, conditions, and opportunities” (Redman 2005, 72). Derived from ecological theory, resilience acknowledges that a stable system does not have to be in equilibrium, but can exhibit a great deal of variability (Holling 1973; Holling and Gunderson 2002). Support for this is drawn from the natural variability in the population of a given species in a particular ecosystem. Although the

population may exhibit periodic growth and collapse in response to external factors (e.g., predators, disease), ultimately the species continues. In a similar manner, human cultures can be modelled along these same lines, as cultures move through the four phases of the adaptive cycle, they exhibit similar patterns of behavior. This model is heuristic, but allows a cross-cultural comparison of change.

The above model (figure 1.1) presents an idealized adaptive cycle. I take the Early Helladic (EH) III period, that is, the end of the Early Bronze Age, to be the reorganization phase that ultimately led to the developments of the Late Bronze Age. Throughout the Middle Bronze Age and the early Mycenaean period, the Greek mainland experienced constant growth in the number and size of communities (Wright 2008, 234, fig. 10.2). Unfortunately, the early Middle Bronze Age, especially Middle Helladic (MH) I, remains insufficiently studied, but as Sofia Voutsaki (2010, 101) has written “changes are taking place in this period.” These changes include the gradual elaboration of domestic architecture and increasing elaboration of mortuary architecture. While we tend to look to the MH III/LH I transition for innovation and the origins of Mycenaean civilization, the first elaborate shaft grave, of the type made famous by the Mycenae grave circles, is actually a MH II burial at Kolonna on Aegina (Kilian-Dirlmeier 1997). Thus, the Middle Helladic marks the start of a very gradual exploitation phase, the true beginnings of Mycenaean culture. It also ushered in a period of economic and demographic growth that continued for hundreds of years. The rate of growth was not uniform, however, and it is apparent that growth appears to have occurred at an accelerated rate through the early Mycenaean period. Growth only appears to have levelled off towards LH IIIA2/B1, when settlement densities peak (Fossey 1988, 409, fig. 52; Wright 2008, 234, fig. 10.2). The

Mycenaean palatial period (LH IIIA2-B2), therefore, is actually a short phase of conservation, prior to a sudden release phase around 1200 BCE (i.e., collapse). This initiated a new phase of reorganization that spanned the post-palatial period. By the Early Iron Age, a new exploitation phase had begun and from the Protogeometric period onwards, a new period of economic and demographic growth takes hold.

The model in figure 1.1 is, of course, idealized. The whole point of Crawford Holling's original paper was that idiosyncrasies existed within the system. Nevertheless, subsequent studies have sought to address some of the concerns with resilience theory by proposing a system composed of nested adaptive cycles, or a panarchy (Gunderson and Holling 2002). This model integrates adaptive cycles operating on different temporal scales into a single panarchy, wherein "interactions between adaptive cycles operating on different temporal scales can foster multiple outcomes for the individual systems associated with particular adaptive cycles" (Faulseit 2016, 13). As Charles Redman (2005, 72) described, "change is neither continuous and gradual nor consistently chaotic. Rather it is episodic, with periods of slow accumulation of 'natural capital,' punctuated by sudden releases and reorganizations of those legacies." What this entails for post-collapse cultures is the acknowledgement that there is a cultural inheritance from the preceding period that plays an important role in shaping the course of the ensuing accumulation of natural capital. In addition, as Erika Weiberg (2012, 159) has highlighted, the equal importance of reorganization to the total system "enables 'post-collapse' processes to be viewed as dynamic and rich in innovation rather than being dismissed as 'Dark Ages'." Thus, in the archaeological application of resilience theory, it is important to identify what cultural elements contribute to this process of reorganization. Following Norman Yoffee's

(2010) model of socio-political collapse as a process that frequently sees the upper levels of social stratification most vulnerable to reconfiguration, it is possible to consider the household, the fundamental organizational unit of any sedentary culture, as a rich venue for identifying responses to collapse. Indeed, a recent project in the Oaxaca Valley, examining the evidence for the Late Classical to Postclassical period transition at the site of Dainzú-Macuixóchitl (Faulseit 2012), has demonstrated that while elite complexes were abandoned at the end of the Late Classical period, other domestic structures were rebuilt and occupied without interruption, demonstrating that at least part of the population was much more resilient to the changes that took place at that time.

While the most basic definition of resilience is “the capacity of a system to absorb disturbance and re-organize while undergoing change so as to still retain essentially the same function, structure, identity and feedbacks” (Folke 2006, 259, citing Walker et al. 2004), Carl Folke has rightly pointed out that resilience “is not only about being persistent or robust to disturbance. It is also about the opportunities that disturbance opens up in terms of recombination of evolved structures and processes, renewal of the system and emergence of new trajectories.” Thus, an integral element of social resilience is the ability to be adaptive. This has important implications for understanding the Aegean Bronze Age, since the increasingly rigid hierarchy and centralized system of governance focused on production and re-distribution of a limited repertoire of commodities would ultimately have made the palatial system increasingly vulnerable to increasing socio-political volatility in the eastern Mediterranean around 1200 BCE. Vulnerability is frequently inextricable from discussions of resilience, and can be “viewed as an inherent property of a system arising from its internal characteristics... determined by factors such as poverty

and inequality, marginalisation, food entitlements, access to insurance, and housing quality” (Brooks 2003, 4). While it is not possible to identify specific risks in the archaeological record, vulnerabilities might be observed in reliance on particular non-perishable resources, construction methods, and (when possible) primary texts. In the case of the Bronze Age Aegean, we are fortunate to have textual evidence that informs our understanding of political structures that allow some understanding of structural vulnerabilities. Furthermore, the very factors that give rise to vulnerability, because they differ from place to place, will also result in variable levels of vulnerability, whether between social classes or villages or entire regions. This is a useful model for approaching the Late Bronze Age Aegean, since there is good evidence that some areas were impacted much more greatly than others, thus indicating that different households and communities display unique vulnerabilities and, as a result, varying levels of resilience to systemic change.

Household Economies and Social Processes

Scholars studying Mycenaean culture have typically focused on palatial structures and tombs, eschewing the more quotidian remains of Mycenaean domestic structures (for a synthesis of the available data, see Darcque and Treuil 1990; Darcque 2005). Notable exceptions to this include the fully published, second order center of Nichoria in Messenia (McDonald and Wilkie 1992), as well as the less-thoroughly explored, but well-known, non-palatial sites of Korakou (Blegen 1921; Rutter 1974) and Zygouries (Blegen 1928; Thomas 1992) in the Corinthia. Generally, the study of domestic assemblages in Greece has been largely a concern for the Neolithic phases of occupation, where an understanding

of domestic life has been necessitated by the precise lack of monumental constructions that have lured Bronze Age scholars away from them elsewhere (Souvatzi 2012, 19). Consequently, several important works have been written on the domestic habitation sites of these periods, including analyses of diet, and use of domestic space (e.g., Renfrew, Gimbutas and Elster 1986; Treuil 1992; Halstead 1999; Elster and Renfrew 2003; Souvatzi 2008). Recent years have seen a shift to research projects aimed at understanding non-palatial settlements and domestic space (for instance, the Eastern Boeotia Archaeological Project, the Mitrou Archaeological Project, and the Iklaina Archaeological Project, as well as recent excavations at Pefkakia in Thessaly and Kanakia on Salamis). Although a few older excavations of palatial period households have been published with a good level of detail (Blegen 1921; Blegen 1928; Mylonas Shear 1987; Rapp and Aschenbrenner 1992; Tournavitou 1995), it is only recently that publications of archaeological assemblages from Xeropolis (Evely 2006), Tiryns (Mühlenbruch 2005; 2013; Stockhammer 2008, 2009, 2011), and Kynos (Kounouklas 2011) offer a wealth of comparative material for the post-palatial period. I think that these assemblages, combined with new data being acquired at ancient Eleon, offer the prerequisite information to justify a new study of domestic Mycenaean consumption patterns.

Several recent edited volumes highlight the centrality of the household as a unit of archaeological analysis (Beck, Jr. 2007; Yasur-Landau et al. 2011; Parker and Forster 2012). Not only is the household a bounded space of economic activities, but it is also where individuals acquire important elements of their identity, such as kinship and language (Bourdieu 1990). As such, the household offers a chance to view social change from a bottom-up, rather than top-down perspective. William Rathje and Randall

McGuire (1982, 724) have highlighted how households can serve as a sensitive barometer of social organization and the material conditions of life. For these reasons, the household is an ideal unit of analysis for better understanding the complex social transformations that took place during the Mycenaean final palatial and post-palatial periods. Although the study of household assemblages is well-established in New World archaeology (e.g., Deetz 1982; Wilk and Ashmore 1988), archaeologists studying the Mycenaean culture have been slower to adopt it as a methodological framework. Part of the reason for this has been the lack of well-documented household assemblages available from archaeological excavations. As pointed out in a recent dissertation by Jamie Aprile (2010), examining household consumption patterns at Nichoria, a domestic assemblage can be difficult to define when dealing with an architectural space that is occupied for an extended period of time. One advantage to looking at the post-palatial period is that households were frequently subject to destruction events that have preserved large ceramic deposits *in situ*.

While Mycenaean households have received comparatively little attention, their Cretan contemporaries, as well as Iron Age Greek households, have been the focus of numerous recent and forthcoming studies (e.g., Mazarakis Ainian 1997; Nevett 1999, 2010; Cahill 2002; Ault and Nevett 2005; Tsakirgis 2009, forthcoming). Lisa Nevett has published extensively on households and their development from the Early Iron Age through Roman periods (Nevett 1999, 2010). As Nevett (1999, 29) demonstrates, the physical household is a manifestation of a number of cultural and social factors that affect its construction, design, and use. Thus, households are highly indicative of cultural and social change. It is noteworthy, however, that Nevett never considers the post-palatial

period as a part of this development. In Nevett's view (2010, 23) "...the idea of a large and well-furnished house began to become a reality in Greek communities during the Early Iron Age..." and "much research has been devoted to the Greek Early Iron Age because it was a time of profound transformation." This line of reasoning is highly influenced by Anthony Snodgrass (1971, 402-436) and François de Polignac (1984), who vaulted the eighth century BCE into the almost revered status it holds today as the formative period for the development of the polis (Morris 2009). As demonstrated above, however, it is clear today that many of the innovations of the Early Iron Age are likely to have their roots in the post-palatial period. It is therefore critical to consider the development of the Greek household in this light. The physical households of post-palatial Greece can contribute important new insights into debates concerning the use of household size as a proxy for economic growth (e.g., Morris 2004, 2005; Kron 2014).

Within the household, consumption theory offers a framework by which to compare household assemblages between sites as well as diachronically (e.g., Dietler and Herbich 1994; Dietler 2010a, 2010b). Consumption theory considers the dynamic relationship between consumer and structure in shaping social identities (Mullins 2011). An important aspect of this approach is the acknowledgement of individual choice in shaping the archaeological record. Majewski and Schiffer (2009) have demonstrated just how suitable ceramics are for such a type of analysis on account of their preservation and role in social signaling. While the primary function of ceramics is acknowledged to be utilitarian, the functional aspect of Mycenaean ceramics has remained largely understudied in domestic contexts (see Tournavitou 1992; French 2011b; Lis 2014). A contextual approach to household ceramics offers a chance to understand better the social

function of Mycenaean pottery. Indeed, there is some evidence from the site of Tiryns to suggest that certain ceramics may have been valued in the post-palatial period due to their links with the previous palatial ideology (Stockhammer 2009). These ceramics seem to have been prominently placed as visual referents for individuals engaged in feasting activities. This potential shift in the role of ceramics in social signaling also is likely to play an important role in the choice of ceramics selected for acquisition. Additional factors may also influence ceramic consumption patterns, and encourage importation. Eric Cline considered the import of unpainted, utilitarian, ceramic wall-brackets as a case study in consumption choices that seem to defy economic common sense, but may in fact obtain a special kind of “distance-value” on account of their foreign origin (Cline 1999).²⁴ Similar factors also seem to have dictated the acquisition of a cargo of mixed painted and utilitarian Cypriot pottery found aboard the Ulu Burun shipwreck, where it was transported alongside more traditionally ‘valuable’ raw materials as copper, tin, ebony, ivory, and raw glass (Hirschfield 2011). Thus, we need to be careful in assigning personal values to ancient artefactual assemblages (see Papadopoulos and Urton 2012).

Beyond household assemblages, aspects of domestic production and storage practices are considered in order to obtain a better understanding of the productive capacity of post-palatial households. Recent studies of Bronze Age storage have demonstrated the large role that storage can play in understanding social complexity and economic activity (Margomenou 2008; Christakis 1999, 2008; Privitera 2014). Storage plays an important role in mitigating risk, but also can serve as capital for converting raw

²⁴ Wall brackets, although a low value import, appear to have been used for the burning of incense and came to be widely copied in the Argolid during the post-palatial period (Rahmstorf 2014). This association with a particularly ideology or the burning of a high value commodity may have resulted in their seemingly irrational mobility.

materials into finished commodities. Therefore, storage capacity can be closely related to productive capacity in pre-monetary economies. One of the most important industries in any pre-industrial society was textile production (e.g., Barber 1991; Burke 2010). Textile production at the household level, can therefore offer interesting insights into domestic economies (e.g., Tsakirgis 2015). A combined understanding of the physical household, storage practices, and domestic textile production can shed new light on the post-palatial economy.

Post-Palatial Economic Hypotheses

The 'Dark Age' Hypothesis

The 'Dark Age' hypothesis espoused by the Cambridge school of history suggests that the period following the collapse of the palaces was characterized by increasing isolation and a return to localized subsistence strategies, including nomadic pastoralism (Snodgrass 1971, 1987, 187-209; Desborough 1972; Coldstream 1977; Jameson et al. 1994, 291, 373). They hypothesize an increase in herding stock (especially goats and sheep) at the expense of large plow-animals (i.e., oxen). Similarly, a decline in domesticated animal species in favor of a greater reliance on wild species may suggest the collapse of large stock herds and greater reliance on local resources. This is *not* to say that the population returned to foraging, only that it was less sedentary. Additionally, in a situation of resource scarcity, it might also be profitable to consider the quality or desirability of plants being consumed; as in times of duress, it is likely that human populations will be driven towards the consumption of less desirable commodities. This might be identified archaeologically in an increase in hardy, but less nutritious, grains such as *vicia sativa* (vetch) and *hordeum*

vulgare (barley), at the expense of more labor intensive crops such as *triticum aestivum* (bread wheat) and *triticum durum* (hard wheat) (Jones and Halstead 1995, 109; Marston 2010, 126-127).

In a similar fashion, finds such as curated pottery sherds or vessels, whether recycled into other items or mended with lead clamps, may offer a chance to observe frugal behavior (Dakoronia and Kounouklas 2012). If the number of curated sherds in an assemblage increases in the aftermath of the palatial collapse, then this might be evidence for the increased value placed on ceramics. This may be particularly true of certain types of ceramics, such as large storage pithoi which would require skill and a great deal of fuel in order to fire. In this regard, it is worth considering the appearance of an unfired storage bin, known in the LBA Aegean literature as *kotselles* (after Wace 1921-23, 48), in the post-palatial period. An increase in the use of *kotselles* at the expense of new pithoi may indicate that pithoi become more difficult or costly to acquire, while *kotselles* offered a cheaper alternative for storage needs. Additionally, the increase in total storage capacity at the household level may also indicate a tendency towards greater risk-buffering behaviors. A note of caution is required here, however, as storage could also indicate a surplus of produce that was used for trade (Lis and Rückl 2011, 163-165).

The 'Abundance' Hypothesis

Recent evidence suggests that a number of centers within my study area (i.e., east Boeotia and the Euboean Gulf) show a marked increase in population in the post-palatial period. In this regard it might be useful to consider the recent theorization of urban centers as places of abundance (M.L. Smith 2012). Although the post-palatial centers are much

smaller than the urban centers of the Near East (Xeropolis, the largest, was at most 8-9 hectares), it is possible that an increase in external connections in addition to robust local resource bases may have made this region in particular an attractive location for post-palatial occupation. Indeed, the apparent increase in population at the settlements of Xeropolis, Kynos, and Eleon, as well as the growth of the palatial settlement of Tiryns, may indicate that people moved to where a greater variety of opportunities were available.

In this case, some of the ceramic variability could also be introduced by the immigration of a foreign population element, perhaps driven by increased trade connectivity with extra-Aegean regions. While it may be difficult to distinguish between import and immigration in the archaeological record, an increase in imported ceramics plus the appearance of new wares such as ‘barbarian’ or burnished wares with distinct *chaînes opératoires* may indicate the arrival of immigrants (Rutter 1990; Jung 2006, 21-47; Kilian 2007). The same is true for new technologies or techniques of construction. An interesting result of this hypothesis is that rather than relying on outdated notions of invasion to explain population movement, it suggests that population movements were likely driven by increased opportunities available at some centers – far from being hostile then, these individuals are more likely to be refugees. Given the fact that at least some of these immigrants may have been from extra-Aegean areas, again highlights the fact that rather than being isolated, the sites that survive into the post-palatial period are those with extensive, perhaps even extra-Aegean, contacts. Support for this model is found in Thucydides’ (1.2.5-6) account of the movements of people in the aftermath of the Trojan War and their arrival *en masse* in Athens.

Beyond the ceramic finds, abundance may be manifested in choice floral and faunal remains. In this instance, crops requiring more expenditure of labour and time may be indicative of greater abundance. Examples of these might include olives and vines, but also bread wheat and beans that require both more water as well as weeding in order to thrive. In terms of fauna, large, expensive-to-raise, animals such as oxen and horses might be interpreted as evidence for relatively robust economies. This may additionally be supported by evidence for the exploitation of exotic or difficult to acquire game such as wild boar or deer. Of course, there may be some ambiguity here with the above hypothesis – for instance is the consumption of certain species (e.g., snakes, tortoises, rabbits, hedgehogs, etc.) a sign of exotic tastes or of a starving and desperate population? As a result, this evidence must be taken contextually with the evidence from ceramic assemblages and small finds. With regard to small finds, we might again look at behaviors such as the curation of ceramic sherds as evidence for the “relative wastefulness” of the population over time. Thus, if there is a decrease in curated sherds from the palatial to post-palatial periods, this may actually indicate that ceramics are abundant and cheap commodities. In addition, access to foreign imports including ceramics, mortars, amber, ivory, and glass (likely to be imported; Walton et al. 2009) would support the idea that there are numerous external contacts. In this instance, however, it will be necessary to distinguish between contemporary imports and curated or heirloom imports of the palatial period that remained in use (Feldman 2009). A final indicator of abundance may be access to precious resources. In general, a good proxy of this may be the availability of various metals or alloys; thus, increased access to bronze, silver, gold, and especially iron in the post-palatial period may indicate an increase in overall household wealth.

Methodology

In order to assess the two hypotheses presented above, I begin by re-examining the archaeological evidence for settlements in Boeotia. By integrating Linear B texts with archaeological data, I propose a reconstruction of the political geography. Current deficiencies in our knowledge are highlighted and a rank-size analysis offers insights in the degree of economic centralization immediately prior to collapse. A qualitative assessment of the impact of this findings on understanding post-palatial settlement patterns follows. Then follows a detailed analysis of post-palatial households, including the presentation of a new household from Eleon in Boeotia. A quantitative assessment of household size, storage capacities, textile production tools, bronzes, and ceramic vessels is performed and the resulting data are compared back to the initial hypotheses in the conclusion.

CHAPTER TWO

BOEOTIA IN THE LATE BRONZE AGE

“No ruin of an ancient monument has been preserved in Thebes; only some fragments of sculptured marbles which we see here and there in the housewalls and a few scattered drums of marble columns testify to the ancient splendour and opulence of the city. Quite surprising is the scanty accumulation of ancient debris here, which seems to have only in one place a depth of ten feet, and generally only amounts two or three feet. On other ancient sites ancient potsherds are found which have some value to archaeology, but nothing that even a fanatical archaeologist would care to pick up was found when some years ago the new streets were cut through the soil down to the virgin rock.”

(Schliemann 1881, 126-127)

This chapter begins with an introduction to the archaeology of Boeotia in the Late Bronze Age, focusing on excavated sites that have produced evidence for palatial or post-palatial remains. Despite over 100 years of research on Late Bronze Age Boeotia (Aravantinos 2014a), no good synthetic treatment of the data collected exists beyond formulaic catalogue entries in the regional surveys of Richard Hope Simpson, Oliver Dickinson, and John Fossey (Hope Simpson and Dickinson 1979; Hope Simpson 1981; Fossey 1988). Here I will attempt to remedy this, by presenting detailed accounts of excavated settlements. I will omit for the present the funerary evidence, on account of the problems it poses, as it is beyond the scope of the present work, with the exception of the impressive cemeteries located outside modern Tanagra and those associated with major settlements such as Orchomenos and Thebes that help to inform our understanding of their occupational histories. Despite Schliemann pronouncing Theban archaeology dead on arrival, the Kadmeia has turned up a seemingly inexhaustible amount of rich Mycenaean finds over the last century.

Following a discussion of the geographical positioning of Boeotia and a brief history of its exploration, I provide a detailed synthesis of the excavated sites. I have divided these geographically into three zones: the Kopais, Central and Eastern Boeotia, and Euboea. Concerning Euboea, I will only treat the western coast, an area that clearly had strong ties with Thebes in the Late Bronze Age (see Chapter 3). This catalogue tracks the development of individual sites whenever possible, from the early Mycenaean period to the post-palatial period. While in many cases only preliminary reports are available for consultation, in a few instances I have been able to re-examine material first-hand.²⁵ Finally, this chapter positions the site of Eleon, which will be discussed in further detail in Chapter Five with regards to its post-palatial period occupation, into its regional and temporal context. Previous studies, including recent network analyses by Alex Knodell (2014) and Margaretha Kramer-Hajos (2016) have emphasized the importance of coastal sites during the post-palatial period. In this chapter, I have reanalyzed a number of ceramic deposits from Boeotia. Although Sarah C. Murray (2013, 47-64) has recently argued that the pace of discovery of new post-palatial and Early Iron Age sites has not increased relative to the overall rate of discovery (and therefore our picture of the ratio of palatial to post-palatial sites in Greece is roughly accurate), my research suggests that the lack of identification and publication of post-palatial materials may be a greater problem than she assumes. I would argue based on my reanalyses of the assemblages (and not relying on the publications) that post-palatial material has been under-represented. My reconstruction of the post-palatial landscape in Boeotia, therefore indicates that Thebes

²⁵ I am grateful for the support of both the Boeotian Ephoreia and colleagues along the way. My personal experience working at the site of Eleon has informed my reading of much of the pottery, but I am indebted to the earlier work of Penelope Mountjoy (1983), who was able to access much material now lost.

is likely to have remained an important inland center throughout the post-palatial period. While I tentatively accept a decline for the Kopaic Basin, new research seems poised to modify this picture as well.

The Geography of Boeotia

This study examines the area of central Greece termed Boeotia and occupied by a people who were identified as Boeotians since at least the eighth century BCE, when Homer (*Il.* 2.494-510) defined the limits of their holdings in the opening of his exhaustive Catalogue of Ships.²⁶ Interestingly, Homer (*Il.* 2.511-516) has the Minyans, those dwelling around the Kopaic Basin, marshal separately, a point of interest to the Late Bronze Age political geography of the region. In antiquity, therefore, Boeotia consisted of the plains bounded on the south by Mts. Kithairon and Parnes, to the west by Mt. Parnassos, and to the north by the peaks of Mts. Khlomon and Ptoion (Fossey 1988, 4-9; see figure 2.1). In the present chapter, I will also discuss the western coast of Euboea and its settlements as a natural extension of Boeotian territory. For although divided by the Euboean Gulf, western Euboea is closely tied to Boeotia (Strabo 9.2.2). At its closest point, the Euripos, only 38 meters separate the two shores and western Euboea is consistently visible all along the eastern shore of Boeotia. It seems likely, therefore, that any control of the trade coming up the southern Euboean Gulf would have required the pacification of western Euboea. The area under discussion in the present chapter is therefore extended past the Euboean Gulf to include these settlements. The area under discussion can be divided into three

²⁶ The development of Boeotian identity is a complicated topic treated most fully by Stephanie Larson (2007). The major boundaries of Boeotia were geographical and thus fairly stable. Only the southern border of Boeotia was frequently in dispute, chiefly the areas around Plataea and Oropos, which frequently allied with the Athenians.

sub-regions: the Kopaic Basin to the northwest, the core region of Boeotia, and the coastal plains of western Euboea.



Figure 2.1: Topographic map of Boeotia highlighting prominent mountains and plains (modified by T. Van Damme from Google Earth image).

The Kopaic Basin was originally a *polje* (shallow karstic lake) that experienced seasonal fluctuations in its depth and size (Lane et al. 2016, 271-272). It was prevented from unchecked growth by a network of fissures in its northeast corner that channelled excess water through lakes Hyliki and Paralimni and out to the sea. At some point in the Late Bronze Age, an ambitious engineering project harnessed this natural process into a method for checking the natural inflow into the basin, by deflecting the Melas and Kephissos River channels to the north and south into two large canals. Each canal was contained by massive berms, at least 3 meters tall, built of watertight yellow clay and faced in turn with Cyclopean style masonry (Kountouri et al. 2014, 9-10, fig. 8). These canals redirected the water towards natural fissures or *katavothres*, which in turn transported the excess water to the sea (Knauss et al. 1984; Kalcyk et al. 1986; Knauss 1990, 1996).

The northern canal, the larger of the two, could have served an added practical function as a navigable water course, and the embankments may have served as roads across the basin (Heinrich 1988). The amount of labor that was required for this project alone must have made it one of the single largest projects undertaken in the Mycenaean world (see Loader 1998, esp. 106-109; Hope Simpson and Hagel 2006, 185-211), but it was combined with the construction and fortification of numerous settlements ringing the basin that must have further strained the resources of the local population, while at the same time drastically increasing the agricultural potential of the region. Exactly when this took place is difficult to pinpoint, but recent investigations confirm they are Late Bronze Age in date (Lane et al. 2016). The Cyclopean style of construction for the main canals suggests that, at least in their final phase, these are likely to date to the LH IIIB period (Loader 1998, 109; Aravantinos et al. 2006; Kountouri et al. 2013), but it is important to note that Michael Lane's work has produced some evidence to suggest that networks of canals or other drainage works may predate this. Although this system never fully drained the lake, it vastly increased the area available for agriculture, as well as regularized the seasonal effect of its expansion, while at the same time limiting its overall growth. While it is unclear who took a leading role in this ambitious plan, the benefit of the draining of the Kopaic Basin seems to have profited the settlement of Orchomenos the most. Combined with the lack of mention of any historically attested toponyms from Thebes within the Kopaic Basin, it seems likely that the Kopaic Basin was politically independent from Thebes by LH IIIB2, the period to which most of the Theban texts can be ascribed (Aravantinos et al. 2002, 9-15; Andrikou et al. 2006, 235-247).

The core region of Boeotia occupies the heart of modern Greece, lying at the nexus of the Peloponnese, Attica and Thessaly. Bordered on the west and east by the Corinthian and Euboean Gulfs respectively, Boeotia also has access to both eastern and western oriented maritime trade routes. Although Mountjoy maligns Boeotia as having “no good natural harbours and the mountain passes did not facilitate contact with the outside world...” (Mountjoy 1983, 113), there is ample evidence to the contrary (not least the quantity of imported materials found in Mycenaean Thebes). The view that Boeotia was inhospitable to maritime trade appears to have been promulgated by Arnold Gomme (1911/12), who sought to dismantle Victor Bérard’s rather optimistic view of Boeotia (Bérard 1902), and who seems to have influenced a good deal of the discussion since. Their disagreement centered largely on the words of Ephorus, quoted by Strabo at the start of his book on Boeotian geography, in which Ephorus extolls the natural geography of Boeotia saying:

Boeotia is superior to the countries of the bordering tribes, not only in fertility of soil, but also because it alone has three seas and has a greater number of good harbors; in the Crisaeian and Corinthian Gulfs it receives the products of Italy and Sicily and Libya, while in the part which faces Euboea, since its seaboard branches off on either side of the Euripus, on one side towards Aulis and the territory of Tanagra and on the other towards Salganeus and Anthedon, the sea stretches unbroken in the one direction towards Egypt and Cyprus and the islands, and in the other direction towards Macedonia and the regions of the Propontis and the Hellespont. And he adds that Euboea has, in a way, been made a part of Boeotia by the Euripus, since the Euripus is so narrow and is spanned by a bridge to Euripus only two plethra long (Strabo 9.2.2, trans. Falconer 1854).

Although the eastern coast of Boeotia was considered particularly inhospitable by Gomme, this impression is partly the product of Holocene sedimentation events and shoreline progradations that have masked formerly important prehistoric harbors (Ghilardi et al. 2012, 2013, 2014). Indeed, it is no coincidence that Agamemnon’s fleet chose to muster at Aulis at the start of the Trojan War; this harbor, lying at an important

juncture between the North and South Euboean Gulfs, was critical not only for merchantmen navigating the challenging currents of the Euripos, but also for controlling access to it. The density of sites clustered precisely around the Euripos (both on the Boeotian and Euboean shores) attest to both its strategic and economic importance in the prehistoric period. Indeed, the overall importance of the Euboean Gulf as a conduit for prehistoric trade and connectivity has been recently emphasized by Alex Knodell (2013, 2017) and Magareta Kramer-Hajos (2016). Similarly, in the early 20th century, Walter Heurtley investigated the western coast of Boeotia, discovering several Late Bronze Age sites well-sited for trade with the Peloponnese (Heurtley 1923-25). Additionally, Sylvian Fachard and Alex Knodell have identified traces of an important Mycenaean road connecting Boeotia with the Megarid and Eleusis, demonstrating considerable investment in the infrastructure required for efficient land movement and possibly giving access to a third body of water.²⁷ Taken together, this evidence shows that, during the Late Bronze Age, Boeotia was far from isolated, but rather a central hub linking numerous networks of interaction.

Euboea is the largest Aegean island after Crete, but also the most fragmented geographically. Consisting of a mountain chain separated from the mainland by a deep valley, the east coast of Euboea is mostly sheer cliffs; on the western half, however, a series of fertile agricultural plains exist, broken up by mountains (Sackett et al. 1966, 52). These plains were attractive areas of settlement for prehistoric communities and in many ways the landscape of the western coast of Euboea is a reflection of the eastern coast of Boeotia. The unique position of Euboea, stretching along the eastern coastline of the mainland

²⁷ Fachard, S. and A. Knodell (2015) "Out of Attica: modelling mobility in the Mycenaean Bronze Age," Athens and Attica in Prehistory. International Conference. Athens, 27-31 May 2015.

from Volos in the north down to almost the tip of Attica in the south, both formed a sheltered sea corridor, but also cut off direct access to the Aegean, making some form of conflict or cohesion necessary between the Boeotians and their Euboean neighbors.

History of Prehistoric Research

The first archaeological investigations in Boeotia were not at Thebes, the mythical home of Kadmos, but rather at Orchomenos, home of the fantastically wealthy legendary King Minyas. Although Schliemann explored Central Greece, seeking out the famous Boeotian cities mentioned by the ancient authors, his disdain for Thebes can be seen in the passage cited at the start of this chapter. Schliemann instead focused his energies on the Bronze Age site of Orchomenos. Although hoping to replicate his successes elsewhere, Schliemann failed to find any substantial remains on the scale of Troy, or tombs with the wealth of Mycenae, and therefore departed (Schliemann 1881). His research, however, did inspire further interest in the site by German archaeologists, who discovered rich prehistoric remains of pre-Mycenaean date on the lower slopes of the ancient acropolis (Bulle 1907).

Early exploration of Thebes was directed by Antonios Keramopoulos, a gifted archaeologist, who was meticulous in his observations, with the result that much of his scholarship is still of great value to our understanding of prehistoric Thebes today (e.g. Keramopoulos 1909, 1917). He was responsible for excavating the so-called House of Kadmos, as well as important chamber tombs around the Kadmeia. Despite his pleas for greater attention to Thebes, however, he never achieved his goal of creating an integrated

archaeological site on the Kadmeia – a goal that continues to elude archaeologists to the present day.

One of the first major Boeotian excavations outside of Thebes was Hetty Goldman's exploration of the large Mycenaean fortified settlement of Eutresis in the 1920s (Goldman 1931). This was followed by Gla beginning in the 1950s, first under Ioannis Threpsiades and later reinvestigated by Spyridon Iakovides in the 1980s (Iakovides 1989). Excavation at Thebes continued in an attempt to save the archaeological record from rapid development during the 1960s and 1970s (Symeonoglou 1985, xvii; Aravantinos 2014a). These excavations demonstrated that the Kadmeia had been a vast, fortified citadel, with large palatial structures. Furthermore, Linear B began to turn up in salvage operations (Platon and Touloupa 1964).

In the 1970s, Theodore Spyropoulos excavated a series of impressive tombs to the east of modern Tanagra, after painted larnakes turned up on the art market. The cemeteries produced more painted larnakes and a great deal of well-preserved Mycenaean pottery. Unfortunately, only preliminary reports of these discoveries were ever published (see below for full bibliography). Roughly contemporary with this research were the excavations renewed at Orchomenos and significant Mycenaean remains were discovered at the foot of the Bronze Age citadel (Spyropoulos 1974). Spyropoulos also performed a good deal of rescue work in Thebes during his tenure as ephor, ultimately publishing an important destruction deposit and its associated Linear B texts (Spyropoulos and Chadwick 1975). In 1973, Sarantis Symeonoglou also published two important deposits of ceramics and ivories from the Kadmeia (Symeonoglou 1973). Rescue excavations have continued to be a priority throughout Boeotia to the present day,

often resulting in publication of reports, but few syntheses or long-term systematic projects.

Since the 1980s, however, new work at Thebes, carried out by Vassileios Aravantinos, has been widely disseminated internationally. Most important was the discovery and publication of the largest single Linear B deposit in Thebes, the Pelopidou Street archive, including the associated pottery and small finds (Aravantinos et al. 2001, 2002, 2005; Andrikou et al. 2006). A project was also initiated to restudy and publish in full the House of Kadmos finds (Dakouri-Hild 2001, forthcoming), as well as the cemeteries and associated finds from previous excavations (Aravantinos and Fappas 2009; Tzavella-Evjen 2014). Ongoing excavations in the so-call New Palace area by Aravantinos continue to the present, now as a systematic excavation under the auspices of the Athens Archaeological Society rather than rescue excavation. Recent finds have included a series of pithos basements, large fresco compositions, and new Linear B texts (Aravantinos et al. 2008; Aravantinos 2010a, 2015; Petrakos 2014, 28-31). Outside of Thebes, the Eastern Boeotia Archaeological Project began excavations at the acropolis of ancient Eleon in 2011 with the goal of understanding the development and post-palatial occupation of prehistoric Eleon (Burke et al. 2013; Charami et al. 2015; Burke and Burns 2016).

In combination with these new archaeological projects, the 1960s, 70s and 80s ushered in a new period of survey archaeology which helped to shed new light on the number of Late Bronze Age sites in Boeotia (Hope Simpson and Dickinson 1979; Bintliff and Snodgrass 1985; Fossey 1988). Some of these projects have continued to the present day. More recently, work in Eastern Boeotia has been carried out by the Canadian

Institute in Greece, demonstrating the long history of prehistoric occupation at the acropolis outside the modern town of Arma, long identified with ancient Eleon (Aravantinos et al. 2012, 2016).

The Kopais

The only settlements in the Kopaic Basin to receive much attention archaeologically are Orchomenos and Gla, the two largest known settlements. Smaller investigations carried out at Haliartos focused on the historical period. In the summer of 2016, however, new excavations were conducted at three sites: Ayios Ioannes, Ayia Marina, and in the vicinity of Gla, although little information is yet available.²⁸

Orchomenos

In Greek mythology, as well as throughout the historical period, the chief rival to Thebes within Boeotia was Orchomenos. Our understanding of the Mycenaean settlement has been hampered by delayed publication and heavy erosion on the slopes of the Akontion ridge that serves as the Orchomenian acropolis. Early excavations undertaken by Schliemann, André de Ridder, and Heinrich Bulle demonstrated that an important prehistoric settlement had existed on the lower slopes and at the foot of the Classical acropolis (Schliemann 1881; de Ridder 1895; Bulle 1907).

Schliemann's focus was on the Treasury of Minyas mentioned by Pausanias as one of the most marvelous Greek constructions and one of the most impressive monuments

²⁸ Eleni Kountouri and Michael Lane (2017), "Mycenaean Northeastern Kopais (MYNEKO) 2016: Report of the Excavations at Aghia Marina Pyrgos, 'Aghios Ioannis' and Around Glas," 118th Annual Meeting of the Archaeological Institute of America.

anywhere in the world, comparing it somewhat enthusiastically to the pyramids of Egypt (9.36.4-5, 9.38.2). The treasury is identified with a Mycenaean tholos tomb of impressive dimensions, which apparently stood intact at the time of Pausanias' visit in the second century CE, when he describes the vault of the chamber, but was ruined by the time Schliemann investigated the site. Its stones appear to have been robbed for local building projects during the Medieval period. This tholos is notable for being the only tholos tomb known to have been built in all of Boeotia during the palatial period and for its close similarity to the Treasury of Atreus, the largest tholos at Mycenae. This has resulted in the suggestion that the tomb itself was a royal 'gift' made by rulers from the Argolid (Pelon 1976, 414-416). Schliemann was disappointed to find that the tholos had been cleared out in antiquity. A Roman construction, perhaps an altar or statue base, built on the bedrock floor indicates that the chamber was thoroughly cleared already in antiquity (Alcock 1993, 138, 186; Alcock and Cherry 2005). A side chamber, however, preserved elaborately carved decorative slabs (Schliemann 1881, 144-149). These consisted of green schist on the ceiling and alabaster (Schliemann's marble) on the walls. The alabaster wall slabs were poorly preserved even when Schliemann excavated, having been exposed to both heat and moisture, but it is clear from the remaining in situ fragments that they repeated the pattern of the ceiling. Similar gypsum slabs from Mycenae and now in the British Museum, are believed to have been removed from the Treasury of Atreus by Lord Elgin (Younger 1987).²⁹

²⁹ John Younger reviews the evidence for the placement of the slabs. He contends that they were originally part of the decorated façade of the tomb, not the side chamber, nevertheless, gypsum decoration does appear to have adorned the walls of the side chamber as well.

De Ridder focused on two sanctuaries of the historical period at Orchomenos, an Asklepieion and a Herakleion. At both sites he found Mycenaean sherds mixed in with the material from later periods, but no prehistoric architecture is reported (1895, 177-179). The locations of these sites, however, give some sense of the extent of the prehistoric remains.

Bulle (1907) found prehistoric material over much of the lower slopes and along the foundations of the local monastery.³⁰ There was little in the way of Mycenaean architecture preserved, but he did find some ceramics in addition to fresco fragments alongside the monastery.

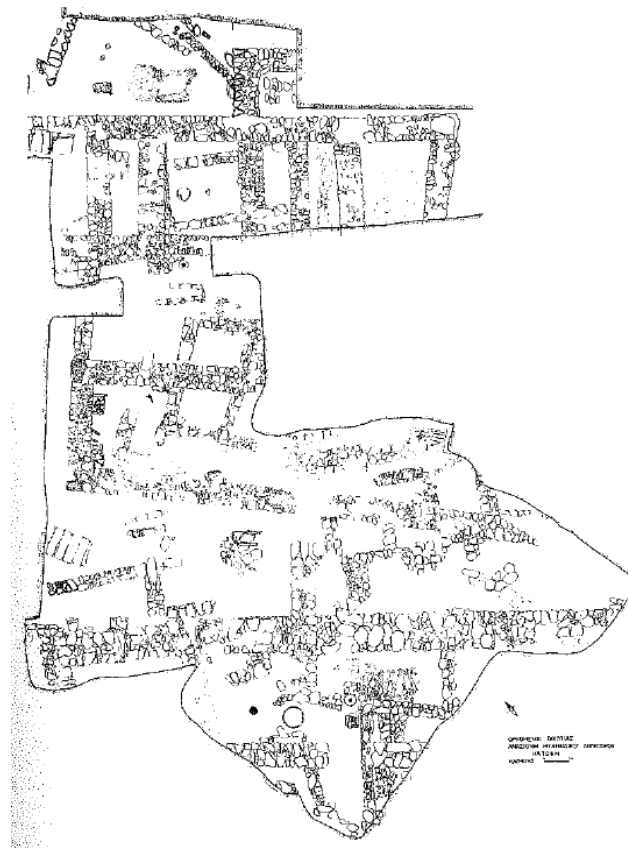


Figure 2.2: Plan of Spyropoulos' excavations at Orchomenos adjacent to the Monastery of Skripou/Theotokos (Spyropoulos 2014, 113, fig. 23).

³⁰ The Church of Skripou, part of the monastery, is built almost entirely from ancient spolia from the Classical and Roman periods.

In the 1970s, Spyropoulos attempted to explore the areas where Bulle had produced evidence for Mycenaean frescoes along the foundations of the Church of Theotokos. His excavations produced impressive LH III foundations and large fresco deposits just below surface level and unfortunately partly overlain by the later church and monastery (Spyropoulos 1974). Recently, a plan of the excavations has been published which gives some sense of the scale and overall layout of the architectural remains (figure 2.2), although it is unphased and some of the architecture is clearly later.³¹ The frescoes were mostly found associated with the floor of the northern wing as well as in the open courtyard to the north of it (Spyropoulos 1974, 319). These last were thought to have been a single composition, preserved when the north wall of the structure collapsed into the courtyard during the destruction. Most of the remains appear to be Mycenaean, but the excavator does refer to damage done by Late Byzantine graves (Spyropoulos 1974, 319). Spyropoulos (1974, 2015) interprets the remains as the palace of Orchomenos, however, frescoes and elaborate architecture are liberally recorded in Mycenaean constructions outside of palaces, including many households at Thebes, Mycenae, Argos, and Iklaina (e.g., Spyropoulos 1971c; Tournavitou 1995; Shelton 2010; Iakovides 2013b; Shelton 2015a; Tournavitou and Brecolaki 2015). While clearly a large and important residence, there is no need to assume this is anything more. Enough fragments of frescoes have been published to demonstrate some usual palatial themes: hunting with boars, dogs, and chariots, soldiers (probably part of a siege scene) (Spyropoulos 1974, 2015; Boulotis 2000). Unusual themes are also found, however, including a scene interpreted as male worshippers and a fenced temenos of palm trees with deer (Spyropoulos 2015). A still

³¹ Smaller walls running over the Mycenaean foundations are apparent in the photos of the excavation published by Spyropoulos (ex. Spyropoulos 1974, 318, fig. 5).

unpublished fresco fragment recently reconstructed and put on display in the Thebes Museum shows a scene with a Mycenaean galley (figure 2.3). Although fragmentary, there can be no doubt that this is a two-level galley with a helmsmen positioned on an upper deck and rowers depicted on a lower deck (Wedde 2000, 110-116). It is possible that this is formed part of a larger composition incorporating the the siege scene discussed above. Such a scene is a unique find in the heart of Boeotia (although maritime imagery is common throughout) and contradicts the recent claim that galleys are somehow inherently unsuited to elite iconography (Kramer-Hajos 2016, 128-141, 147-148).³²



Figure 2.3: *Depiction of a Mycenaean galley from Orchomenos (Archaeological Museum of Thebes, photo T. Van Damme).f*

³² Kramer-Hajos (2016, 128-141) draws a distinction between the iconography of galleys and the much more commonly depicted ship with lunate hulls and ikria (cabins) of ship frescoes from Pylos Hall 63, Iklaina, and Mycenae. The latter are connected with Minoan ships and may, as discussed by Kramer-Hajos, have played some ceremonial function.

Spyropoulos (1974, 322) dated the material from the floor of the north wing of the complex to the end of LH IIIB. Originally, this conflicted with the dating of the Tiryns frescoes, which had been thought to belong to an earlier renovation of the palace there. The close similarities between the iconography and execution of the two sets of frescoes leave little doubt that they are chronologically synchronous (figure 2.4a and 2.4b). The recent redating of the Tiryns frescoes to a single LH IIIB2 destruction event (Kardamaki 2013, 2015), however, supports Spyropoulos' original dating. It should be noted, however, that very little pottery from the excavation of Orchomenos has been published. In his 1974 report, Spyropoulos (1974, 323, fig. 11, 324, fig. 12) only illustrates an unpainted kylix, an unpainted cup, and two unpainted shallow angular bowls. He also mentions stirrup jars, although he does not illustrate any (Spyropoulos 1974, 322).



Figure 2.4a: Boar hunt fresco from Orchomenos (Archaeological Museum of Thebes, photo T. Van Damme).



Figure 2.4b: Boar hunt fresco from Tiryns (National Archaeological Museum, photo T. Van Damme).

While it is clear that an important structure was located here, it is difficult to ascertain its function from the meager amount of pottery published so far. As pointed out by Spyropoulos, the location of the building is unusual for a Mycenaean megaron (Spyropoulos 1974, 315-316). The Orchomenos acropolis is, however, rather steep and high for a Mycenaean citadel, and thus, it is possible that the flatter, easier foothills were preferred, as the site for a palatial structure, by the Mycenaean engineers.

The presence of an early Mycenaean and palatial period cemetery on the lower slopes of the acropolis further confuses matters, as one would not expect a cemetery to be placed intramurally.³³ Beyond the tholos excavated by Schliemann, Spyropoulos excavated an early Mycenaean cemetery, including a grave enclosure of MH III-LH I date (perhaps similar to those at Eleon and Paralimni: Hyle), as well as a very rich LH IIIA

³³ Grave Circle A at Mycenae was originally extramural and only brought inside the city walls in the LH IIIB period. While Middle Bronze Age graves are frequently intramural, they are very rare throughout the Mycenaean period, only reoccurring with frequency in the post-palatial period (e.g., Musgrave and Popham 1991).

grave that Spyropoulos identified as a guardhouse (Spyropoulos 1971a, 1972b, 1974a, 322-324). This evidence may suggest that the entire Mycenaean settlement was located on the flatter lowlands at the foot of the acropolis. Schliemann (1881, 133) cites Strabo (9.2.42) as evidence that the “ancient city” was in the plain, but flooding forced the citizens to move upslope in the historical period. Thus, a kernel of truth may have underlain Strabo’s comment. Indeed, more recent excavations have demonstrated other fragmentary palatial structures beneath the modern town of Orchomenos (Kountouri 1998, 2001-2004; Fappas 2010).

Mountjoy (1983, 11-46) has published the Mycenaean pottery from the excavations of Bulle. This material spans LH I-LH IIIC, although nothing has to be later than LH IIIC Early. A bronze hoard summarily published by Spyropoulos, said to have been found in a well by an earlier excavator, contained over 100 objects including double axes, sickles, and a violin bow fibula that suggests a LH IIIB2-IIIC Early date for its deposition (Spyropoulos 1970b). At present it seems plausible that habitation continued some time into the post-palatial, although whether complete continuity of occupation occurred is unknown.

Gla

The site of Gla was known to early scholars and travelers of the 19th century, including Edward Dodwell, William Leake, Karl Ulrichs, and even Heinrich Schliemann, but no excavations took place and the site only merited cursory mentions (Iakovides 2001, 4-5).³⁴ The first real documentation of the site was a survey conducted by Friedrich Noack

³⁴ Perhaps on account of the perceived threat of malaria due to the resurgent lake.

(1894), who illustrated a number of the gates, and provided an account of the visible remains. This attracted the interest of de Ridder (1894), who conducted the first excavations at Gla in an attempt to date the citadel. Digging at the highest point on the tabletop, he uncovered the remains of an elaborate, well-built, Mycenaean complex with evidence for a catastrophic conflagration, bronze door pivots still in situ, and traces of elaborate wall decoration – including rare examples of relief plaster elements (known from Crete, but only rarely attested in scattered fragments on the mainland; e.g., Iakovides 2013b, pl. 66a-b). Unfortunately, de Ridder only provides verbal accounts of many of these finds and none of the materials can be located today. The lack of any illustrated ceramic finds is particularly vexing.

Following de Ridder, Threpsiades became interested in understanding the role of this massive, fortified site in relation to the neighboring sites of Orchomenos and Thebes. His excavations demonstrated that the elaborate complex, which he termed the Melathron, was only one small portion of a much larger, coherently planned series of buildings, consisting of large storage wings accessible by ramps and enclosed within a series of sub-fortifications with gates and check-points. The untimely death of Threpsiades resulted in the delayed publication of these finds, but this was eventually taken up by Iakovides in the 1980s (1989, 1998, 2001), who proceeded to excavate a second wing of the sprawling complex. The timely publication of both his own and Threpsiades' results has demonstrated the storage function of many of the rooms. Pithoi, transport stirrup jars, and amphorae sherds all concentrated in storage spaces (particularly Buildings A and H). Taking greater care to collect floral and faunal material, Iakovides recovered and kept large samples of charred cereals stored in some of the

magazines at the time of the destruction, which Glynis Jones identified as einkorn wheat (Jones 1995). Another important contribution made by the excavator in the course of his research was demonstrating for the first time incontrovertible evidence for tiled Mycenaean roofs (Iakovides 1990, 2001, 135-137). He also published a bronze door pivot uncovered by Threpsiades in 1960, one of five known to have been discovered in the Melathron (Iakovides 1978). A few structures were also shown to have been residential, likely for the officials in charge of managing such large stores. Frescoes, even from the storerooms themselves, demonstrate the widespread use of wall paintings in the palatial period (Iakovides 2001, 138-141). Motifs include dolphins, argonauts, rosette bands, dados, and at least one composition with female figures (Boulotis 2015). Iakovides also found that the entire Mycenaean settlement at Gla was very short lived. The fortifications, Melathron, and associated storerooms were built and destroyed within a fairly short period of time, perhaps less than a century apart. The earliest pottery consists of pieces in the LH IIIA2 style, suggesting a date late in this period for the earliest constructions (Iakovides 2001, 142-144, pl. 13.26). The entire site seems to have experienced a destruction during the LH IIIB2 period, probably at the very end of the period, given the presence of monochrome and wavy band deep bowls (Vitale 2006, 193, also 198, table 1; contra Iakovides 2001, 145). Overall, the quantity of decorated pottery excavated at the site is low, although this is perhaps unsurprising given the utilitarian nature of many of the rooms excavated and the short occupation of the site.

More recently Christofilis Maggidis (n.d.) undertook a campaign of geophysical and surface survey in the hopes of locating additional structures within the massive fortification wall. Although several targets have been identified, at least two of these

structures (with walls still visible today) were included in Noack's (1894, pl. X) plan of the site and are mentioned as having been cleared out by Spyropoulos in 1971 by Iakovides (1983, 97, no. 22; 2001, 149), who reports that four rooms were excavated in the north-western structure (Noack's Building M), revealing a poros slab floor and pottery contemporary with the main complex. A balloon image published by Iakovides (1983, frontispiece, 2001, pl. 2.2) on numerous occasions clearly shows the two areas shortly after their excavation. Despite the large size of the Gla citadel, the population of the site would have been limited by the large area devoted exclusively to large storage complexes walled off from the rest of the site. Its interpretation as a collection center for agricultural produce from the eastern Kopais seems sound. Although recent interpretations have attempted to emphasize the administrative role of Gla in the Kopaic basin to such an extent that it becomes a palace in its own right at the expense of Orchomenos (e.g., Knodell 2013, 139-140, 165-166), there is no good reason for doing so. Mycenaean palaces are defined by a shared number of characteristics and while impressive, Gla lacks the characteristic megaron building and evidence for Linear B administrative documents present at other sites.³⁵ Not least because of its low population density and specialized function, Gla should continue to be seen as a satellite center of Orchomenos, likely important for the defense and storage of agricultural produce in the eastern Kopais.

The location of Gla has been commented on by a number of authors and their statements need little further discussion. The two main drainage branches of an elaborate system of levees and canals merge nearby, and thus the fortress of Gla served double duty

³⁵ Admittedly few sites can securely be identified as Mycenaean palaces by these criteria, being restricted to Mycenae, Pylos and Tiryns. Midea and Dimini have produced megara, but no Linear B tablets. Ayios Vassileos, Knossos, Thebes, and Volos have produced Linear B tablets and palatial architecture (although megara are so far absent).

as a warehouse and military post. Michael Lane has studied the network of fields and canals surrounding Gla and has presented evidence for standardized land divisions reflecting the evidence in the Linear B texts for palatial land allotments (Lane 2012). His work has also provided valuable evidence for the dating of the canals by various means, demonstrating securely that they should be placed in the Late Bronze Age (Lane 2015).

Haliartos

The site of Haliartos represents a substantial settlement located on the low range of hills separating the Kopaic Basin from the rest of Boeotia. As such, Haliartos was well positioned to watch over the south branch of the drainage system of the Kopaic Basin, as well as monitor the movement of people coming from the Theban plain. Excavations at Haliartos have been limited to three short campaigns. Two of these, those in 1926 and 1931, were conducted by the British excavator R.P. Austin, and a third brief exploration was made by Spyropoulos in 1973, which resulted in a deep sounding on the acropolis. While these campaigns demonstrate that prehistoric strata exist, it appears that the Mycenaean levels are heavily disturbed by later constructions. In more recent years rescue operations have been carried out to the north and south of the Acropolis, but while demonstrating the extent of the Classical through Hellenistic settlement, they have revealed little about the prehistoric settlement, which must have been focused on the acropolis.

Austin's exploration mainly focused on a historical temple and an adjacent colonnaded structure of unknown function. He did, however, survey the circuit walls, identifying five discrete phases spanning the occupation of the site. This included a

Mycenaean phase in the usual Cyclopean style (Austin 1925/26, 82). He was able to trace the course of this wall along the southern and western edges of the acropolis, but it seems likely other parts were built over by later fortifications. The remains on the western edge remain the best preserved today and stylistically it appears that Austin's assessment is correct. A single sherd pulled from this wall allegedly dated to the 14th century BCE, which probably means it was LH IIIA.³⁶ This, however, merely provides a terminus post quem for the construction. In the south-western corner Austin reports that a gateway was found in the Mycenaean circuit with part of the threshold still in situ and what sounds like one of the door jambs lying a short distance downslope (Austin 1925/26, 82).

Within the excavation area, most of the material dated from the historical phases of occupation, but a small pocket of prehistoric material was excavated within the *peribolos* (enclosure wall) of the temple. This material, although not illustrated, included a mendable deep bowl with medium lip band and spiral decoration (Austin 1926/27, 129). This could date anywhere from LH IIIB2-LH IIIC Middle. The large unpainted goblet described must be Early Mycenaean (LH I-III A). In 1931, more prehistoric material came from the eastern part of the space enclosed within the *peribolos* (Austin 1931/32). This included two undecorated shallow bowls compared to those from the House of Kadmos. These must be shallow angular bowls and should date to LH IIIB. A decorated kylix stem could be LH IIIA-B. The rest of the material from the 1931 excavation is Middle Helladic-Early Mycenaean.

The results of Spyropoulos' investigations at Haliartos are not published. A brief preliminary report of work in the Kopaic basin during 1973 makes no specific mention of

³⁶ Austin 1925/1926, 82. No description or illustration of the sherd in question is provided.

this exploration (Spyropoulos 1973). More recently a book on Spyropoulos' excavations in Laconia at the site of Pellana was published (Spyropoulos 2014). This includes some discussion of his work in the Kopaic Basin including a plan of his excavation at Haliartos, with few details of his findings (Spyropoulos 2014, 263, fig. 273 & 277 [sic 274]). This trench is still surrounded by a halo rich in Middle Helladic pottery today, however, and it seems probable that Early Mycenaean levels were encountered. The apsidal nature of the preserved architecture is reminiscent of the EH-MH architecture at nearby Eutresis. The site is likely to have filled a similar role as a second order center to Orchomenos.

Central and Eastern Boeotia

One of the reasons that no treatment of prehistoric Boeotia has yet been written is the fragmentary nature of most of the excavation evidence. The closest thing to a synthetic account of the archaeological finds are Anastasia Dakouri-Hild's chapters in the *Oxford Handbook to the Bronze Age Aegean* (Dakouri-Hild 2010a, 2010b), as well as her doctoral dissertation, *Value and values in a Mycenaean society: production and consumption of commodities in Late Bronze Age East Boeotia* (Dakouri-Hild 2003), although the latter is restricted in its focus. From the 1960s-80s, the local ephorate sought to keep pace with rapid development in Boeotia, resulting in numerous rescue operations, thus many sites have been tested, although the results are often presented in a very summary form. I have been fortunate in this regard to re-examine a number of deposits, as well as to see unpublished finds from around Boeotia. The picture that emerges is a landscape dotted with nucleated settlements, dominated by Thebes. Our overall understanding of Boeotia is aided not only by the excavation of the palatial center at

Thebes, but also the second order centers at Eleon, Eutresis, and Glypha, and small tertiary settlements like Schimatari. Thus, a rather holistic image of the different settlement types emerge and some general observations can be made.

Thebes

Thebes was the largest site in Late Bronze Age Boeotia, and indeed, likely the largest Mycenaean settlement in mainland Greece – certainly it featured the largest fortified area.³⁷ Despite the obvious importance of the settlement from a very early date, our picture of the settlement of Thebes during the Early and Middle Bronze Age is highly fragmented (see Demakopoulou and Konsola 1975; Konsola 1981; Dakouri-Hild 2001b, 2010a, 691-696; Konsola 2014). The situation for the Late Bronze Age includes a great deal of evidence, but little in the way of reliable synthesis. An attempt by Symeonoglou to gather the available information in the 1980s relied heavily on mythological and Roman authors to create a narrative that explained the prehistoric remains (Symeonoglou 1985; reviewed by Schachter 1987). Despite this, Symeonoglou (1985, 213-309) did a great service by gathering together all the excavated plots in Thebes and summarizing the findings. The rapid expansion of the modern city throughout the 1960s quickly covered over much of the ancient acropolis, the ancient heart of Thebes known in Classical antiquity as the Kadmeia, after the eponymous first king of Thebes, Kadmos. While archaeologists raced to excavate what they could, and thus preserved a few select remains,

³⁷ Todd Whitelaw (2001, 29, fig. 2.10) ranks Thebes second in size to Mycenae, but the survey data used to construct the estimated size of Mycenae is not ideal. Furthermore, the size estimate Whitelaw uses of Thebes is based on Symeonoglou's flawed estimate (see Chapter Three). Even if Mycenae was slightly larger in extent, its overall density is considerably lower and its population was likely comparable to (if not less than) Thebes, where the density of inhabitation within the walls was considerably higher.

the overall picture of Thebes is a fragmented mosaic of individual plots, most of which are today inaccessible. The rapid rate of expansion necessitated a focus on recording and recovering as much material as possible, with the result that little of this has ever reached the stage of full publication. Thus, many finds have been presented without context pottery, thereby rendering our ability to date many of the most important finds impossible with any precision (Dakouri-Hild 2010a, 696-698). Thus, for individual structures in Thebes destruction dates have vacillated widely from LH IIIA-LH IIIB2. The only solution to this problem is systematic publication of pottery assemblages rather than select vases, a herculean task that may never come to fruition. In the meantime, I attempt to sketch a picture of the development of this important urban nucleus during the Late Bronze Age, based on the published evidence, as well as first hand observations made during my re-examination of the relevant deposits. While in no means comprehensive, it presents a portrait of a resilient center of an urban center in the heart of Boeotia, both before and after the collapse of the palace system.

Early Mycenaean (LH I-III A1)

As with many Mycenaean palatial sites, we know little about the development of Thebes prior to its palatial phase. Large scale construction projects, particularly in LH IIIA2-B1, involved levelling and terracing the Kadmeia on a city-wide scale (e.g., Dakouri-Hild 2001a, 83-84, 2010a, 699). Those remains that have survived are fragmentary and difficult to understand. Perhaps the most intriguing find in recent times is the discovery on the highest part of the Kadmeia of a large and deep bothros packed full of LH I drinking vessels and faunal remains attesting to a large feasting event within the city (Aravantinos

pers. comm.). Although only known from preliminary reports, the pottery is of excellent quality and great quantity. These compare favorably with similar large deposits of Acropolis burnished ware mixed with lustrous decorated and matt-painted wares deposited in four wells on the South Slope of the Acropolis at Athens of LH IIB-III A1 date (Mountjoy 1981). While some of the tombs from Thebes resemble the more famous shaft graves of Mycenae, Lerna, Aegina, and Pylos in character, if not the quantity of finds (Kassimi-Soutou 1980; Christopoulou 1988), the majority are buried in cist tombs until the introduction of chamber tombs. Notably, however, Thebes has yet to produce a grave enclosure of the type attested elsewhere in central and southern Greece. From LH II onwards, chamber tomb cemeteries were established on the hillsides surrounding the Kadmeia (Keramopoulos 2010, 231; Dakouri-Hild 2010a, 702) and, along with them, a more conspicuous form of funerary display (Dakouri-Hild 2003, 160-161). Building remains of this period are very fragmentary and offer little insight into the development of the city.

Early Palatial (LH IIIA2-B1)

The archaeological remains of this phase are underrepresented throughout the Kadmeia. This is the result both of the extensive clearing and reuse of many structures into the succeeding phase. In some areas, however, especially those where later deposits have been destroyed by historical building activities, or where floor levels were levelled and raised during repairs, the earlier phases have been preserved. Two key deposits of this phase have been published. The first is the remains of the famous “House of Kadmos” excavated by Keramopoulos at the turn of the 20th century. Notable for the level of care

paid to recording finds and the large quantity of material retained at such an early date, the excavation was published in a series of extensive articles. More recently, the well-preserved architecture has been restudied by Dakouri-Hild, as part of a Master's thesis at the University of Durham (Dakouri-Hild 1998, 2001a). Dakouri-Hild has expanded this project to include the restudy of all the material from the original excavations still available in the Museum at Thebes. This has resulted in new insights into the stratigraphy and excavation of the site, as well as the publication of additional ceramic material (Dakouri-Hild forthcoming). Although the full results of her study remain eagerly anticipated, the initial results demonstrate at least two phases of use. An initial phase is dated to LH IIIA, which resulted in LH IIIA2 destruction deposits concentrated beneath the floor of a later LH IIIB1 phase reoccupation in Room Nu, including the famous "Procession of the Ladies" fresco (Dakouri-Hild 2001a, 93, 97, fig. 9). Meanwhile, Room Pi shows a divergent refurbishment process that saw walls simply re-frescoed in situ – perhaps suggesting that damage from the LH IIIA2 destruction was more cosmetic than structural (Dakouri-Hild 2001a, 98-99).

The destructions of the House of Kadmos are notoriously difficult to date accurately, with suggestions ranging from LH II to IIIB (Dakouri-Hild 2006, 95-101). It is clear that the final destruction was caused by fire and post-dates the start of LH IIIB. In 2001, Dakouri-Hild was under the impression that most of the trays of sherds retained from the old excavations were "mixed" (e.g., Dakouri-Hild 2006, 98). It is unclear exactly why this makes them irrelevant to dating the final destruction. In any case, this would not affect our interpretation of the final destruction, since what is critical is the latest datable material. The material from Group 2, which is said to come from the destruction fill, is

surely LH IIIB2 in date, as it includes both a dotted rim dipper and linear deep bowl with monochrome interior (Dakouri-Hild 2001a, 110, fig. 14). Similarly there are a number of LH IIIB2 pieces in Group 6, including a Group B deep bowl rim and a deep bowl rim with stemmed bowl banding of a type commonly found in LH IIIB2-LH IIIC Early contexts in Boeotia. While this material does seem to be mixed with an earlier phase, it seems like the latest material could be LH IIIB2 (Dakouri-Hild 2001a, 115-116, fig. 21-22). The final publication of the preserved ceramic material from this site will allow this hypothesis to be refined, but it seems possible (if not probable) that this structure was refurbished and only destroyed in the LH IIIB2 period.³⁸ Although this would place the destruction later than traditionally accepted, it could still predate the final destructions of the palace and the Pelopidou Street “archive” (see below), both of which preserve some rather late features (e.g. monochrome deep bowls) not yet present in the final House of Kadmos destruction deposits.

In addition to the famous inscribed and un-inscribed transport stirrup jars (Raison 1968; Sacconi 1974), Keramopoulos (1927, 39-40) reported the discovery of large quantities of tiles in room Pi along with very large roofbeams. Symeonoglou (1985, 222) thought that he may have been referring to accidentally fired bricks, but it is clear from Keramopoulos’ publication of Mycenaean tiles found near the Elektra gate that he was able to identify tiles accurately (Keramopoulos 1917, 76, fig. 58). Furthermore, the more recent publication of large tile collapses from elsewhere in Thebes show that tiles were

³⁸ It is certainly worth noting that many of the arguments adduced to support the LH IIIA2-IIIB1 dating of the final destruction hinged on the presence of the inscribed transport stirrup jars, which were thought to be a short-lived phenomenon. New evidence from Tiryns and Mycenae demonstrates clearly that inscribed stirrup jars continued to circulate not only in LH IIIB2 (e.g., Maran 2008; Kardamaki et al. 2016), but well into LH IIIC Early (e.g., French 2011, CD 66-505), making any attempt to use them as dating evidence extremely problematic.

widespread in the LH III architecture of the city (Piteros 1981, fig. 119γ; Aravantinos and Fappas 2012; Aravantinos 2015, 33-34, fig. 13). Of course, one of the most impressive discoveries was the wall painting of women in procession, now on display in the Thebes Museum (figure 2.6), although it is important to note that other frescoes were also found in the House of Kadmos, including a shield fresco (Reusch 1947/48, 1953, 1956). More unpublished fragments will hopefully be included in Dakouri-Hild's forthcoming reanalysis.



Figure 2.5: Mycenaean roof tiles from Thebes (Archaeological Museum of Thebes, photo T. Van Damme).



Figure 2.6: Detail of House of Kadmos procession fresco (Archaeological Museum of Thebes, photo T. Van Damme).

The second important excavation for this period concerns the remains published by Symeonoglou at 14 Oedipus Street. The result of a rescue excavation conducted under the supervision of Nikolaos Platon and Evi Touloupa, *Kadmeia I* (1973) presented the first detailed modern publication of a multi-phase occupation site in Thebes. Although the bulk of the ceramic evidence dates from relatively small pits, they contained an extraordinary amount of mendable vessels. The relative completeness of these ceramics, as well as their associated finds suggests that they represent material destroyed in situ or in the immediate vicinity and quickly deposited and covered over. Careful attention to floor deposits and publication of relevant sherd material allows one to assess the assigned dates critically. While subsequent authors have treated the mendable vessels as a homogeneous group – Symeonoglou (1973, 19) had already cautioned in his original publication that the differing state of preservation between the two deposits, as well as their differing contents, suggested that they may represent two different closed groups of material: one burnt and associated with a substantial quantity of ivories and a second unburnt deposit with no ivories present. It is worth reviewing the contents of the published deposits, since they have important implications for the interpretation that follows.

As can be seen from table 2.1, despite some overlap in individual shapes, the two deposits are actually quite distinct. The first deposit contains a very high number of closed shapes, including a large percentage of stirrup jars of uniform size, shape, and decoration suggesting they represent a single batch of vessels. In addition, a wide range of open shapes is represented, including several decorated shapes. The second deposit represents a much plainer group – in fact, only four vessels in this group are painted (all kylikes,

4/53 or 7.5%). Strikingly, this deposit consists almost exclusively of kylikes (42/53 vessels or 79.2%). By comparison, deposit A, the burnt deposit, contains a larger quantity of decorated material (24/60 or 40%) as well as an abundance of closed shapes (42/60 or 70%). Surprisingly neither deposit contained any mendable cookware vessels (the so-called baking pan is in a fine fabric), suggesting that cooked food was not functionally important to either assemblage.

Table 2.1: Pottery deposits from 14 Oedipus St. (after Symeonoglou 1973, 41, table I)

	Burnt Deposit (Deposit A)	Unburnt Deposit (Deposit B)
<i>Undecorated</i>		
Krater (FS 9, 10)	1	3
Piriform jar (FS 50)	1	-
Jug (FS 102)	2	1
Hydria (FS 128)	10	-
Beaked jug (FS 145, 151)	9	1
Conical cup (FS 204)	2	2
Dipper (FS 236)	2	2
Cup with rod handle (FS 239)	5	-
Kylikes (FS 264, 265/266, 267, 273)	-	39
Conical Bowl (FS 295)	-	1
Baking pan (FS 323)	1	-
Bowl with vertical handle (FS -)	2	-
<i>Decorated</i>		
Stirrup jar (FS 166)	20	-
Carinated conical cup (FS 230)	1	-
Cup with two high-handles (FS 241)	2	
Cup with spout (FS 253)	2	
Kylikes (FS 257)	-	4
TOTAL	60	53

Are the deposits homogeneous? On the basis of treatment and their deposition side-by-side, it seems that the two contexts are closely related. As seen in the House of Kadmos, a destruction does not have to affect all parts of a building in the exact same

manner, thus vessels in one room may have been subjected to fire while others may have escaped unscathed from the heat. Additionally, other factors may have served to protect some vessels, including the manner of storage and rapid burial under collapsed debris. Despite the differences in deposits, the pottery itself seems to fit perfectly together. Deposit A contains no kylikes whatsoever, whereas Deposit B is almost exclusively kylikes. At the Palace of Nestor in Messenia, vessels were stored by type, likewise in the ceramic workshop of the Petsas House at Mycenae, and the “Potter’s Workshop” at Zygories (Blegen 1928; Hruby 2006; Shelton 2010). The material from the unburnt deposit, Deposit B, is safely classified as a drinking set. It contains all the necessary equipment: kraters, dippers, two distinct jugs (one for water and one for wine?), and an assortment of shallow bowls for *mezedes* (cold snacks), likely necessary for extended drinking parties. The amount of individual vessels is not large (total number of kylikes is only 42 vessels), so it is unlikely that the material represents the “palace” of Thebes during this period. Instead this is likely the remains of a wealthy household. The quantity of ivories suggests a prominent figure, who could afford the best furnishings. Interestingly, among the kylikes, four vessels are decorated. The users of these vessels would have been distinguished in any group drinking event – thus allowing the tableware to denote some sort of rank or interpersonal relationships. Alternatively, the decorated vessels may have been reserved for more intimate events, and the plainware vessels more suited for larger, drinking parties. Given the fact that all the kylikes were found together, unburnt, does, however, suggest that they were all stored together – perhaps in a different room than the burnt materials in Deposit A.

Deposit A seems to have represented a pantry devoted primarily to the storage of closed vessels, although the functionality of the assemblage is not so clear. It is possible that the vessels represent the stores used for a drinking event. In this regard it is interesting to note the ratio of hydriae to stirrup jars is exactly 1:2. So maybe we have here the water and wine that was used with the drinking set. A piriform jar may have served as a store for honey – a sweetening agent attested by the adjectival form *me-ri-ti-jo*³⁹, modifying the wine ideogram on a sealing from Pylos (Wr 1360; see Aura Jorro 1985, 440-441; Palmer 1994, 63, 1996, 275).⁴⁰ The assemblage in the burnt deposit may also provide some clues as to the nature of the event. FS 239 is a very rare shape. The spouted cups (FS 253) would have been suitable for making libations. And it is tempting to note a similar pairing of the undecorated bowl with vertical handle. This shape was unknown to Furumark, but bears a striking resemblance to large bronze basins known from graves, as well as from the Arsenal at Thebes, where one was found alongside a bronze baking pan (Demakopoulou and Konsola 1998, 56-57, pl. 27). Demakopoulou and Konsola suggest that the bronze vessel was used for hand-washing, an important aspect of cult practice and feasting (Van Damme and Lis 2017). Interestingly, many of the same vessels appear in bronze in tomb 14 of the Zapher Papoura cemetery, again suggesting the functional unity of the group (Evans 1906, pl. 89). Lis (2016) has also observed some similar shapes

³⁹ Formed from the Mycenaean Greek noun *me-ri* (gen. *me-ri-to*). Compare Classical Greek μέλι.

⁴⁰ That *me-ri-ti-jo* could refer to “sweet wine” is excluded by the Mycenaean Greek noun *de-re-u-ko* (see Classical Greek γλεῦκος, “sweet wine”), attested at Knossos alongside the wine ideogram (**Uc 160.4**; Aura Jorro 1985, 167). Honey is curiously absent from wine drinking in Homer with the exception of Circe serving Odysseus and his men a concoction of wine mixed with cheese, barley, and honey (*Od.* 10.234-43). On the interpretation of this strange brew, see S. Morris (2008, 113). It is interesting to note that Richard Firth (2016) identified similar ingredients listed in the Knossian **Fs** series as the ingredients for a ritual beverage of wine, barley, and honey. This evidence suggests that, at least by the Early Iron Age, honeyed wine was restricted to certain ritual contexts.

in Room 60 at Pylos, a pantry storing vessels of industrial but also perhaps ritual function. Taken together, the above evidence suggests that these two deposits are part of drinking equipment of a well-appointed household, one perhaps at the head of an extended kin group.

Beyond the ceramic vessels, it is important to mention that Deposit A also included hundreds of fragments of burnt ivory inlays, fittings, and moldings (Symeonoglou 1973, 44-62, pl. 64-87). Most of these seem to have come from furniture, some of which closely resemble ivory inlays attached to Classical and Hellenistic couches. Although chronologically there is a significant gap, the resemblance is striking. Furniture seems to have played an important role in Mycenaean ritual, appearing in large quantities in the Pylos Ta series of Linear B tablets (Palmer 1963, 338-365; Ventris and Chadwick 1973, 332-348, 497-502), which Thomas Palaima has plausibly interpreted to be the equipment gathered for a feasting event (Palaima 2004, 112-116). In the present case, it is interesting to note the Mycenaean festival name *re-ke-e-to-ro-te-ri-jo/re-ke-to-ro-te-ri-jo* (PY Fr 1217.2, PY Fr 343.b), which implies the existence of a religious festival involving a couch, as it derives from a compound of the noun λέχος (couch/bed) with the verb στόρνυμι (to spread/make up [a bed]) (Aura Jorro 1993, 237-238).

In addition to these relatively completely published sites at Thebes, this period is frequently encountered in local rescue excavations. The degree to which these have been published varies – normally key finds have been published with at least some mendable ceramics to justify their dating. Unfortunately the limited quantities of pottery have inevitably rendered a more comprehensive understanding of Theban chronology difficult. Frequently the remains of this period have been overshadowed by the substantial LH

IIIB2 destruction deposits that normally overly them. An important development in Theban topography during this period was the establishment of a fortification wall encompassing the entirety of the Kadmeia. While Symeonoglou had a very skeptical view of the area encompassed by the fortifications (Symeonoglou 1985, 26-32), recent work in the north part of the Kadmeia demonstrates both habitation and a stretch of fortification wall extending far beyond his projections (Aravantinos 2015, 24-26). Aravantinos (1991, 2010a, 54, 2015, 26) places the construction of the fortification in LH IIIB1. While only small portions of the wall have been excavated, its course is now reasonably certain, enclosing the entire Kadmeia as originally envisaged by Keramopoulos (1917), and not the more restricted area proposed by Symeonoglou (1985, 37, fig. 2.7). The Theban wall features only a low socle, perhaps two or three courses high, of Cyclopean masonry with large stones on the outside and a rubble core of smaller stones. The rest of the wall would have been constructed in mudbrick, whose primary material, clay, is readily available around Thebes, in contrast to suitable stone (Aravantinos 1988, 1991, 2015, 24-26). Not only would this have enabled the entire Kadmeia to be fortified, but it represents a circuit that could be accomplished with a much less skilled workforce. This may be a pan-Boeotian phenomenon as a similar style of construction is attested at Eutresis, Glypha, and Eleon.

Significant evidence for workshop activities has also been found. Demakopoulou (2014) has published important materials from the Tsotzis and Koropouli plots (Demakopoulou 2014). Likewise, Dakouri-Hild (2001a, 107-108, 2003, 59, 84-86) has established the House of Kadmos as an important production site for pottery, as well as reworking of stones (Dakouri-Hild 2014). Symeonoglou (Symeonoglou 1973, 63-71, pls.

88-93) describes gold beads, lapis lazuli and rock-crystal inlays, and stone beads, as well as tools, which he thought were from a jewelry workshop associated with Room B, of the final Late Bronze Age occupation phase at Oedipus 14. The destruction of this building was dated to LH IIIB1 or a little later (Symeonoglou 1973, 75). Fortunately, Symeonoglou published context pottery from above and below the floor in Room B. It is clear from this material that Room B was only constructed in LH IIIB1, since a Zygouries kylix fragment comes from beneath the floor (Symeonoglou 1973, pl. 26, fig. 37.1), as does a paneled deep bowl flanked by antithetic spirals (Symeonoglou 1973, pl. 24, fig. 35). It seems Symeonoglou is correct that the building was destroyed at an early stage of LH IIIB2, since no rosette deep bowls or Group B deep bowls are recorded, but the rarity of these in Theban contexts makes it difficult to place the final destruction of this structure precisely, despite Symeonoglou's claim that "whatever small differences exist do not affect the dating" (Symeonoglou 1973, 75).

The early palatial period at Thebes was also a period of abundant funerary activity (Keramopoulos 1910, 1917; Aravantinos and Fappas 2012; Tzavella-Evjen 2014). There are several large chamber tombs on the Megalo Kastelli hill to the east of the Kadmeia (Faraklas 1967). The largest features two dromoi (one over 23 meters long). At some point a second dromos (10 meters long) was cut parallel to it and the chamber expanded. Benches existed around the sides of the chamber. The entrance façade was elaborately frescoed with a checkerboard pattern in this final phase, as was the entire interior of the tomb. Although already disturbed in antiquity, the frescoes were still remarkably well preserved when first discovered. The walls of the burial chamber featured at least two mourning woman and a rocky landscape, while the benches were decorated with papyri

and spirals. Despite having been robbed, there remained a small ivory pyxis decorated with sphinxes (Spyropoulos 1971d, 1972a; Aravantinos 2015, 26-31, fig. 7). Although the tomb has deteriorated badly since its excavation, traces of frescoes can still be seen today. This was surely the most prestigious of all known burial sites in Thebes. Although the tomb itself cannot be dated precisely, its size suggests that it was dug and used during the palatial peak, between LH IIIA2 to LH IIIB, as do the few grave goods found within (Cavanagh and Mee 1998, 75).

Mature and Final Palatial (LH IIIB2-IIIC early?)

Many of the destruction deposits excavated in Thebes can be assigned to this period. Following a series of destructions datable to late IIIA2 or early IIIB1, many structures were refurbished. As demonstrated above, the final abandonment of some of these structures is difficult to pinpoint. Three key deposits have been published, but it should be noted that evidence for this phase has been uncovered in almost every rescue excavation undertaken on the Kadmeia and it is clear that the settlement was densely occupied at this time with well-appointed homes, often decorated with frescoed compositions (Spyropoulos 1971c; Aravantinos and Fappas 2015). Both sites occupy the central area of the Kadmeia and although not a single architectural entity, they must have both have been engaged with the palatial administration, since both sites produced significant numbers of Linear B documents, mainly recording the distribution of various commodities.

The first deposit was published by Spyropoulos and consists of three adjoining rooms from an impressively built structure dubbed the “Archive Room” on account of 23

Linear B texts found inside one of the rooms (Spyropoulos and Chadwick 1975). These tablets all record the distribution of small quantities of wool, sometimes to far-off locations (see chapter three, **Of Series**). Spyropoulos published a large number of the vases found in the three rooms, focusing on the (near-) complete examples. The publication is, however, by no means comprehensive as personal examination of the material has revealed and detailed sherd statistics are lacking. Nevertheless the pottery reveals some characteristics that suggest a very advanced date for the destruction of this building, perhaps even what would be considered initial LH IIIC in the Argolid. The best parallel for the deposit is likely Pylos, where initial LH IIIC features are already present in the destruction deposits of the palace, despite featuring large quantities of earlier material (Mountjoy 1997, with discussion of previous attempts at dating). Key among the late features of this deposit are monochrome deep bowls, of which at least three complete specimens are present (e.g., Spyropoulos and Chadwick 1975, no. 1960, pl. XXII, photo 90), a wavy band deep bowl (Spyropoulos and Chadwick 1975, no. 1946), and mostly decorated closed shapes.⁴¹ Other finds from the site include wall fresco fragments and clay vessel-sealings, one of which was impressed multiple times with a sealstone.

The second key deposit for this period is the “Treasury Room.” This is part of a truly monumental Mycenaean structure. Walls are preserved up to 2.3 meters high and 1.13 meters wide and the building shows evidence for two phases of use. An LH IIIB1 phase, followed by a reorganization and raising of floor levels on which a final destruction deposit of LH IIIB2 was found (Aravantinos 2001, 98). The Treasury Room was first excavated by Platon and Touloupa (1965a), who made the remarkable discovery of a large

⁴¹ Of additional interest is the presence of a mendable decorated kylix(!) of presumably advanced LH IIIB2 date.

collection of jewelry including the famous lapis lazuli sealstones published by Edith Porada (1981) and more recently restudied by Konstantinos Kopanias (2008). These sealstones can be traced from Mesopotamia, Syria, Anatolia, and Cyprus, through which the seals appear to have passed on their way to Thebes. A small extension to this trench in 1965 produced additional finds, including the discovery of a second room to the south, containing large pithoi (Touloupa 1966). Due to the presence of neighboring structures and roadways, they were unable to continue excavations. Minor exploration was undertaken by Spyropoulos (1971), who found additional jewelry. Aravantinos (2001) had the opportunity to explore another section of the room in 1996, and he found a reworked gold disk that may have served as the lid to a wooden pyxis (Aravantinos 2005a), as well as four clay nodules (three inscribed) and a fragmentary Linear B tablet. Further exploration was carried on the room with the pithoi in 2003-2004, after winter rains eroded the northern scarp (Aravantinos 2005b). Inside the room a Linear B tablet was found fallen among the pithoi, as well as a plethora of bronze plates. The latter were interpreted as coverings for the pithoi, but the published photograph clearly shows a piece of a Mycenaean bronze corselet (Aravantinos 2005b, 395, fig. 11). Thus, the plates in question are likely the remains of one or more such corslets and suggest a tantalizing link with the Armory/Arsenal discussed below.

In 2012, new excavations began, part of a more systematic exploration of an adjacent plot of land to the south. While only preliminary results from these new excavations are available, a second basement of pithoi has been found as well as a substantial number of fresco fragments (Aravantinos and Fappas 2012, 2015; Aravantinos 2014b, 2015). The discovery of pithoi basements to the south raises an

interesting point. In cleaning and expanding the excavations in 1996, Aravantinos (2001, 97) had discovered two series of pits, some lined with stones, in the Treasury Room. On the basis of an analogy with the adjacent rooms it is likely that these are pithos emplacements rather than post supports for shelving and that this room originally held storage jars as well. The capacity of pithos storage in these three adjacent rooms is substantial, and likely only comparable to the storage magazines in the palatial complex at Pylos. On account of this, and in light of the extent of the current complex, plausibly incorporating the so-called “Archive Room,” it seems probable that these two sites are in fact part of a palatial complex.

To the east of these two deposits lie two more important plots: “The Armory/Arsenal” and the Pelopidou Street excavations. An abundance of important finds have come from the area of the Arsenal, including large numbers of eponymous bronze weapons, chariot equipment, and pieces of bronze body armor (Aravantinos 2009a). But there were also non-military items including a pair of solid ivory furniture legs, 38 centimeters in height, as well as large bronze vessels (Demakopoulou and Konsola 1998, 53-55). The bronze armor, the only find of such material in a settlement context, has since been published by Eleni Andrikou (2007) in greater detail, but unfortunately the find context of this very important material is only published in preliminary reports and there are problems with establishing the date of these finds with certainty (Platon and Touloupa 1964, 1965b; Spyropoulos 1971e). Re-examination of this area by Aravantinos (2000) produced a large hoard of additional ivories, as well as new Linear B tablets (Aravantinos et al. 2001, 13). Study of the previously excavated pottery (that had not yet been washed)

also revealed additional Linear B fragments that demonstrated an LH IIIB2 date is likely for all the tablets (Aravantinos 2006, 2010, 59; Andrikou et al. 2006, 241-243).

The Pelopidou Street excavations are exceptional for several reasons: the largest single deposit of Linear B documents excavated at Thebes was found here (Aravantinos et al. 2001, 2002, 2005), although heavily disturbed by later constructions in most places; also there are several phases of stratified Mycenaean occupation datable to the palatial and post-palatial periods; and the pottery from the excavations, both Mycenaean and Medieval, has been published in detail (Andrikou et al. 2006). This publication is an invaluable source for beginning to understand the stylistic development of Boeotian pottery during this period. Most important is the observation that key diagnostics of the LH IIIB2 period are rare at Thebes (Andrikou et al. 35, 38-39, table 7b). This may offer up a reason why so much ambiguity remains in the dating of individual contexts throughout Thebes.

While the tablets are fragmentary, they contain a number of records of distributions of small amounts of staple commodities (see James 2002/3). Although the interpretation of the contents of this “archive” has been controversial (see Palaima 2000/01, 2003a, 2003b), the deposit does allow the tablets to be securely dated to the LH IIIB2 period (Andrikou et al. 2006, 240-241). An additional volume dealing with the small finds is planned. Unfortunately the Medieval pitting in this area, as well as the constricted nature of the excavation makes the architectural setting of this deposit difficult to understand.

An important workshop area was excavated in the northwestern corner of the Kadmeia in the 1990s, which shows evidence for the working of ivory and boar’s tusk

(Andrikou 1995, 2000; Snyder and Andrikou 2001, 304). Another workshop, excavated on the Loukou plot, also shows evidence for workshop activities, including the production of ivory combs (Sampson 1985). The material from the floor of the workshop illustrated by Adamantios Sampson is clearly LH IIIB2, even if stray earlier pieces existed.⁴²

Post-palatial (LH IIIC)

Although as late as 1985, Symeonoglou (1985, 62) could still claim that “Late Helladic III C pottery has not been identified with certainty, despite claims to the contrary” at Thebes, new discoveries from the Kadmeia as well as the surrounding cemeteries, demonstrate that there was in fact a post-palatial community of some size on the Kadmeia. While the only significant deposit of post-palatial material to be published so far consists of at least two distinct phases of occupation overlying the Pelopidou Street “archive” (Andrikou et al. 2006, 37), more material awaits publication. In contrast to the palatial structure that must have housed the tablets, the overlying structures were clearly simple domestic structures with typical sherd hearths and ceramic assemblages consisting of a mixture of fine ware and coarse shapes. Contrary to previous expectations, this demonstrates that Thebes was occupied well after the palatial destruction (and very likely continuously) throughout the Late Bronze Age. The latest stratified material from this excavation comes from phase 1c and should be dated to LH IIIC Middle Developed, equivalent with the first half of the LH IIIC Middle period. As Andrikou notes, however, this level was heavily disturbed by later leveling and pitting and any later Bronze Age occupation may have been

⁴² Dakouri-Hild (2003, 62, n. 12) upholds the LH IIIB1 date based on the presence of a decorated kylix, but as mentioned above there is reason to believe that these are still occasionally present in LH IIIB2 deposits in Thebes. A kylix from Eleon with monochrome interior appears to support this suggestion.

stripped away (Andrikou et al. 2006, 56). Indeed, Andrikou notes that a couple of sherds have LH IIIC Late features, demonstrating that, even if the settlement in this area ceased, it may have continued elsewhere on the Kadmeia (Andrikou et al. 2006, 55). The material is all of a domestic character and shows that this was a residential quarter throughout the post-palatial period. Although this is the most prominent (and only fully published), post-palatial deposit in Thebes, post-palatial occupation is also known from the excavation of the Archive Room by Spyropoulos (1975, 19, 54, pls. 41, 95, 114). Since this partial wall and floor was built over the destroyed remains of the palatial wing – itself destroyed at an advanced IIIB2-early IIIC date, the overlying floor must also belong somewhere in LH IIIC. The published fragments are too small to assign any subphase (they appear to be from linear/lip banded open shapes, as well as a monochrome deep bowl rim). Additional post-palatial material has recently been unearthed in the new excavations in the heart of Thebes, overlying the rooms containing pithoi. The most spectacular recent find is a LH IIIC Middle krater depicting a siege scene, reminiscent of a similar krater from Kalapodi (figure 2.7), now on display in the Thebes Museum (Aravantinos 2014, 150-152, fig. 5).⁴³ Finally, unpublished post-palatial deposits surely lie stored from the numerous rescue operations; one such deposit was examined by the author from the Koropouli plot, and it too dates to the LH IIIC Middle, including material of the pictorial style.⁴⁴ All in all, the settlement evidence suggests a thriving community at least through the first half of LH IIIC Middle. The question of whether Thebes was ever abandoned is not possible to

⁴³ There can be little doubt that both kraters depict the same scene. The scaling ladder shown leaning against the fortification wall and the fallen soldier at its base leave no doubt of the scene.

⁴⁴ I thank Katie Demakopoulou for permission to mention this unpublished material. This should be synchronous with Lefkandi phase 2a, or the first half of LH IIIC Middle.

answer with conviction, although the cemetery evidence makes it doubtful. The archaeological record for the transition from the Late Bronze Age to the Early Iron Age is, however, regrettably fragmentary and unfortunately too little has been published to answer the question with certainty.



Figure 2.7: Comparison of siege scene kraters from Thebes (left) and Kalapodi (right) (Petraikos 2014, 30, fig. 21; Niemeier 2013, 36, fig. 2).

In contrast to many other post-palatial sites, Thebes is a rarity in that both settlement and cemetery deposits have been excavated. Thebes in fact has a number of interesting burials from the post-palatial period that attest to mixed funerary practices occurring simultaneously. In many cases, post-palatial burials seem to have continued in the same chamber tomb cemeteries that were in use throughout the palatial period. Thus, in Hara Tzavella-Evjen's (2014, 63, table I) recent re-examination of the Mycenaean pottery from Keramopoullos' cemetery excavations, she found that nine out of 17 tombs, just over half, were still in use during the post-palatial period. This in fact is the second highest period of use after LH IIIA, when ten out of 17 were in use simultaneously. In addition, Tzavella-Evjen publishes (2014, 67-67, tables IV-V) post-palatial ceramics from two other cemeteries: the Ismenion and Elektra Gate Cemeteries. This demonstrates that

the population at post-palatial Thebes was likely greater than previously considered. Furthermore, while some burials took place in reused chamber tombs, there is also evidence for the establishment of new cemeteries and new burial customs. At the Iron Age cemetery of Tachi to the south of Thebes, a series of simple pit burials consisting of a standardized set of vessels were discovered. Each pit contained the secondary burial of a child in a collar neck jar covered by a deep bowl or lid (Papadaki 2014, 202-210). Similar burials seem to have been found in the Iron Age cemeteries to the northeast of the Kadmeia, suggesting this may have been a more widespread burial custom (Aravantinos 2001-2004). Keramopoulos (1917) excavated a LH IIIC Late to Early Iron Age cemetery of cist graves by the Elektra Gate. In general, the funerary evidence supports the settlement evidence, with LH IIIC Early, Middle and “Submycenaean” (probably better identified as LH IIIC Late) all represented, suggesting no apparent gap in occupation and apparently a relatively significant burying population persisting throughout the post-palatial. Some decline in the size of the settlement, or perhaps just shifting burial practices, is attested by the recent discovery of a “Submycenaean” cist tomb in the heart of the Kadmeia (Aravantinos 2014b, 150, fig. 3).

*Eleon*⁴⁵

Eleon was a second order center in the Theban polity during the palatial period located at a juncture between two roads leading to Thebes: one originating in the area of the modern town of Chalkis and the other coming from Attica. Recent excavations undertaken by the Eastern Boeotia Archaeological Project have demonstrated inhabitation from the Early

⁴⁵ A more detailed description of the site, its finds, and relevant publications is given in chapter five.

Bronze Age through LH IIIC Middle period, the eighth through fourth centuries BCE, and a brief reoccupation during the Late Byzantine or Early Ottoman period.

The site was fortified in the palatial period with a wall along its eastern, most accessible, side. The full extent of this wall has not been traced, since it has been covered over by later erosion. Similar to other Boeotian sites, it appears to have been only a stone socle for a much higher mudbrick elevation. Abundant household remains have been excavated inside the fortification wall from both the palatial and post-palatial periods. They attest the continuous use of roof tiles in domestic architecture during both periods. During the palatial period, the precursor to the Northwest Complex has preserved small fragments of painted plaster, a jewelry mold, and blue glass beads, demonstrating a household of some importance was located here. During the post-palatial period strong stylistic connections with the island of Euboea, and Xeropolis in particular, indicate Eleon continued to take part in a network of interaction that has its origins in the Mycenaean palatial period.

Tanagra: Dendron/Gephyra

Two large cemeteries were excavated in close proximity about 400m east of the modern village of Tanagra during the 1960s, 70s, and early 80s, by then ephor, Spyropoulos (1969a, 1969b, 1970a, 1970c, 1971f, 1973a, 1974b, 1974c, 1975a, 1975b, 1976a, 1976b, 1977a, 1977b, 1979, 1980, 1981, 1982, 1983, 1984).⁴⁶ In addition, he claimed to have found evidence for a habitation site with impressive architectural features to the east of the cemetery called Gephyra dating to the Mycenaean palatial period (LH IIIA2-B)

⁴⁶ This cemetery should not be confused or associated with the ancient polis of Tanagra, which lies to the southeast. The cemetery gets its name from the modern village.

(Spyropoulos 1974c, 15-18, 1975, 18-20, fig. 11-12, 1976). Given the fact that Spyropoulos declined to publish any ceramic material from these trenches is puzzling and problematic. While his proposed destruction levels in LH IIIA2 and LH IIIB are plausible, it is difficult to understand how these were identified, since he apparently only trenched alongside the walls and in his own words “did not clear the interior” (Spyropoulos 1976a, 13; my translation). Further troublesome is the mention of walls that “had been constructed with fragments of Mycenaean ceramic roof tiles from an older settlement phase” (Spyropoulos 1975, 18; my translation). This sounds reminiscent of a later period of construction – perhaps even Late Roman. While it is still possible that Spyropoulos’ observations are accurate, recent reevaluation of the area as part of the Eastern Boeotia Archaeological Project survey (2007-2010) produced no solid evidence for a habitation site (Burke and Burns, pers. comm.). One trench, believed to have been sunk by Spyropoulos, produced only sherds of Iron Age date, but it is possible since only surface material was collected that agricultural erosion since the 1970s has blanketed the site(s). The matter will have to remain unresolved for the present, but it is worth emphasizing that the 137+ tomb cemetery must have been the result of a substantial palatial period settlement.⁴⁷

The cemeteries are arguably one of the most important Late Bronze Age sites in all of Greece on account of number of tombs excavated, their extensive use of decorated *lanakes* (clay chests) as burial receptacles, and their rich ceramic finds. Excavations took place following the appearance of decorated larnakes on the art market in the 1950s (Vermeule 1965). Many of the chamber tombs were unlooted and contained numerous

⁴⁷ Tomb 137 is mentioned in the 1984 report, but in 1969 tomb 1 and tomb 1a are mentioned, so the actual total may be greater. Laetitia Phialon and Sandrine Farrugio interpret Spyropoulos’ reports to indicate 210 tombs: 137 at Dendron and 73 at Gephyra (Phialon and Farrugio 2005). Spyropoulos’ reports are not particularly clear on whether he kept separate totals for the cemeteries or a running total for both.

burials, some in painted larnakes, but some on the floor of the tombs. The larnakes have attracted a great deal of attention from the scholarly community on account of their relationship with fresco painting, as well as their depictions of funerary scenes including self-referential depictions of bodies being placed in larnakes (Iakovides 1966; Burke 2008; Kramer-Hajos 2015). Unfortunately, the contents of many graves have never been published and only a selection of ceramics and small finds were presented in near annual journal reports. Despite an abundance of preserved skeletal material, no bioarchaeological study of the population has yet been carried out – although this would surely yield important information about the demographic profile of Boeotia during the Late Bronze Age. From the material published it is possible to date the use of the cemeteries from the LH IIB-IIIB2 and possibly early in the post-palatial period as well. A photograph of Tomb 4 appears to show a monochrome deep bowl with reserved handle zone (Spyropoulos 1969b, pl. 9b). If this is what this is, then it probably dates to an early stage of LH IIIC Middle, as examples from Thebes and Schimatari have been dated (Mountjoy 1983, 69, fig. 26.72; Andrikou et al. 2006, 90, no. 374, 163, fig. 111, no. 374).

If a settlement existed close by, it must be fairly extensive and masked to a large extent by later sedimentation. If not, the question of where the burying communities originated from remains open. While the site of Eleon only has a small Mycenaean chamber tomb cemetery associated with the site, it seems unlikely that the inhabitants would have ventured so far to bury their dead. At present, however, it remains the closest sizable settlement to the cemetery.

Eutresis

The site of Eutresis is located in the upper headwaters of the Asopos River Valley, as well as on one of the main western corridors connecting Thebes with the Corinthian Gulf (Fossey 1988, 134, fig. 18). The site was important from the Early Bronze Age onwards and took advantage of rich rolling farmland. Extensive Early and Middle Bronze Age levels were excavated on the Acropolis by Hetty Goldman and John and Miriam Caskey (Goldman 1931; Caskey and Caskey 1960). The site was clearly densely inhabited during the MH III-LH I (i.e., the Shaft Grave period). Unfortunately, very little is known about the Mycenaean occupation of the site. The architecture of the LH II-III periods was very shallow and mostly damaged by plowing and later Byzantine constructions and pits (Goldman 1931, xviii-xix). Goldman was able to trace the remains of an extensive, but poorly preserved fortification wall, which she dated through excavation to the LH III (Goldman 1931, 68-75; only specifically dated in a preliminary report, Goldman 1927, 83). Sherds collected from her excavation of the wall were stored separately at the Thebes Museum when Mountjoy was able to examine the material and although some had become mixed with the material from the settlement, the material still kept separate consisted of 536 sherds, none of which has to be later than LH IIIB (Mountjoy 1983, 98-102, fig. 40). The presence of at least one kylix with vertical shell whorl, as well as deep bowl fragments, suggests a *terminus post quem* of LH IIIB1; certainly nothing published has to date to LH IIIB2. The wall encloses an area of 217,000m², but Goldman (1931, 64, 68) found little evidence for occupation in most of that area. It seems, therefore, that Eutresis may have been, like Gla, a defensive stronghold and collection site, rather than a population center. A single floor deposit found more or less intact dates to the early stages of LH IIIC. There is no evidence for later LH IIIC occupation. Sherd material kept by

Goldman was published by Mountjoy, but that material, with the exception of the complete vases which are in the Thebes Museum, is currently lost.⁴⁸



Figure 2.8: *Krater from floor deposit of House V at Eutresis (Archaeological Museum of Thebes, photo T. Van Damme).*

The vases consist of a krater (FS 9) with whorl-shell decoration (figure 2.8), a linear pyxis with basket handles (FS 98), a globular stirrup jar (FS 274/5), two semi-globular cups (FS 215), one undecorated with two handles and the other lip-banded with monochrome interior, an undecorated conical spouted bowl (FS 301), and a tripod cooking pot (FS 320). Goldman further associated two other vases with the deposit but did not find them on the floor of House V (Goldman 1931, 190-191). These consist of a miniature hydria with vertical stripes (FS 126) and an undecorated hydria (FS 128). Given the close stratification of House V and House K below, it is difficult to know if these should be assigned to the final floor, or perhaps are associated with the earlier structure. The miniature hydria would seem more appropriate to LH IIIB1, while the larger hydria could

⁴⁸ Several attempts by the author to locate this material have proven fruitless. Two undecorated vases published by Goldman (1931, fig. 263.2, fig. 264) were apparently already missing when Mountjoy drew the rest, an undecorated two-handled cup and an undecorated hydria.

date as late as early LH IIIC. This deposit has been the subject of considerable debate as regards its date. I accept here the very early LH IIIC date proposed by Rutter (1977).

Schimatari

Located on the road between the town of Schimatari and Oropos is a small church-crowned hill. Excavated at the turn of the 20th century by Alexander Brown, the material is stored today partially in the National Archaeological Museum in Athens and partially in the Thebes Museum. The excavated area consists of a single-room LH III structure, interpreted as a farmhouse, but most likely just one domestic structure in a small hamlet. The structure, which appears to have been a one-room house, was excavated in full. A number of mendable vessels were uncovered, presumably from among the sherds found thickly strewn on the floor of the building (Brown 1905/6, 95). This seems to represent a post-palatial destruction phase. Mountjoy (Mountjoy 1983, 61-80) published the material that was kept in *Orchomenos V* and discerned a large body of earlier, palatial period material. My recent re-examination of this material shows that this material also produced mendable vessels, suggesting either an earlier destruction, or an earlier structure of which nothing survives. Fragments of Mycenaean roof tiles retained with the pottery in the National Archaeological Museum at Athens suggest that even in humble villages, fired tile roofs were common in Late Bronze Age Boeotia.

Table 2.2: *Mendable pottery from Schimatari (All references to Mountjoy 1983)*

<i>LH IIIB1 Deposit</i>	<i>LH IIIC Middle Deposit</i>
Stirrup jar (fig. 24.39)	Collar necked jar (fig. 25.67)
Stirrup jar (fig. 24.40)	Lip-band semi-globular cup (fig. 26.69)
Krater with joined spirals (fig. 28.93, 29.103 & unpublished sherds)	Deep bowl, paneled with quatrefoil (fig. 26.71)
Rounded alabastron (fig. 29.100-102)	Deep bowl, monochrome with reserved handle zone (fig. 26.72)

Decorated kylix (fig. 29.112-113)	Deep bowl, paneled with tongues (fig. 30.116)
Stemmed bowl (fig. 28.94)	Spouted krater with running spiral (fig. 29.104-105, 29.108, 31.136-137)
	Linear semi-globular cup (fig. 31.138)
	Linear semi-globular cup (fig. 31.139)
	Twisted handled amphora (fig. 25.65)
	Feeding bottle (fig. 23.27)
	Krater (fig. 25.68, fig.29.109(?))
	Spouted basin (fig. 25.63)

I have tried to separate the mendable material between the two phases in table 2.2. The palatial remains appear to form a closed deposit datable to early LH IIIB₁, given the appearance of a mendable Zygouries-type kylix. The post-palatial phase is more difficult to date, but probably belongs to a very early stage of LH IIIC Middle and therefore is roughly contemporary with the Phase 1b destruction at Xeropolis. The dating of individual pieces is complicated, as demonstrated by the two mendable kraters kept with the material at the National Archaeological Museum. Mountjoy published several of these fragments as separate items. In my recent restudy of the material, however, I was able to determine that many of these are from only two vessels, thanks in part to a number of direct joins made between fragments (figure 2.9). Thus pieces that were originally dated to different sub-phases of LH III have now been joined. These two kraters can be fairly confidently assigned to early in LH IIIB₁ and LH IIIC Middle.⁴⁹

⁴⁹ The earlier krater finds a close parallel in a recently discovered krater from Thebes said to be from an LH IIIA₁/IIIA₂ context (Petraikos 2014, 31, fig. 23), but certain features, such as the wavy band on the handle of the present piece are indicative of a later date for the present piece (Mountjoy 1986, 110). An LH IIIA₂/B₁ dating is most probable.



Figure 2.9: Two kraters from Schimatari. A late LH IIIA2/IIIB1 krater with joining spirals (left) and an early LH IIIC Middle ring-base krater with spout (right) (National Archaeological Museum, photo T. Van Damme; scale in cm).

An attempt to find any diary or journal that records the excavation and might clarify the two mendable contexts has so far proved unsuccessful. In *Orchomenos V* (1983), Mountjoy only dates the latest material to LH IIIC. More recently, however, a number of the pieces have been published in *Regional Mycenaean Decorated Pottery* as LH IIIC Middle (Mountjoy 1999). My own opinion, based on the features present among the mendable material, is that this deposit is closely related to the burnt destruction at Eleon and Phase 1b at Xeropolis. Close ties also exist between this deposit and the final occupation phase at the Pelopidou Street deposit in Thebes. Since in *Regional Mycenaean Decorated Pottery* Mountjoy assigns Xeropolis 1b to an early phase of LH IIIC Middle, this dating is consistent. Stylistically, however, the material shares more in common with LH IIIC Early 2 and belongs to a very early stage of LH IIIC Middle. A single fragment of a pictorial kalathos supports this dating (Mountjoy 1983, 69, fig. 26.75).

Dramesi



Figure 2.10: *Lintel or door jamb carved with ships from Dramesi (Archaeological Museum of Schimatari, photo T. Van Damme).*

Dramesi represents a significant coastal settlement located south of Vlichia and Aulis. The site was brought to prominence when illegal looting disturbed a rich Early Mycenaean grave. Although this was reported to be a tholos, it seems more likely that it was a built chamber tomb of a type common along the Euboean gulf from Middle Helladic times onwards (Papadimitriou 2015). Carl Blegen (1949) explored the site and published the looted materials in a brief report. Mountjoy (1983, 58-61) has re-evaluated the pottery and dated most of the finds to LH II, although the earliest material and thus the construction of the tomb is likely earlier. The most exciting find from the site is a door jamb or lintel, broken in two fragments, one of which is currently on display in the Schimatari Museum (figure 2.10). These depict schematic representations of Mycenaean ships. The lack of context makes the representations difficult to date, although they seem to represent galleys. Blegen attempted to link these with the Homeric mustering of ships at Aulis, but this seems unlikely. These may or may not be associated with the same structure. Material published by Mountjoy (1983, 106-108) from the British School Sherd

Collection demonstrates the site was occupied into LH IIIC. The latest datable piece is a deep bowl with reserved interior lip and wavy band exterior (Mountjoy 1983, 107, fig. 42.35). This is probably from an advanced stage of LH IIIC Middle.

Glypha/Vlicha

The site of Glypha is located on a low hill opposite Chalkis on the mainland side of the Euripos. Today the modern rail line connecting Athens and Chalkis curves around its base, cutting across a shallow inlet that in the Late Bronze Age was a harbor, sheltered from the northerly winter winds. The site has evidence for a Late Bronze Age fortification wall along its northern slopes (Sackett et al. 1966, 66, n. 94; Vermeule 1966, 143; Demakopoulou 1988, 3), as well as in the excavated sector reaching down towards the inlet (Demakopoulou 1977; Sapouna-Sakelleraki 1987). The site appears to have been an important one, lying on the southern site of the Euripos and controlling access to it, as well as giving access to the south Euboean Gulf from inland.

The settlement was occupied throughout the Late Bronze Age. Emily Vermeule published a sherd found on the surface with a complex sign, possibly Linear B, painted on it post firing (Vermeule 1966, 142-144, pl. I). The excavated finds are mainly of the early Mycenaean and palatial period. Erosion combined with illegal bulldozing have taken a toll of the later remains. LH IIIC sherds have been found (Vermeule 1966, 143), but so far no architecture can be assigned to this period. The most completely excavated house dates to the LH IIIA period (Demakopoulou 1988), but an LH IIIB house with floor deposit was found in the eastern portion of the site (Sapouna-Sakelleraki 1987, 203). A significant stretch of the Mycenaean fortification wall was exposed extending along the southwestern portion of the site, connecting the acropolis with the inlet – presumably the site of an

ancient harbor. The construction of the wall is that of the typical Boeotian fortification, a low stone socle that would have supported a largely mudbrick superstructure.

Together with Brendan Burke, I re-examined the material from the old excavations in 2010. The Mycenaean material ranged from LH II-LH IIIC in date. There are a high number of mendable undecorated shapes in the material, but surprisingly little painted material, suggesting a good deal of the material is LH II-IIIA in date. Among the old finds in the Chalkis and Thespieae Museums there were also fragments of Mycenaean roof tiles.

In her original report, Demakopoulou (1988, 3) noted an abundance of shells in the material outside the fortification wall, but no description of the type of shell is given. A visit to the site in 2009 revealed a good amount of murex shells originating from LH III floor deposits eroding out of illegal trenches made in the 1970s. Thus, it is possible that a local dye industry also contributed to the importance of the site in the Mycenaean palatial period.

Anthedon

Anthedon was a large and important harbor site during the Hellenistic through Late Roman/Byzantine periods (Fossey 1988, 252-257). The site has indications that it was also important in the Late Bronze Age, possessing a harbor with access to the North Euboean Gulf. Hope Simpson (1981, 73) reports that LH IIIB and LH IIIC surface sherds are abundant on the acropolis. In the early American excavations of the site a Late Bronze Age bronze hoard was found, not on the acropolis, but on an adjacent hill (Rolfe 1889, 99-100, 104-107, pl. XV).

Salganeus/Drosia

A low mound lies just northwest of Vlichia. The tell rises steeply from the surrounding plain and for this reason, Strabo may have referred to it as the Tomb of Salganeus, a monument allegedly erected by Megabates, the commander of the Persian fleet, for a Boeotian who was to guide the Persians through the Euripos (9.2.10).⁵⁰ Excavations demonstrate that there was a small community here during the LH IIIB period (Spyropoulos 1970d). The excavation revealed parts of two households, presumably dating to the LH IIIB period, although this is not made clear in the report. One household featured a round hearth and well-built walls, 0.60-0.80 m in diameter. The other household preserved a well, however, this was only explored for 3.00 m before being abandoned due to the amount of rubble it contained. The site seems to have been abandoned prior to LH IIIC, a strange occurrence for a coastal Mycenaean site on the Euboean Gulf.

Western Euboea

Xeropolis

Excavations at the site known as Xeropolis, by the modern village of Xeropolis, were conducted by the British School at Athens from 1964-1966, 1968-1970, and more recently from 2003-2008. The excavations focus on a large tell site, originally provided with a large shallow harbor to the east (Davidson et al. 2010, 1571; more recently confirmed through coring, Morgan 2015, 38) and probably to the west as well.

⁵⁰ Thinking that they had been tricked because the North Euboean Gulf appears to come to a dead end, Megabates had Salganeus executed. When the Persians learned that a narrow channel did exist, Megabates had a change of heart and erected a permanent memorial to the pilot atop this hill, the most prominent place before approaching the Euripos.

In the British excavations during the 1960s and 1970s, work focused on a large exposure, the so-called Main Excavation. This area produced well-stratified evidence for multiple phases of post-palatial occupation (Evely 2006). The households were well built and the architecture is generally well preserved. Phase 1b was a destruction phase, marked by fires throughout the excavated area. Thus, the remains are substantial and are the most completely represented across the entire tell. In fact, none of the tests failed to produce evidence for this phase, or a significant destruction event associated with it, suggesting a site-wide catastrophe.

In addition to the Main Excavation, the early excavators excavated three north-south transects of trials through the west, central, and eastern portions of the site. These soundings effectively allow a good picture of the formation history of the site. In some cases, however, the trials had to be stopped prematurely due to overlying architecture, so they are not always a complete record down to bedrock. Nevertheless, the publication of the Mycenaean deposits from the trials is an important check on some hypotheses concerning the role of Xeropolis in the palatial period. In general, scholars have fixated on the relatively limited LH IIIB remains to suggest that the site contracted in LH IIIB due to the rise of Thebes – an argument founded on the notion of core-periphery dynamics. The prevailing assumption behind this idea is that Thebes drained resources from its hinterland, thereby resulting in the apparent decline. Using the information from the trials as a basis, however, the data from Xeropolis agrees better with the original excavators' suggestion that the LH IIIB materials were frequently terraced away by LH IIIC building activities (see Popham and Milburn 1971). In figure 2.11, I have marked all the soundings with LH IIIB material, and the pattern is fairly clear: soundings located

along the edges of the mound have a higher incidence of LH IIIB remains than those in the central area. This follows the basic principle of tell formation and erosion episodes, where the central area is more susceptible to cutting-back/erosion and the edges gradually expand both horizontally and vertically, until they reach the height of the center of the tell, at which point they too become susceptible to being cut back. Furthermore, the distribution suggests no appreciable decline in the size of the settlement during LH IIIB, but rather a continued pattern of expansion. For instance, in Trial C, an Early Mycenaean fortification was gradually expanded outside, and eventually built over, in the course of LH IIIB-C (Evely 2006, 92). Interesting there are numerous “wash-layers” of LH IIIA date around the edges of the tell, suggesting an erosion event or perhaps deliberate terracing (?) for the LH III settlement (e.g., Evely 2006, 92, 104).

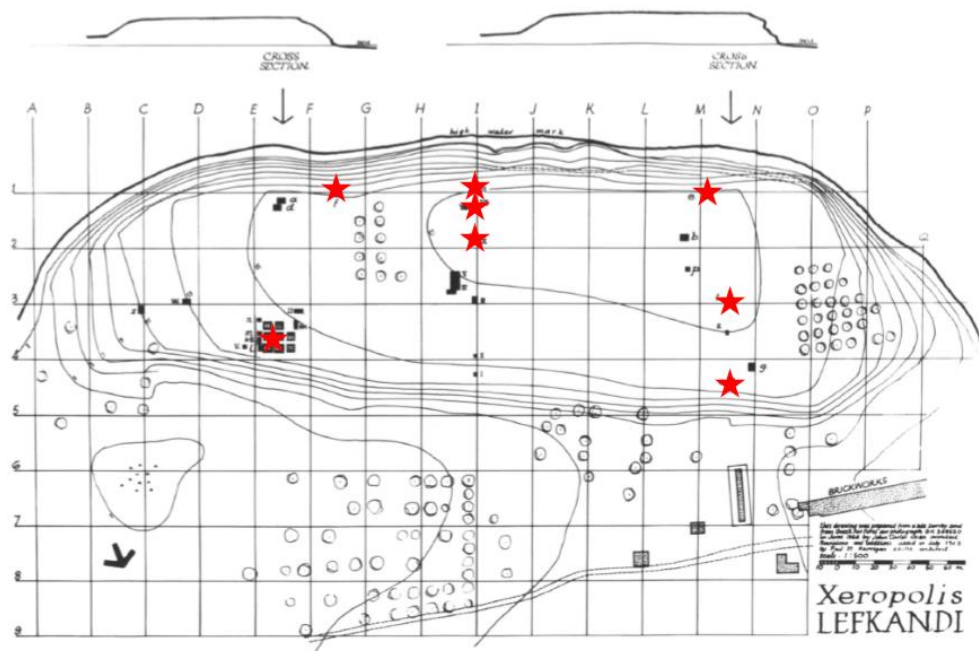


Figure 2.11: The site of Xeropolis. Trenches producing LH IIIB material are marked with red stars (modified after Evely 2006, 2, fig. 1.1).

The excavators divided the main excavation into three habitation phases based on the architecture. Further stratigraphic divisions resulted in five post-

palatial sub-phases (1a, 1b, 2a, 2b, and 3). The most substantial deposits are related to the phase 1b destructions that appear to be represented across the site. Large storage basements are attested in many of the households at this time. Although many of the plant remains were unstudied due to the gap in time between excavation and publication, many carbonized remains were found including cereals (“small spelt and barley”) in a kotselle in Room 3 of the East House (Evely 2006, 28), spilled seeds (not identified) possibly from the large pithos in Room 4 of the East House (Evely 2006, 30), and carbonized olive pips and whole figs from the upper storey over Room 6 of the East House (Evely 2006, 38-39, pl. 103). Abundant pottery deposits from the floors and collapsed upper stories of these dwellings offer important evidence for ceramic consumption in a thriving post-palatial community (Evely 2006, 141-150).

Phase 2 was partially disturbed by later constructions, but an important ceramic deposit consisting of drinking equipment, both kylikes and kraters, comes from Room 2 of the North House (Evely 2006, 49-52). Phase 2 produced the bulk of the pictorial pottery from the site (Evely 2006, 234), including the famous griffin alabastron in light-on-dark style (Evely 2006, pl. 67). Houses of this phase appear to have been larger, although this may have been the result of a shift from two-story to single story dwellings (Evely 2006, 46). Similarly interesting is the apparent use of a standard five by five meter unit in the construction of the North House (Evely 2006, 46). Phase 2 also saw the introduction of intramural burials, suggesting differing ideologies in the treatment of the dead and domestic space (Musgrave and Popham 1991). Similarly, the appearance of an iron knife in Room

10 of the North House demonstrates the arrival of an important new technology (Evely 2006, 62, pl. 89.3).

Very little can be said about the Phase 3 remains (Evely 2006, 75-87). These were poorly preserved in the old excavations. It appears, however, that more significant deposits from this phase have been uncovered in the new campaign of excavations led by Irene Lemos (2014a, 173).

While few synthetic publications of the new excavations have been published, a few important finds have come to light. The new excavation centered on a large building called the “Megaron” by Lemos (2014a, 173-175). In construction and function, however, the building appears to resemble, at least from preliminary reports, the large houses attested from the Main Excavation. The new excavations have also revealed what appears to be a fortification wall and a cult area with evidence for continuous ritual practice from LH IIIC Early through the Early Iron Age (Lemos 2014a, 175).

Eretria

Very little is known about Mycenaean Eretria. Settlement is thought to have focused on the acropolis. A fair quantity of LH III material was brought to light during the excavations of the Temple of Athena (Friedemann 1995; Müller 1996). Redeposited Late Bronze Age material has also been recovered from the area of the Temple of Apollo Daphnephoros (Müller Celka et al. 2011).

Amarynthos

Sapouna-Sakelleraki (1989) sank a few test trenches in the prehistoric tell in the 1980s, but little follow up work has occurred. She found abundant LH IIIC material in the trials, comparable in quality to the finds made from surface survey in the 1960s (Sackett et al. 1966, 64-66). Recently a Swiss team began a new project of excavations on the Sanctuary of Artemis at the foot of the tell site. This has turned up only redeposited Late Bronze Age material (Krapf 2011), suggesting that the Mycenaean occupation of the site was limited to the tell site.

Discussion and Conclusions

This chapter has reviewed the archaeological evidence for domestic deposits in the area of Boeotia, encompassing the Kopaic Basin and Western Euboea. Re-examination of the ceramic assemblages from these sites demonstrate important post-palatial occupations at a number of inland sites, including Thebes, Eleon, and Schimatari. This poses an important challenge to those who argue for the primacy of peripheral or non-palatial areas during the post-palatial period. This argument is based on superficial use of survey data often gathered by specialists before post-palatial material was well-known or by non-specialists (e.g. Hope Simpson 1965, 1981; Sackett et al. 1966; Hope Simpson and Dickinson 1979; Fossey 1988). Furthermore, a persistent problem in Boeotian archaeology is the fact that development has outpaced publication of finds, resulting in deposits of post-palatial material that exist, but have yet to reach publication. This highlights the need for legacy data sets in the region to be reinvestigated and urges the collaboration between foreign institutions and Greek Museums in achieving mutually beneficial arrangements to study, process, and interpret this material.

On the basis of presently available data, however, several general patterns in the data from central Greece in the Late Bronze Age can be recognized. The use of roof tiles, for instance, is a common feature, from the largest sites such as Thebes (fig. 2.10) down to small villages like Schimatari. Tiles are found in contexts ranging from LH IIIA-IIIC Early suggesting a long-lasting tradition of tiled roofing. While not every house is likely to have had a tiled roof, they are clearly found not only on palatial constructions but also on smaller structures of a domestic nature. It is important to note that, even though excavation has demonstrated the presence of tiled buildings outside of Boeotia, nowhere in Greece can boast as many sites preserving evidence for tiled structures, perhaps suggesting that this was a particularly Boeotian practice, whether developing there, or simply proving more practical.⁵¹

Frescoes are limited to palatial and second order centers, with the most elaborate compositions associated with administrative structures, such as the Melathron at Gla or the Treasure Room complex at Thebes. Although they are clearly not limited to palaces themselves, they do seem to be associated with an elite class, as their iconography would tend to suggest. Interestingly, the evidence from Gla suggests that even large storerooms may have been plastered and painted, which serves to demonstrate the quasi-public nature of this storage complex. Frescoes are an important source of knowledge about itinerant craftspeople and connections between Mycenaean palatial polities that are otherwise invisible archaeologically (e.g., Brysbaert 2008). While the appearance of

⁵¹ It is also possible that the evidence has been overlooked. Roof tiles are eminently recyclable and even in the case of collapse, they will often be collected and reused for other purposes. Roof tiles are frequently only found in fragmentary condition (the large deposits at Thebes and Orchomenos are exceptions). Most recently a well-appointed residence at Chania in the Argolid has produced abundant tiles (Palaiologou 2015). For an overview of findspots, see Iakovidis 1990; Galanakis 2016, 165, fig. 2. While it is tempting to take climatic factors into account, a more detailed study of the development and distribution of Mycenaean roof tiles is necessary in order to reach a definite conclusion.

nearly identical fresco compositions from Tiryns and Orchomenos, as well as the close similarities between the Treasury of Atreus and the Treasury of Minyas have been taken as evidence for a special relationship between these two polities, it is unclear how closely artisans and architects were tied to the palaces. Furthermore, our poor understanding of Mycenaean Orchomenos limits our ability to interpret its role in Late Bronze Age political geography reliably.

The ceramic repertoire of Boeotia is defined in LH IIIB2 by its extremely limited number of Group B deep bowls, the key diagnostic used elsewhere to distinguish this phase from LH IIIB1. While this at present seems to be a regional feature, suggesting that Boeotian potters were becoming increasingly isolated from or resistant to changes in ceramic style originating from the Argolid, it is worth pointing out that in a recent study by Eleftheria Kardamaki (2015, 84) on the West Staircase deposit at Tiryns, she found that Group B deep bowls were rare even in the Argolid during the closing stages of LH IIIB2. Thus, these may not be entirely a regional trend, but actually a good indicator that most of the Theban destruction deposits should be placed at the very latest stages of LH IIIB2. This would seem to agree well with other indicators, such as the regular occurrence of monochrome deep bowls in a number of Boeotian destruction deposits.

Fortification walls are also generally associated with larger, palatial or second order centers. A unique feature of Boeotian settlements is enclosing the entire settlement within the fortification walls, rather than just fortifying a citadel, or central place. This marks a sharp contrast with the citadels of the Argolid and was enabled through the use of a higher ratio of mudbrick to stone construction. Whether this was due to local resources, the source of the labor used to construct the walls, or a desire to fortify larger

areas more quickly, it suggests a more Near Eastern-looking urban layout, as such encompassing fortifications are a hallmark of Late Bronze Age settlements in Anatolia and the Near East (e.g. Nossov 2008).⁵² It is also worth pointing out that more sites are fortified in Boeotia than in any other part of Greece during the Late Bronze Age (Loader 1998, 38). This may suggest that the political situation between Thebes and Orchomenos was far from stable (Knodell 2013, 166-168). It should be noted, however, that fortification walls can have a multiplicity of meanings beyond defense, including civil or administrative, ritual, and symbolic functions (Müth et al. 2016, 21). Walls can serve to define space and therefore also codify identities. Walls delineate boundaries in a fixed manner and the choice in Boeotia to enclose the entire settlement marks a sharp contrast between an urban and rural population, or at least in the use of these spaces. It is significant that the Eastern Boeotia Archaeological Project survey uncovered no traces of rural Mycenaean activity areas except cemeteries, suggesting a highly nucleated population.

While there is increasing evidence to suggest much of central Boeotia and eastern Euboea remained inhabited during the post-palatial period, the sites in the Kopaic Basin show a fairly uniform pattern of abandonment.

⁵² Çiğdem Maner (2012) assesses the possibility of technological transfer between the Hittites and the Mycenaeans, but finds significant differences. Maner focuses only on the well-known stone circuits from the Argolid and Gla. As demonstrated by the present study, these show significant differences from those in the Argolid and the question deserves further study.

CHAPTER THREE

THE POLITICAL LANDSCAPE OF BOEOTIA AND THE KOPAÏS

Leitos and Peneleos were leaders of the Boiotians,
with Arkesilaos and Prothoenor and Klonios;
they who lived in Hyria and rocky Aulis,
in the hill-bends of Eteonos, and Schoinos, and Skolos,
Thespeia and Graia, and in spacious Mykalessos;
they who dwelt about Harma and Eilesion and Erythrai,
they who held Eleon and Hyle and Peteon,
with Okalea and Medeon, the strong-founded citadel,
Kopai, and Eutresis, and Thisbe of dove-cotes;
they who held Koroneia, and the meadows of Haliartos,
they who held Plataia, and they who dwelt about Glisa,
they who held the lower Thebes, the strong-founded citadel,
and Onchestos the sacred, the shining grove of Poseidon;
they who held Arne of great vineyards, and Mideia,
with Nisa the sacrosanct and uttermost Anthedon.
Of these there were fifty ships in all, on board
each of these a hundred and twenty sons of the Boiotians.
But they who lived in Aspledon and Orchomenos of the Minyai,
Askalaphos led these, and Ialmenos, child of Ares,
whom Astyoche bore to him in the house of Aktor
Azeus' son, a modest maiden; she went into the chamber
with strong Ares, who was laid in bed with her secretly.
With these two there were marshalled thirty hollow vessels.

Hom. *Il.* 2.494-516 (trans. Lattimore 1951)

Scholars continue to debate Thebes' influence in the LH IIIB period (1300-1200 BC) outside of the Theban Plain. Scholars such as Dakouri-Hild (2005, 2010, 619-624) and Palaima (2011) suggest that Thebes had little political authority outside of a 20km radius, while others suggest that Theban political influence may have extended all the way to the southern part of Euboea and even the distant island of Aegina in the Saronic Gulf opposite Athens (Aravantinos 1987; Sergent 1993; Aravantinos, Godart, and Sacconi 2001). Clearly, these two views need to be reconciled. I take a moderate stance and propose a territory extending from the Gulf of Corinth in the west and including parts of western Euboea, but limited to the north and south by prominent mountains: Mount Helikon to

the northwest, Mount Ptöos to the northeast, and Mount Kithairon to the south (figure 2.1). In this regard, I am building on the reconstruction of the political landscape of Pylos, where mountains demonstrably played an important role in the definition of territorial boundaries (Chadwick 1963; Chadwick and Ventris 1973, 142-145; Hope Simpson 2014). The data from the Pylian polity in Messenia are useful comparanda to those from Boeotia, since both areas have hosted both extensive and intensive survey projects and the palatial centers in each region, Pylos and Thebes, have produced enough Linear B documents to reconstruct – at least partially – the political geography of the polity during the closing stages of the Late Bronze Age.

By combining rank-scale analysis of settlement patterns with the evidence available from the Linear B texts recovered from rescue operations in the heart of modern Thebes (Aravantinos, Godart, and Sacconi 2002), a more secure identification of the Late Bronze Age settlements is possible than previously attempted. Contrary to Palaima's (2011, 74) assertion that any economic ties to Euboea were fleeting and opportunistic, my analysis suggests that the west coast of Euboea was securely integrated within the Late Bronze Age economic network centered on the palatial site of Thebes (Papadopoulos 2011, 1261-27).⁵³ In this chapter I use a combination of rank-size analysis and textual evidence to reconstruct the Theban political geography in the LH IIIB period. I also perform a rank-size analysis of the Orchomenian polity in order to show that there were differences in the economic integration of the two regions, likely owing to Orchomenos' control of the draining and maintenance of the Kopaic Basin canal system. I conclude this chapter by

⁵³ This debate hinges somewhat on semantics, since as demonstrated in Chapter 1, Mycenaean polities were never tightly integrated economically. The shipping of raw materials and return of finished goods, however, does clearly define a relationship of ideological control, which is the most we can say of any Mycenaean polity.

briefly considering changes in the post-palatial landscape. These observations factor into the ways in which collapse impacted differently the two Late Bronze Age polities in central Greece, Thebes and Orchomenos. While many Theban centers, including the former palatial site of Thebes, survived the collapse, very few of the settlements in the Kopaic Basin remained occupied by the end of LH IIIC Early.

Rank-Size Analysis of the Theban Polity

Rank-size analysis has a long history of archaeological application (e.g., Johnson 1980, 1981; Pearson 1980; Adams and Jones 1981; M.E. Smith 2012). While scholars have performed rank-size analyses on the Pylian polity (Hodder 1977; Small 1999), no attempt has been made to look at settlement patterns in other polities. Rank-size analysis, however, is still a useful way to gauge the integration of human settlement patterns. Boeotia is an ideal area to undertake a rank-size analysis of Bronze Age settlements on account of the extensive survey treatment it has received. The intensity of these surveys, however, has varied, ranging from the extensive surveys of Richard Hope Simpson and John Fossey (Hope Simpson 1981, 51-76; Fossey 1988) to the more intensive, and frequently site-specific, projects of the last three decades (Bintliff 1985, 2007; Burke et al. 2007). Similar surveys have explored most of the island of Euboea, particularly the western and southern parts that concern this discussion (Sackett et al. 1966; Keller 1985; Keller and Wallace 1988, 1990; Cullen 2013). On account of this, it is unlikely that many, if any, settlement larger than a hectare in size has been missed in this analysis. There is, however, a strong possibility that sites under one hectare are underrepresented in this

sample. These would not affect the results of the present analysis at any rate, since at this point they are too small to register on figure 3.1 below.

Table 3.1 presents all settlement sizes that have been recorded with great enough accuracy to be useful (See appendix 3.1 for all known settlements). These sizes are adapted from observations made by Hope Simpson (1981, 51-76) and supplemented with more up to the date information from excavations at the same sites.

Table 3.1: LH IIIB Boeotian settlements with size estimates > 1.00 ha.

<i>Site</i>	<i>Settlement Size (ha.)</i>	<i>Population Estimate (low/high)</i>	<i>Rank</i>
<u>Thebes</u>	37.7	9,425/16,965	1
Xeropolis	4.71	1,177/2,119	2
Glypha	4.00	882/1,588	3
<u>Eleon</u>	3.5	875/1,575	4
<u>Eutresis</u>	3.5	875/1,575	5
<u>Amarynthos</u>	2.51	627/1,129	6
Thisbe	2.36	590/1,062	7
Anthedon	2.26	565/1,017	8
Dramesi	1.96	490/882	9
Harma	1.18	295/531	10
Aliveri	1.18	295/531	11
Ayios Thomas	1.00	250/450	12

Underlined sites denote those securely mentioned in the Linear B texts from Thebes.

By graphing the estimated maximum extent of occupation against the rank size (Johnson 1980), a three-tier hierarchy of settlement sizes emerges (figure 3.1). In my analysis, the palatial center of Thebes exceeds all other settlements by a factor of 10, comprising an area around 38 hectares (table 3.1). The second-tier sites tend to cluster between 2.5-4 hectares in size. Xeropolis seems to represent a slight outlier in this respect, occupying a maximum area of 4.71 hectares. This is likely an overrepresentation of the actual area occupied by the LH IIIB settlement at Xeropolis. Xeropolis seems to have expanded in the post-palatial and it is not unreasonable to suggest that a more accurate measure of the LH IIIB area of the site would be in the range of Eleon or Eutresis. The third-tier sites tend to fall under 2 hectares. While this data-set is somewhat limited by

the lack of available information concerning the size of smaller sites, this seems likely that other known sites of indeterminate size are likely to be among the lowest tier.

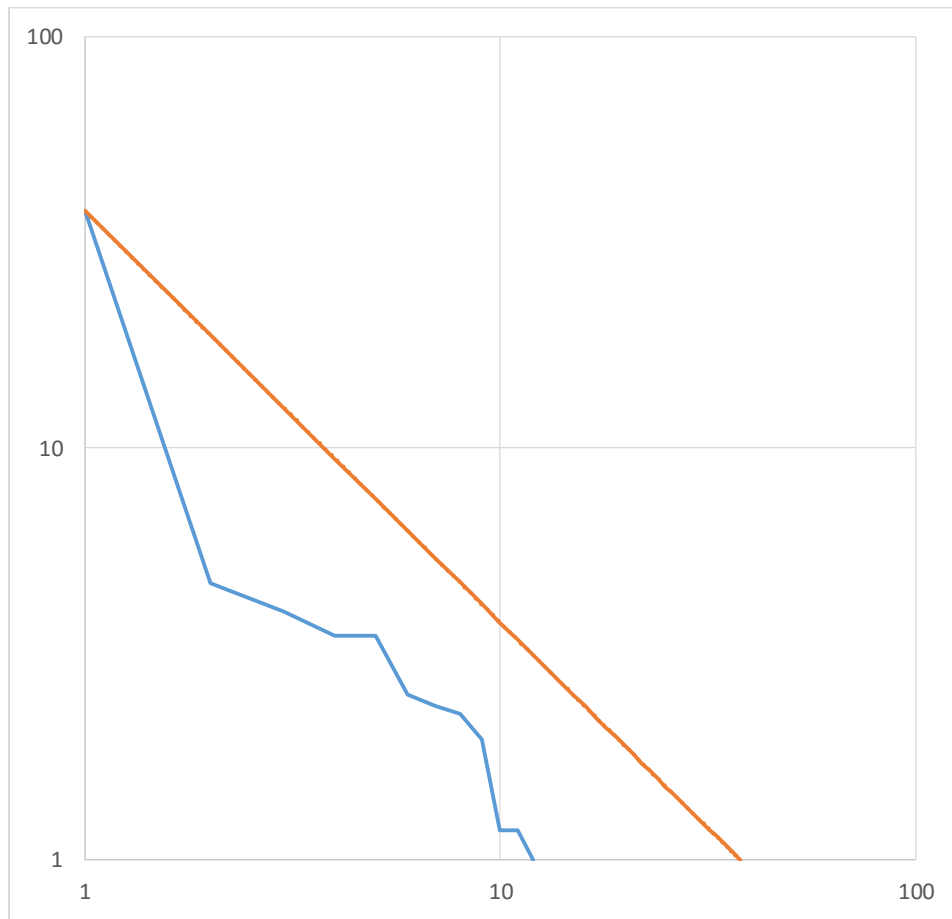


Figure 3.1: Rank-size plot of LH IIIB settlements in Boeotia. Blue represents log-distribution of settlements. Orange represents normalized log-distribution by rank.

A similar pattern was observed in the Pylian data by Ian Hodder (1977) in an early example of rank-size analysis. David Small (1999) read these data differently, however, and he claimed that the so-called second order centers were too small to serve an administrative function. He further highlighted the evidence for direct contact between the palace at Pylos and tertiary centers as proof that there was no need for second order centers in the administration. A more recent article by Michael Cosmopoulos challenges this view and effectively shows through an integration of the archaeological and textual

record that second order centers did play an administrative role in the political landscape of the Pylian polity (2006). Following Cosmopoulos (2006, 2007), I believe that this hierarchy of settlements will also be reflected in the political administration of Boeotia. Thus, I expect that the economic documents from Thebes will favor interactions with second order centers, a view that appears to be borne out by the evidence presented in table 3.1, where the higher-ranked settlements are shown to be those identified in the Linear B texts.

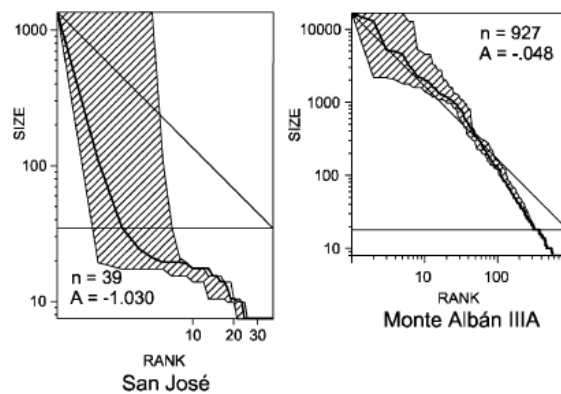


Figure 3.2: Primate and log normal distribution patterns observed in the settlement pattern of the Oaxaca Valley, Mexico (adapted from Drennan and Peterson 2004, fig. 19).

In a rank-size analysis, the log-normal distribution of settlements (where the second-ranked settlement population is 1/2 that of the first-ranked city, the third-ranked settlement population is 1/3 that of the first-ranked settlement, etc.) is graphed against the actual size distribution of settlements (figure 3.2). In such an analysis the result has three outcomes: concave, log-normal, or primate (Johnson 1980, 1981). A *log-normal* distribution implies a high-level of economic and political integration within a region. This is the distribution frequently observed in developed countries today. In a *convex* distribution of the data, convex distributions tend to result from a low degree of hierarchy. This settlement pattern generally applies to regions that are not economically integrated.

Such a pattern is observed in cases of independent colonies or polities. Finally, a distribution is *primate* when the data line is concave relative to a log-normal distribution, indicating a low level of economic integration and high degree of centralization of a single dominant center. Unfortunately, the cause of this distribution is not well understood, since primate distributions have been documented at any system level and in varying geographic regions (A. Smith 2003, 30). Part of the problem may be that such analyses are normally construed as the result of economic or political patterning (Small 1998), yet there are good reasons to believe that a primate pattern may also result from strong *ideological* centralization (Linsky 1965). Thus, a primate pattern is observed during the San José phase of the Oaxaca Valley (figure 3; Kowalewski 1990; Drennan and Peterson 2004), as well as in the Valley of Mexico during the Tzacualli phase (i.e., the height of Teotihuacan) (Blanton et al. 1993). In both these instances, the primate center demonstrates a high degree of political and ideological centralization. As discussed in chapter one, this is precisely the role that we assign to the wanax. This strongly supports the suggestion that more than anything, ideology played a major factor in the formation of the Mycenaean polities (e.g., Kilian 1988b; Wright 2004, 2010).

A similar argument for centralization can be made by considering a rough population estimate for the region. While population estimates are dangerous without a calibrating factor obtained from archaeological excavation (Zorn 1994), the limited excavation of any settlement in Boeotia necessitates the use of a standard population density. I have given population density estimates for low-density (250 people/ha.) and high-density (450 people/ha.) settlements. These numbers are based on Todd Whitelaw's analysis of Bronze Age urban sites on Crete, and thus reflect the nearest contemporary

centers of similar urban scale and layout (Whitelaw 2001, 24-27). Although this offers only an approximate population estimate, the numbers are useful for emphasizing the relatively diminutive scale of urbanization on the Greek mainland in the Late Bronze Age. The density of finds at Thebes suggests that it may have been closer to the upper end of the scale, perhaps around 15,000 people, roughly in line with the population suggested by Whitelaw for Neopalatial period Knossos, which although larger, likely was relatively low in settlement density (Whitelaw 2001, 27).

Taken altogether, the total population of Boeotia was likely around 50,000. This estimate seems consistent with the population estimate of 50,000-120,000 proposed by the Minnesota Messenia Expedition for Late Bronze Age Messenia (MacDonald and Rapp 1972, 112-113, 254-256). While this offers a considerable range, the upper figure seems rather untenable given that the Classical population of Messenia is unlikely to have exceeded 100,000. Indeed, a revised figure suggested by Carothers and McDonald argues for closer to 50,000 (Carothers and McDonald 1979). Keeping in mind that the Boeotian estimate proposed above is a bare minimum, constructed using sites that are currently known, the actual population of Boeotia may have been slightly larger.

The concentration of the population of Boeotia within the center of Thebes, however, does mark a sharp contrast with Messenia, where the palatial center of Pylos likely never covered more than 30 hectares and likely far less – as little as 12.4 hectares has been suggested (Davis et al. 1997, 427-430). Using the same population density as Thebes and the 30 hectare estimate gives a population of 7,500-13,500, but given the relatively low density of the occupation surrounding Pylos, its population is probably on the lower end, and perhaps only about one half the size of contemporary Thebes. Thus,

while similar in population size, the distribution of the population within Messenia and Boeotia diverges in interesting ways. This suggests that there may have been differences in political administration as well. For instance, there is no evidence for the division of LH IIIB Boeotia into different administrative districts as in the case of the Pylian further and hither provinces (Bennet 2011, 151-155).

By examining the spatial distribution of the known settlements within the Boeotian landscape, further patterning is apparent. Thiessen polygons drawn around the first- and second-tier sites demonstrate a distribution that illustrates the above pattern with a fairly even distribution of first- and second-tier settlements, with third-tier settlements interspersed between them (figure 3.3). The use of Thiessen polygons came into fashion in archaeology in the 1970s as part of the application of centralized place theory to the siting of settlements in antiquity (e.g., Hodder 1972; Renfrew 1973; Renfrew, Todd, and Tringham 1974). More recently, Ray Rivers, Carl Knappett, and Tim Evans (2013, 127-132) have criticized the continued reliance on this model in Aegean archaeology. Despite their noteworthy criticisms, I believe that this model still preserves a fairly faithful model of Late Bronze Age Boeotia for three reasons: 1) Unlike the maritime network that Rivers, Knappett, and Evans study, the territory of Boeotia is almost entirely connected by land routes, which in the Late Bronze Age would have been formalized paths through the landscape that can properly be called roads or highways (Jansen 2002; Hope Simpson and Hagel 2006); 2) As described above, the territory of Boeotia is tightly bounded, meaning the majority of economic activity is internal; 3) The reliance on agricultural subsistence and occupation of large broad plains means that the notion of a featureless background is less likely to influence significantly the results of the present study.

Furthermore, it is interesting to note that the average distance between nearest neighbor second-tier sites (12.0 km) and the average distance between nearest neighbors including all sites (7.8 km) agrees strikingly with observations made by John Brush and Howard Bracey (1955), who found a pattern of higher order centers 33 km apart, lower order centers 13-16 km apart, and smallest service centers 6-10 km apart from each other and higher-order centers in their study of settlement hierarchies in Wisconsin and England.



Figure 3.3: Map of LH IIIB Boeotia with Thiessen polygons approximated around first- and second-rank settlements. Boeotia is bounded by prominent mountain ranges which remain an impediment to ground travel today (Modified from Google Maps).

Archaeological Evidence and the Linear B Texts

The analysis of sites presented above indicates that there were likely seven second order centers that were bound economically to Thebes. Thus, it is my hypothesis that these settlements should appear in the Linear B texts from Thebes recording economic transactions. As demonstrated in table 1, there is conclusive evidence for the Mycenaean

name of Thebes (*te-qa-i*), Eleon (**e-re-o*), Eutresis (*e-u-te-re-u*), and Amarynthos (*a-ma-ru-to*) (Aravantinos 1987, 2008; Del Freo 2009; Palaima 2011: although he challenges the identification of *e-u-te-re-u* as a toponym).⁵⁴ This means that out of the eight largest ranked settlements, four are securely identified in the texts. Logically, therefore, it would seem that other sites mentioned in the Linear B texts are likely to correspond with the other four sites, as these centers would have been of particular interest to the Theban administrators. Since the texts from Thebes are from a relatively short chronological span (LH IIIB1-LH IIIB2), they are only representative of the period just prior to the collapse of the palatial system (Aravantinos et al. 2002, 9-15), but this is also precisely when we have the best settlement data. In the following sections, I review the Linear B texts from Thebes in an attempt to combine the archaeological evidence with the literary in order to understand the extent of Thebes' political reach in the palatial period.

Linear B Texts from Thebes

While the first Linear B texts from Thebes were the inscribed stirrup jars excavated by Keramopoullos from the House of Kadmos in 1921 (Aravantinos et al. 2002, 8), the first administrative documents written locally on clay tablets and sealings were excavated by Evi Touloupa and Nikolaos Platon in 1964. In total, some 434 fragments of texts had been identified up until 2002 (Aravantinos et al. 2002, 8, 2007), most of them from the Pelopidou Street excavations and the adjacent Arsenal/Armory Complex. Thebes is so far unique, however, in the wide distribution pattern of Linear B documents throughout the

⁵⁴ The association between *ka-ru-to* and Karystos seems equally clear from a linguistic perspective, but no appropriate Mycenaean settlement has yet been identified archaeologically. For Eutresis see Thebes tablet **Ft 140** below.

settlement (Aravantinos et al. 2002, 10, plan 1). While some of their findspots are obviously administrative complexes, the locations of other documents seem to suggest a domestic or workshop context. This distribution pattern would tend to imply that elite households regularly utilized Linear B script for tracking economic transactions. Because almost all documents come from rescue operations and the context is frequently limited to a single partially excavated room, it is not always easy to identify what the function of those spaces may have been.

*Theban **Of** Series*

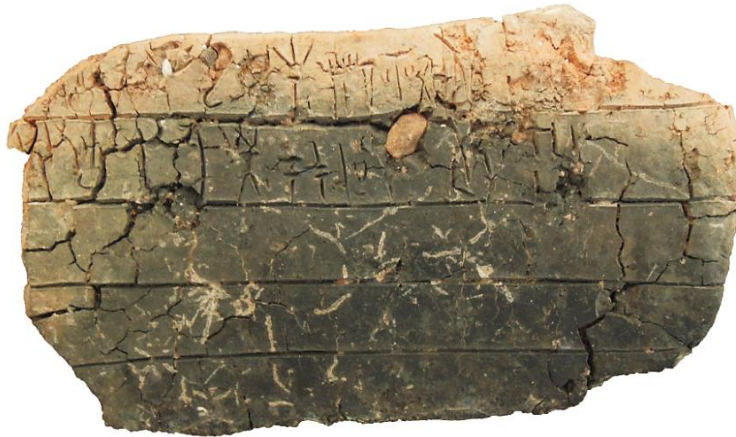


Figure 3.4: *Thebes tablet **Of** 25* (Archaeological Museum of Thebes, photo T. Van Damme).

Several toponyms are recorded in the **Of** series. These tablets form a discrete group dealing with small allotments of wool. They were found together in the so-called Archive Room by Spyropoulos, who published them with the help of John Chadwick, along a selection of pottery although a significant quantity of material remains unstudied (Spyropoulos and Chadwick 1975). The excavator interpreted the room with the tablets as a wool workshop, with installations for drying and working the wool. This hypothesis has

fallen out of favor, however, and it seems more likely that the room was a storage facility, similar to the other basement rooms of the New Palace complex (Dakouri-Hild 2003, 63-64). Room III, therefore was a storage magazine for wool, with associated records of shipments stored on a shelf, awaiting transport to a central archive.

Of 25 is an important tablet since it records distributions of wool to two sites, *a₃-ki-a₂-ri-ja* and *a-ma-ru-to* (figure 3.4). Although the scribe has run out of space to fit the allative suffix *-de* on *a₃-ki-a₂-ri-ja*, it is likely that the scribe intended to write it, but was forced to utilize the nominative of rubric due to lack of space.⁵⁵ The pairing of these two toponyms implies some sort of relationship between them (Del Freo 2009, 44). Maurizio Del Freo and Thomas Palaima both emphasize that the place name *a₃-ki-a₂-ri-ja* is closely linked to the Classical Greek αἰγιαλός meaning “sea-shore” and generally applied to sandy beaches (Del Freo 2009, 43; Palaima 2011, 70). The shores of the southern Euboean Gulf are particularly appropriate for such a toponym. Since *a-ma-ru-to* is identified with Euboean Amarynthos, it seems appropriate that *a₃-ki-a₂-ri-ja* should also be located on the island. The only substantial site near to Amarynthos that has yet to be identified with a toponym is Xeropolis. While no historical name is linked with the Linear B toponym, it is tempting to see the later Eretrian deme name of Αἰγιαλέα as its descendant – perhaps carried to the site of the later deme when the population abandoned the site of Xeropolis during the Late Geometric/Early Archaic period (Popham and Sackett 1980, 368-369). At present the association of *a₃-ki-a₂-ri-ja* with Xeropolis is attractive.

The Theban Wu Series

⁵⁵ Similar nominatives of rubric occur with regularity concerning place names in the Theban texts (e.g., TH Ft 140, Av 104).

The **Wu** Series forms a single group of 60 nodules, found together on the eastern slopes of the Kadmeia in a large complex of well-built structures (Piteros et al. 1990). Despite a great deal of interest in this context, relatively few of the associated finds have been published and the exact chronology of the documents – said to be LH IIIB1 – has been challenged (Andrikou et al. 2006, 239-240; Dakouri-Hild 2010, 700). Close links between the sealings and the tablets from the New Palace area (i.e., the Treasury and Archive Rooms) in particular suggest that the actual date of the nodules is LH IIIB2 (Aravantinos et al. 2007). A reconsideration of the ceramics published so far would appear to support this interpretation (see Piteros 1981, 1983), although a lack of clear findspots and stratigraphy hampers a sure dating in the absence of a final publication. The 56 inscribed nodules appear to record a collection of materials (mainly livestock) for the preparation of a feast (Killen 1994; Palaima 2004). While many of these materials were likely gathered from local holdings, a few appear to have come from farther afield. **Wu 51, 65** and **96** record that the livestock they accompanied were sent “to Thebes”, *te-qa-de*. These commodities, therefore, originated outside the immediate vicinity, but they are sent by agents who must have been in regular contact with the palace, such that no point of origin was specified. **Wu 55** and **Wu 58** meanwhile record pigs sent from the island of Euboea, one apiece from Karystos and Amarynthos. The fact that the point of origin is specified on these nodules may suggest that the frequency of interactions was lower and thus a more complete record was noted by the scribe. Finally, **Wu 94** records a single goat sent “to Aphaia”, *a₂-pa-a₂-de*. Whether this refers to the cult site on Aegina, known to have been active in the LH III period (Pilafidis-Williams 1998), or an unattested cult site to Aphaia in Boeotia, remains unsolved.

Thebes Tablet Ft 140

.1 te-qa-i	GRA + PE	38	OLIV 44
.2 e-u-te-re-u	GRA	14	OLIV 87
.3 ku-te-we-so	GRA	20	OLIV 43
.4 o-ke-u-ri-jo	GRA	3 T 5	
.5 e-re-o-ni	GRA	12 T 7	OLIV 20
.6	<i>vacat</i>		
.7	<i>vacat</i>		
.8 to-so-pa	GRA	88	OLIV 194
.9	<i>vacat</i>		



Figure 3.5: *Thebes Tablet Ft 140* (Archaeological Museum of Thebes, photo T. Van Damme).

One of the most important documents for reconstructing the political geography of Boeotia is a single tablet from Thebes, **Ft 140** (figure 3.5). The tablet records the totalling of a series of formulaic entries. Each entry has the basic structure of a toponym, followed

by the ideogram *GRA* with a numeral after it, further followed by the ideogram *OLIV* with a numeral. In the first entry the ideogram for *GRA* has been modified with the ligature *PE*, interpreted as an abbreviation for the elsewhere attested word *pe-ma/pe-mo* or σπέρμα “seed” (Ventriss and Chadwick 1973, 570). In this context it is frequently translated as “seed” wheat or barley, that is, a measure of cereal for sowing (Dakouri-Hild 2005 with previous bibliography; Killen 2006).⁵⁶ This ligature, appearing at the top of the list, is taken to apply to all succeeding entries, saving the scribe from having to modify every succeeding entry. The final entry breaks from having a toponym as the first word, and instead has the totalling word *to-so-pa* generally taken as τόσος πᾶν “so much in all” (Ventriss and Chadwick 1973, 589).

In lines 1 and 5, the toponyms *te-qa-i* and *e-re-o-ni* are easily interpreted as datives/locatives and interpreted as recording staples “at Thebes” and “at Eleon” respectively. The toponyms on lines 2-4 are less grammatically clear due to the sometimes ambiguous spelling conventions necessitated by the use of a syllabic script. The toponyms on lines 3 and 4, *ku-te-we-so* and *o-ke-u-ri-jo*, for instance, could be nominatives, but are better interpreted as o-stem locatives (Watkins 2007, 359), which fits the pattern already established in lines 1 and 5. This leaves only *e-u-te-re-u* in line two. This has proven somewhat more challenging to interpret linguistically, although contextually there can be little doubt that it must represent a toponym in the dative/locative. Palaima (2011, 71) suggests that it should be interpreted as “a man’s name from an ethnic,” presumably because he takes the final two syllables as an *-eus* suffix, although this is not stated

⁵⁶ The identification of the ideogram *120, *GRA*, with wheat has been challenged by Palmer (1992), although this is not accepted by all (e.g., Halstead 1995). More recently, Killen (2004, 163-169) has provided additional support to the hypothesis that *GRA* should be equated with barley, but there remains no definitive proof (i.e., a tablet with the ideogram identified).

explicitly. Watkins (2007), however, has clearly demonstrated that there is more than one plausible solution to the linguistic difficulties present in the form. Although the simplest solution, that *e-u-te-re-u* represents a dative or locative is the most plausible.

The exact meaning of this tablet is difficult to access. One possible interpretation is that the “seed” wheat refers to standard units of land area and the olive counts to number of trees or, perhaps more likely in this case, productive capacity of the orchard in units of olives (Killen 2006, 79-81). If this is the case, it may in fact be a tablet recording the agricultural resources expected to be available to the palace at each settlement. Such a document could be used in order to assess taxes, or record the total amount of palatial holdings located in the territory of the toponyms listed. If **Ft 140** is a tax assessment document, then the settlements listed are likely to be those that were in charge of collecting and storing those taxes, as well as transporting them to Thebes when necessary. On the other hand, the original publication of the tablet saw it as a record of crop harvests (Aravantinos, Godart, and Sacconi 2001, 343, 370). If this is the case, then the tablet could indicate the total amount of palatial staples held in storage at each toponym, or taxes expected to be brought into the palatial stores at Thebes from those places. In either case, these interpretations suggest that the settlements named on the tablet are likely to be agricultural collection centers. Given the fact that three of these are the known sites of Thebes (*te-qa-i*), Eutresis (*e-u-te-re-u*), and Eleon (*e-re-o-ni*) strengthens this argument and suggests that the other two sites, *o-ke-u-ri-jo* and *ku-te-we-so*, are similar sites, likely serving as second order centers. It is important to point out that neither of these sites can be associated with a historically attested place name.

Given the fact that three of the five toponyms can be readily identified with historical sites with large prehistoric phases makes this tablet particularly valuable. A reasonable assumption based on this pattern is that the two unknown sites, *ku-te-we-so* and *o-ke-u-ri-jo*, were also important second order centers. As tablet **Ft 140** records almost double the amounts of both wheat and olives from *ku-te-we-so* as from Eleon, this suggests that it must have had access to a substantial amount of arable agricultural land. Meanwhile, *o-ke-u-ri-jo* has the lowest documented amounts of seed wheat and no olives at all. If this is an accurate reflection of agricultural capacity, *o-ke-u-ri-jo* must have had very limited agricultural holdings compared to the other second order centers listed, perhaps hinting at its topographical location. *O-ke-u-ri-jo* reoccurs on another tablet listing toponyms (**Av 104**, discussed below), further strengthening the fact that this refers to a place name, not a personal name.

The location of these centers can be tentatively addressed by combining the information concerning gleaned from the survey and excavation data, in combination with modern agricultural land-use of Greece. Figure 3.4 shows currently worked land is concentrated in several large basins enclosed by rocky ridges, which even today cannot be cultivated. As mentioned above, these form natural boundaries that inhibit the movement of people and goods into and out of Boeotia. The notable exception to this is the east, where the Vathi Plain faces the equally fertile Lelantine and Eretrian Plains, separated only by the shallow Euboean Gulf (Knodell 2013, 101). Although it could be argued that modern cultivation patterns have significantly altered the amount of arable land in Boeotia, the archaeological evidence suggests the contrary. Land degradation, the most commonly cited problem facing Boeotia throughout history, has proven to be a relatively

stochastic event in the long-term occupation of Boeotia (Bintliff 2002a, 429-431). Most surprising perhaps is that the only significant erosion detected in the occupation of Boeotia occurred in the Neolithic to Early Bronze Age transition. In other words, soil profiles appear to have remained fairly stable over time, indicating that the natural carrying capacity of Boeotia is likely to reflect fairly accurately the agricultural potential of prehistoric Boeotia.

Comparing the locations of the other second tier settlements to the available agricultural land presented in figure 3.6, potential candidates for the remaining place names emerge. Only two centers emerge with any claim to be *ku-te-we-so*, since this site needs to be situated near rich agricultural land. The first possibility is the site of Dramesi on the east coast of Boeotia. This site has access to a broad coastal plain, and theoretically, could also have controlled territory stretching down towards the lower Asopos River Valley, since no large Mycenaean site has been found in that region. Dramesi, however, is a relatively small site, and a potentially better fit for *ku-te-we-so* might be Thisbe in western Boeotia. Although the majority of Boeotian toponyms in the Theban texts that can be securely identified are in eastern Boeotia, Thisbe, like Eutresis, lies above an important agricultural valley. Some evidence suggests prehistoric water management of the lower basin, and extensive valley slopes are ideal for olive cultivation (Hope Simpson 1981, 75). Given the large amount of olives recorded on **Ft 140**, it may be that this is a better fit. The question, however, appears at the present unresolvable.

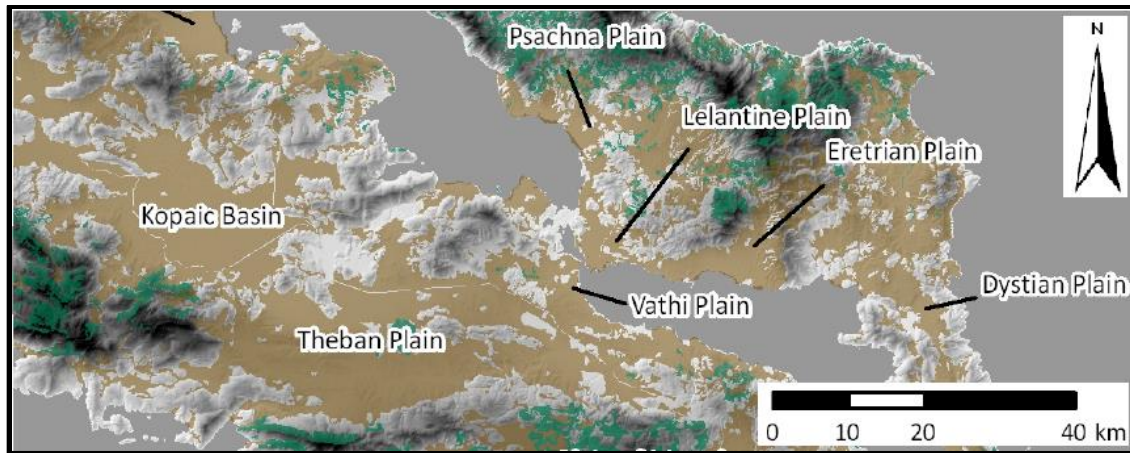


Figure 3.6: Map of current agricultural land in Boeotia (brown) (Modified detail from Knodell 2013, fig. 4.18).

O-ke-u-ri-jo presents an equally interesting puzzle. The evidence from **Ft 140** suggests a site with very little arable land. Why then does it seem to be grouped with other apparently large settlements? I think it is likely that *o-ke-u-ri-jo* is a port site. Two locations present themselves as likely candidates, Glypha or Anthedon. Located relatively close together, both these sites are situated on a small, but fertile coastal plain. Furthermore, both are important harbor sites in their own right – Anthedon for trade up the northern Euboean Gulf and Glypha for trade down the southern Euboean Gulf. The latter route was likely the main route of contact for Thebes with the Near East. Furthermore, the evidence that western Euboea was pacified by Thebes, suggests the key importance of this route. The evidence for an important settlement at Glypha, with associated fortification wall, makes it a likely candidate for *o-ke-u-ri-jo*.

Thebes Tablet Av 104+191

.1 ka-zo-de , si-to-ko[-wo-i VIR X ki-ta]ro-na-de VIR 20
 .2 po-to-a2-ja-de VIR[]de VIR 10 te-re-ja-de VIR 10
 .3 o-ke-u-ri-jo VIR[]de VIR 6
 .4 *vacat* [] *vacat*

Thebes tablet **Av 104** also seems to record a series of toponyms. Although this tablet is broken, the general syntax can be restored (see above). This reconstruction restores the fragmentary word *si-to-ko[* as *si-to-ko-wo-i*, which would be similar in meaning to σιτοχόοι or “grain-measurers” in Classical Greek (Ventris and Chadwick 1973, 583; Dakouri-Hild 2005, 216). Thus, this may be a record of grain-inspectors sent out by the palace for taxation purposes, or in order to assess land allotments. The organization of the toponyms in this text might therefore be expected to follow some sort of underlying logic. Unfortunately, we are on shakier ground here than with the previous tablet **Ft 140**. The toponyms listed do not seem to refer necessarily to specific sites, but perhaps regions. Most interestingly, many of these regions appear to be borderlands, or certainly at the limits of the Theban state.

The basic structure of the text is clear, a toponym in the allative (indicating motion towards) is followed by the ideogram for man, *VIR*, and then a numeral indicating the number of men. The first entry represents the only break from this formula, inserting the broken off word *si-to-ko[* between the toponym and *VIR* ideogram. Thus, *si-to-ko[* appears to qualify the *VIR* ideogram and can be assumed to apply to all the entries listed on the tablet. This is the same scribal practice identified in **Ft 140**, where only the *GRA* ideogram in line one is ligatured with *PE*, but it is assumed to apply to all succeeding entries.

Ka-zo-de, an allative form of *ka-zo* has been linked with Chalkis, just opposite Glypha (*o-ke-u-ri-jo*) and *po-to-a₂-ja-de* is the allative form of *po-to-a₂-ja*, thought to be related to Mount Ptoös. *Te-re-ja-de* is the allative form of an unknown settlement, *te-re-ja*, but this toponym is currently unattested within Boeotia or in the Classical sources (Del

Freo 2009, 53). Hera Teleia (Ἥρα Τελεία) is attested as an epithet of Hera at Plataea (Paus. 9.2.7), however, and there are certainly other known instances where goddess' names and place names intersect (Artemis Amarynthia/Amartythos, Athena/Athens, Diktynna/Mt. Dikte, Aphaia/Aphaia). So perhaps it is not too far-fetched to place the ancient toponym in the vicinity of Plataea. Similarly, the editors of the Thebes tablets offered the restoration *ki-ta]-ro-na-de* in line one. Del Freo accepts this suggestion (2009, 48). If so, there is a clear link with the historical name of Kithairon, the mountain range separating Boeotia and Attica to the southwest and in the same vicinity as Plataea. Thus, this tablet would record a cluster of toponyms in the extreme northeastern corner of Boeotia (*po-to-a₂-ja-de*, *o-ke-u-ri-jo*, *ka-zo-de*), and the extreme southwestern (*ki-ta]-ro-na-de*, *te-re-ja-de*). Unfortunately, we are missing at least two other sites in the allative that might help clarify matters further.

Table 3.2: Widely accepted toponyms from the Linear B texts from Thebes

Linear B Toponym	Tablet/Sealing	Historical Name	Historical Source	Bibliography
<i>a-ma-ru-to</i>	Of 25.2, Wu 58.γ	Ἐμάρυνθος (Euboea)	Paus. 1.31.5; Strabo 10.1.10; Stephanus of Byzantium	Aravantinos 1987, 36-37, 2008, 147; Del Freo 2009, 42; Palaima 2011, 68-69.
<i>a₃-ki-a₂-ri-ja</i>	Of 25.1, Of 35.2	Αἰγάλα (Euboea?)	IG XII 9 243; IG XII 9 246A; SEG 10 304; Her. 6.101.1	Knoepfler 1997, 369; Aravantinos 2008, 148-149; Del Freo 2009, 43-44; Palaima 2011, 70
* <i>a₂-pa-a₂</i>	Wu 94.β	Ἄφαία (Aegina?)	Paus. 2.30.3	Aravantinos 1987, 38, 2008, 147-148; Aravantinos et al. 2001, 70; Del Freo 2009, 44-45; Palaima

				2011, 70, no. 34.
* <i>e-re-o</i>	Ft 140.5; X 155.1	Ἐλεών (East Boeotia)	Hom. <i>Il.</i> 2.500, 10.266; Strabo 9.2.12, 9.2.14, 9.2.17; Plin. <i>Nat.</i> 4.12; Plut. <i>Quaes. Gr.</i> 41	Aravantinos 2008, 141-142; Del Freo 2009, 45-46; Palaima 2011, 71.
<i>e-u-te-re-u</i>	Ft 140.2	Εὐτρησις (West Boeotia)	Hom. <i>Il.</i> 2.502; Strabo 9.2.28	Watkins 2007; Aravantinos 2008, 140; Del Freo 2009, 46-47.
<i>ka-ru-to</i>	Wu 55.β	Κάρυστος (Eretria)	Hom. <i>Il.</i> 2.539; Hdt. 4.33, 8.121; Thuc. 1.98.3; Plin. <i>Nat.</i> 4.21; Strabo 10.1.6; Paus. 6.10.1, 10.16.6; Stephanus of Byzantium	Aravantinos 1987, 37-38, Aravantinos 2008, 147; Del Freo 2009, 47; Palaima 2011, 68-69.
* <i>ka-zo</i>	Av 104.1	Χαλκίς(?) (Eretria)	Hom. <i>Il.</i> 2.537;	Del Freo 2009, 48.
* <i>[ki-ta-]ro</i>	Av 104.1	Κιθαίων/ Κιθηρών (Central Boeotia)	Eur. <i>Ba.</i> 660; Page <i>PMG</i> 654, col.i.24; Paus. 1.38.8	Aravantinos 2008, 143-144; Del Freo 2009, 48.
<i>ku-te-we-so</i>	Ft 140.3	Unattested		Aravantinos 2008, 141; Del Freo 2009, 48-49.
* <i>]me-to-re-ja</i>	X 433.b	Unattested		Del Freo 2009, 49; García Ramón 2014, 290-291.
<i>o-ke-u-ri-jo</i>	Av 104.3, Ft 140.4	Unattested		Aravantinos 2008, 141; Del Freo 2009, 50.
* <i>po-to-a₂-ja</i>	Av 104.2	Πτῶον (Central Boeotia)	Herod. 8.135; Paus. 9.23.6	Aravantinos et al. 2001, 356; Aravantinos 2008, 142-143; Del Freo 2009, 51; Palaima 2011, 70, no. 34.
* <i>ra-mo</i>	Of 38.1	Λάμος (West Boeotia)	Paus. 9.31.7	Aravantinos 1987, 38, 2008, 145-146; Del

				Freo 2009, 51-52; Palaima 2011, 69.
* <i>te-qa</i>	Ft 140.1, Wu 51.β, Wu 65.β, Wu 96.β, MY X 508.a	Θηβαι/Θήβη (Central Boeotia)	Hom. <i>Il.</i> 2.505 (Υποθήβαι); <i>HH</i> 3.225-228; Strabo 9.2.3; 9.2.11-12; 9.2.15; Paus. 9.4.4-9.18.6	Aravantinos 1987, 35-36; 2008, 136-140; Del Freo 2009, 52-53; Palaima 2011, 66-67.
* <i>te-re-ja</i>	Av 104.2	Τελεία? (Central Boeotia)	<i>IG VII</i> 3217; Paus. 9.2.7-9.3.2	Aravantinos 2008, 144; Del Freo 2009, 53.
* <i>63-te-ra</i>	Gp 107.[1], Gp 109.1, Gp 119.2-3, Gp 122.[1], Gp 127.2, Gp 167.1, Gp 168.1, Gp 176.b, Gp 178.2, Gp 196.1, Gp 197.1, Gp 230.[1], Gp 231.1, Gp 233.[1], Gp 237.[1]	Unattested		Plath 2004, 11-12; Aravantinos 2008, 146; Del Freo 2009, 54; Melena 2014, 79-81.
* <i>Conjectural nominative form.</i>				

A Brief Note on Orchomenos

A sufficient number of sites in the Kopaic Basin have reasonable size estimates to enable us to perform a similar analysis on the Orchomenian polity (table 3.3).

Site	Settlement Size (ha.)	Population Estimate (low/high)	Rank
Orchomenos	20	5,000/9,000	1
Gla	15	3,750/6,750	2
Haliartos	3.53	882/1,588	3
Pyrgos	2.94	735/1,323	4
Stroviki	2.36	590/1,062	5
Ayios Ioannis	1.96	490/882	6
Ayios Vlasias	1.57	392/706	7
Larymna	1.41	352/634	8
Poliyira	1.13	282/508	9
Kato Agoriani	1.13	282/508	10
Orchomenos	20	5,000/9,000	11
Gla	15	3,750/6,750	12

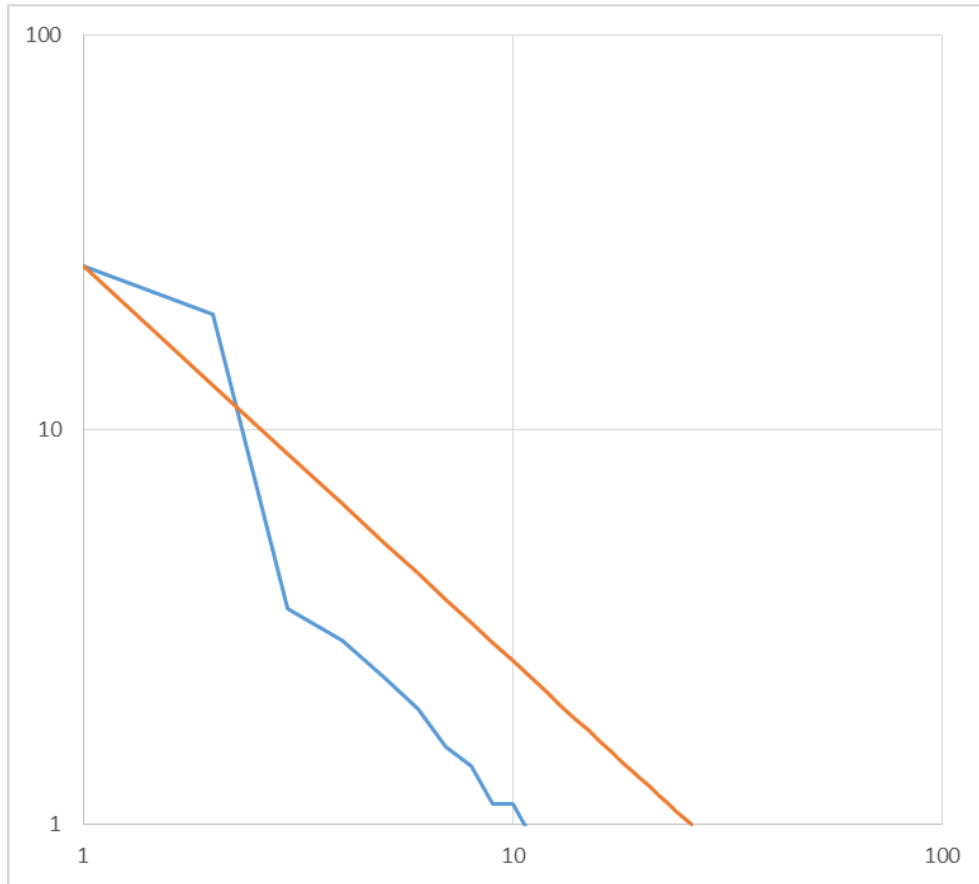


Figure 3.7: Rank-Size plot of Orchomenian polity in LH IIIB.

As can be seen in figure 3.7, the results produce a chart, which is slightly concave, but on the whole much closer to a log-normal distribution than the data from Thebes. Given the ambiguity in the size-estimates for the first two centers (Orchomenos and Gla), the data may even conform to a log-normal distribution. This suggests that the Orchomenian polity was much more economically integrated than both the Pylian and Theban polities. There are a couple of possible factors that contribute to this. First, the most obvious reason is that the Orchomenian polity developed around a communal project, the draining of the Kopaic Basin. This may have resulted in a more co-operative polity and thus resulted in a different population distribution. Also, there is archaeological evidence at Gla for some form of large administrative building, the Melathron, which may have

served as a satellite administrative center operating on behalf of the palatial administration based at Orchomenos. Finally, there may have been other organizational differences with the Orchomenian polity that unfortunately are not accessible due to a lack of Linear B tablets from that site.

Landscape Patterns in Post-Palatial Boeotia

Changes in the landscape pattern of central Greece have been discussed at length by Alex Knodell (2013) and Margaretha Kramer-Hajos (2016). Their analyses have both emphasized the density of occupation along the Euboean Gulf during the post-palatial period, while pointing to the dramatic decline in settlements throughout the interior of Boeotia. While I would not deny that there is clear growth in the Euboean Gulf region during this period, my reanalysis of settlement material across Boeotia has revealed greater representation of post-palatial settlement, particularly in Central and Eastern Boeotia. Furthermore, the lack of material published to date from Thebes has given the impression that it was relatively unimportant during the post-palatial period, when this very likely was not the case. The growth of coastal settlements should also be placed within its wider mainland context. For it is not only the Euboean Gulf region but also the Corinthian, Argolidic, and Saronic Gulf regions that show extensive growth during the post-palatial period, a point that has been lost by focusing prominence of the Euboean Gulf in the Early Iron Age. Although the movement of people to coastal settlements has been characterized as a shift towards piracy in the post-palatial period Aegean (Kramer-Hajos 2016, 152-165), it need not be so. Although it is clear that the reorganization of networks in the post-palatial period benefitted coastal communities, it remains to explain

exactly what mechanisms drove this process. I believe that an agential model, developed from household assemblages at both coastal and inland sites, can help by revealing more details about the lives of those living in post-palatial communities, rather than relying on the iconographical representations on contemporary pottery, which may or may not depict social realities.

Discussion and Conclusions

From the above discussion, a picture of typical settlement behavior emerges for Mycenaean Boeotia. Three tiers of settlement have been identified within Boeotia and the west coast of Euboea that support the textual evidence for a Theban polity dominating these regions during the LH IIIB2 period. The first tier consists of Thebes alone. At 40 ha. Thebes has reasonable claim to the status of the largest known Mycenaean settlement. It was certainly the largest fortified area, surpassing even the impressive fortifications of Gla. The second tier consisted of several key sites, each 3-5 ha. in size. These settlements are considered here as second order centers to Thebes. These centers shared common features. They were frequently located on rich agricultural plains, key trade routes, and had fortifications, ostensibly to protect them.

The high density of imports localized at Thebes suggests a conscious attempt on the part of Theban elites to control the flow of elite status goods (Kramer-Hajos 2016, 140-147). The success of this tactic is demonstrated by the fact that few imported artifacts have been found anywhere in Boeotia outside of Thebes (Burns 2010, 135-139). The only exceptions are four cylinder seals found in chamber tombs near Tanagra, Pharos (Mikro Vathy), and Chalkis (Cline 1994, II.e.162-163, 172-173). These items, foreign imports of

lower value than the elaborately carved lapis lazuli cylinder seals found in Thebes itself (Porada 1981), may demonstrate a trickle-down distribution of prestige items from the palatial center, although these sites are also all ports-of-call and likely to be the very harbors where imported goods arrived from the Near East. The overall picture is nevertheless one of centralization of power and people.

While some scholars have questioned the importance of Late Bronze Age Thebes, the combination of rank-size analysis of Boeotian settlements with the evidence provided by the Linear B tablets from Thebes presents a consistent image of a united Theban state. This analysis demonstrates that the Theban sphere of influence can safely be extended to include the western part of the island of Euboea and the shores of the Corinthian Gulf. It remains unlikely that Thebes ever controlled the Kopaic Basin to the north, as this is all but prohibited by the difficult geography separating it off from the Theban Basin as well as the archaeological indications of an important palatial center at Orchomenos (Schliemann 1881; Spyropoulos 1974). There seems to be a hesitance among scholars to accept Boeotian control across the Euboean Gulf. I believe that this is founded on the false notion that water served as boundary, when in fact the reverse is true (see Knodell 2013, 101-102).

Water was a connective medium, incredibly important in the acquisition of imported goods necessary for the maintenance of elites situated at Thebes (Cline 1994; Burns 2010). In this regard, the control of the southern Euboean Gulf was of great importance and it is only logical that the palatial elites would have wished to control access to it and by extension the foreign ports-of-call beyond. A single glance at a map of the natural corridor leading from Thebes to the Euboean Gulf demonstrates the ease of

this journey (figure 3.8). This research demonstrates that Thebes, while not as expansive as the most optimistic models have proposed, extended its influence over a significant territory during the LH IIIB period. As argued above, however, this influence was more ideological than economic. Thus, although the collapse of the palaces is sure to have had an economic impact, it is important to realize that communities were also fairly well-positioned to survive the collapse of the center.

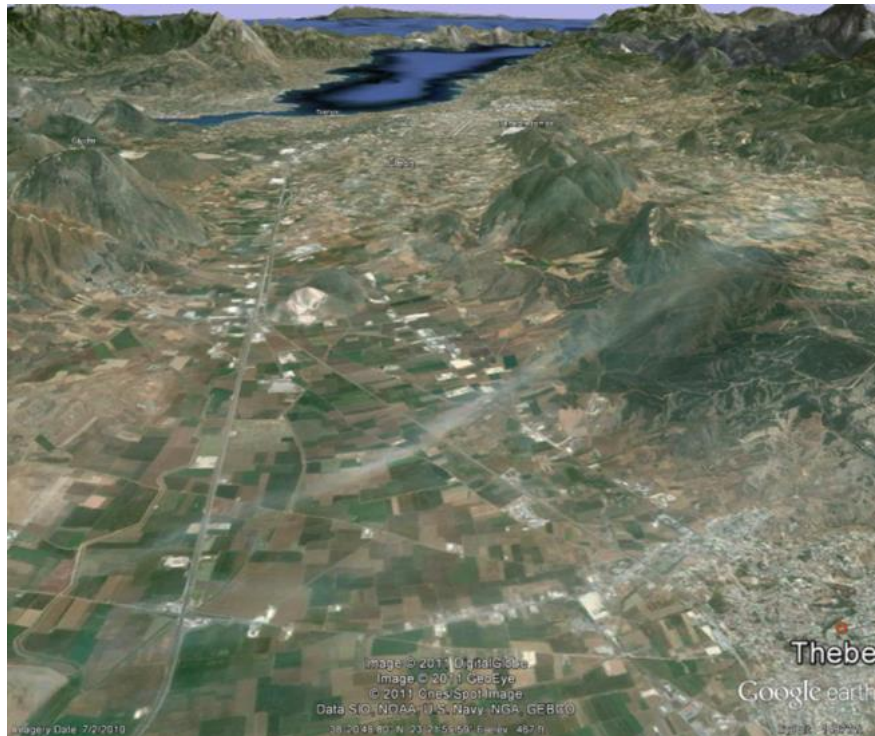


Figure 3.8: *The plains extending from Thebes towards the Euboean Gulf (Google Earth view).*

The contrast in the rank-size analysis between the Kopaic Basin and the rest of Boeotia is particularly notable in light of these findings. While the Theban system appears to be characterized by high ideological centralization, but lower economic integration, the data from the Kopaic Basin suggested high economic integration. This is readily correlated with the necessity of managing a common system of dykes and waterways to maintain the drainage of Lake Kopais during the Late Bronze Age. Interestingly, the

Kopaic Basin fares much more poorly in the post-palatial period, when the collapse of this infrastructure resulted in the abandonment of many sites in the region. It is tempting to link the more severe effects of collapse with the tighter economic integration of the polity.

This chapter has also shown that in the post-palatial period there was a notable movement of people towards the coast. The mechanisms that resulted in this movement will be addressed further in chapter six, but suffice it to say that these areas can no longer be thought of as “peripheral” or “non-palatial” in the sense of not falling under the administrative purview of the palaces during the Late Bronze Age.

<i>Appendix 3.1: Boeotian settlements inhabited in LH IIIB and LH IIIC</i>					
Site	LH IIIB	Estimated Size (ha)	LH IIIC	Estimated Size (ha)	Bibliography
Orchomenos	X	7.85; 20	X?	-	Hope Simpson 1981, 61.
Poliyira	X	1.13		-	Hope Simpson 1981, 61-62.
Pyrgos	X	2.94+		-	Hope Simpson 1981, 62.
Pyrgos: Magoula	X	n/a		-	Hope Simpson 1981, 62.
Stroviki	X	2.36		-	Hope Simpson 1981, 62.
Gla	X	20, 23.5 (-4.5)		-	De Ridder 1984, 272; Hope Simpson 1981, 62-64.
Kastro	X	n/a		-	Hope Simpson 1981, 64.
Ayia Marina	X	0.59+	X	-	Hope Simpson 1981, 64.
Chantsa	X	0.78		-	Hope Simpson 1981, 65.
Ayios Ioannis	X	1.96		-	Hope Simpson 1981, 65.
Davlosis: Kastraki	X	n/a		-	Hope Simpson 1981, 65.
Onchestos	X	0.78+		-	Hope Simpson 1981, 65.
Haliartos	X	3.53+		-	Hope Simpson 1981, 65-66.
Kato Agoriani	X	1.13		-	Hope Simpson 1981, 66.
Koroneia	?	n/a		-	Hope Simpson 1981, 66.
Kalami	X	n/a	X	n/a	Hope Simpson 1981, 66.
Larymna	X	0.94	X	n/a	Hope Simpson 1981, 69.
Larymna: Bazaraki	X	1.41		-	Hope Simpson 1981, 69.
Chaironea	X	n/a		-	Hope Simpson 1981, 76.
Ayios Vlasis	X	1.57		-	Hope Simpson 1981, 76.
Davleia	X	n/a		-	Hope Simpson 1981, 76-77.

Thebes	X	19.2, 37.7	X	n/a	Symeonoglou 1985, 31; Hope Simpson 1981, 69-70.
Soules	X	n/a		-	Hope Simpson 1981, 70.
Arma	X	1.88+; 3.5	X	3.5	Hope Simpson 1981, 70-72; Aravantinos et al. 2016, 8.
Kastri: Lykovouni	X	1.18		-	Hope Simpson 1981, 72.
Hypaton	X	0.31+		-	Hope Simpson 1981, 72.
Mavromati: Panayia	X	n/a		-	Hope Simpson 1981, 72.
Mouriki: Kamelovrysi	X	n/a		-	Hope Simpson 1981, 72.
Loukisia: Isos	X	n/a		-	Hope Simpson 1981, 72-73.
Hyliki: Hyle	X	n/a	X	n/a	Spyropoulos 1971, 319-328; Fossey 1988, 235-239.
Anthedon	X	2.26	X	2.26	Hope Simpson 1981, 73.
Drosia	X	0.37+		-	Hope Simpson 1981, 73.
Rhitsona	X	n/a		-	Hope Simpson 1981, 73.
Daphni: Ayios Meletios	X	n/a		-	Hope Simpson 1981, 74.
Erythrai: Pantanassa	X	n/a		-	Hope Simpson 1981, 74.
Plataea	X	n/a		-	Hope Simpson 1981, 74.
Eutresis	X	3.5 (21.3)	X	n/a	Hope Simpson 1981, 74; Goldman 1931, 68.
Thespiiai: Magoula	X	n/a		-	Hope Simpson 1981, 74-75.
Livadostro: Kastro	X	0.		-	Hope Simpson 1981, 75.
Aliki	X	n/a		-	Hope Simpson 1981, 75.
Thisbe: Palaiokastro	X	2.36		-	Hope Simpson 1981, 75.
Chorsiai	X	n/a		-	Hope Simpson 1981, 75-76.
Skala Oropou	X	0.78	X	n/a	Hope Simpson 1981, 52.
Tanagra: Gephyra	X	n/a		-	Hope Simpson 1981, 52.
Schimatari: Ayios Ilias	X	n/a	X	n/a	Hope Simpson 1981, 52.
Ayios Thomas: Kokkali	X	1.0		-	Hope Simpson 1981, 52.
Ayios Thomas: Ayios Konstandinos	X	n/a		-	Hope Simpson 1981, 52-53.
Dramesi	X	1.96	X	n/a	Hope Simpson 1981, 53.

Pharos Avlidos	X	n/a		-	Hope Simpson 1981, 53.
Vathy: Nisi	X	n/a		-	Hope Simpson 1981, 53.
Glifa/Vlicha	X	1.88; 4.00	X	n/a	Hope Simpson 1981, 53; Demakopoulou 1988, 6.
Chalkis(?)	X	n/a		-	Hope Simpson 1981, 53.
Dhokos: Ayia Triada	X	n/a		-	Hope Simpson 1981, 54.
Manika	X	n/a		-	Hope Simpson 1981, 54.
Psakhna: Ayios Ilios and Pirgos	X	n/a	X	n/a	Hope Simpson 1981, 54.
Psakhna: Glifas	X	n/a		-	Hope Simpson 1981, 54.
Politika: Cape Mnima	X	n/a		-	Hope Simpson 1981, 54.
Politika: Kafkala	X	n/a		-	Hope Simpson 1981, 54.
Katheni: Krasas	X	n/a		-	Hope Simpson 1981, 54.
Xeropolis	X	4.71	X	8-9	Hope Simpson 1981, 55; Lemos 2014a, 173.
Eretria	X	n/a	X	n/a	Hope Simpson 1981, 55.
Eretria: Magoula	X	n/a		-	Hope Simpson 1981, 55.
Amarynthos : Paliochoria	X	2.51	X	2.51	Hope Simpson 1981, 55-56.
Aliveri: Magoula	X	1.18	X	n/a	Hope Simpson 1981, 56.

CHAPTER FOUR

POST-PALATIAL HOUSEHOLDS: ORGANIZATION AND ECONOMICS

*And within, thrones were backed against the wall on both sides
all the way from the inner room to the door, with fine-spun
delicate cloths, the work of women, spread out upon them.
There the leaders of the Phaiakians held their sessions
and drank and ate, since they held these forever, and there were
young men fashioned all of gold and in their hands holding
flaring torches who stood on the strong-compounded bases,
and shed a gleam through the house by night, to shine on the feasters.
And in his house are fifty serving women, and of these
some grind the apple-colored grain at the turn of the hand mill,
and there are those who weave the webs and who turn the distaffs,
sitting restless as leaves of the tall black poplar, and from
the cloths where it is sieved oozes the limpid olive oil.*

Hom. *Od.* 7.95-107 (trans. Lattimore 1965)

Household organization in the Mycenaean period of mainland Greece remains understudied. Gerhard Hiesel (1989) and Kyle Jazwa (2016) have studied the architectural arrangement, construction techniques, and development of the Mycenaean household. With the exception of Pascal Darcque's seminal study, *L'habitat mycénien* (Darcque 2005), however, the role of households in Mycenaean economies remains largely neglected in favor of the palace.⁵⁷ Recent scholarship, although highlighting the relatively small percentage of economic interactions that actually would have involved the palace on a day-to-day basis, is only beginning to explore the role that households played in social transformations during the Late Bronze Age (e.g., Nakassis et al. 2016). These observations remain grounded in upper-level theory or analogy, however, and have yet to integrate the archaeological household with the household as a theoretical and social unit

⁵⁷ Notable exceptions being Panagiota Pantou's (2011, 2014) research exploring the role of the corridor house model in early Mycenaean and palatial period Greece and William McDonald and Nancy Wilkie's (1992) publication of the second order center at Nichoria.

of analysis. While studies of individual households, or groups of households, have occurred, these have focused more on the publication of finds and contexts rather than on formulating economic models (e.g., Mylonas Shear 1987; Tournavitou 1995; Onasoglou 1995; Evely 2006; Iakovides 2008, 2013a, 2013b; Mühlenbruch 2013; Palaiologou 2015). Darcque's analysis is a valuable starting point in this regard, however, his work considers the second millennium holistically, which inevitably masks a significant amount of change in household organization that took place over nearly a thousand years. The goal of this chapter, therefore, is to focus on post-palatial households and their equipment in order to assess inter-household variability in consumption, storage, and production patterns. These materials inform the detailed analysis of post-palatial households undertaken in chapter six and supply the archaeological data used to test the two hypotheses laid out in chapter one.

Post-palatial period households have received greater attention in recent years. This includes the long delayed final publication of the post-palatial households excavated at Xeropolis (Evely 2006), as well as Phillip Stockhammer's (2008, 2011) detailed analysis of the ceramic assemblage from the Northeastern Lower Town at Tiryns. Both of these studies demonstrate the utility of looking at household spaces more closely. Rather than being interested in modelling economies, however, these studies devote greater attention to ceramic assemblages and their function in domestic contexts. By contrast, I integrate diverse data sets from multiple sites in order to show that post-palatial domestic economies were much more robust than previous scholars have accepted.

This chapter, as much as possible, presents all the available evidence for post-palatial domestic architecture in mainland Greece. All sites surveyed in this chapter and

the succeeding chapter are labelled on figure 4.1. I omit Crete, the Cyclades, and northern Greece because of obvious regional and cultural differences. Crete, for instance, had a pre-existing Minoan administrative structure that was taken over by a small group of Mycenaean elites, but otherwise left relatively intact (see chapter one, n. 12). Unlike Crete, northern Greece and the Cyclades never seem to have been fully integrated into the palatial system (e.g., Feuer 1983, 2011; Schallin 1993; Gorogianni et al. 2016). These regions, despite showing some similarities in material culture and ritual activities, never developed into palatial polities in their own right. Whether this was due to their peripheral status or simply the result of strong local traditions, they followed divergent paths. Furthermore, post-palatial households and communities in these regions, particularly in Crete (e.g., Mook 1993; Day et al. 2004; Day 2009, 2012, 2016; Wallace 2010; Glowacki and Vogeikoff-Brogan 2011) and northern Greece (e.g., Hänsel 1989; Wardle 1997; Margomenou 2005, 2008; Nitsch et al. 2017) have been studied in considerable detail, such that social developments and the mechanisms behind them are already well-studied. The catalogue of sites that follows includes all those for which there are well-published domestic contexts, including both architecture and small finds. For this reason, a number of sites with post-palatial remains, but not yet fully published have been omitted (e.g., Teichos Dymaion and Kanakia).⁵⁸ I have also not included the site of Iria, which although preserving a large quantity of ceramics, contributes little architecturally (Döhl 1973), and probably should be dated to the palatial period (Vitale

⁵⁸ Teichos Dymaion is only known through reports (Vitale 2006, 188 with bibliography). While the pottery from Kanakia has been the subject of a recent dissertation (Marabea 2010), the architectural context and dating remains limited to reports by the excavator Yiannis Lolos (Lolos et al. 2007).

2006, 186-187 with previous dating). This chapter also excludes or only briefly addresses sites of a clearly ritual character.

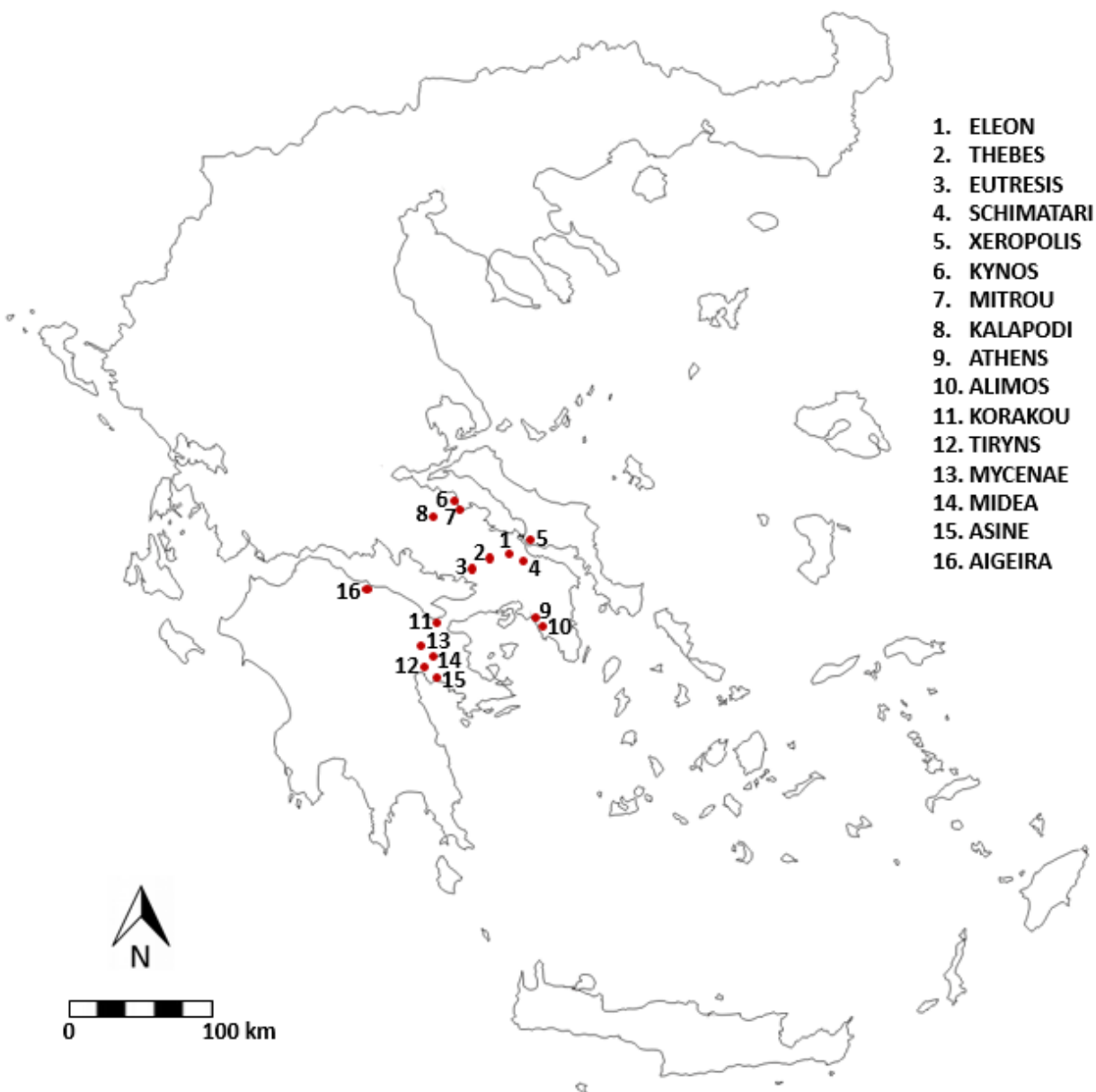


Figure 4.1: Map of all post-palatial sites surveyed (map courtesy of T. Van Damme).

There is a great variability in the data available for each post-palatial site on account of taphonomical differences as well as method and date of excavation. In the succeeding review of sites, I seek to highlight the architectural arrangement of each

household, the locations and findspots of storage vessels, as well as ceramic and small finds whenever possible. The last category can vary greatly on account of differences in reporting. My focus therefore is mainly on mendable or whole vessels recovered from the households. Sherd material is mainly addressed in order to assess the function of spaces when other finds are absent. Where there is doubt as to the precise character of the context, however, such as the case with the Granary at Mycenae, I have included discussion in order to clarify the exact nature of the structure. The division of households into three geographical regions (Central Greece, the Argolid, and the Peloponnese) is designed to explore regional variability in household construction.

Central Greece

Thebes

Thebes remained an important settlement in the post-palatial period. The architectural evidence for this phase, however, is meagre. The heavy rebuilding of the Kadmeia in the historical period frequently removed post-palatial remains. As mentioned in Chapter 2, unpublished deposits contain definite post-palatial period material, some of which is clearly stratified. In most places, however, it seems as though historical periods have badly disturbed the post-palatial settlement remains (e.g. Aravantinos 2014b, 150). The only place where good stratified deposits have been fully published are those from the Pelopidou Street excavations. Similar deposits are not reported from the adjacent area of the Arsenal, although they must surely have existed, even if only in disturbed deposits. It is noteworthy that spools and torus loom weights, similar to post-palatial examples

elsewhere, have been identified from this area, although they are currently dated to LH IIIB2 (Alberti et al. 2015, 288).

LH IIIC Early 1/2: Pelopidou Street

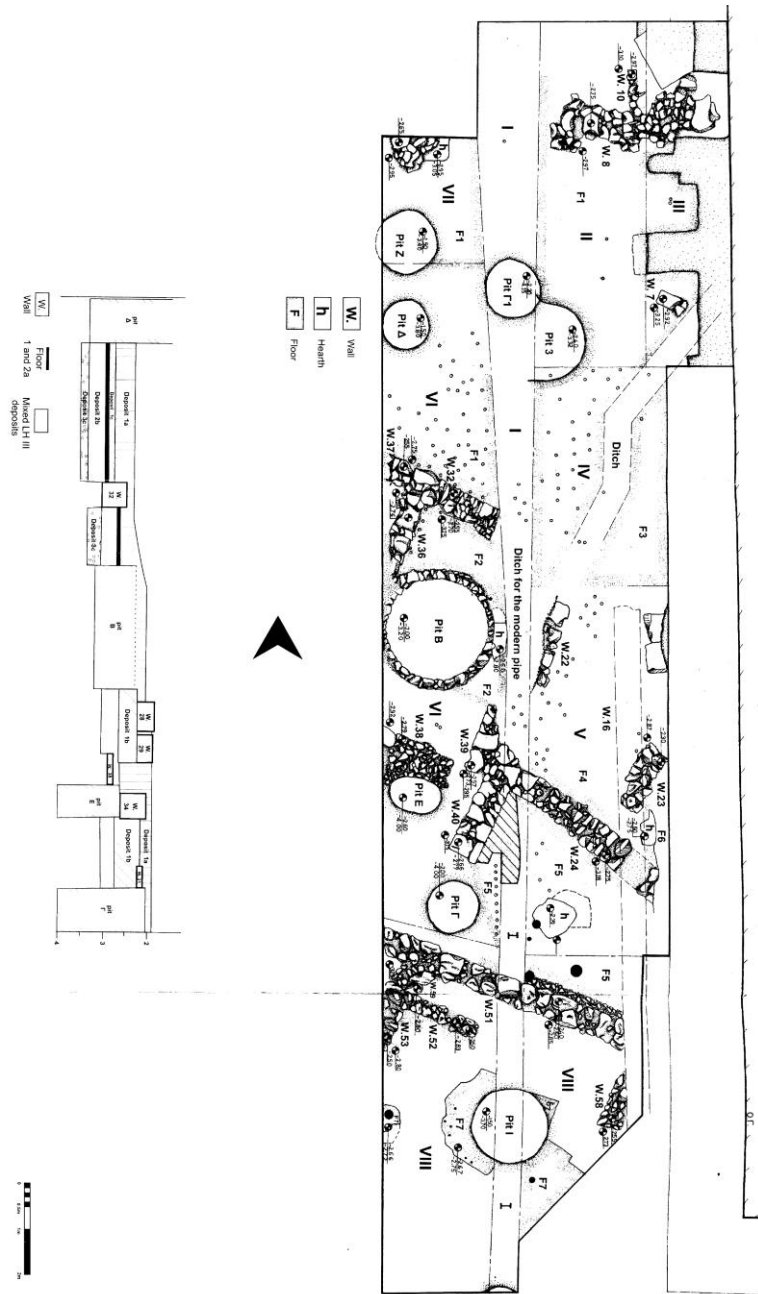


Figure 4.2: Plan of LH IIIC household in Pelopidou Street excavations (Andrikou et al. 2006, plans 1a-b).

A series of floors and walls, including hearth features, appear to be from a single household, which is unfortunately only partly excavated. The floor levels were interrupted by both Medieval pits and a modern pipe-line, thus the precise architectural arrangement is difficult to assess (Andrikou et al. 2006, 11, plans 1a-3). The surviving wall fragments suggest an agglutinated structure of the type familiar at post-palatial sites throughout central Greece (see figure 4.2). Indeed, the orientation of the structure finds a close parallel with Xeropolis Phase 1b. Floors 1, 2b, 3, 4, and 5 are contemporary (Andrikou et al. 2006, 49; figure 4.2). Floor 2a is clearly slightly later since it partially overlay Floor 2b at a higher level. Later material found stratified above the floors is clearly LH IIIC Middle in date, so the floors themselves fall somewhere in the LH IIIC Early.

Unfortunately, the floor deposits preserved relatively few mendable vessels that would allow a picture of the household assemblage at a given moment to emerge. Floor 5 had the most well-preserved deposit (Andrikou et al. 2006, 50). It included a large, linear-decorated, collar-neck jar, a deep bowl decorated with side triglyphs on the exterior and linear bands on the interior, a Group A deep bowl with triglyph panel and antithetic steamers on the exterior and linear banded interior, another poorly preserved Group A deep bowl, a fragmentary linear deep bowl with monochrome interior, a deep bowl with medium band exterior and tongue motif with a linear banded interior, joining fragments of a pictorial krater with a bird on the exterior and a monochrome interior, and lastly a fragment of a handmade vessel – perhaps a shallow bowl. Floor 4 had two largely complete vessels: a large handmade burnished ware jar with incised band decoration and an undecorated semi-globular cup (Andrikou et al. 2006, 79). A nearly complete handmade cooking amphora comes from fills in trench VI overlying Floor 1 or 2, but

stratified beneath the LH IIIC Middle horizon, as does a lip-banded semi-globular cup (Andrikou et al. 2006, 84, 87). It seems logical to conclude that these derive from Floor 2, since it featured a hearth and was badly disturbed by later intrusions and the relaying of its floor. A deep bowl with narrow zonal-motif of N-pattern and linear banded-interior was recovered overlying Floor 1 (Andrikou et al. 2006, 85). While the decoration of this piece would allow it to fit comfortably in LH IIIB2, the use of a double band on the interior lip is a characteristic of the earliest LH IIIC pottery from Eleon (as well as on the bowls mentioned from Floor 5). The few remaining vessels, therefore, maintain many elements from the preceding LH IIIB2 destruction horizon (no. 262 is nearly identical to a bowl from the LH IIIB2 destruction horizon, no. 154) suggesting that an LH IIIC Early 1 phase akin to Eleon's unburnt destruction horizon is most appropriate.

No storage features were found in situ, although fragments of large storage containers were found built into Floor 3, suggesting that this may have been the locus of storage activities (Andrikou et al. 2006, 49). Circular hearths of the usual post-palatial period type were located on Floors 1, 2b, and 5 (Andrikou et al. 49, plan 1a). Floor 1 extended over a considerable area and may be an enclosed court of the type known from Tiryns and Korakou. Textile production is indicated by the find of 38 spindle whorls scattered throughout the LH IIIC levels (Alberti et al. 2015, 288). Only a single spool was identified, however, in an LH IIIC Middle pit (Alberti et al. 2015, 288). The taphonomy of this area may play a role in the preservation of textile equipment since there is no evidence for a burnt destruction. This would also explain the minimal number of mendable vessels found on the floors.

While the household from Pelopidou Street is important for documenting the continued occupation of the Kadmeia during the post-palatial period, the poor preservation of the architectural remains and lack of storage features offer little information about the Theban economy. The fact that Thebes continued to be inhabited suggests that industry continued in the post-palatial period, but what, if anything, beyond textiles was being produced remains unclear. Perhaps most important is the observation that a great number of roof tile fragments were recovered from Deposits 2b and 1c respectively (Andrikou et al. 2006, 54). These represent the LH IIIB 2 destruction deposit and LH IIIC Early household respectively. It is likely, therefore, that the use of tiles in domestic architecture persisted at Thebes, much like Eleon, into the post-palatial period.

Eutresis

Since all the evidence for Late Helladic occupation at Eutresis is fragmentary it is difficult to assess the extent of post-palatial occupation. The early date of destruction assigned to House V agrees well with the unburnt destruction at Eleon, however, and suggests that, if an earthquake was the cause, it was widely felt across Boeotia. Unlike at Eleon, the LH IIIC Early 1 destruction at Eutresis seems to have resulted in its abandonment.

LH IIIC Early 1: House V

House V was a relatively poorly preserved household. In its present state it consists of two rooms joined by a doorway in the south wall of Room I (Goldman 1941, 68; figure 4.3). The loss of much of the southwest, southeast, and northern parts of the house to erosion limit our understanding of its organization. Room I featured a circular hearth and

contained a deposit of mendable vessels on the preserved portion of its floor. These are catalogued in chapter 2. In room II, a large storage pithos was found along the west wall. The only other feature noted in Room II was an isolated lens of gravel along the east wall. Perhaps this would have served as the foundation for kotselles, as they are frequently documented elsewhere.

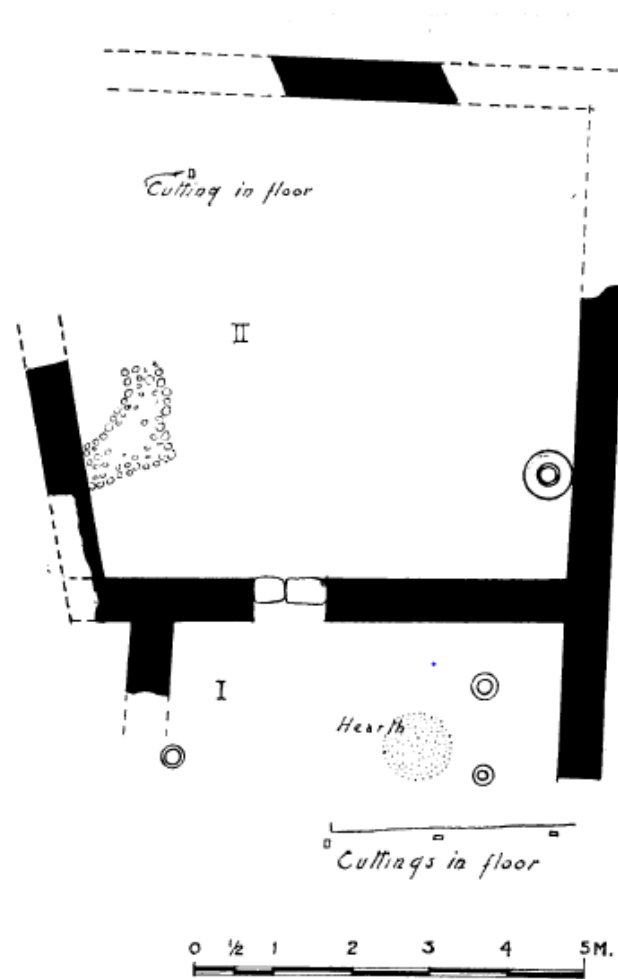


Figure 4.3: House V at Eutresis (Goldman 1931, 67, fig. 77).

Schimatari

Nothing is known about the size and extent of the post-palatial occupation at Schimatari. A small hamlet or village is likely according to the archaeological evidence presented below.

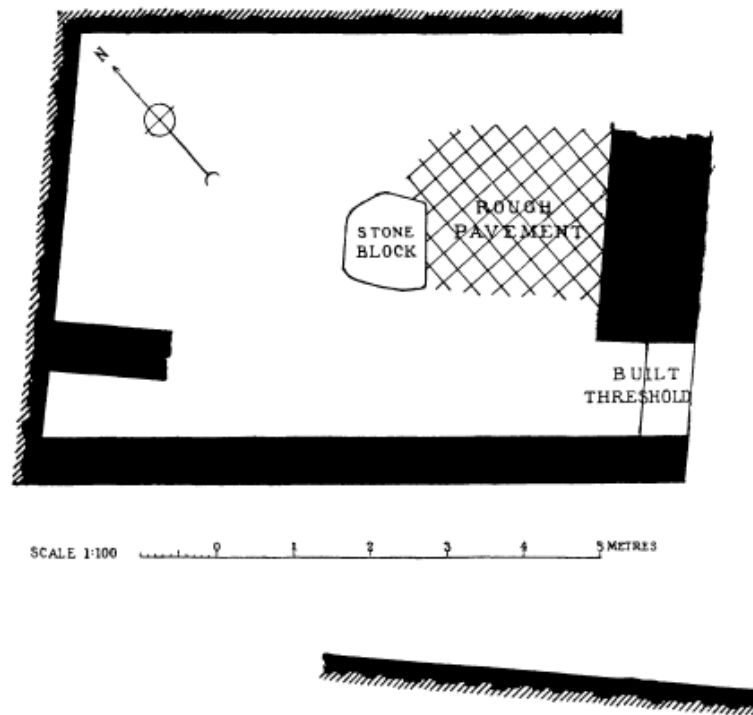


Figure 4.4: *The Schimatari household (Brown 1905/6, 94, fig. 1).*

LH IIIC Middle 1

It is hard to tell if this one-room household was complete (figure 4.4). Located on a hill, it is likely that parts have eroded away. The main room, as preserved measures 8.7 x 6.0 m with a narrow space in the northwest corner created by an internal wall running southeast for 1.50m, perhaps intended to support an internal staircase to a second story (Brown 1905/6, 94-95). No hearth was noted. An internal column base, located approximately in the center of the room suggests this was a large hall. Unfortunately, no other details of stratigraphy were preserved. The LH IIIC Middle date comes from the

mendable pottery found on the floors of the building, but without reliable stratigraphic observations, it is possible that the architecture described is palatial. Perhaps this was originally part of a megaron-type unit?

Xeropolis

LH IIIC Early 2: East House

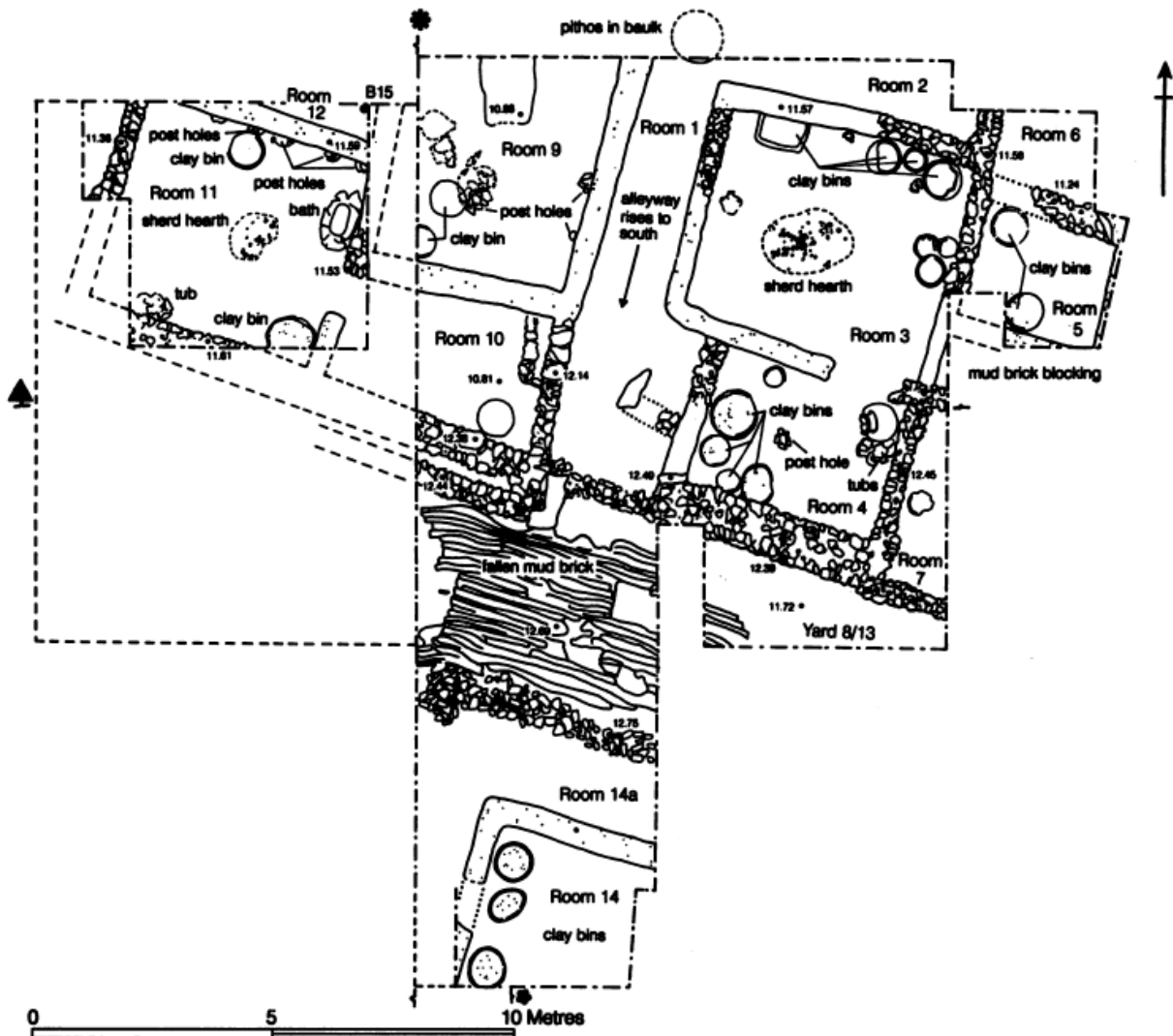


Figure 4.5: Plan of Xeropolis, Main Excavation, Phase 1b (Evely 2006, 14, fig. 1.7).

This is the second largest preserved Phase 1 household at Xeropolis, but preserves the greatest number of excavated rooms (figure 4.5). These consist of a series of semi-subterranean basements, some of which communicate with each other via internal doorways. Alleyway 1 may have functioned as an entrance to this household complex and it is not impossible this was actually a roofed-over corridor. In fact, the evidence points in this direction despite the initial suggestion that this “would be unexpectedly sophisticated” (Evely et al. 2006, 33). A gate or possibly a full door closed this corridor off from the adjacent street (Yard 8/13). Upon entering the corridor, one was immediately provided the opportunity to ascend a staircase to an upper story, or to continue up the inclined corridor towards a large space in the rear. This has been plausibly suggested to be a courtyard – probably an enclosed courtyard, similar to large households at Korakou or Tiryns (Evely et al. 2006, 35-36). There is no direct entrance into the adjacent basements from either the corridor or courtyard, which had a floor at a much higher level. The basements must have been accessed from the upper story by way of wooden stairs or ladders. Two basement rooms (3 and 4) communicated at the time of destruction and they are easily interpreted as a kitchen and adjacent storeroom. Two more (rooms 5 and 6) had formerly communicated, but at the time of the destruction the doorway had been blocked off. It might be tempting to see rooms 5 and 6, therefore, as once being a similar kitchen and storeroom that was later incorporated into the growing East House. As observed by the excavators, room 7 was an entirely new addition in Phase 1b (Evely et al. 2006, 39), which could have served to unify these two complexes into a single structure.

Very little of Room 2, the potential courtyard, has been excavated, but a large in situ pithos attests to at least some storage activities there (Evely et al. 2006, 35-36).

Interestingly the other ceramics found here include a tripod, a one-handled cooking pot, a jug, and a hydria are all common elements in dining assemblages and point to possible dining in the open courtyard – perhaps even at the moment of the final destruction.⁵⁹ A good parallel for this set-up is found in the Northeast Lower Town at Tiryns. In the southeast corner the disturbed remains of a kotselle is said to have fallen from above. Since it is unlikely that this large space was roofed over, the kotselle must have fallen from above room 6, in the fill of which there was evidence for a similar fallen bin (Evely et al. 2006, 38).

Kitchen room 3 is fairly spacious and features a relatively large hearth (1.00 x 1.50 m) with a smaller area of frequent use indicated by dark burnt marks (Evely et al. 2006, 26-30). Its identification is secured by the presence of a two-handled cooking pot adjacent to the hearth and a tripod cooking pot stored along its northern wall. Additionally, a quern lay to the south of the hearth ready for food preparation and three stone tools found along the north wall, called whetstones in the publication, were interpreted by the excavators as possible rubbing stones for the quern (Evely et al. 2006, 28). The north and east walls were given over to storage. This consisted of a rectangular installation in the northwestern corner of the room 1.00 x 0.60 m, preserved to a height of 0.30 m, but originally standing taller. In the northeastern corner a series of three kotselles were arranged along the north wall. One of these contained the carbonized remains of grain, a mixture of small spelt and barley (Evely et al. 2006, 28). A final kotselle was installed about mid-way along the east

⁵⁹ As will be observed throughout this chapter, pithoi or other storage installations are common features in open courtyards (see also chapter six). While the storage of dry commodities outdoors may seem impractical, this need not have occurred on a permanent basis; perhaps grain or wine was transferred outdoors for feasting activities. It is also possible that these pithoi served an industrial function, although there is no clear evidence for this. Lastly, at least some of these may have been sheltered by roofs, as in the case of the Phase 3 and 4 architecture in the Northeastern Lower Town at Tiryns, where kotselles are recorded in a courtyard.

wall of room 3, although this one was poorly preserved. Clustered beside this bin were two fired vats, which also served a storage function. In this case, one of the vats was used to store over 120 clay spools, an arrangement that is paralleled in the storerooms of Kynos Oikos 10. The finding of two other biconical clay whorls and four steatite conical “buttons”, here interpreted as spindle whorls,⁶⁰ shows that spinning and weaving is likely to have taken place in the same space (perhaps the rectangular installation served as a receptacle for wool?).

Most of the ceramics from this room were found directly overlying the floor and there is only indirect evidence for an upper story. In fact, an upper story overlying the room would be unexpected given the large size of the hearth and difficulties in ventilation such an arrangement would pose. The floor deposit consisted of three large hydrias, two jugs, and one undecorated dipper jug, a shape apparently used for scooping. The few vessels that appear fragmented (two amphorae, a hydria, and a transport stirrup jar) cluster along the south wall, raising two possibilities: either the upper floor extended partly over room 3, or these were stored on a shelf along the south wall. Certainly the general character of these vases (large closed shapes) is perfectly at home in this kitchen context. The large transport stirrup jar is an interesting example of the continued mainland production of this shape well into LH IIIC. Two semi-globular cups and a kylix were preserved in fragmentary condition and their original position cannot be reconstructed (although one cup is nearly complete and thus probably originally was

⁶⁰ As discussed in chapter six, the identification of spindle whorls from other classes of sundry objects including large beads and “buttons” (more likely used as weights on decorative fringes rather than as elements for closing articles of clothing as the name would suggest), is problematic. It is clear from their shape and weight that most of the Xeropolis artifacts catalogued as steatite buttons are in fact spindle whorls.

found on the floor). A small amphoriskos and an askos were found along the north wall alongside the other storage vessels/stowed materials. Notably, the askos was filled with 25 cone shells (*Conus mediterraneus*) (Reese 2006, CD-20). These must have been intentionally collected and stored carefully away at the time of destruction. Similar hoarding of cone shells is observed at a number of Late Bronze Age sites throughout the Aegean. Sometimes the cones are pierced or filled with lead, but often they are simply collected as raw shells (Reese 1983). Given the fact that they are often ground down on one end, suggests intentional working, rather than food consumption, however there is no clear function or meaning behind them.

As mentioned previously, room 3 communicates directly with room 4, a compact storage space featuring a central post that hints at an upper story since it would have been otherwise unnecessary for roofing such a small space (Evely 2006, 30-33). The eastern half of this room was found filled with six kotselles ranging in size from 0.40-0.85 m in diameter (LEF 685, 68, 82).⁶¹ Clearly fallen into these kotselles from above in a near linear fashion was a row of heavy clay torus weights (1.000-1.200 kg). The discovery of these weights fallen from above and in a linear arrangement leaves little doubt that they were erected on a loom situated on the upper story at the moment of destruction. The discovery of several spools (one on the floor and four in the fill) suggests a second loom producing another type of cloth was also in use here. During the destruction a single weight appears to have broken loose from its thread and rolled to the west side of the room, where it was recovered by the excavators wedged behind a pithos. This pithos was placed in the

⁶¹ In the final publication only five kotselles are mentioned. The sixth, although not included on the plan in the daybook, was measured by the excavators and its diameter is recorded in the notebook for the square. The six diameters recorded are: 0.52 m, 0.85 m, 0.59 m, 0.44 m, 0.76 m, and 0.40 m.

northwest corner of the room and grain was found spilled out around its base (what kind of grain is not specified). In addition to these bulk storage installations, four fired clay vats were also found in the storage room. Three were stacked to the south of the pithos along the west wall and one was positioned to the north of the kotselles along the south wall. This latter may have fallen from a shelf above the kotselles, as a number of other fallen vessels here attest.

Ceramic vessels were recovered alongside each of the three walls, suggesting shelves/pegs were placed at least along the east and south walls. Along the east wall was found a lip band semi-globular cup and a scoop, as well as a tripod with deteriorated legs attesting to a long use life. Along the south wall were found two one-handled cooking pots, one two-handled cooking pot, and at least one lip-band semi-globular cup. Two whetstones, with grooves attesting to their use for sharpening blades (likely knives), may also have fallen from this shelf. On the west side the evidence for a shelf is less clear, although a lip-band semi-globular cup was also fallen in the fill here, making such a reconstruction plausible. The distribution of the cups leaves little doubt that they functioned as scoops for the large storage vessels, while a scoop found along the east wall is also suitable for this function, and it is interesting to note its pairing with the tripod found here. The scoop, with its extended handle, would have been much more appropriate for the transfer of hot liquids without fear of burning one's fingers, while the cups, with their small handles, were appropriate for handling dry goods. The only other ceramic finds in this space were an intact lid and straight-sided alabastron. The decoration of evenly spaced medium bands leaves little doubt these are a matched set. The diameter of the lid (0.09 m) would have comfortably fit over the opening of the alabastron, which

appears to be about 0.07 m in diameter although it is only partially preserved and may have been slightly wider originally. This item may have been stored on a shelf along the west wall, or have fallen from the room above, along with the torus weights.

Few other finds were recovered from the room. Most notable is a quern and an associated rubbing stone found in the southeast quadrant of the room. The excavators suggest this may have been intentionally left open as a workspace, although it seems more likely to me that these items were stored away, as this dark, crowded storage space is unlikely to have been a viable workspace, and the placement of a quern by the main hearth in the kitchen demonstrates that the work of grinding grain was generally performed elsewhere.

Rooms 5 and 7 seem to have functioned similarly to 4 and may have represented expanded storage requirements needed during the expansion of the house in Phase 1b (Evely et al. 2006, 36-38). Both have evidence for kotselles, two (possibly three) in room 5 and one (possibly two) in room 7. The latter has only had a very small portion excavated and its function is, therefore, difficult to ascertain. Like other storerooms, it also featured a one-handled cooking pot, but uniquely it also featured a linear mug, a shape frequently associated with communal dining in the post-palatial period. It is not impossible that this is fallen from a domestic space above. Between rooms 5 and 7 a narrow corridor, just over a meter wide, may have housed a wooden staircase descending from the upper story, although the incomplete state of excavation along the east edge of the house makes a certain identification impossible. In addition to the two kotselles in room 5, a quern and poulder were again located in the southeast quadrant, replicating on a smaller scale the arrangement of room 4. At least one hydria and two jugs (one neck-handled) were in the

room at the time of the destruction. A twisted-handle amphora is fragmentary and likely fell from above (Evely et al. 2006, pl. 20.4). Interestingly, there is reference to fragments of a transport stirrup jar found in the fill of room 5. It is very tempting to connect these with the fragmentary transport stirrup jar found in room 3 (Evely et al. 2006, 29, P16 [66/P154]). If so a room above 5 may have stored some liquid storage vessels. Two other stirrup jars of normal type were stolen by unknown culprits during the excavation (and, therefore, were probably [near-] complete). These were both found along the west wall, but one was fallen into a kotselle, showing that they, too, may have originated from an overlying space. An undecorated carinated cup without the usual high-swung handle was found, which must have served as a scoop. Two additional cooking pots were fragmentary and uncatalogued, but follow the pattern of other storage spaces.

Room 5 also contained an abundance of textile equipment (Evely et al. 2006, 36). Unfortunately, the documentation of this equipment is somewhat lacking. At least some of the spools (around 40) appear to have formed a scatter – perhaps originally stored in a basket that spilled in the destruction? Other spools may have fallen from above and demonstrate further that looms were in use at the time of destruction. These include spools found fallen into one of the kotselles alongside the aforementioned stirrup jar. Several other spools were found in the lower body of a hydria that may have been reused to house them. These were poorly preserved and only four could be documented, but it is likely that the reused vessel originally held many more. The excavators also found four “buttons” in the fill of the room, all conical in shape and made of steatite – more plausibly interpreted as spindle whorls. These may also have fallen from above. Likewise, an ivory “button” could also plausibly have been a spindle whorl (Evely et al. 2006, pl. 95.3), and

in fact it closely parallels ivory spindles with whorls found at Perati (Iakovides 1978, figs. 96 and 117). This raises interesting questions concerning the status of the workers of the distaffs and looms.

Room 6 (Evely et al. 2006, 38-39), although incompletely excavated, seems to have served a different function. Little evidence of any function was preserved from the basement, however. Rich finds collapsed into the fill of the room, attesting to mixed activities above it, both complementing and extending the function of the adjacent upper floor space documented in the collapsed debris over room 5. Most notable are the decayed remains in the fill of what is plausibly interpreted as a kotselle. Another kotselle, likely originating from this room had fallen into the court to the west. The fill also contained carbonized figs and olives that attest to the materials stored in these kotselles (Evely et al. 2006, 38-39, pl. 103.1-2). It is notable that these were stored on an upper story: perhaps because the commodities they held were susceptible to rot in the damp cool basements or perhaps because the figs and olives were dried on a flat roof.⁶² A single conical kylix also appears to have fallen from above; the only evidence for dining equipment found in the entire household. An additional stone “button” and an ovoid loom weight connect at least some of the fallen remains with those found in room 5. Taken together the evidence suggests a multi-functional upper space where active weaving and spinning was taking place.

The East House offers good evidence for the arrangement of space in a post-palatial household. An entranceway off the main street provided access into the residence, which incorporated an enclosed courtyard. As at Tiryns, there is some evidence, although

⁶² I thank Sarah Morris for this suggestion.

regrettably this space is not completely excavated, to suggest that this courtyard was used for dining. Prepared food may have been brought out here from kitchen room 3, where other dishes were still in preparation. An upper story over storerooms 4, 5, 7 and room 6 supported weaving activities, but also storage of liquids and perhaps perishable or fresh produce (figs and olives). These upper story rooms were better lit, as is clear from the upper mudbrick wall collapsed into the street to the south of this house, which preserves the outline of a window measuring 1.00 x 0.75 m and opening onto the room above storeroom 4 (Evely et al. 2006, 40). Regrettably, little of the dining ware from this household was recovered. This may have been in use in courtyard room 2 at the time of destruction or stored above room 6, where it may yet be found. Only further excavation can verify this. Certainly the number of cooking pots recovered from this household and its large storage capacity suggest the potential to feed an extended group of individuals.

LH IIIC Early 2: West House

The preserved portion of the West House was similar in layout to the East House (figure 4.5). It consisted of a non-axial agglutinated arrangement of rooms. These again were semi-subterranean basements. Two of these communicated at the time of the destruction (rooms 10 and 11), while an earlier connection with room 9 had been blocked off and a bathtub set in front of it. Four rooms can be confidently assigned to the household and it is possible that the household continued to the west, perhaps featuring an entrance similar to that of its neighbor. The relationship between this household and the street to its south is unclear, as this area above the street here remains unexcavated due to later architectural remains. The continuation of the mudbrick façade collapsed into the street

to the south suggests that it too had an upper story, evidence for which is found in the basement rooms themselves.

The communication rooms 10 and 11 naturally call to mind the arrangement of rooms 3 and 4 of the East House. Indeed, there is every reason to believe that they functioned in a similar manner. Room 11 with a centrally placed hearth is readily interpreted as a kitchen, with room 10 fulfilling the function of an associated storeroom, or perhaps more accurately, a walk-in pantry. In its final form, the hearth in room 11 was about 1.50 x 1.00 m in diameter, remarkably similar to that in the East House. In place of the rectangular clay installation seen in room 3, room 11 had a fired clay bath placed against its east wall. This may have served for bathing, short-term storage of cereals awaiting processing, or some other industrial function perhaps associated with cloth manufacture. Additional storage was provided by three kotselles: one placed approximately mid-way along the north wall, a second in the southeast corner of the room, and a final one in approximately mid-way along the west wall, which toppled onto a wickerwork mat or basket during the destruction. No macrobotanicals are reported in association with these. A very large fired clay vat completed the series of mid-wall storage vessels on the south.

Small finds included at least four stone pounders/rubbing stones, likely for food preparation, although no quern was found in this kitchen at the time of destruction. Similar stone tools were also found built into the substrate of the various hearths indicating continuity in the use of the space. Also in the substrate were two clay spindle whorls (one with painted decoration) and one stone spindle whorl. While no spindle whorls are recorded from the destruction levels or fills, other weaving equipment was

present in the form of clay spools. These were found adjacent to the kotselles along the north wall and in the southeast corner. Their positioning may be due to their storage in baskets against the wall or on shelves, as recorded at Kynos and in the East House. Or perhaps they fell from above where they were in use. In either case it is clear based on their poor preservation that they were not fully fired in the destruction. A bronze sickle, a bronze point (or possibly a spear-butt/*sauroter*?), and three bronze shaft fragments formed a small collection, likely fallen from the upper story as well. The only other find of note is a stone door pivot, found in the bath, clearly fallen from above and indicating at least some division of the upper space.

The ceramic assemblage of kitchen room 11 is the quotidian ware one would expect from such a space. Four two-handled cooking pots gave ample evidence for cooking. Two appear to have fallen from a shelf on the north wall and two from a similar shelf on the south wall. A lip-band semi-globular cup also found on the floor may likewise have fallen from the south, where it would have served as a scoop. A fragmentary scoop mentioned in the fill, but not catalogued, may have transferred contents from the cooking pots (Evely et al. 2006, 16). A small amphoriskos may belong to this room, as it was found on the floor. Three monochrome deep bowls appear to have fallen from above, however, as demonstrated by the presence of one in the bathtub with the door pivot. This is strengthened by the presence of additional deep bowls in the fill of the adjacent room. Two semi-globular cups, one lip-banded and one plain were found higher up in the fill in association with the bowls and may have fallen from above as well.

Pantry room 10 featured at least two kotselles and one large ceramic vat set between them, all along the south wall. Pithos sherds marked on figure 1.9 of the *Lefkandi*

IV publication indicate the likelihood of an in situ vessel along the north wall. Three querns, missing from kitchen room 11, were found in a jumble in the southeast corner where they were clearly in storage. These may have originally been stored on a shelf, since at least one was recorded higher up in the fill, while another was on the floor. The tight concentration of their findspots suggests their original storage was as a group. At least one rubbing stone/pounder was found in associated with them. A bronze knife may be associated with this room – certainly a knife would be useful in a kitchen context (as further suggested by the whetstones found in kitchen room 3). Other bronze fragments may derive from the cluster of such items fallen from above and partially collected near the doorway in room 11. A clay whorl and stone “button” attest to spinning, perhaps in the room above.

The pottery assemblage of this room is again difficult to sort out. Some pieces can be grouped together based on other parallels nonetheless. A complete amphora and three fragmentary hydrias attest to liquid storage, although it is unclear whether these were placed on a shelf along the north wall, or in an upper story room. At least one lip-band semi-globular cup seems to have originated from the room and could have served as a scoop. Likewise, a dipper jug fragment found in the fill should probably be placed in the storeroom rather than with the fine ware fallen from above. At least two fragmentary conical kylikes, one carinated kylix, one complete monochrome deep bowl, an undecorated semi-globular cup, and a lip-band semi-globular cup should be placed with the upper story collapse. Fragments from a krater decorated with shell whorl may be part of this same fine ware assemblage, but apparently joining fragments were spread over a fairly wide area and its original position is difficult to state with confidence.

Room 9, the only other substantially excavated space in the West House, shows clearer evidence for an upper story collapse. A central post may also have been required to support the added load. Two kotselles in the southwest quadrant of the room provided some space for storage and this may have been supplemented by a large pithos found on the west side of the room (Evely et al. 2006, 22).⁶³ The only other feature in this room, however, was a “considerable spread of yellow clay” about 1.50 x 1.75 m (Evely et al. 2006, 22). No traces of burning were noted on its surface, so it does not appear to have functioned as a hearth, nor does its location along a wall support such a hypothesis. Indeed, the appearance of a cluster of some 57 spools directly to the east of this feature may suggest that it was a workspace for the erection of at least two looms.

The ceramic assemblage shows clear stratification of upper story collapse, although some materials may have also worked their way down during the collapse to the floor levels, as a number of the fine ware vessels were found in a fragmentary state suggesting they were broken and scattered. Indeed, many of these shapes are closely paralleled by the material fallen into storeroom 10, thus, we may again have a large multi-functional hall on the upper story combining the area of two ground floor basements. Clearly fallen from above were a series of storage vessels: two vats and a pithoid jar, to which we might also add the shattered pithos along the west wall. A similar arrangement in the East House appears to have housed figs and olives and it seems likely that a parallel function can be assumed here. A fragmentary amphora may suggest storage of liquids as well. A tripod, contrary to the excavators (Evely 2006, 23) does not necessarily imply food preparation with a hearth on an upper story, but might instead suggest dining activities.

⁶³ This may have fallen from the upper story.

The presence of another two or three large cooking pots (FS 65/66 not specified) and two small-sized one-handled cooking pots (perhaps for condiments), likely also fallen from above, suggest dining may have even been ongoing at the time of the destruction. Certainly the copious amounts of fragmented fine wares also fallen from above suggest such a use for this space. These fine wares were found scattered throughout the eastern half of the room, especially concentrated in the southeast quadrant. This deposit included at least four deep bowls (three monochrome, one linear), two large burnt krater fragments, two conical kylikes, and two semi-globular cups (one with two-handles instead of the usual one). The excavators note that some fine wares were not catalogued due to their fragmentary state, but mention an additional deep bowl, two semi-globular cups, as well as another kylix. A group of closed fine ware shapes also can be associated with this upper story, including three hydrias and two jugs (one neck-handled). A miniature hydria and jug form a set that could have been located in the basement or the upper story. These were published as possible children's playthings (Evely et al. 2006, 22). A single stone whorl found in the fill supports previous indications of some spinning activity taking place on the upper story.

If the interpretation of the clay installation in room 9 as a workspace is correct, the kotselles may, in this instance, have held wool. Miniature vessels, if accepted as children's playthings, may suggest the weavers in this room were accompanied by their children (an arrangement possibly also documented in Linear B texts of the palatial period).⁶⁴ This

⁶⁴ The evidence has been nicely summarized by Chrysanthi Gallou (2010). Children receive rations and are listed as members of work groups. In most pre-industrial societies children play a productive role in the household from a young age, and it would not be surprising for Mycenaean Greece (see also Nixon 1999). Another possibility is that the pots are the products of children apprenticing as potters (e.g., Langdon 2015).

would represent a rare example of a dedicated workspace, however, and its position in a semi-subterranean basement would seem unpleasant to modern tastes. The hall seems to have had a complete dining set laid out, for it seems likely that cookware would normally have been stored in the pantry or kitchen below. It is interesting to note that there are eight monochrome deep bowls and four decorated conical kylikes, perhaps indicating the total number of diners? There are also eight semi-globular cups (although two of these are undecorated, one has two-handles, and five are lip-banded). Cups are likely to have served as scoops for transferring wine and food from the cooking pots and kraters instead. The two or three kraters would have allowed for wine and water stored in the amphora, jugs, and hydrias to be mixed. One tripod, and two pairs of large and small cooking pots would have held the prepared food.

Only a small corner of the remaining room 12 was excavated. There are indications that it may have been a small storage space similar to room 5. A pithos is noted, perhaps in the southwest corner, giving the room a width of 2.50 m. An undecorated semi-globular cup and scoop would fit a storage context. As would a small decorated amphoriskos and stirrup jar. A monochrome conical kylix must have served some function in this space – possibly as a lamp although I have been unable to personally examine this piece for traces of burning. A fragment of a deep bowl is far from complete and may be fallen from above or released from the decomposed mudbrick. A stone pounder/rubbing stone and quern constitute typical storeroom finds.

LH IIIC Early 2: South House

This house is located in the main excavation, south of the wide east-west running road 8/13 (figure 4.5). It was separated from the road by a low curb of stones that may have supported a wicker fence. At the western edge of the preserved part of the curb, the line of stones takes a turn to the southwest. This may represent a gap left to give entry into the yard surrounding the South House.

This household was barely explored and consequently little can be said about the organization of its interior, beyond the identification of this space as a typical example of a kitchen/pantry. Architecturally the room is placed at the northwest corner of the household. A possible doorway was noted in the east wall, but the positioning of three kotselles along this wall suggests that the wall was robbed out here or the doorway was sealed in the final phase. A single cooking pot is noted on the plan adjacent to the north wall (Evely et al. 2006, 41, fig. 1.17). This find would be at home in either a kitchen proper or pantry. The most interesting finds from this area, however, come from just outside. In the purported entrance to the yard, a lapis lazuli scarab was found – apparently lost by someone entering or exiting the space (Evely et al. 2006, 42; for the findspot, Evely et al. 2006, 41, fig. 1.17). Similarly, in the yard just north of the wall of the South House, a terracotta gutter was recorded (Evely et al. 2006, 42; for the findspot, Evely et al. 2006, 41, fig. 1.17). This is not illustrated in the final publication, but appears to be a complete Mycenaean rooftile. Thus, it is possible that the South House had a tiled roof. Further excavation would clarify this. It is interesting to note that additional Mycenaean roof tile fragments were recovered from the new excavations (pers. comm. Irene Lemos).

LH IIIC Early 2: Trial IV/V

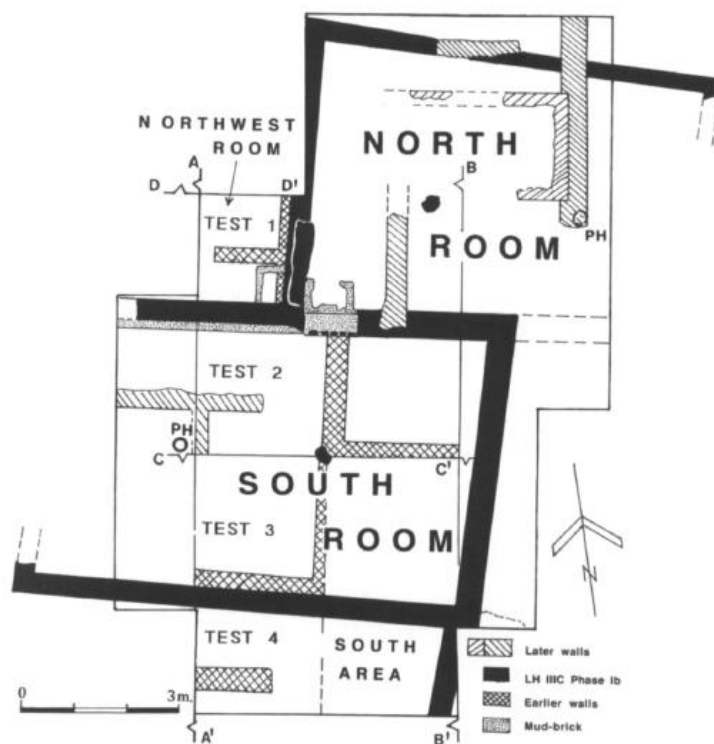


Figure 4.6: *Xeropolis, Trial IV/V, Phase 1b [black] (Evely 2006, 116, fig. 1.35).*

The architectural remains in Trial IV/V represent the largest, and architecturally most elaborate, remains from Xeropolis (figure 4.6). For this reason, I refer to it here as the Mansion. Unfortunately, they present many more questions than they answer. Although the finds do not challenge the interpretation of this structure as a house, it is certainly an atypical example. Beyond the architectural arrangement of the structure, the lack of kotselles and abundance of pithoi, in addition to the large, well-built, and rectilinear platform hearth suggest a more elaborate dwelling than the East and West Houses. Nonetheless, this household still preserves evidence for a least one industry, thus far not represented in the settlement – metalworking.

The south room of the Mansion is the most familiar in layout and function. This room was also the largest of any Phase 1b structure at Xeropolis, measuring 8.00 x 5.00

m. Such a large space required post supports in order to be roofed over. Clear evidence for two such supports was found along the central axis of the room, one evidenced by a stone-packed post hole and the other having an in situ post base. This mixture of post footings is repeated in the north room and cannot be accidental (Coulton 1988, 58). Post holes and post bases have very precise architectural functions, thus their mixture is likely to be meaningful. Post holes are deeply rooted in the soil and they are more resistant to lateral forces. Post bases are only resistant to vertical forces, but the addition of the base allows that force to be distributed more evenly, preventing the column from sinking into the earth from the weight load above. But what would be the need for a mixed system? I would suggest it is the result of a mixed roofing strategy, the post holes supporting pitched roofs that allowed smoke to be ventilated out and the post bases supporting an upper story. The distribution of finds fallen from a purported second story support this interpretation, as they clearly cluster in the area of the stone bases, with almost none found near the area of the post holes. No tiles are reported from the Mansion so far, but pitched roofs need not be tiled (Galanakis 2016, 163).

Despite its grand appearance, the most likely interpretation of this space is that it served as a kitchen, albeit a much grander version than kitchen rooms 3 and 11. An entrance through the north wall connected this room with the northwest room at the time of the destruction. A blocked doorway had once allowed some form of communication between this space and the north room, but this was impossible in the final phase, as the south room had been raised some 0.35 m above that of the neighboring north room. Two large pithoi and a pithoid jar attest storage activities in this room. One was positioned mid-way along the north wall and one approximately mid-way along the east wall. The

pithoid jar was found tipped on its side to the southeast of the hearth, near the eastern posthole. Alongside it was found a trachyte tripod mortar, almost certainly an import, and a large coarse spouted krater. The latter is sometimes associated with industrial activities, possibly even perfume manufacture (Lis 2016, 518-521). Interestingly the krater itself has a burn mark on the side opposite the spout that may suggest that it was exposed to the fire of the hearth. The only other installation in the south room is a contained area of rounded pebbles at the west end of the north wall. This concentration is similar to the foundations of kotselles elsewhere at Xeropolis and it may be that a kotselle was installed here at one point, even if dismantled prior to the destruction of the household.

The ceramic assemblage found in this room is difficult to separate between floors. The excavators relate that some material was found 0.15 to 0.30 m above the floor level. But material at this height could just as easily have fallen from shelves within the ground floor. While it seems certain that an upper story existed, I can only offer my own interpretation of the finds within. Typical of the use of this space as a kitchen is an abundance of cooking vessels: four two-handled cooking pots, ranging from small (D=0.15 m) to large (D=0.235 m), one small one-handled cooking pot (see room 9 of West House), and one tripod cooking pot. Two undecorated cups, one with a single vertical handle and one with two, could have served as scoops or serving vessels. Decorated fine wares constitute the usual dining/serving vessels: three monochrome deep bowls, an amphora, a hydria, and a rare instance of a large neck-handled jug with elaborately decorated shoulder of filled running spirals (Evely et al. 2006, pl. 27.6). This last is likely an import, emphasizing the status of this particular household. Further indication of status comes from the appearance of two rare shapes: the feeding bottle and the ring vase.

Feeding bottles are convincingly associated with child-rearing in the Bronze Age as their modern appellation suggests (Pomedère 2007). The ring vase is more unusual, as it is a shape that is normally confined to funerary contexts. A number of ring vases were found, however, in the ritual contexts at Eleon, and they may have been used to hold a valuable substance, such as perfume. These decorated fine wares may have fallen from above, since they do not form anything like a complete dining set. For instance, drinking vessels are completely absent, despite the presence of fragmentary kraters. It is tempting to connect these fine wares, with those scattered in the western portion of the north room, as will be discussed in further detail below.

The small finds from this room are equally appropriate to its function. Most notable is a near intact bronze knife with partially preserved bone handle. A similar find comes from the kitchen pantry in the West House, and whetstones from the kitchen in the East House indicate similar implements would have originally been used there. Two other bronzes appear to be from weapons or hunting equipment: a small bronze spearhead and a small blade that could have been used as a spear tip or very short dagger. Three stone conical “buttons” and a clay spindle whorl attest to spinning, alongside a single clay reel, and two bone pins/awls⁶⁵. These textile tools were found at floor level and may represent casual losses from activities on the spot or have fallen from a multi-functional space above and worked their way down in the fill.

Since the south room clearly communicated with the northwest room at the time of the destruction, it will be considered here first. Although only a tiny portion of this

⁶⁵ The function of bone pins, whether decorative or textile tool is debated and the terminology used is often unclear as to which is intended. I have erred on the side of textile equipment here, but this should be taken with a note of caution.

room has been excavated, the character strongly suggests a pantry of the type predicted by the model of rooms 3 and 4 of the East House and rooms 10 and 11 of the West House. The finds from this room include an unfired clay installation of rectangular shape in the southwest corner (0.63 x 0.42 m). The limited finds recovered include an undecorated dipper jug and a cooking pot – common finds in kitchens or their associated pantries.

The north room, much like the parallel south room, was almost entirely excavated. Its dimensions and layout are strikingly similar (7.25 x 5.00 m), featuring two posts on an axial alignment. In the north room, however, the western post rests on a stone base and the eastern post is sunk into a hole in the floor. The reason for this alteration has already been discussed above. The activities taking place in the north room superficially appear similar to those of the south room on account of the pyrotechnic installations and layout of the two spaces. A closer examination of the finds, however, calls this superficial resemblance into question and suggests that specialized tasks were taking place here.

Three large storage pithoi gave ample storage capacity to the room. One was placed along the north wall of the room, close to the northeast corner of the room. The other two pithoi were placed to the north of the west and east post respectively. No charred crop remains are associated with these pithoi. Two pyrotechnic features were noted in the room. One was located in the central position, where a hearth might be expected otherwise, and the other was occupying the southeast corner of the room. Both appear to have been enclosed ovens. The central oven measured 0.75 x 0.50 m and remains of its collapsed superstructure were found in situ. An area to the northwest of the oven was found strewn with pebbles and clay denoting a work space, or frequently trod surface, likely around the opening. No dimensions are given for the corner oven, but the

dimensions in plan are comparable to the central oven, perhaps 0.70 m square. The superstructure was, likewise, found collapsed in situ at the time of excavation. In both cases, no mention is made of any division of the chamber. Enclosed ovens cannot be directly compared to the normal open hearths located in kitchens or outdoor spaces. Even if used for preparing food, it would have been of an entirely different character than that prepared on an open flame. I argue that a similar oven at Kynos was used for baking bread. That oven had an internal shelf for placing the bread that distinguishes it from the two present examples, nonetheless the presence of pithoi in the room leaves open the possibility. More convincing is the discovery on the floor of this room of three crucible fragments “for copper/bronze” noted in the catalogue of finds, but not discussed further (Evely et al. 2006, 120). These provide the most convincing evidence for metal working at a post-palatial site and furthermore may indicate that this was a controlled or elite monitored industry. A fragmentary stone hammer found on the floor may represent a discarded tool for working metal. The only other small finds from this room, nine terracotta spools and a clay spindle whorl, again indicate small-scale textile production. These may have been localized on the upper story.

The ceramic finds from this room, despite its large size, are relatively few. Only a handmade burnished cup with impressed decorative band is convincingly assigned to the ground floor. This was found against the west wall near the opening to the corner oven. A single cooking pot fragment is recorded as having fallen from an upper story. The rest of the ceramic assemblage consists of decorated fine ware that could have also fallen from the upper story and complements the finds from the south room in such a manner that this is likely. The open shapes consist of three deep bowls (two monochrome and one

decorated with antithetic spirals), a spouted basin, a kylix, and krater fragments. Closed shapes include two amphoriskoi (one small and one medium sized), a feeding bottle, and a rim-handled jug. This last has an incised, post-firing, mark on its handle (Evely et al. 2006, pl.26.6). Such marks are common at post-palatial Tiryns and invariably associated with foreign imports. This vessel is likely to have passed through the hands of a merchantman who marked the vessel before it came to Xeropolis (see Hirschfeld 2001). It is clear from the lack of cooking pots found in this room that it emphatically did not serve as a kitchen for the preparation of the local cuisine. The evidence suggests that at least one oven was used in metal working, the other may have served as a bread oven, or also been used for metal working. The presence of metal working in the settlement may be derided as too noisy or too smelly, but metal working is found in intramural settlements elsewhere (see Aigeira, Tiryns).⁶⁶

The space south of the south room was only cursorily explored. It seems to have been bounded by a wall on the east. A floor level produced few finds. A tripod mortar that was lost before study, a partially preserved handmade jar, and an example of a *pyraunos*/firebox – a type of portable hearth, suggests food preparation of a specialized type. It is tempting to think this may have been an open courtyard, but this is purely speculative.

The Mansion in Trial IV/V can be interpreted as a wealthy residence. It is distinguished in four ways from other households of contemporary date. First, it contains a high concentration of imported materials. At least two ceramic vessels are likely imported, a tripod trachyte grindstone may come from Cyprus, and obsidian from both

⁶⁶ The situation is comparable for the first millennium BCE, where the ideal situation of separating craft noisy/smelly activities from domestic areas, was rarely adhered to (see Sanidas 2013).

the north and south rooms was likely imported from Melos. While these may all seem relatively humble, the fact that they came from so far suggests that cost was not prohibitive in their acquisition, rather they were chosen for particular qualitative reasons. Second, the household in Trial IV/V is clearly distinguished architecturally from other houses in the settlement. Not only are the rooms larger, but they make use of central posts to roof the spaces in innovative and structurally complex ways, suggesting an experienced architect executed the design. Thirdly, the ceramic repertoire contains three shapes, the feeding bottle, the ring vase, and the pyraunos that are rare or unique within the excavated settlement. Finally, the appearance of a metal workshop may suggest attached craftspeople specializing in a particularly valuable and possibly even controlled industry. If also a bakery of sorts, this would mark two specialized industries. It is notable in this light to consider the handmade burnished cup in this space. Stockhammer has presented evidence to suggest a low status for the individuals associated with this ware (2011, 228-236), but it could equally just be a marker of ethnicity. It seems possible that we have evidence for foreign craftspeople/slaves living and working in this household; which could then actually make them a potential marker of wealth.

LH IIIC Middle 1: North House

In total area, the North House is the largest household of any phase extensively excavated at Xeropolis (figure 4.7). Nine definite rooms have been explored. While a large space to the west may have been an open court. To the south, the house was bounded by a road (8/9), running east-west along the same line as its predecessor (8/13). Four rooms (1, 2, 4, and 7) communicate through the highly connected Room 2. Two other rooms, 10 and

11 communicate with each other, but show no obvious connection with the others. Hypothesized Room 6a may have communicated with Room 7, but all its walls have been robbed away by later builders. Only Rooms 5 and 12 show no evidence for any entrance or exit, although neither has been fully explored and thus, they may have yet had such openings farther east. The deposits making up the Phase 2a deposits are throughout rather thin and confused. In many instances frequent floor maintenance is attested. A fire destruction marks a break between Phase 2a and Phase 2b, but the reuse of most of the walls suggests a quick rebuild and reuse of the space. As far as can be observed, the general layout is similar to the previous households, if on a larger scale. The interconnectivity of ground floor rooms may support the idea of a reduced or eliminated upper story (Evely 2006, 46).

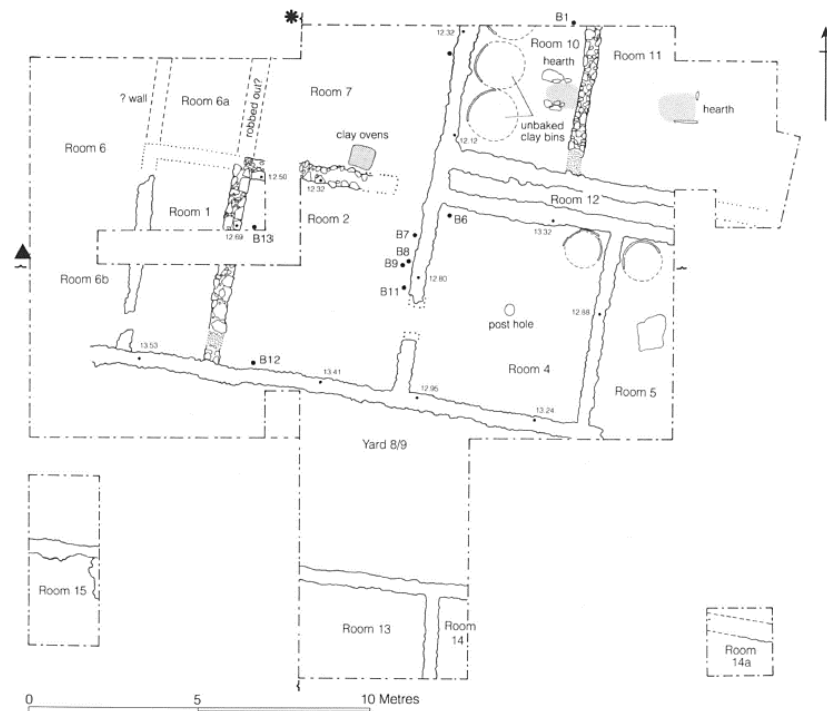


Figure 4.7: Xeropolis, Main Excavation, Phase 2a architecture (Evely 2006, 45, fig. 1.19).

Rooms 1, 2, and 4 were arranged in an axial alignment reminiscent of the megaron style households attested elsewhere. A typical arrangement of ante-room, main hall, and storeroom is expected by the architectural syntax and the finds actually conform to this model in such a reliable fashion as to confirm the architect's intent. Room 1 almost certainly communicated with the open space to the west designated Room 6/6b. This would then, most likely, have served as a large courtyard, from which the household was entered. Stone robbers removed stones from the north end of the west wall of Room 1, and this might suggest a large slab, such as a threshold, was removed here. It is equally possible that the entrance was at the damaged south end of the west wall, however, and the matter cannot be resolved with the available evidence. The function of Room 1 as an antechamber is well-attested by its almost utter lack of finds, despite conditions favorable to their preservation (Evely et al. 2006, 49). Only mendable sherds of a pithos were recovered, the rest of which likely remains in the unexcavated bulk. One burial of a 30 year-old female was placed along the west wall. In the southeast corner of the room a well-built entrance with stone slab threshold led from Room 1 into Room 2.

As noted above, Room 2 was the most connected space in the whole household. Its finds confirm that it played a key role within the household, likely serving as the main hall. The positioning of this space, traditionally located in Phase 1b on an upper story, supports a shift to single-story architecture. A central concentration of ash was interpreted as the remains of a post or hearth. The lack of any mention of sherds or clay supporting the ash, as is typical of post-palatial hearths, suggests the former. The parallel construction of Room 4 supports this interpretation. Indeed, the large size of this space (5.60 x 5.10 m), likely obviated the need for shoring. Indeed, additional post holes were

recorded in the southern corners of the room, suggesting a coherent program of strengthening. The latter may also have supported some form of shelving, since many ceramics were found fallen, particularly in the southwest corner of the room. Along the north wall a kotselle and pithos were positioned, providing some storage. A small kotselle is also noted on the plan along the south wall, but not discussed. A storage jar, perhaps a pithoid jar, was found in the western part of the room. Most interesting, however, is the clear localization of burials in this space. Two burials are assigned to this phase with confidence and another five likely belong to this phase.⁶⁷ Given the fact that this was a preferred burial spot suggests its prominent function in the household as a whole. These burials include children, an adolescent female, and a fully grown male. Thus, there seem to have been no restrictions on who was buried within. It seems likely that the burials represent household members, although no testing has been conducted to confirm this.

The centrality of this room is underscored by the ceramic assemblage found fallen in its destruction debris. The deposit comprises a uniform dining assemblage, of the type represented fallen from upstairs halls elsewhere on the site. Only two of these vessels were coarse ware: a single two-handled cooking pot was recovered almost intact along the south wall, while a dipper jug was recorded near the central post. Two twisted-handle amphoras were found in association with the pithoid jar and a third is recorded near the pithos and clay bin along the north wall. These are quite large (H=0.50 m) and could have each held between 40-50 L of liquid. Other closed shapes include a small amphoriskos

⁶⁷ Intramural burials are rare in post-palatial settlements and there is nothing exactly comparable to the situation at Phase 2 Xeropolis. A few cist graves are found inside the city walls of Mycenae that may date to LH IIIC Late, but it remains unclear whether there were still households in this area (French 2011, 7, 9, fig. 4). Other human remains, such as those buried in the Nordwestareal in the Lower Citadel at Tiryns during LH IIIC Early, seem to be part of the clean-up effort following the palatial destructions (Avila et al. 1980, 7-8; Maran 2008, 61-65).

and a rim-handled jug. A hydria is mentioned, but was not catalogued or illustrated. Open shapes focus on drinking equipment. Six kylikes were catalogued and a seventh is mentioned, but was not catalogued. One of these kylikes was elaborately decorated with concentric semi-circles and wavy lines. These were tightly concentrated immediately inside the southwest doorway leading from Room 1, suggesting they were all stored on a shelf together. A complete profile of a krater was found as well. This marks a rare instance of an in situ find



Figure 4.8: Pictorial krater showing feasting equipment and textile (drawing: Evely 2006, pl. 71; photo: T. Van Damme; scale in cm).

of this shape at Xeropolis. At least two other kraters, however, had large mendable sections and may also represent finds from the room, or at least attest to the long history of the room as a venue for drinking activities. These include the Xeropolis krater with a warrior depicted on it and a bull's head handle, as well as a second krater with a banqueter

receiving or distributing a piece of cloth (figure 4.8).⁶⁸ A single example of a deep bowl decorated with antithetic streamers and a linear cup round out the assemblage. These may have held food and served as a scoop respectively.

Small finds from the room reinforce the idea that this space served as the main hall of the household. Two stone pounders/subbing stones may stem from food preparation activities, although food preparation was not occurring there at the time of the destruction. A serpentine weight represents a rare find, but one paralleled by a similar weight found by Schliemann in the Granary at Mycenae (Schliemann 1878, 100, no. 155). Many of the remaining small finds attest textile production. Three spools were found in the northwest corner of the room, unfortunately most of the area around them consists of unexcavated baulk, so it cannot be properly assessed whether this was a complete in situ loom. Three stone “buttons” and two biconical clay whorls (one with impressed decoration) provide evidence for spinning. Two bone pins and one bone awl may also have been used in textile manufacture. The impression one gains is, once again, that of a large multi-functional hall. Perhaps it was used for hosting visitors, but also as a locus of textile production on a daily basis.

In the final publication, a few finds in the room are assigned to an earlier fill, yet these finds are consistent with the later material they reinforce the continuous use of this space. The final publication leaves open the possibility that these finds may be contemporary with the overlying deposit, however, and this suggestion may in fact be

⁶⁸ The banqueting context is denoted by the presence of a nested kylix and krater next to the seated individual’s foot. Scenes of humans offering cloth to apparently divine figures have been identified in a number of Aegean wall-paintings from Crete and the Cyclades, including the Procession Fresco at the Palace of Knossos (S.P. Murray 2016, 57-58), the Presentation Scene from the Pillar Crypt at Phylakopi on Melos (S.P. Murray 2016, 62-63), or the male figure bearing an offering(?) of cloth from Xeste 3 at Akrotiri on Thera (S.P. Murray 2016, 63). In all cases these seem to be either offerings to a deity or garments for dressing a cult image.

preferable (Evely et al. 2006, 51). In favor of this are the large fragments of additional decorated kraters: a small krater decorated with streamers and birds, a large fragment of a krater decorated with a nursing sphinx, and a fragment with a martial scene. A further fragmentary krater was catalogued, with panel and likely antithetic streamers. Other near complete vessels include an amphoriskos, a monochrome carinated cup, a pithoid jar, and a large two-handled cooking pot. Two additional stone “buttons,” a further bone pin, and a very large bone tool augment the textile equipment. A small stone polisher represents a stray find, as does a clay bead (or is this a spindle whorl too?). A stone quern is mentioned but not catalogued, although this would pair well with the pounders mentioned above.

A door in the southeast corner, provided with a stone threshold, gave access into the rear chamber, Room 4. Few in situ finds are recorded in this room. The phase plan shows a central post and a kotselle in the northeast corner. Neither of these are mentioned in the text. The ceramics are equally unhelpful, since few mendable fragments were found. It is hard to know if any of these are representative of actual use or whether these are just fill released in the destruction, or underlying or embedded in the floor. An undecorated scoop and a linear cup represent typical storage space finds. A fragment of a deep bowl with antithetic streamers and a miniature monochrome deep bowl (similar to those from the Granary) offer little help. Four stone “buttons” and two conical clay whorls suggest spinning, and this picture is again reinforced by 12 clay spools for weaving. Two querns may have been used opportunistically in the main hall. As many of these finds replicate those in the main hall it is conceivable that it served as a storeroom where weaving equipment, grindstones, and other material could be stored when not in use. A single burial of an infant under three was placed in the northwest corner.

The final room communicating with Room 2 was Room 7 to the north. A door through the north wall of Room 2, near the northeast corner gave access. Room 7 had a complicated continuous relaying of its floors. Its function seems continuous, however, as numerous installations for storage and pyrotechnic installations were successively constructed and dismantled (Evely et al. 2006, 58). After a short-lived hearth, an oven was established, first in the northwest corner and later along the south wall (although this may only have been installed in the next phase of the household). Storage installations at various times may have included kotselles and pithoi, although none seem to have been well preserved. A single burial was placed along the east wall, containing an eight or nine year-old child (Evely et al. 2006, 58).

The finds from the room are somewhat minimal, but include a fair number of large pithoi fragments (Evely et al. 2006, 58). One can imagine that in situ pithoi may have been reclaimed during the rebuilding of the house in Phase 2b, so perhaps it is unsurprising that the room was mostly cleaned out. There are a number of parallels with the north room in Trial IV/V, however, and it may be that similar types of activities took place here. A crucible fragment found in this room is described as “not in situ”, but could again attest to metal working.⁶⁹ Additionally, a stone mold for a bronze tool was found in this area and assigned to Phase 1b, but its position is unclear (Evely et al. 2006, 29-39, no. 48). Another option is bread making, here we have more robust evidence from at least four saddle querns and a pounder. A scoop and linear cup found more or less complete would function well as scoops. A large collar-necked jar and a medium-sized amphora

⁶⁹ The fact that this room appears to have been reworked in the following Phase 2b suggests the finds may have been cleared out. The discovery of over six fragments of other copper/bronze working crucibles in the street to the south of this household may, therefore, originally derive from this space (Evely et al. 2006, 48).

with a scroll decoration would allow water to be brought and stored here. Interesting are three miniature vessels, an amphora and two juglets, all less than 0.10 m high. Elsewhere these have been associated with children, and their function here may have been similar. The replication of the larger closed shapes may even suggest training a young child. Two or three spools and two clay whorls are likely stray finds, perhaps detritus from the adjacent space. The same applies to two broken bone tools.

To the west of the main megaron unit lies a large space. Parts of this area were badly disturbed by later stone robbing and the architectural arrangement is unclear. Here the spaces in question – Rooms 6, 6a, and 6b – are addressed as a single area. The clearest evidence for the function of this space comes from the northwest quadrant, Room 6. The layered structure of the floor suggests frequent maintenance of this space. An accumulation of collapsed, burnt debris along the east side is indicative of the collapsed west façade of the North House (Evely 2006, 55), but the lack of such debris, combined with evidence for introduced fill to the west (Evely 2006, 56), indicates that this was an open space at the time of the Phase 2a destruction. A purported north wall to Room 6b is likely to have functioned as a projecting anta, giving the structure a more monumental façade.

The material found scattered throughout this space supports this interpretation. While a number of partially mendable shapes were found here, they are far from complete. This may suggest two functions for this space: a rubbish heap or a dining space. The former may at first appear more popular given the exterior location, but several features contradict this interpretation. Not a single fragment of mendable coarse ware was identified in these deposits, something which would be unexpected in casual rubbish

heaps. Furthermore, the floor of the space was carefully curated with introduced clays; this would suggest that far from heaping trash here, the space was kept tidy and open. An enclosed courtyard to the west of the North House would, however, provide access from the street and give access into the main hall. In good weather, dining could be carried out in the court rather than in the enclosed main hall (Room 2). Vessels broken during these events may have become embedded in the floor between successive refurbishments. The repertoire of fine ware shapes consists of amphoriskoi, hydriae, jugs, and a rare example of a ring vase. Open decorated fine wares include conical kylikes (one patterned), deep bowls, kraters (some pictorial fragments), a linear cup, and rare fragments of trays and kalathoi.

Although a lack of cookware suggests an emphasis on drinking, it may simply be that cooking pots were unlikely to be broken, being both stronger and unlikely to be moved around much during the festivities. The adjacent Room 6a produced two querns and a pounder in disturbed contexts, but these may have allowed food to be prepared outside.

The small finds are also functionally similar to Room 2. At least five clay spools, two stone “buttons,” and a clay whorl may indicate spinning and weaving took place here. The frequent relaying of the surface, however, leaves open the possibility that these finds were introduced in fills or as rubbish.

Despite the abundant evidence for dining in the courtyard (Room 6, 6a, and 6b) and main hall (Room 2), there is still no evidence for a formal kitchen space in the rooms discussed so far. Room 7 obviously had a more specialized function in its final phase, focusing on metal working or bread baking. Rooms 10 and 11 fulfilled the requirement of

a formal kitchen and pantry on the Xeropolis model. Thus, although the excavators were tentative in the assignment of these spaces to the North House, it seems likely that they had been laid out prior to the Phase 2a destruction. Perhaps Rooms 7 and 6a had originally been organized similarly, but in a renovation, the North House was expanded to the east and a new kitchen was established when Room 7 was given over to a more specialized function.

Neither of these rooms was fully excavated and Room 11 in particular was poorly preserved compared to the southern part of the household, due to a large Sub-protogeometric intrusion disturbing most of the central portion of the room, and to the robbing of the south wall for stones. Despite this, the organization of the space and a few small finds, leave little doubt that this was a typical, if well-built kitchen space. In the center a carefully constructed clay hearth recalls that of the mansion in Trial IV/V. Kotselles are attested along the south wall, and possibly an additional one was constructed later in the northwest (D=0.80 m). Because of the frequent floor maintenance it is difficult to assess what was actually in use at the time of destruction. The few ceramic finds seem likely to be fills or releases from mud-brick and not necessarily indicative of function. Two querns, a stone tripod mortar fragment, and two whetstones demonstrate that typical food preparation activities took place here throughout the use of the space. Six clay reels and a bone awl may attest to occasional use for weaving, or possibly just the storage of weaving equipment attested elsewhere.

Room 11, a kitchen, communicated with a typical pantry room, Room 10, through a narrow doorway in its southwest corner. This pantry follows the typical pattern at Xeropolis, being packed with at least three medium- to large-sized kotselles along the

west wall (D=0.50-0.70 m). A rather unusually placed hearth, some 0.75 m square, was loosely demarcated by fieldstones and positioned against the east wall. This seems not only impractical, but difficult to imagine functioning in any practical way in such a small space. Perhaps the ash here was the remains of a wooden shelving unit or crate? Small finds consisted of the usual mix of domestic implements: six stone querns, two whetstones, and a very rare example of an iron knife demonstrating food preparation artifacts were stored here. Numerous clay spoons (over seven total), a clay spindle whorl, and bone pins, points, and awls demonstrate textile equipment was stored here in the usual fashion as well. The iron knife demonstrates the elite status of this household's occupants, as does the imported tripod mortar, both likely imports (Evely 2006, 308). The finds are most comparable to those from the mansion in Trial IV/V and may attest to the increasing prosperity of this particular family.

A single burial was found along the east wall in the northeast corner of the room. This burial was a woman over 35 years old at death, accompanied by a shaped stone artifact and a large clay spoon, in addition to a possible copper bead.

Two other rooms make up the southeast corner of the household, Rooms 5 and 12. Neither of these are fully excavated and therefore their arrangement and function is unclear. Room 12 is only 0.75 m wide and separates the kitchen and pantry (Rooms 10 and 11) from Rooms 4 and 5. There is no evidence for openings off of this space, as would be expected of a long, narrow corridor. It is possible, therefore, that this space served as a lightwell, allowing for greater circulation of air in this dense cluster of rooms.

Whether Room 5 existed in Phase 2a is unclear. This room, like Room 11 to the north, was badly disturbed by Sub-protogeometric pitting. Few finds can be placed with

confidence. A kotselle is placed in the northwest corner of the room in the phase plan, but not mentioned in the text (Evely et al. 2006, 45, fig. 1.19). A whetstone, a spool, and a kylix fragment could be debris or finds from another kitchen unit. In the latter case, this is unlikely to belong to the same household. A possible child's burial of this phase was mixed with the intrusive pits.

The North House of the Phase 2a settlement was a large and apparently well-to-do household. The presence of rare pottery types (ring vase, kalathos, and tray) and rare items (tripod mortar and iron knife) indicate a prominent social class. The household itself is architecturally elaborate and presents an interesting mixture of a megaron and agglutinated plan. The appearance of potential metal working activities, once again in association with an elite residence is noteworthy. The distribution of burials within the household is also worthy of consideration. There was a clear preference for burial in the main hall of the house, Room 2. Those in Room 1 and 4 may represent a similar desire for burial within the main megaron. The interpretation of additional burials, located in rooms that clearly functioned as storerooms (Room 11) or even workspaces (Room 7), is more complicated. These burials had simple grave goods consisting in both instances of stone pendants. In addition, the elderly woman in the storeroom was buried with a spool. Could these burials represent household slaves? Buried in the areas where they worked? Was the child buried in room 7 the former owner or maker of the miniature vessels? The answers to these questions may one day be answered through DNA analysis of the skeletal material from these burials.

LH IIIC Middle 1: South House

One or more houses existed to the south of street 8/9 (figure 4.8). Little of this area was fully excavated and thus its importance to the present work is minimal, other than indicating the well-organized nature of the settlement at this time, with broad streets kept clear of construction and apparently regularly maintained.

LH IIIC Middle 2: North House

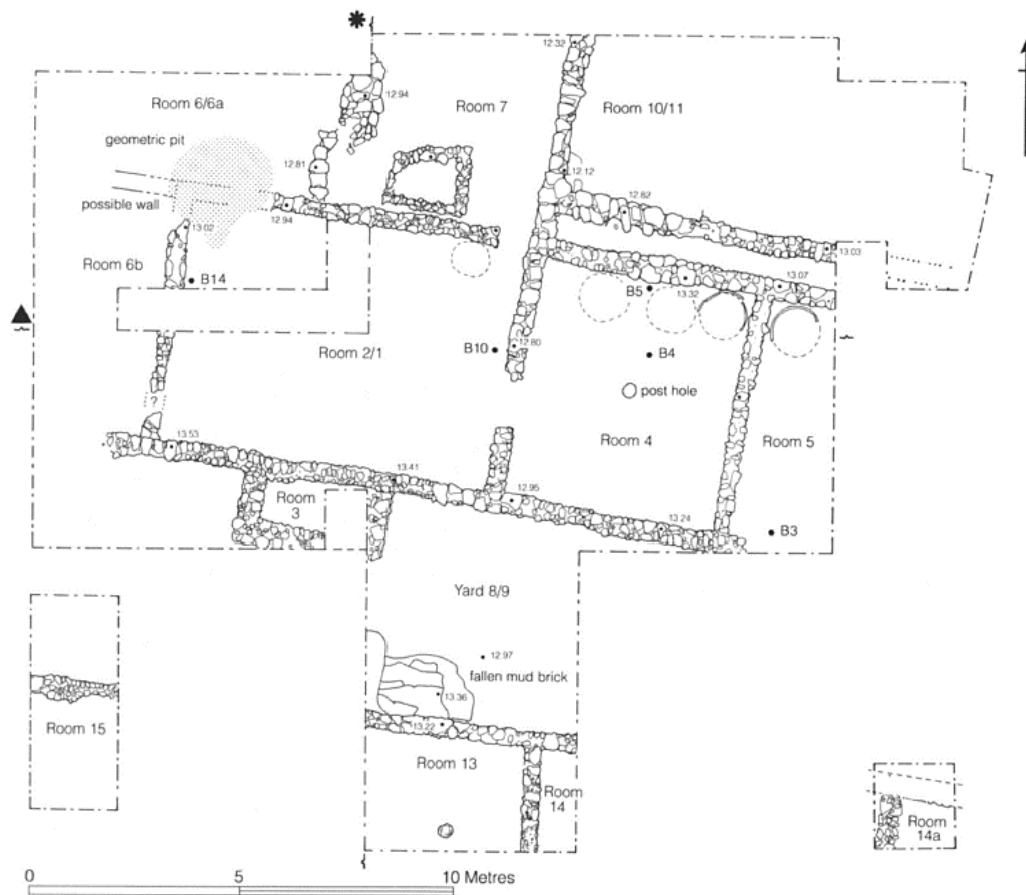


Figure 4.9: Xeropolis, Main Excavation, Phase 2b architecture (Evely 2006, 66, fig. 1.23).

The North House was reoccupied after the Phase 2a fire. Floor levels were generally raised through the use of fill, or cut back where too much debris had accumulated. In most cases, there is enough evidence to suggest continuity of the use of space within the new

household. Some rooms were combined, however, to create impressive halls (figure 4.9). These were the largest post-palatial roofed spaces at Xeropolis. The closeness of the remains to the surface, as well as the intrusion of later periods has badly affected the preservation of the remains throughout.

The main unit of the household remained intact, although Rooms 1 and 2 were combined into a single large hall, Room 2/1. This now opened directly onto the hypothesized courtyard comprising Rooms 6, 6a, and 6b. Rooms 10 and 11, like Rooms 1 and 2 were combined to form a single large hall, Room 10/11. This area is almost completely destroyed by later intrusions, however, and this should likely be treated with some caution.

The new Room 2/1 was now supported by a central post. This must have been an impressive space, although a single post would have rendered an upper story impossible. Fills beneath the floor were apparently introduced to level the space. An interesting find is a crucible fragment, perhaps derived from the adjacent Room 7? Near the center of the room, three intact cooking pots were found set into the floor. Their function is unclear. Storage features were also found throughout the space. At least two large kotselles were installed along the north wall: one centrally located and one to the east (D=0.85 m). A pithos was found to the west of the doorway to Room 7. Other kotselles may have been placed in the center of the room. An ashy lens interpreted as a possible hearth seems highly uncertain as such, given similar lenses described as the earliest floor remains elsewhere (Evely et al. 2006, 69). The build-up of the floor contained sherds from the usual dining wares: kraters, deep bowls, and cups. In the final destruction debris there

were additional fragments of a krater, a deep bowl, and two trays. A terracotta spool, a clay whorl, and bone tools may indicate textile production.

One burial was placed alongside the east wall, disrupting earlier burials beneath the floor of Room 2. This burial was an infant, two and a half years old, placed within a pithos.

Room 4 was renovated, but seems to have continued as a rear storage space associated with the main hall of the household. Its configuration, with a roof supported by a central post remained unchanged. Three very large kotselles (D=1.00-1.35 m) were arranged along the north wall. A large pit described as 0.60m in diameter and 0.50 m deep seems likely to have held a pithos (Evely et al. 2006, 71). A rectangular hearth is described along the center of the east wall. If so, this space may have functioned as a kitchen for the main hall during this phase. A whetstone could easily derive from such a kitchen space. No other finds appear to be in situ. Two burials were placed in the northern part of the room. A male over 45 years at death was placed closer to the center of the room, north of the central pole, with a one-handled conical bowl. A second adult male (25-35) was buried along the north wall proper. A juglet was placed by his head and three stone buttons were placed by his waist. A stone quern found in the fill of the room may originate from this space.

Room 7 continued to communicate with Room 2/1 via a door in the northeast corner of the latter. The west wall was poorly preserved, but may indicate that it opened onto the courtyard during this phase. This is by no means certain. The finds from the room seem to demonstrate continuity in the use of this space. The oven in the south of the room seems to have continued in use after the floor was raised. An enigmatic stone

rectangular feature seems to have been built after the building went out of use (Evely et al. 2006, 78). This was interpreted as an oven, despite lacking evidence for any burning inside, probably on account of its position above the earlier oven. None of the finds from the room seem to be in situ.

The courtyard comprising Rooms 6, 6a, and 6b seems to have continued to function similarly to the preceding phase. A bronze chisel may have been lost during the reconstruction of the western façade. Other finds include scattered sherds from fine wares such as pictorial kraters, deep bowls, cups, and trays. Two stone pounders/rubbing stones may attest to food preparation.

An addition was also added on the south side of the main hall (Room 2/1) during this phase thereby constricting the street at this point. The function of this small, rectangular space, designated Room 3 is unclear. Stairs to an upper story would sound plausible if any evidence for such a space existed. No finds are reported from this and it remains a bit of an enigma. Perhaps it is best interpreted as a shed or closet.

The eastern portion of the household was very disturbed by later intrusions. A stirrup jar and a concentration of obsidian flakes in the badly disturbed remains of Room 10/11 may suggest a shift in its function, but it is by no means certain, as these may in fact belong to a fill brought in to level the space. A very large kotselle (D=1.40 m) was established in the northwest corner at some point and associated with this level were five clay spools and a stone button attesting to textile production. These finds would suggest continuity in the use of this space as a storeroom or kitchen, but the pitting to the east has destroyed any traces of additional kotselles, walls, or hearths. Room 12 continued to function plausibly as a light well. Its only notable find was a fragment of a crucible from

the levelling fill, possibly originating from nearby Room 7. Room 5, the best preserved space, preserved a very large kotselle in the northwest corner (D=1.15 m). Scattered on the floor were at least seven and as many as 14 clay spools, a clay spindle whorl, and a bone awl. These attest to textile production and combined with the kotselle in the corner suggest a workspace for textiles, kitchen, or storeroom. This may be associated with another household to the east, or have functioned as an additional workroom for the North House.

The Phase 2b North House gives the impression of significant continuity with the Phase 2a North House. It is likely that the same family continued to occupy it. Fewer objects of obvious value were found in this later phase, but the kotselles increased in size to allow for a significant crop surplus to be stored within. Metal working and textile production may both have continued. The relatively empty state of the household suggests that it was abandoned and cleaned out thoroughly. Only the kotselles appear to have remained in situ. Sherds attest roughly to the function of other spaces, but should be used cautiously.

LH IIIC Middle 2: South House

The house or houses south of the road were reoccupied in Phase 2b as well (figure 4.9). The limitations mentioned above apply here as well. The most notable find, in Room 13 is a cooking pot embedded in the floor, a practice documented in the main hall of the North House in Phase 2b as well (Evely et al. 2006, 74). It is tempting, therefore, to see this room as the main hall of the South House. This would establish Room 14 as the rear storage room and Room 15 as a likely courtyard space connecting the house with the road

to the north. Only further excavation can confirm or disprove this hypothesis, as the limited remains neither confirm nor rule it out.

LH IIIC Late: South House

The remains of the South House in Phases 1 and 2 were left largely untouched due to the presence of significant remains from the succeeding Phase 3, not documented elsewhere in the main excavation. The rooms of this latest phase show a sharp drop in size from the preceding phase, although some caution is necessary, since the largest rooms, those to the south, are incompletely excavated (figure 4.10).

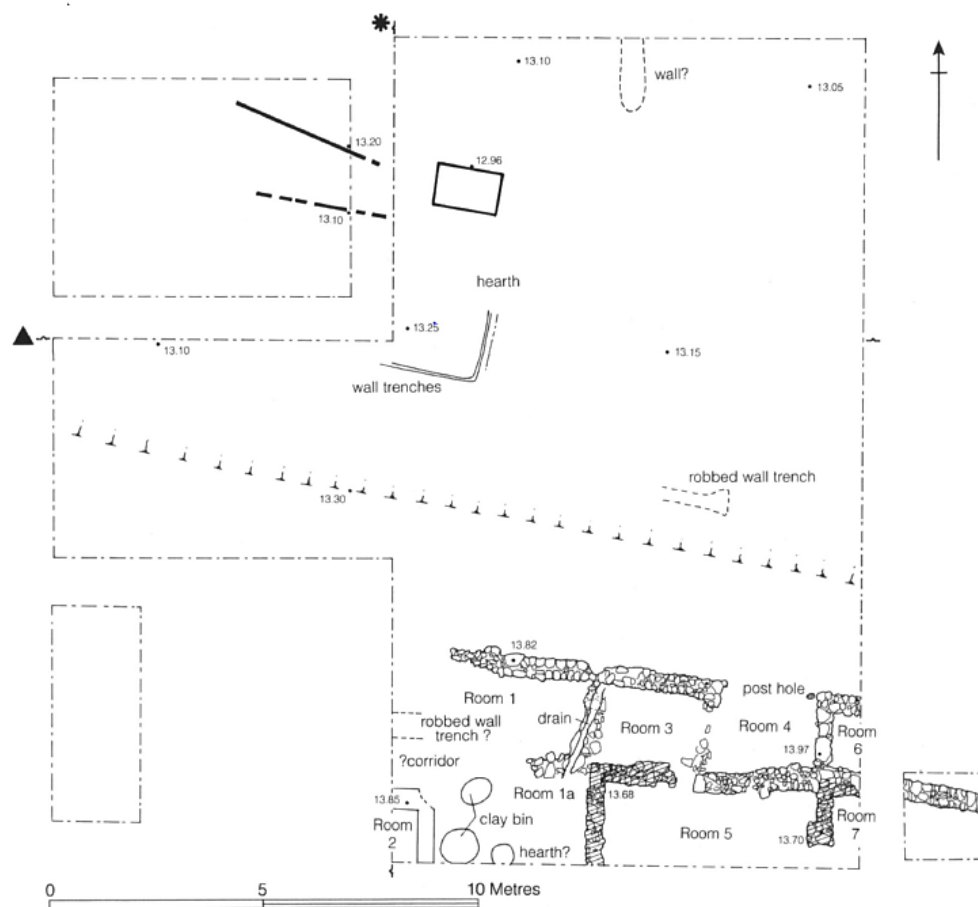


Figure 4.10: Xeropolis, Main Excavation, Phase 2b late/3 architecture (Evely 2006, 77, fig. 1.25).

The series of small spaces designated Rooms 1, 3, and 4 form an entrance system off the main street (8/9), which continued in use during this phase (Evely et al. 2006, 85). The entrance proper was through the wall running parallel to the street, which may not be structural, but rather a low boundary wall. A gate separating the yard from the street is denoted by a post hole on the east side of the entrance. Walking through this gate the visitor would have had the option to turn right or left. These spaces were designated rooms, but it seems more likely they were an unroofed space separating the household from the curb. The only finds from these spaces being a mendable krater found in the drain located in Room 1. The drain, made of stone slabs, is of note for indicating an ongoing concern with water or waste management,⁷⁰ but the rubble associated with it is unlikely to be a wall, but packing around its slabs. Room 6 presents more of a challenge, since its west wall is solidly constructed. The excavators noted its upper face is composed of stone slabs that suggest it functioned as a threshold, however, and I wonder if this might not have simply functioned as a step into a narrow open space between the curb and the house to the south. Interestingly, this arrangement closely parallels the Phase 1b arrangement of space to the south of the road, but marks a break with the Phase 2 architecture, where house façades formed the boundaries of the road to the north and south. In this interpretation of the remains then, only Rooms 1a, 2, 5, and 7 would actually have been interior spaces.

Room 2 was barely excavated and thus, nothing certain can be said concerning its character. A biconical stone bead – likely a spindle whorl – represents the only find.

⁷⁰ Rare instances also occur at Tiryns, see below.

Room 1a was relatively well preserved, although its northern wall had been robbed out. Along the west wall were the remains of two large kotselles (D=0.75-0.85 m). Approximately central to the space was a circular hearth. No small finds of consequence were found. No entrances are preserved in the room as excavated.

Room 5 lies directly east of Room 1a. This is the largest preserved room of the South House during Phase 3 and it may utilize the usual 5.00 x 5.00 m plan favored by builders at Xeropolis during the post-palatial period. A door may have originally allowed this room to be entered directly through the north wall from the entrance off of the street. At some point, however, this was blocked off, forcing visitors to turn right or left. At the time of destruction then, the only clear entrance to Room 5 was from the east, connecting Room 5 with adjacent Room 7. The only finds recorded from the room were a pithos and amphora from the east side of the room. A concentration of charcoal may indicate a hearth, but the size of this space leaves open the possibility that this concentration comes from a central post of the type recorded in other similar-sized spaces.

Moving to the east, a wide, central doorway connected Room 5 with Room 7. This entranceway featured solid antae, which would have given it a monumental appearance. Room 7 seems, therefore, to have functioned as an antechamber for Room 5. A kotselle was placed along the west wall, providing some storage. A fragment of a tripod mortar may suggest some food preparation activities here as well. Traces that might be associated with a hearth are also recorded in this space, but these are considered speculative. Given the fact that these rooms are only about one-third explored should urge restraint in any final conclusions.

Based on this analysis, however, the core of this household would have been Rooms 7, 5, and 1a, which seem to form a typical tripartite megaron space. This would have apparently been entered from the east. The entrance to Room 1a, may have been off-center and located farther south than the explored area. It is not impossible that this main unit was then enhanced with further rooms to the south, of which only the corner of Room 2 has been excavated, but only further excavation can ascertain this. The household was clearly cleaned out prior to its abandonment as the almost complete lack of finds demonstrates.

In the street just outside of the entrance to the South House property a dense concentration of broken pottery was found. This may be garbage that built up during the use of the household, in addition to material that was discarded prior to or at the time of abandonment. The material consists mainly of decorated open fine ware shapes: kraters (some pictorial), deep bowls, conical cups (replacing kylikes), a tray, and a basin. Closed shapes include two stirrup jars and an amphora. More utilitarian equipment consists of two cooking pots and a scoop. In many ways this resembles the material that built up to the west of the North House during Phase 2, perhaps suggesting a similar dining function for this assemblage.

LH IIIC Early-Late: Region I

Information of the latest campaign of excavations at Xeropolis remains restricted to preliminary reports and conference presentations. Much of the preliminary information has focused on the discovery of a large household, dubbed “the megaron” or “Building M” (Lemos 2014a). A coarse ware vat attests to storage activities in the Phase 1b use of the

megaron (Lemos 2014b, 38, 55, LK 34, fig. 32), although we await further details concerning its precise findspot. The megaron also features a built hearth or perhaps oven. No precise function has yet been attached to it. Flanking the megaron unit is a storeroom dubbed the “Annex.” Although much of this information is vague with regards to precise finds, a recent technical report on the chemical composition of clays from the site, reveals the discovery of torus loom weights in Phase 1b contexts (Lemos 2014b, 56), suggesting the production of specialized textiles.

LH IIIC Early-Late: Region II

Region II in the new excavations has been characterized as a locus of communal dining activities, perhaps housed in a series of repeatedly rebuilt rectangular structures with large central hearths (Lemos 2014a). This may have been a communal cult area as demonstrated by large amounts of figures and figurines found discarded nearby.

Kynos

The site of Kynos is located in East Lokris on the Bay of Atalante, just north of Mitrou. The site is a small tell, covering approximately three hectares. The population has been estimated at 800-1,000 people during its post-palatial period peak (Kounouklas 2011, 82), although this is based on a density of 300-400 people per hectare, which seems high given the tendency towards low density community organization observed elsewhere. A population closer to 750 (or less) is more likely. The site is notable for its local production of pictorial style pottery (Mommsen et al. 2001; Dakoronia 2006) and a kiln with wasters was excavated at the site (Dakoronia 1993, 218-219). The stratigraphic relationship

between this kiln and Oikos 12 is not clear, for although it was already excavated, it was not noted in Kounouklas' description of the Kynos 7 household, and indeed, it seems that kotselles were found in that area (Kounouklas 2011, fig. 11). In the brief report of its finding, Fanouria Dakoronia (Dakoronia 1993, 219; 2006, 24) assigns it a date of LH IIIC Middle, which would imply that it does indeed belong to the Kynos 7 phase, but it is possible that this was assigned prior to the detailed study of the pottery. Be that as it may, a LH IIIC Late wall runs over it, making it certain that it predates this phase of the site (Kynos 6). Since Kynos 8 has only been loosely assigned a dating of LH IIIC Early, and Kynos 7 was destroyed at an advanced stage of LH IIIC Middle, this information may not be mutually exclusive. In any case, the kiln is not discussed as part of the equipment in Oikos 12.

Only a small portion of the site has been excavated, so it is difficult to comment extensively on the organization of the site. It is nevertheless clear that a thriving community existed here throughout the post-palatial period. Households were divided by a network of streets and alleyways. The excavated portion shows little evidence for the larger courtyards characteristic of southern post-palatial communities, but this could be influenced by the local geography of the tell (limited space), differences in the use of space, or simply a product of the area targeted for excavation, since there is some evidence that the space to the south of Oikos 11 was an open, unroofed space. A peculiarity of the houses at Kynos is the lack of hearths in the excavated households. A circular sherd hearth was excavated, however, in the northwestern corner of the site during cleaning of the Hellenistic wall in 1995 (Dakoronia 1995, 338). This is only assigned to the LH IIIC period, so it is unclear what phase of the settlement it belongs to. More interestingly, it

(figure 4.11). The preserved architecture appears to be a series of semi-subterranean basements, since no doors connect the rooms. Access was presumable by means of ladders or steep wooden stairwells. Also, along the southwest wall a stone and rubble stairway ascends from street level to the presumed ground floor entrance (Kounouklas 2011, 65-66). The architecture consists of a series of small, agglutinated rooms, two of which were densely packed with storage vessels, both kotselles and pithoi, at the time of excavation. Fine ware ceramics appear to have fallen from an upper story resulting in scattering and breakage. Because of careful excavation and detailed publication of the finds from each room, these households offer detailed evidence for both storage practices and household industries.

Three of the rooms were devoted to storage activities: XMA', XMB', and XMF'. The latter two were densely packed with storage vessels and must have been entered from above. Postholes and neat clusters of spools, apparently fallen in situ in the baskets that had held them, suggest shelving was installed to maximize the use of these rather compact storage spaces. Room XMA', although only partially excavated, appears to have been less densely packed with storage vessels and may have functioned slightly differently, although its incomplete state of excavation makes this difficult to assess with certainty.

XMΔ', the only other fully excavated room, had almost no finds and no notable floor surface. This suggests that the room was rarely used or perhaps was undergoing refurbishment at the time of the destruction. Given the abundance of textile equipment in the adjacent rooms, it is tempting to associate this basement with the long-term storage of textiles, which would leave few archaeological traces, but this is highly speculative. A

few small finds recovered from the space, all appear to have fallen from above or represent stray finds.

It is clear from the presence of a staircase adjacent to the south wall of Oikos 10 that this household had a ground floor overlying the basements. Abundant evidence for this second story was also provided by rich assemblages of fine ware, broken and scattered throughout the basements (Kounouklas 2011, 62). The largest concentration of mendable vessels was found in XMB' and this appears to have formed a closed group of dining vessels: three deep bowls, two kraters (one spouted), a semi-globular cup, and a basin make up the open shapes. Four neck-handled amphorae, a hydria, and a large, undecorated amphoriskos make up the closed shapes. Interestingly, a complete lid (no. 41) found in the same fill shows no obvious association with any of these closed shapes. Finally, a single example each of a one-handled and a two-handled cooking pot represents the rare discovery of in situ cooking vessels from the site. The association with fine ware suggests that the final destruction took place while the table was still set or perhaps that the vessels were stored away together. Notable among this assemblage is the lack of drinking vessels, despite the presence of two kraters.

A second group of shattered vases was found fallen into storage room XMΓ'. This was comprised almost exclusively of small closed fine ware vessels not represented in the previous room: three small stirrup jars, a small, decorated amphoriskos, and a small collar neck jar with linear decoration (no. 52). The last in particular is interesting because it offers a connection with the assemblage found scattered throughout storage room XMB'. Collar-neck jars are frequently associated with lids, as their straight lip makes them ideal for fitting a lid into place. The diameter of the opening of the collar-neck jar,

approximately 0.12 m based on the illustration provided, would allow it to fit comfortably under the lid with a rim diameter of 0.141 m. Furthermore, the decoration of these two pieces may even suggest they were an intentional set. An additional connection between the two assemblages may come from the single open shape, a fragmentary kylix found near the limit of the excavation. Not only would this complement the missing drinking vessels from the previous assemblage, but also points to additional kylikes waiting to be discovered in the northeastern baulk. Thus, these ceramic links suggest that the space above these two rooms formed a single larger domestic space at the time of destruction.

Only a single mendable vessel was recovered from each of the other excavated spaces. For room XMA' this is perhaps unsurprising, as the staircase ascended to this point and it would have plausibly constituted a hallway or entrance room at the time of destruction. A single vessel pulled into its destruction fill may, therefore, more plausibly be associated with the larger ceramic assemblage fallen into storage rooms XMB' and XMF'. Interestingly, this vessel (no. 66), while ostensibly a two-handled cooking pot, features added white painted decoration in the form of two bands at the maximum diameter and a zone of poorly preserved shoulder decoration. Its exact function is, therefore, unclear. XMA' produced a single mendable portion of a semi-globular cup, a shape that seems to have been multi-functional, although, despite its name, was perhaps more regularly associated with scooping than drinking. A second cup might be appropriate with the assemblage from above XMB' and XMF' since there are two kraters present.

While the basement rooms of this household point to abundant textile production, the upper stories offer little evidence for where the actual production took place. Seven

spools found in XMA' may have fallen from above, however, the limited excavation of this room doesn't preclude their storage. If fallen from above, a workroom might be hypothesized to the east of the large dining room/domestic hall reconstructed above XMB' and XMF'. As will be seen in the analysis of the succeeding household, courtyards may also have provided ample space for craft activities and therefore we should not rule out an exterior space as the locus for textile production. Certainly the cramped, dark basement spaces were unsuitable for industrial activities.

Perhaps the most surprising fact about Oikos 10 is the lack of any hearth or cooking installation. The appearance of contiguous basement rooms devoted to storage or movement, however, suggests this is more the product of excavation than actual absence of such facilities. While any argument made for or against such installations would be circular, at present, the presence of cooking vessels in the ceramic assemblage suggests that food preparation was indeed taking place.

LH IIIC Middle 2: Oikos 11

This household consists of two nearly complete rooms along the southwestern edge of the excavated area (figure 4.11). While apparently forming a complete household, it is not impossible that there were additional rooms to the southwest. An open court to the south of this building has been associated with it, although there is no direct communication between the two. The arrangement of space is similar to the previous household, but on a smaller scale. Both preserved basement rooms had a heavy emphasis on storage activities, although the larger of the two, XMZ' appears to have had a mixed function.

XMΣT', the smaller of the two rooms, was found with the usual assortment of kotselles scattered throughout the room. No record of the precise number or placement of kotselles in the northeast portion of the room has been documented, but fragments of kotselles were noted in the fill. These may have been badly disturbed by the fox dens and erosion mentioned by Kounouklas (2011, 68). In any event, it is clear that a number of additional storage vessels should be placed in this room.

XMZ' was fully excavated and produced an abundance of well-preserved finds, some in situ in the basement and others clearly fallen from above. This basement space may have served as a workroom rather than a dedicated storage space. The finds are somewhat eclectic, but suggest some specialized activities. The most obscure finding was a large stack of mudbricks in the southwestern corner of the room (Kounouklas 2011, 69-71). These must have been stored after having been dried and apparently were ready to be used, serving no structural purpose in the household itself. Built in the center of the south wall was a circular enclosed pyrotechnic feature plausibly interpreted as an oven. A circular opening in the wall above this feature apparently functioned as a flue. Kounouklas (2011, 70-71) addresses other possible functions, but points out the lack of any slag or craft residue as indicative of a culinary function. I am inclined to agree with him, as this interpretation neatly explains the presence of a pithos filled with carbonized wheat found directly opposite against the north wall (Kounouklas 2011, 69). An appropriate interpretation of this space may be a bread oven and we may have here the residence of the town baker. Of course, the function of this oven may not have been limited to bread and may go some way to explaining the lack of kitchen installations elsewhere in the excavated area. Four stone tools found along the east wall may have been used in the

grinding of the grain. Three vases may have been associated with the ground floor. A belly-handled amphora (no. 51) was found intact sealing the large pithos filled with carbonized wheat, although it was empty. This vessel would have been appropriate for holding water required for making bread. A fragmented pithoid jar was found collapsed into the oven itself and thus its precise positioning is unclear – it very well may have fallen from above. Finally, a broken composite vessel (no. 60) was found adjacent to the oven itself. Although often associated with ritual activities, it is interesting to note that this piece was already broken, but functional as a small straight-sided alabastron. It may, therefore, have served a secondary function here, perhaps as a receptacle for a small amount of seasoning such as salt. A large slab bench directly adjacent to the oven is an obvious location for kneading bread prior to baking.

In the fill of this room was found a large assemblage of fine ware vessels obviously fallen from above and scattered throughout the room. These mostly consisted of open shapes and can be viewed as a closed set of dining vessels. These include eight semi-globular cups, four deep bowls, one krater, one kylix, and one kalathos. In contrast, closed shapes were limited to a decorated amphoriskos and a neck-handled amphora. Unfortunately, with the exception of the linear decorated kalathos. Scattered fragments of five more vessels found in the fill of storage room ΧΜΣΤ' may round out this assemblage. This includes large fragments from the upper body of two jugs, a deep bowl, a panel decorated conical kylix, and an additional neck-handled amphora. Although the lack of fully published vessels prevents any decisive analysis of this assemblage, it is interesting to note some obvious pairing of drinking vessels (two kylikes, eight cups).

Furthermore, there is a two to one ratio of drinking versus eating vessels 10 cups/kylikes versus five deep bowls.

Mixed with the fill of both rooms were spools, attesting to textile production, although on a much smaller scale than in Oikos 10. Many of these spools were found intermixed with the scattered pottery remains in the fill of room XMZ'. This suggests that the spools were in use in the upstairs space at the time of destruction. Thus, we seem to have evidence for the multi-functional use of a large upper story space in this more compact household. This makes sense, as large rooms suitable for hosting groups of diners would provide ample space for daytime activities when otherwise unoccupied.

To the south of Oikos 11 part of an apparently open space, XMH', was excavated. Although generally empty of finds, it is tempting to connect a mendable basin with the dining set from the upper story of Oikos 11. Likewise, two spools and a spindle whorl fit the same distribution of finds observed fallen into the neighboring basement. The excavated area of the court was limited, but mostly covered by a shallow rectilinear clay feature. Approximately 0.10 m deep and well-built, this feature is interpreted as a possible clay preparation area. Given the presence of a kiln nearby in an early phase of the settlement and its location near the edge of the settlement, this is a possibility.⁷¹ If it is, however, it would appear to separate the activities in the courtyard from Oikos 11, since the latter cannot have functioned as a potter's workshop based on its internal finds.

⁷¹ Although the placement of a kiln within the settlement seems odd, there are numerous examples in post-palatial contexts at Aigeira, Tiryns, and Asine. The kilns at Tiryns, all apparently established in the immediate aftermath of the palatial destruction, were only operating in the Lower Citadel for a short period during LH IIIC Early (Mühlenbruch 2007, 244-245). While this might indicate some turmoil, or turnover of property in the decades after the palatial collapse, the kilns at Aigeira and Asine appear to have been integrated into thriving settlements (see below). One reason for this may be the elite interest in craft production during the post-palatial period (see chapter six).

Perhaps an as of yet undiscovered potter's workshop was located farther south during Kynos 7.

LH IIIC Early: Oikos 12

Only a narrow strip of Oikos 12 has been excavated and it is clear that it extends to the west for some unknown distance (figure 4.11). As currently revealed, it consists of two rooms, XN' and XNA', arranged axially on an approximately north-south orientation.

Room XN' is the larger of the two rooms and contained at least five kotselles (Kounouklas 2011, 75), suggesting that it served as a storeroom. One spool and two spindle whorls found in the fill may have fallen from above (Kounouklas 2011, 76). The only mendable ceramic vessels had fallen from above as well. These included a deep bowl, a tray, and a neck-handled amphora (Kounouklas 2011, 76).

To the north of Room XN' and sharing a party wall, was Room XNA'. The room was smaller, but distinct for two reasons: it is the only room at Kynos 7 to preserve a doorway, in this case connecting Room XNA' with the street running along the eastern façade of Oikos 12, and it was the only room in the Kynos 7 settlement to show signs of a specially constructed floor of a compacted white material.⁷² Kounouklas (2011, 76) took the floor to indicate the domestic function of the space. One might modify this interpretation slightly to suggest that its carefully constructed floor was the result of its function as a foyer, designed for durability and also to create a good impression on guests. Due to the liminal nature of this space, the only finds found on the floor were fragments of pithoid vessels placed near the doorway (Kounouklas 2011, 77). It is notable that no

⁷² All other Kynos 7 floors are compacted earth.

fragments of clay bins were recorded. In the fill of the room, almost certainly fallen from an upper story, were five clay spools, three spindle whorls (two clay, one steatite), and three bone pins attesting to textile production, likely to be associated with those fallen into the southern room. A grindstone, a hammer stone, and two polishers may suggest additional domestic activities took place on the upper story.

The ceramic assemblage fallen into this room was fairly rich and can reasonably be connected with those vessels fallen into Room XN'. These include four semi-globular cups, two deep bowls, one kylix, a lid, and a dipper (Kounouklas 2011, 77). The lid suggests that an amphoriskos or collar-necked jar is likely to lie in the unexcavated area to the west. This assemblage contains the main elements of a dining/drinking assemblage, although there is a general lack of closed shapes represented. The lack of cooking pots suggests that this material was stored away at the time of the destruction, perhaps in an upper story cupboard or pantry.

LH IIIC Late: Oikos 8

Although the LH IIIC Late period is rarely represented in settlement architecture, this house is the largest preserved structure at Kynos (figure 4.12). This has been interpreted as a shift from two-story to single-story architecture resulting in a larger ground plan, but little change in the total available space (Kounouklas 2011, 124). The architectural arrangement remains agglutinative but there is a growing disregard for regularity in either the size or shape of the rooms. The central room (XAA') has one in situ column support and originally may have had a second, in addition to a well-compacted clay floor suggesting regular use. All in all, the impression one gets is of a spacious dwelling.



Figure 4.12: Plan of Kynos 6 architecture and features (Kounouklas 2011, fig. 15).

The ceramic assemblage of this structure is neither particularly abundant nor well preserved. This could suggest two possibilities: Either the structure was abandoned or cleaned out prior to its destruction (apparently by fire), or there was a decline in the total number of ceramic vessels consumed in households of this period. The latter is attractive given the lower archaeological visibility of this phase across the mainland, but more research, including a larger sample of published houses is necessary to establish a secure pattern. Most vessels come from the two largest rooms, XAA' and XAE'. In XAA' the

floor deposit included a small monochrome jug, an undecorated dipper, a fragment of a monochrome krater, and a mendable monochrome deep bowl with reserved underside of foot. The last three were all found lying near the north wall, likely fallen from a shelf. The monotony of this assemblage underscores its utilitarian nature. XAE' produced an additional three vessels, interesting all closed shapes for holding/storing liquids: a hydria decorated with a tassel on the neck and antithetic streamers on the belly, which is of a rare combination of pale slip on a medium coarse fabric paralleled at both Xeropolis and Eleon, and two small stirrup jars, one with vertical squiggles on the shoulder. Three vessels were also found in the storage room XΑΣΤ': a single large fragment of a linear jug, a monochrome skyphos with reserved lower body, and a spouted monochrome basin with reserved and dotted rim. A handsome vertical handled amphoriskos, monochrome with reserved and dotted lip, was found in room XΑ', interpreted as a roofed shed.

Evidence for textile manufacture was found in the two largest rooms, XAA' and XAE', as well as in storage room XΑΣΤ'. The positioning of the spools in the northwest corner of room XAE' suggested that a loom may have been standing in position at the time of the destruction. Two isolated clusters were found in XAA', one in the northwest corner and one in the southeast (Kounouklas 2011, 58, fig. 17). These are difficult to interpret as a single loom, although they may have been disturbed by later processes. Finally, several spools found in the storage room follow a well attested pattern of stowing spools when not in active use. It is notable that these same three spaces were the only areas to produce spindle whorls.

Kounouklas (2011, 127) suggests that the use of space within the household is less specialized than in the preceding phase, but this is difficult to reconcile this notion with

the available evidence. Storage spaces still seem well defined, even if occasionally storage vessels occur in other areas. Rooms XKΘ' and XΛΣΤ' both featured kotselles, a staple of storage rooms at Kynos. Cereals (wheat, barley, oats) and legumes (broad bean) were found in the kotselles, as well as a pithos in room XΛΣΤ'. The lack of a hearth space, particularly in the large central room is puzzling, but it is possible that such facilities existed in unexcavated areas to the east.

LH IIIC Late: Oikos 9

This structure was located to the west of Oikos 8 and directly overlying the ruins of Oikos 12 (figure 4.12). Its layout as preserved was very similar to Oikos 12 and, thus, it, also, has only been partially excavated. In general, its preservation was much poorer than Oikos 8 and very little was found in the destruction debris where it remained in situ. In fact, not a single vessel is associated with the floor deposits beyond an in situ pithos in room XΛΘ'. Further fragments of pithoid vessels in room XΛΘ' demonstrate that this served as a storage room, but the limited area of excavation and disturbance/robbing of other pithoi prevents an accurate estimate of the storage capacity of this structure. The only evidence for textile production was the isolated find of a clay spindle whorl in the destruction fill of XΛΗ', which may or may not attest to the function of that space. Geophysical results suggest that this structure extends farther to the west.

Mitrou

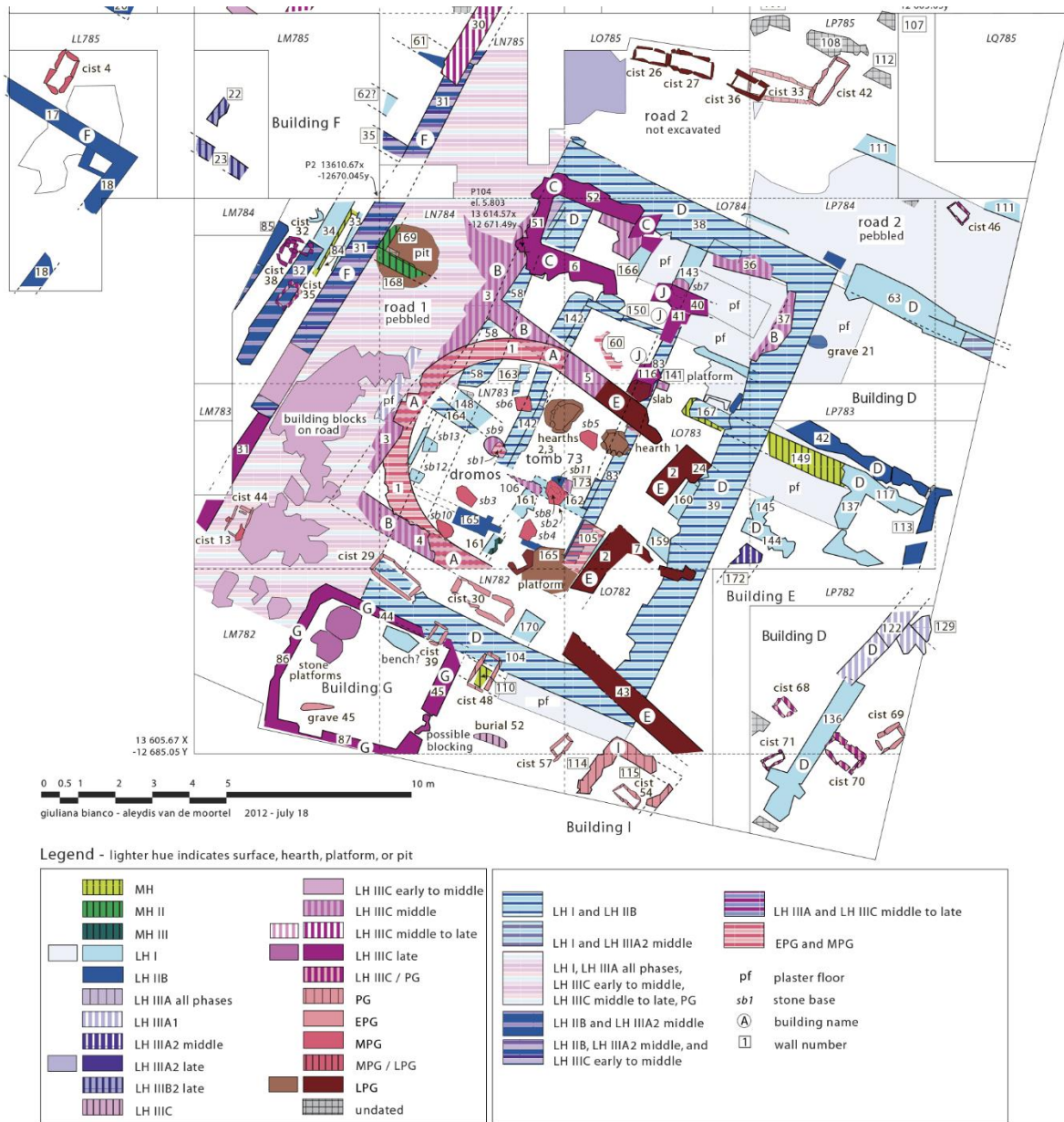


Figure 4.13: Plan of post-palatial architecture at Mitrou (Tsokas et al. 2012, 393, fig. 6).

Located today on a small tidal islet, Mitrou was once a peninsula with north and south harbors akin to Kynos. The settlement was occupied from the Early Bronze Age through the Early Iron Age and is notable for its Early Mycenaean phases (Tsokas et al. 2012; Van de Moortel and Zahou 2012; Van de Moortel 2016). At this time, the settlement was reorganized through the introduction of wide, well-maintained roads, which the

excavator has connected with the local elites' adoption of chariots (Maran and Van de Moortel 2014). Despite this, the site has produced only scattered deposits of the palatial period. The site experiences a resurgence in the post-palatial period, however, when the road network was renewed and new households were erected. Habitation seems to have continued into the Early Iron Age before the site was abandoned for unknown reasons.

LH IIIC Middle: Building B

This structure consists of at least one column base and two architectural phases stratified beneath an impressive Protogeometric apsidal building (figure 4.13). Unfortunately this late overbuilding stripped Building B of most of its finds, thus no floor deposits have been identified, although a small patch of flooring attests to the two phases of use (Rutter 2007; Van de Moortel 2009, 361; Van de Moortel and Zahou 2012, 1137).

LH IIIC Late: Building C

A small single room structure located to the north of Building B is dated to LH IIIC Late in the most recent available publication (Van de Moortel and Zahou 2012, 1137; figure 4.13). Despite its small size, this room preserved a fairly large number of complete or near complete vessels. Beyond a single-handled wheelmade cooking pot, the rest of the assemblage consisted of 22 handmade, but unburnished, miniature vessels. An additional four vessels of similar character found just to the north of this structure are believed to have been dragged out from inside the room by later plowing activities (Van de Moortel 2009, 363). The cooking pot was sealed by a reworked fine ware krater base at the time of discovery and contained the thigh bones of five piglets (one four to five months old and

the other four foetal). It is clear that the excavator's interpretation of this structure as ritual in function is correct, but of what nature is not clear. It is interesting to note an absence of small finds, particularly figurines or figures of the sort common in other post-palatial period ritual settings.

Kalapodi

Excavations at the site of Kalapodi have revealed a sequence of temples built one on top of the other dating from LH IIIA through the Late Roman period (Niemeier 2013). While only preliminary reports are available concerning the latest campaign of excavations, there seems ample evidence to support the excavator's claims of continuity in terms of ritual practice at this location since the Late Bronze Age. Earlier excavations revealed a small construction nearby, which was initially interpreted as a shrine in its own right (Jacob-Felsch 1996, 12-13). While it seems more likely that this small one-room structure is ancillary to the main temple, perhaps a storage space for dining equipment, there is no evidence that it was part of a contemporary settlement at the site. More research is required to investigate whether a settlement existed here or in the surrounding area during the post-palatial period, although one must have existed (Jacob-Felsch 1996, 82).⁷³

Athens: Acropolis

LH IIIC Early 1

⁷³ Rich cemeteries dating to the palatial period have been excavated in the modern town of Kalapodi, only a short distance from the sanctuary (summarized with bibliography in Kramer-Hajos 2008, 59-62). An early Mycenaean settlement is documented nearby, but this doesn't seem to have been occupied during the palatial period.

Traces of foundations survive between the northwest ascent to the Athenian Acropolis and the line of the Cyclopean fortification wall. These foundations seem to attest post-palatial domestic structures in this area (Broneer 1933, 351-156, esp. 355). A large deposit of LH IIIC Early 1 material was excavated overlying the stairway, indicating that the ascent was blocked off early in the post-palatial period (Gauss 2003). The material probably derives from domestic contexts, but it is not clear where it originated, whether from adjacent households or from the citadel. Interestingly, a large mendable wheelmade bull figure derives from this deposit (Guggisberg 1996, 68, pl. 14.6, no. 210).

Broneer (1933, 366-372) published a preliminary report on this material, but a comprehensive publication of the finds and stratigraphy is still lacking. Gauss mentions some 80 near complete vessels (Gauss 2003, 98), of which 16 are published in Broneer's report. Gauss also indirectly associates this event with the final use of the Mycenaean Fountain as a water source (Gauss 2003, 102). If this dating is correct, then it would seem that an important destruction event took place around this time. Given the fact that this led to the collapse of the stairway within the Mycenaean Fountain, may suggest a natural cause, but this demands further attention.

LH IIIC Middle 2

While we know of no architectural remains from the Athenian Acropolis, an important deposit of pottery seems to have been dumped down the now abandoned Athenian Fountain, perhaps the result of a large-scale clean-up operation, as numerous joins connect material from upper level fill with the material deep down in the cleft (Broneer 1939, 347-348; Gauss 2000, 171-172). This material was published in some detail by

Broneer (1939), but a great deal of work remains in order to clarify the sequence and date of the various deposits within, since Broneer's analysis took place before LH IIIC chronology had been well-established. My own analysis of this material suggests that a significant number of mendable vessels remain widely scattered within the fill. Most of the material remaining consists of open shapes for drinking and dining. Whether this has been heavily skewed by what sherds were thrown remains to be assessed, but it may suggest a shift in activities on the acropolis towards the end of the Late Bronze Age. Two wheelmade bull figures may also attest sporadic ritual activity on the Athenian acropolis (Broneer 1939, 401, fig. 83.k-l).

Alimos: Kontopigado

LH IIIC Early 1

A more detailed picture of post-palatial period Attica emerges from a settlement of some importance in the southern coastal suburbs of the modern city. While the site is best known for its elaborate palatial period industrial complexes dedicated to the production of linen and pottery (Kaza-Papageorgiou et al. 2011; Gilstrap et al. 2016), there was also an important settlement associated with the workshops, which continued to be occupied into the post-palatial period.

The residential complex is still in the process of being published, but it is clear that it continued in use into LH IIIC Early (Kaza-Papageorgiou and Kardamaki 2012; 2014). Further publication of finds from the domestic quarter is necessary before more can be said about the precise development of the residential structures. The presence of bathtubs in multiple rooms and multiple phases of the household reinforces the connection

between this shape and industrial activities. The overall layout of the complex consists of open courtyards surrounded by rooms (figure 4.14), which seems appropriate for the post-palatial period, however, a phased plan of the architecture is necessary before drawing firm conclusions. Room Z was the largest room of the domestic complex, measuring approximately 4.50 x 6.50 m. It preserved a column base in situ and may have served as a central hall as the fragmentary remains of fine ware serving vessels and cooking pots attests (Kaza-Papageorgiou and Kardamaki 2012, 159).

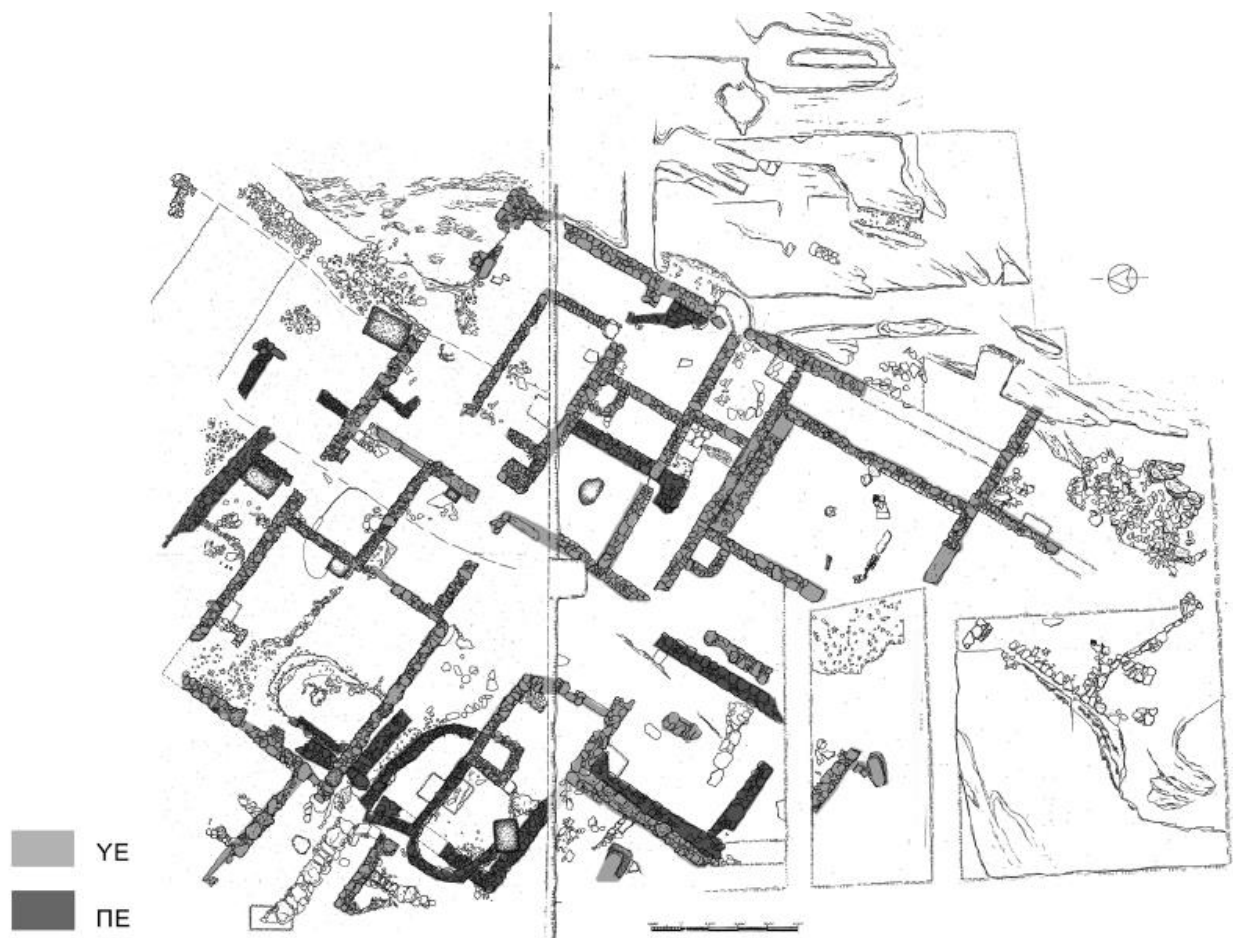


Figure 4.14: The domestic complex at Alimos, all phases (Kaza-Papageorgiou et al. 2011, 200, fig. 1).

On a lower terrace, an extension of this complex was excavated. It is unclear whether this lower terrace formed a second household, part of the first household, or was

not domestic at all. The presence of bathtubs would suggest a partly industrial function for the area, but the discovery of a wheeled bull altar and possible bothros in a courtyard destruction deposit are indicative of ritual activity (Kaza-Papageorgiou and Kardamaki 2014; Kardamaki 2015). Since the exact division of rooms into one or more households remains unclear, I have omitted the domestic complex from the analysis in chapter six pending further publication.

The Argolid and Corinthia

Korakou

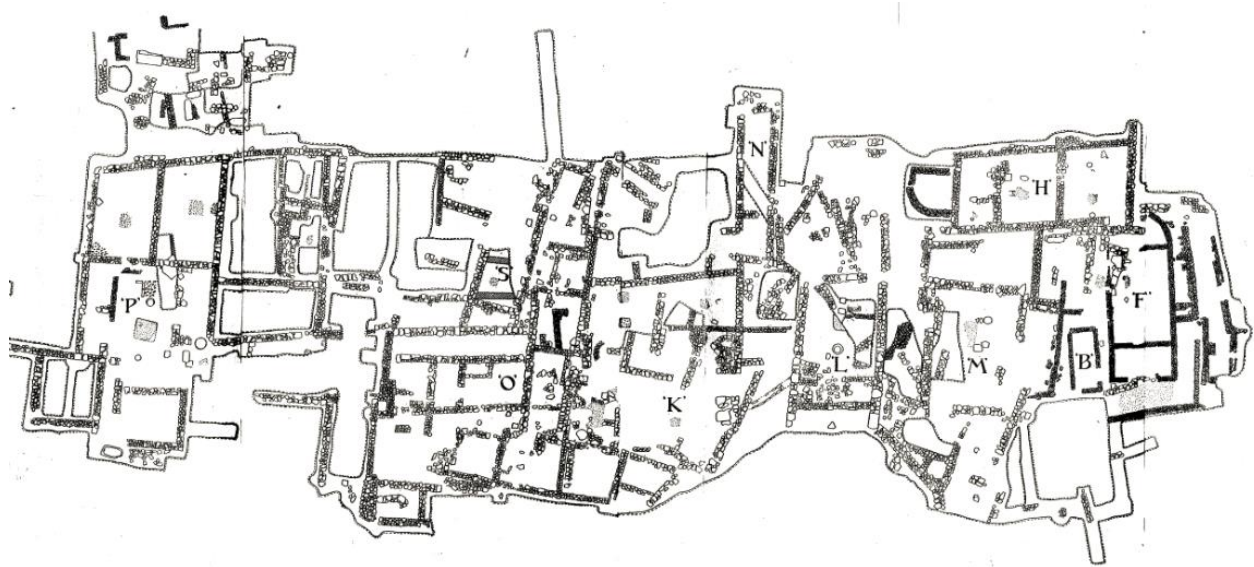


Figure 4.15: *Plan of Korakou showing all phases of occupation (Blegen 1921, pl. VIII)*

A small tell site located northeast of Corinth, Korakou was a thriving post-palatial settlement. The town seems to have been well-planned with wide streets running on a north-south alignment separating roughly similar-sized blocks of housing (figure 4.15). Its position on the coast gave it access to marine resources and trade networks in the Gulf

of Corinth. These would have enabled trade with the numerous settlements scattered along the Achaian coast, including Aigeira and Tychos Demaion.

LH IIIC Early 2: House H (and M)

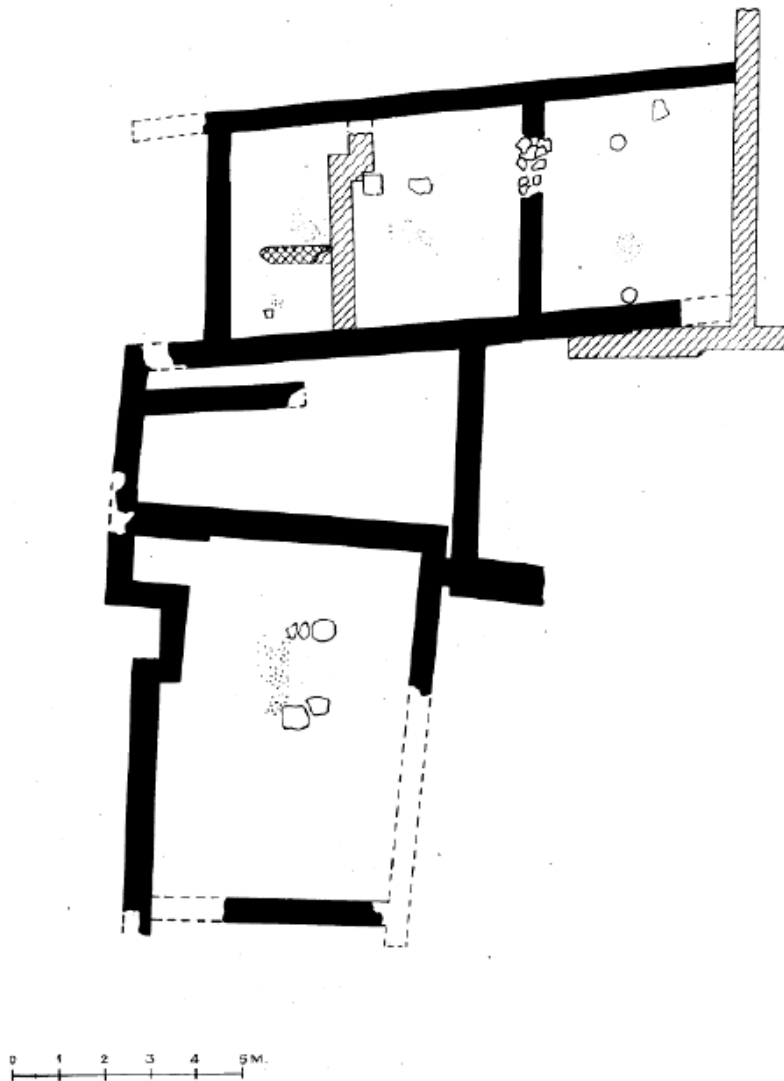


Figure 4.16: Plan of Houses H and M combined (modified from Blegen 1921, 90, fig. 119 and 92, fig. 121).

House H began its life as a typical megaron style construction, with a porch, central hall, and rear chamber (Blegen 1921, 91-93). It was modified at some point, however, and the

central room was divided by a rough wall, which still contained a bronze chisel, probably dating to this reorganization (Rutter 1974, 522-523). This may be due to the expansion of the household. Rooms to the south, which Carl Blegen called House M, probably formed part of the second phase of the household (figure 4.16). Unfortunately House M produced no ceramic finds of note and none appear to have been kept from this area. Architecturally, House M appears to form a large hall, perhaps meant to take over the duties of the original megaron hall when it was subdivided. Taken together, these rooms form a large, but not excessively large complex. It was bounded to the west by a broad street that separated it from House L. It is tempting to place a courtyard to the east of House M, but this area was poorly preserved and nothing more can be understood about the architecture in the area.

In its second phase, the megaron porch featured a small hearth in its southern part, but no other features or finds of note. The hearth in the central room appears to have continued to be used, but again, little else can be said about this space. A column base to the north is described by Blegen as a “baetyllic pillar” (Blegen 1921, 92), but it was probably still structurally necessary.

The rear room of the megaron unit contained two round column bases, probably originally oriented on a north-south axis. In its final phase this room appears to have served as a storeroom for fine ware ceramics, since almost all the mendable pottery from this household was found there (Blegen 1921, 92-93). Although Blegen describes twelve complete vases, Rutter was able to add to this total, assigning 13 vases to the eastern room and two carinated cups to the area west of the second phase porch (Rutter 1974, 340-346). The ceramic assemblage comprises only fine ware shapes, suggesting that additional

storage areas must have existed. A convincing argument can be made that this represents a single drinking set comprising a collar-neck jar for wine, a hydria for water, a krater for mixing, and seven kylikes for drinking the alcohol. Two shallow bowls and a deep bowl would be ideal for serving food. Although not discovered in the same room, the two carinated cups make sense as part of this deposit.

The final two rooms that can be assigned to this complex are the northern and southern rooms of House M. While few archaeological finds are recorded from this area, Blegen does record a possible staircase in the northern room, which suggests that a second floor may have covered part of the complex (Blegen 1921, 91). Rutter notes the discovery of a violin bow fibula and a spindle whorl from this room, which suggests a domestic use (Rutter 1974, 527). The southern room was the largest excavated room of the complex and although badly preserved to the south and east, has fairly secure dimensions measuring 5.50 x 7.75 m. It featured two column bases in the northern half of the room, with a large hearth placed between them (Blegen 1921, 90-91). It is tempting, on analogy with similar halls elsewhere, to reconstruct a third column in this space to the south. Blegen proposed that an indentation in the west wall marked an entrance into the hall from the adjacent street, but no threshold block was found (Blegen 1921, 89; 91).

LH IIIC Early 2: House L

This house represents a canonical example of the megaron house plan (Blegen 1921, 80-83; figure 4.17). It appears to have been a free-standing unit, having no obvious additions like those seen at Xeropolis. This may indicate that it was a relatively new construction at the time of its destruction. The eastern side of the house formed the western boundary of

an approximately 3.00 m wide street running north-south (Blegen 1921, pl. VIII). This road appears to have separated House L from the block consisting of Houses M and H to the east. On the west a similar street may have existed at the time of the construction of House L, but this was later encroached upon. Unfortunately, the walls here were not well preserved and it is not clear if it was an adjacent household or House L that took over this space. The picture of House L presented by Blegen is, therefore, a minimalist view of its total area.

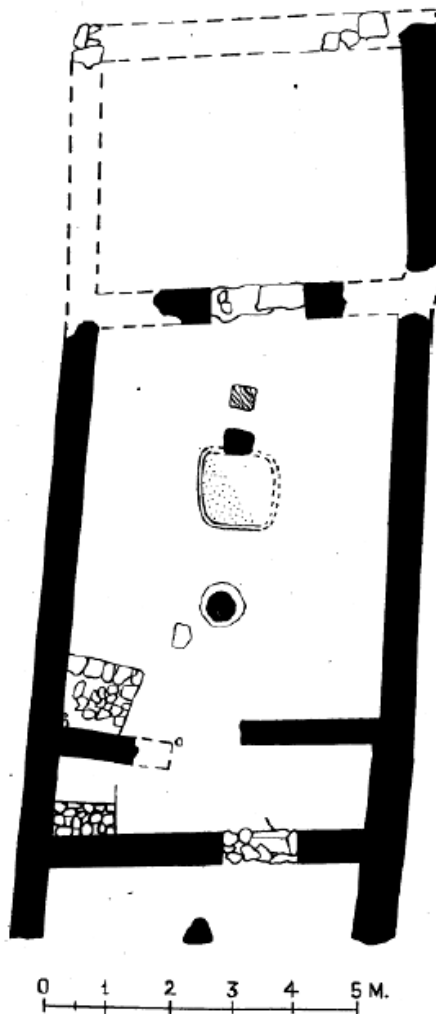


Figure 4.17: Plan of House L at Korakou (Blegen 1921, 81, fig. 112)

There can be no doubt that House L was approached from the south and featured a monumental façade consisting of two antae with a central column base. This must have opened onto a street or more likely an open courtyard to the south. This space remains unexcavated, however, so no definitive interpretation is possible. Entering through this shallow porch, a visitor moved into a narrow antechamber through an off-axis entrance to the east of the central column. It was then necessary for the visitor to turn left and then right to enter the main hall through a central entrance way, which had a wooden door as demonstrated by an in situ door pivot. No finds are recorded from the antechamber other than a built stone platform in the southwest corner of the room.

The main hall of House L was a spacious room. A central hearth was placed between a north and south column. In the earlier phase of the house these columns were placed at regular intervals along the main north-south axis of the room. In a second phase, the north column was displaced to the north and the hearth was made larger. This room contained three in situ storage vessels, their findspots are all related as being near the central hearth. One is a large pithos with impressed band decoration. The other two are both made in a handmade burnished ware. One is a jar with impressed neck band (called a small storage jar by Blegen), and the other is a vat with lug handles (called a domestic pot by Blegen) (Blegen 1921, 72, fig. 105, 71, fig. 104). Six other vessels were listed from House L by Blegen in his final publication: three deep bowls, a carinated cup, and a cooking pot (Blegen 1921, 129). Again, a platform of stones in the southwest corner marks the only other built feature in the room. It is strange that he chose to omit two other mendable vessels from the upper stratum of House L in his final publication: a jug mended from 17 sherds (Blegen calls it an oinochoe) and a hydria mended from 12 sherds

(Blegen describes it as a large water jug like amphora but with one handle) (CNB 81, 352). The last is said to be decorated with broad parallel lines.

From the main hall, an entrance on the central axis opened into a rear chamber. Although damaged by later stone robbing, this chamber seems to follow the arrangement of similar places at Xeropolis. Two stones located approximately may have functioned as a post base, which would be expected in a room of these dimensions. A single large pithos was found shattered nearby, attesting to storage activities. No other finds are noted, but much of the northern and eastern parts of the room were heavily disturbed by later intrusions.

Jeremy Rutter identified three different levels in House L (Rutter 1974, 131). An initial construction and use phase dating to LH IIIB, followed by the modifications and the raising of the floor mentioned above and already observed by Blegen. He then hypothesized a later reoccupation level comprising material scattered above the household. This resulted in the division of the pots between three different levels, with only a couple in situ pots per level. Blegen seemed to think otherwise, publishing all the vessels as a single assemblage. Problems with Rutter's interpretation arise when one considers CP 107, a deep bowl with medium band at the rim, decorated with a wavy band on the exterior, and monochrome on the interior (Rutter 1974, 120, fig. 36, 133, fig. 1). This should be the stylistically most advanced of the three deep bowls that Blegen recovered, and yet this is the one assigned to the earliest pebble floor (Rutter 1974, 131). This piece cannot date before LH IIIC Early. Its closest parallels are a series of wavy band deep bowls from the Menelaion excavations (Mountjoy 1999, 280, nos. 161-162, 281, nos. 172, 177-178) and the wavy band kraters from the North Slope excavations at Athens

(Broneer 1933, 369, fig. 42). Both these deposits are placed by Salvatore Vitale in the initial stages of LH IIIC (Vitale 2006, 200, table 2). Thus, two observations are possible. The first is that House L was very likely constructed in LH IIIC Early, not LH IIIB. The second is that there is likely a single destruction event documented by the mendable shapes, which would place it in LH IIIC Early as well. This short lifespan would explain why little modification is seen in the original megaron plan of this household.

What appears to have caused confusion is the sequence in which the household was excavated. It is clear from Figure 113 of Blegen's final publication that the first stage of excavation was a trial trench that cut through the center of the house (Blegen 1921, 80, 82, fig. 113). Later, the exterior walls were trenched to map out the plan of the structure, although this also included the collection of material down to the floor level (CNB 81, 205-225). Blegen seems to refer to this problem in his pot notes when he says "LI 0.00-0.20: Includes a good deal of digging around Megaron house" (CNB 81, 352). Not only does this include the surface clearing, but also the delineation of House L. It is common practice for pots to be stored along the walls, or on shelving adjacent to the walls, of post-palatial households and it is unsurprising therefore that the process of trenching produced a "large no. of sherds" (CNB 81, 352). It is also clear that some of the finds later catalogued as from L II, such as the pithos from the central hall, were first encountered just under topsoil (CNB 81, 205, 217-218). The real problem here, as laid out by Rutter (1974, 139), is that Blegen dug Korakou in artificial spits of 0.20-0.25 m, only deviating from this method of spits when he hit clear floor deposits. Thus the division between L I and L II was arbitrary and it is unsurprising to find that the material was inconsistently divided between them.

It is regrettable that no information about the findspots of any of the stone tools are given either in Blegen's final publication or his notebook. Levels I and II of House L produced three stone spindle whorls, however, which attest to at least some domestic textile production (CNB 81, 352-353). No clear traces of a fire destruction are mentioned by Blegen and this may explain why no clay installations or spools are preserved. What caused the abandonment of this household and the crushed pottery on its floor will have to remain a source of speculation.

LH IIIC Early 2: House P

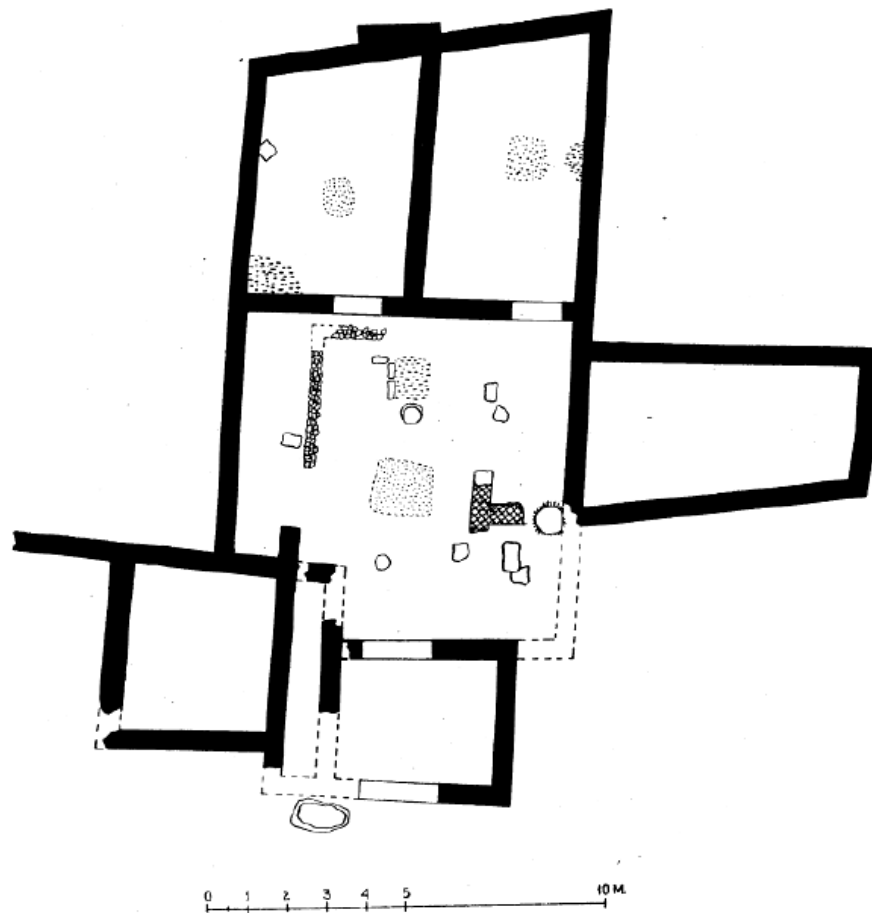


Figure 4.18: Plan of House P at Korakou (Blegen 1921, 84, fig. 114).

This was the largest household excavated by Blegen at Korakou, although it was not the best preserved (figure 4.18). Numerous intrusions in the northeastern quadrant of the household have damaged and altogether obliterated parts of the household, which likely extended further north and east than shown in Blegen's (1921, 84, fig. 114) final publication. In fact, traces of these walls may have been preserved, as shown on the stone plan (Blegen 1921, pl. VIII), but on account of later intrusions were dated to the Hellenic Period by Blegen (1921, 89). The household was bounded to the north by an east-west running street, the orientation of which seems to have dictated the line of the northern wall of the Northwest and Northeast Rooms. The area to the southwest of the house was also not fully clarified, and thus the extent of the house in this direction is also unclear. These problems are largely generated by the method in which the site was excavated: first trenching all the walls of the structure and only later clearing the rooms. Another main north-south road bounded House P to the east. Thus, House P seems to have occupied most of what can loosely be termed a block. The entrance to this large household appears to have been from the south, much like House L. Little of the space south of House P was explored, however, so it is difficult to understand how it was accessed. Traces of a stone pavement suggest the presence of at least a partial courtyard, a feature that squares well with the monumental entranceway. Blegen viewed the entire household as a monumental version of the typical tripartite megaron structure. It seems to share more with the non-axial agglutinated architecture seen elsewhere in LH IIIC Early. Notable is the well-preserved and fully excavated enclosed courtyard forming the core of the household.

Blegen believed that the entrance to the household was through a large antechamber south of the courtyard (Blegen 1921, 85). Two large gaps in the north and

south walls of this room indicated the removal of threshold blocks by later stone robbers. To the south of this room, he found a hollowed stone tub, with a hole for draining it and a stone paved courtyard that seem to confirm this interpretation. The function of this open court is unknown and the stone basin is a unique find, although it does call to mind the enigmatic ceramic bathtubs found at other post-palatial sites. No finds are recorded from the antechamber.

Passing through the antechamber, one entered the enclosed courtyard (Blegen 1921, 85-86). This was a large space, roughly 8.10 x 8.20 m. As preserved, the courtyard was completely surrounded by large chambers, except at the southeast where the corner of the courtyard was disturbed by later stone robbing. In the center of this courtyard was a large hearth (1.36 x 1.37 m) built of clay on a bed of sherds and pebbles. The court is most interesting, however, for its architectural elaboration. A colonnade runs on all four sides of the courtyard, an arrangement that calls to mind the House of the Columns at Mycenae, or even the Great Court at Tiryns. Thus, the edges of the court functioned as shaded stoas, while also giving access to the adjacent rooms. A unique pavement of pebbles and sherds approximately 0.30m wide ran just inside the line of the “stoa,” which was interpreted by Blegen as functioning to support a bench, but could equally be decorative. Parts of the court were clearly built over in LH IIIC Middle. A higher floor level was documented by Blegen in association with a small hearth(?) supported by pebbles and, it seems, the crushed remains of a Close Style deep bowl decorated with waterfowl motifs (CNB 81, 221, 377-378; Rutter 1974, 237-239, 248-249). Also found in association with this feature were a number of carbonized olive pits (Blegen 1981, 86, n. 1). Rutter assigned other mendable vessels to this same layer (Rutter 1974, 248-250), as

well as a bronze knife (Rutter 1974, 521). No pottery was associated with the House P floor level of the courtyard. A bothros to the east side of the court, under the protective stoa, suggested to Blegen that a large pithos may once have been installed here, although it may have been a later intrusion (Blegen 1921, 87). Its maximum diameter, 0.70 m, agrees well with the diameter of a large pithos and due to the regularity of pithoi being placed in courtyards, the former seems likely.

On the north side of the court, Blegen excavated two chambers fully. Both seem to have had entrances that connected them directly with the courtyard. These were dubbed the Northwest and Northeast Room respectively. In the Northeast Room a hearth was found approximately in the center, although off axis to the east (Blegen 1921, 88). Near the hearth was a stone slab that Blegen thought served as a pot stand, as well as a saddle quern. Blegen also records two patches of “rather coarse sea pebbles”, located along the wall to the east of the hearth and in the southwest corner (Blegen 1921, 88). Blegen interpreted these as marking the positions of beds, but a more likely interpretation is that they were the bedding for kotselles, as coarse pebbles are frequently employed for this purpose. Unfortunately, no traces of low-fired bins are reported. Densely strewn about the hearth, there was a great quantity of crushed pottery. Blegen records 24 near-complete vases from this room in his final publication, but lists another 38 fragmentary vases (Blegen 1921, 89, 129). When Rutter revisited this material, he discovered around 28 mendable vessels likely to have come from the Northeast Room destruction deposit (Rutter 1974, 173-244). These included three hydriae, a feeding bottle, at least four or five kylikes, three or four mendable kraters, four deep bowls, two shallow angular bowls, two basins, two semi-globular cups, four carinated cups, one mendable globular stirrup jar,

and two two-handled cooking pots. Two additional vessels of the same date were found just outside the Northwest Room to the west: a carinated cup and a one-handled cooking pot. Beyond the two cooking pots, which must have served for food preparation in conjunction with the quern, much of this assemblage is focused on drinking activities. This large store of pottery seems directly connected with communal events held in the central courtyard (Blegen 1921, 89).

The Northwest Room had a similar layout to the Northeast Room, featuring a central hearth and an emplacement of pebbles in its southwest corner. Blegen (1921, 89) says that ceramic sherds were “far less numerous” than the adjacent room, leading him to suggest that this was a domestic chamber. The pebbles suggest that at least one *kotselle* may have stood in the corner.

No finds are recorded from the other rooms of the household. A large room to the east was not cleared, although Blegen (1921, 89) hypothesized it might be a stable. The northeastern portion of the household seems to have been poorly preserved, but it is possible that this area was a large hall originally.⁷⁴ A roughly square room and narrow corridor or stairwell are also recorded to the west of the entrance (Blegen 1921, 85). This would suggest that a second story existed over part of the household.

House P was clearly a prominent household in post-palatial Korakou and its architectural elaboration, including the use of a propylon-type entrance and colonnaded central court indicate a use of former palatial architectural syntax in the design of its layout.

⁷⁴ Although this large area was in all likelihood a part of House P, it is not included in the area of House P calculated in appendix 6.1.

Tiryns

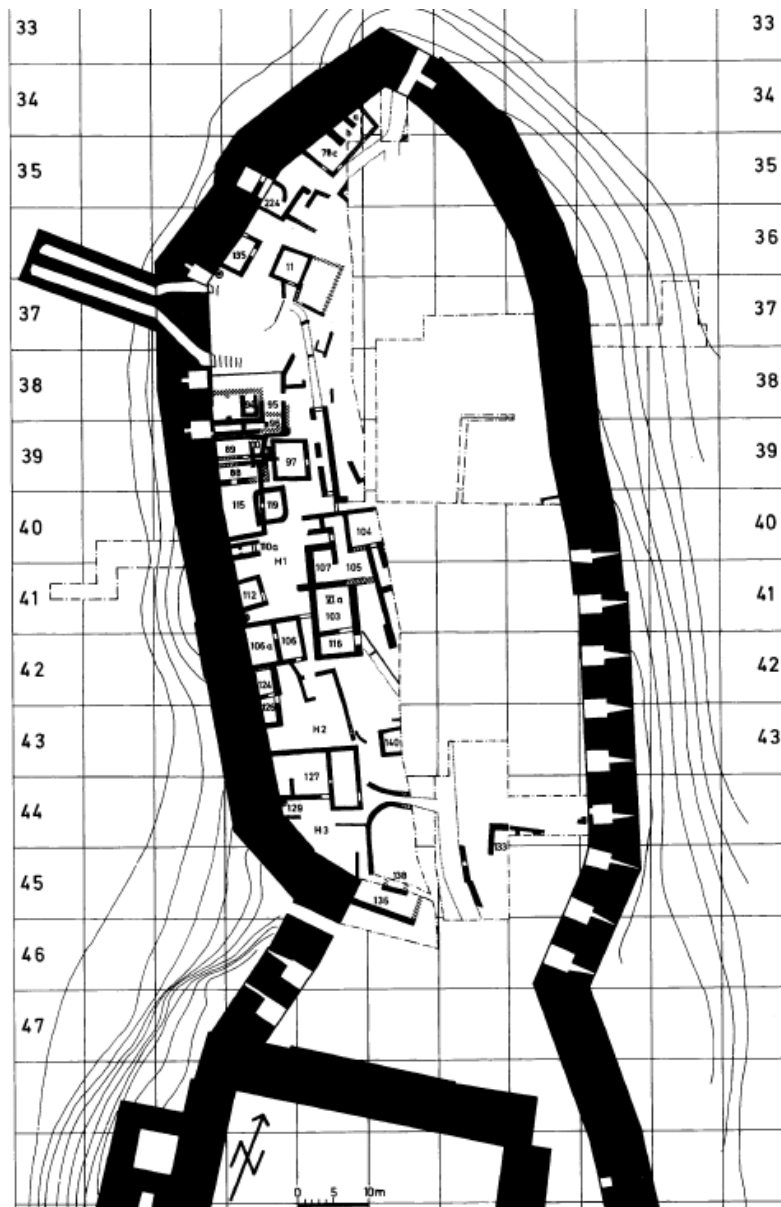


Figure 4.19: Post-palatial settlement in the Lower Citadel (Mühlenbruch 2013, pl. 2).

The post-palatial settlement at Tiryns is the largest known at present. With a total area of approximately 24.5 hectares (Kilian 1978, 468-470), a population in the neighborhood of 5,000 inhabitants is probable. Despite more or less continuous excavation and research spanning the last 133 years, however, few post-palatial structures are fully excavated or

readily understood. The settlement is divided into four parts: the Upper, Middle, and Lower Citadels, as well as the Lower Town, the area of habitation extending outside the fortification walls. The Middle Citadel has few late Mycenaean remains and is of little concern here. The Upper and Lower Citadels (figure 4.19), however, were both used throughout the Mycenaean palatial and post-palatial periods.

The Lower Town, while occupied during the palatial period, was vastly expanded during the post-palatial period, thanks to the diversion of a river with a large dam, allowing low-lying areas to be reclaimed (Zangger 1994; Maran 2009, 242-243). These areas are particularly valuable since, as pointed out by Joseph Maran, they represent the only place where newly built homes could achieve the ideal form that their builders had in mind, unencumbered by constraints of space or previous foundations (Maran 2016, 204). On account of its long history of exploration, one can recover a sense of the long term development of the settlement, particularly the Lower Citadel, from the palatial through to post-palatial periods (Mühlenbruch 2007; figure 5.18). In this chapter, therefore, I will only focus on the most completely understood examples of households, in an attempt to provide the clearest picture of life in a thriving post-palatial community. I begin with the Upper Citadel, before moving on to consider the Lower Citadel and, finally, the Lower Town. In all cases, the households exhibit a number of common features, namely a main hall and access to a courtyard space, often an enclosed courtyard indicating possession by one of the adjacent households (Lemos et al. 2009, 63-71).

LH IIIC Early 1: Building T and the Upper Citadel

Any discussion of post-palatial Tiryns must begin with Building T (figure 4.20). Erected directly on top of the remains of the palatial megaron, both the positioning of Building T

and the refurbishment of a palatial period altar in the courtyard to the south of this structure ascribe it a certain status. Unfortunately, its position directly on top of the megaron made it an obstacle to Schliemann's goal to uncover the palace at Tiryns and the finds from this area were removed by Schliemann with little mention. William Dörpfeld, however, Schliemann's architect at Tiryns, carefully recorded the architecture, including later remains. Beyond its location, Building T is notable for having the single largest roofed space of any known post-palatial period structure anywhere in mainland Greece: its central hall having a total area just shy of 90 m². This hall is also notable for its incorporation of the throne base from the previous megaron into its plan. Three columns/posts were used to support the roofing system, possibly pitched. Fragments of these wooden posts were found during supplementary excavations conducted by Maran and carbon dated to the end of the Late Bronze Age, proving that the construction of Building T took place before the eighth century and most probably in the 12th century BCE (Maran 2000). The discovery of numerous other post-palatial halls with internal posts/columns supports this dating. In addition, recent finds from the Lower Town challenge the uniqueness of Building T in terms of size.

In recent reconstructions of the upper acropolis of Tiryns, Building T has been portrayed as a stand-alone structure and thus interpreted as some sort of communal space, particularly in association with a rebuilt altar out front (Maran 2001, 2011, 2012). But there is evidence to suggest that there was more activity on the Upper Citadel during the post-palatial period than previously recognized. Immediately north of Building T and within the line of the north wall of the palatial megaron, a row of twelve pithoi emplacements was recorded. Dörpfeld was able to record the remains of four of these

emplacements in 1910 and he recorded the diameters of two as 0.74 m (Maran 2001, 118, n. 36). These were apparently fashioned from a coarse plaster on top of the plaster floor of the megaron. There is no architecture associated with these pithoi, and thus the north wall of the palatial megaron must have been A) still standing or B) rebuilt on the original foundations. While the date of the pithoi is not known for certain, it is clear they post-date the laying of the final floor of the palatial megaron. Their placement within the remains of the former megaron certainly suggests a post-palatial date, but without further evidence this is difficult to assess. If they were part of the post-palatial reuse of the former megaron, they would logically have supplied Building T with storage space. This may be estimated at approximately 2400-3600 L, depending on the exact capacity of the pithoi.

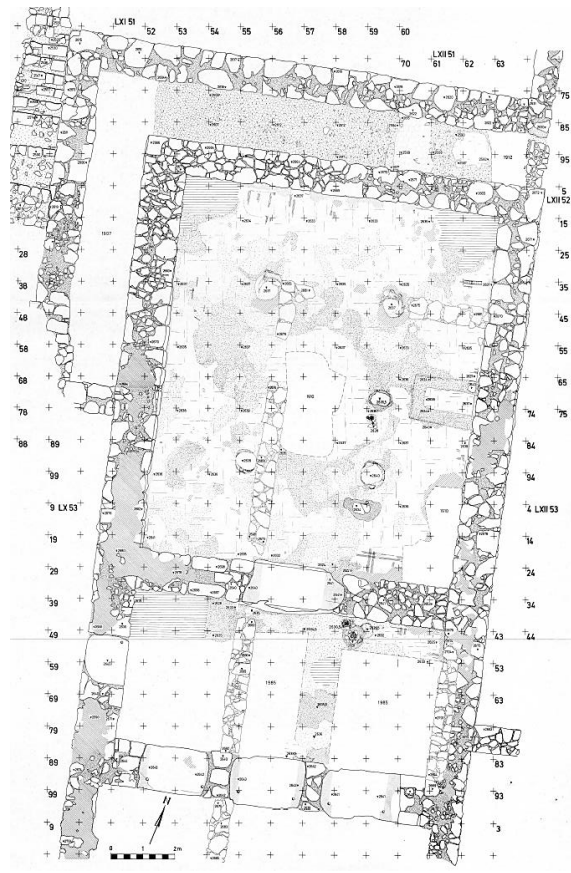


Figure 4.20: Plan of Building T as preserved within the ruins of the palatial megaron (Maran 2000, fig. 5).

Other circumstantial evidence for reuse on the upper citadel supports the fact that the pithos room dates to the post-palatial period. A number of typically post-palatial textile tools were found in the area of the palace, including 16 spools and numerous large torus weights of the type found at Xeropolis and Eleon (Schliemann 1885, 146-147, figs. 70 and 72). Schliemann also illustrates an example of a decorated conical kylix that must date to the post-palatial period (Schliemann 1885, 117, no. 27, pl. XXIf). Similarly, at least three rooms of the well preserved, palatial period remains contained kotselles, although Schliemann's description of these with the small finds is difficult to reconcile with Dörpfeld's description of them in his section on the architecture. Schliemann says "there were also found in one room of the palace, standing near each other, two jars of cylindrical shape of very coarse, dark-brown clay, about 30 mm. thick, unpolished outside and inside; the diameter of one is 0.66 m., of the other 0.54 m. Both were broken at the top, and in their present condition only 0.60 m. high, from which we suppose them to have been 1 m. high originally. An exactly similar vessel was found in another chamber" (Schliemann 1885, 141). Dörpfeld describes kotselles in two Rooms XXVII and XXXVIII, and he marks these on his plan, so their locations are known with some certainty. He describes the three kotselles in Room XXVII as having an average diameter of 0.50 m and being preserved around 1.00 m high (Schliemann 1885, 245). The single kotselle from Room XXXVIII is characterized as "a great rude clay cylinder, such as we have already found in Room XXVII" (Schliemann 1885, 247). These two accounts can only be reconciled if they referred to different rooms, since neither of the rooms described by Dörpfeld has two kotselles as described by Schliemann. Thus, we can conclude that at least three rooms (and possibly four) of the upper acropolis originally held kotselles. No

kotselles have been described in a palatial period context and, therefore, combined with the small finds above, it is likely that more of the Upper Citadel was reoccupied than previously accepted.⁷⁵ These findings strongly suggest that much of the eastern wing of the palace was also reoccupied in the post-palatial period, seemingly organized around the Court XVI and Court XXX. Dörpfeld made some passing remarks on the stratigraphy of the courtyard in front of the Queen's Megaron (Court XVI) that suggests its reuse: "The floor is sand and coarse pebbles, in some spots (especially at the north side) there are under this some traces of lime-concrete." And furthermore, "...several centimeters under this floor, traces of an older, carefully smoothed concrete floor..." (Schliemann 1885, 237). This suggests at least two lime-plaster floors were overlain by a reoccupation floor of the usual post-palatial type. A high density area of later walls was found to the south of Court XXX (figure 4.21). These walls were difficult to understand and Dörpfeld says little about them, except that they are later than the palace and that they are associated with two contemporary drains: one of stone slabs and one of terracotta pipes (Schliemann 1885, 246).

The interpretation presented here draws on the limited information published by Schliemann. Minimally, it suggests that there were in situ post-palatial deposits discovered by Schliemann. While many of these finds could have originated from floors associated with Building T, it seems strange that no mention of this was ever made. The loss of Schliemann's 1884 diary is particularly vexing. The reuse of clearly palatial rooms

⁷⁵ Compare this to the increasing evidence that parts of the Palace of Nestor in Messenia remained standing after its fiery destruction early in LH IIIC. Not only were materials likely salvaged in the immediate aftermath, but cult activities also seem to have taken place in the early post-palatial period (Lafayette 2011; Lafayette Hogue 2016). This reuse of the ruined structure may have continued for an extended period of time on an ad hoc and opportunistic basis, although the establishment of a permanent cult among the ruins (Brenningmeyer 2003), seems increasingly unlikely (Davis and Lynch 2016).

in the east wing of the palace suggests that not all of the buildings were left in ruins; indeed, this fits better with the great effort that was devoted to clearing the destruction debris elsewhere. Much like the better documented destruction at Pylos, it seems plausible that parts of the Tirynthian palace remained standing, allowing them to be reused. The installation of kotselles into at least two of these rooms suggests storage activities took place here. The reuse of the courtyards meanwhile, suggests a form of organization well-documented in the lower town during the post-palatial period.

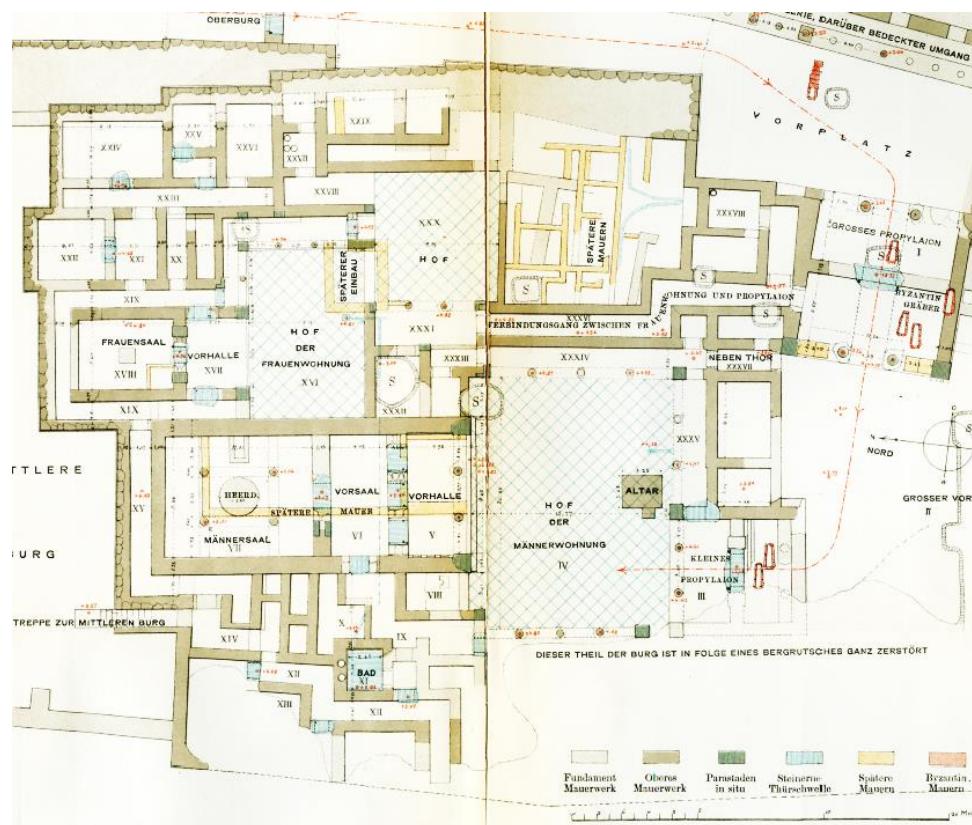


Figure 4.21: Phase plan of the Upper Citadel of Tiryns with post-palatial period constructions in yellow (Schliemann 1885, pl. 2).

LH IIIC Early 1-Late: Bau VIa

This was a large and impressive post-palatial reconstruction of a palatial household (figure 4.22). Many of its walls followed the plan of the earlier construction. It is clear that the household was used for a significant length of time. Its prominent location facing Court 1, where a series of cult building were erected throughout the post-palatial period, suggests that a prominent family may have resided here (Mühlenbruch 2007, 245).

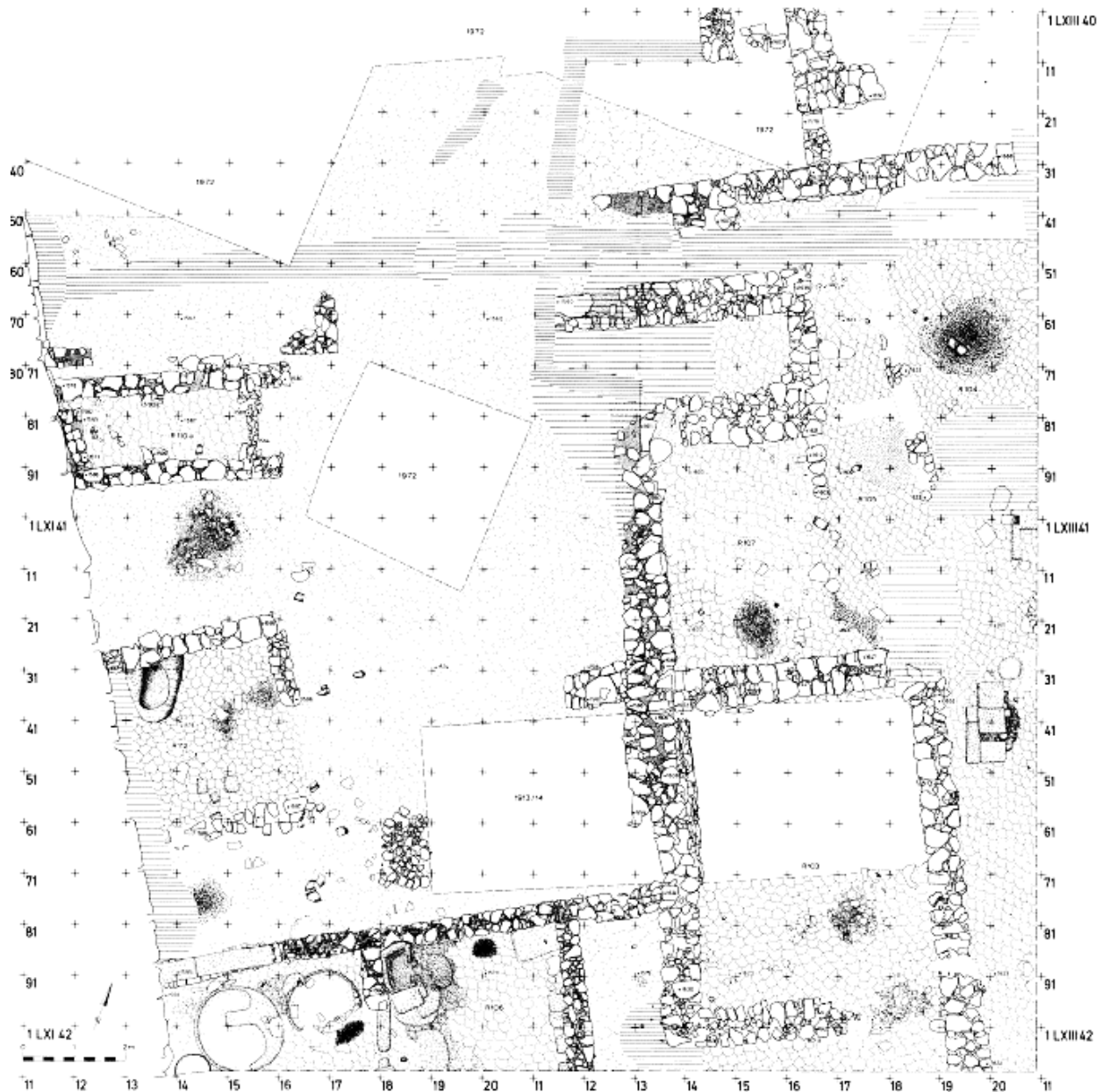


Figure 4.22: *Bau VIa in its LH IIIC Late phase (Kilian 1979, fig. 14).*

Its core consisted of a megaron unit comprising Rooms 107, 103, and 116 arranged on axis. Rooms 103 and 116 communicated via a doorway, and Room 116 was entered via a doorway in its eastern wall. An alternative entrance led in off of Court 1. This seems to have been a more elaborate approach, which gave access to a large open space, R105/104, possibly an enclosed courtyard. On the plan, a large hearth is placed in the center of this space (figure 5.). From there, one could proceed into Room 107 from its eastern side. A narrow chamber to the north of the entrance might be interpreted as a stairway to a second story.

In its final LH IIIC Late phase, Room 103 had a central post. Hearths were located in Room 107 and 103 (Mühlenbruch 2013, 174). Room 107 also had a spool, which would suggest that it served as a multi-functional hall in this final phase, although the extant evidence is difficult to sort out.

LH IIIC Middle 1: Raumkomplex Nordwestareal (78a.b.c.2/02.224.K14)

This complex lies adjacent to the North Gate of the Lower Citadel, which provided access to the Lower Town. The finds are typically domestic in character. I have associated Room 224 and Kammer 14 with the complex adjacent to the door (figure 4.23). Also to be included is the space between the two, a courtyard, which was likely closed off from the road to the east, although most traces of this boundary have been destroyed.⁷⁶ The main complex lay to the north of the court, while Kammer 14 and Room 224 lay to the south. While I am focusing on the best preserved phase, it is clear that this was a long-lived complex that experienced substantial modifications throughout the post-palatial period.

⁷⁶ On Kilian's original plan the continuation of the street wall was preserved to the east of Room 224 (Kilian 1988a, fig. 9).

In fact, its general layout was determined by the palatial foundations in this area, which were repeatedly re-built in succeeding phases (Maran 2008, 85, fig. 81).

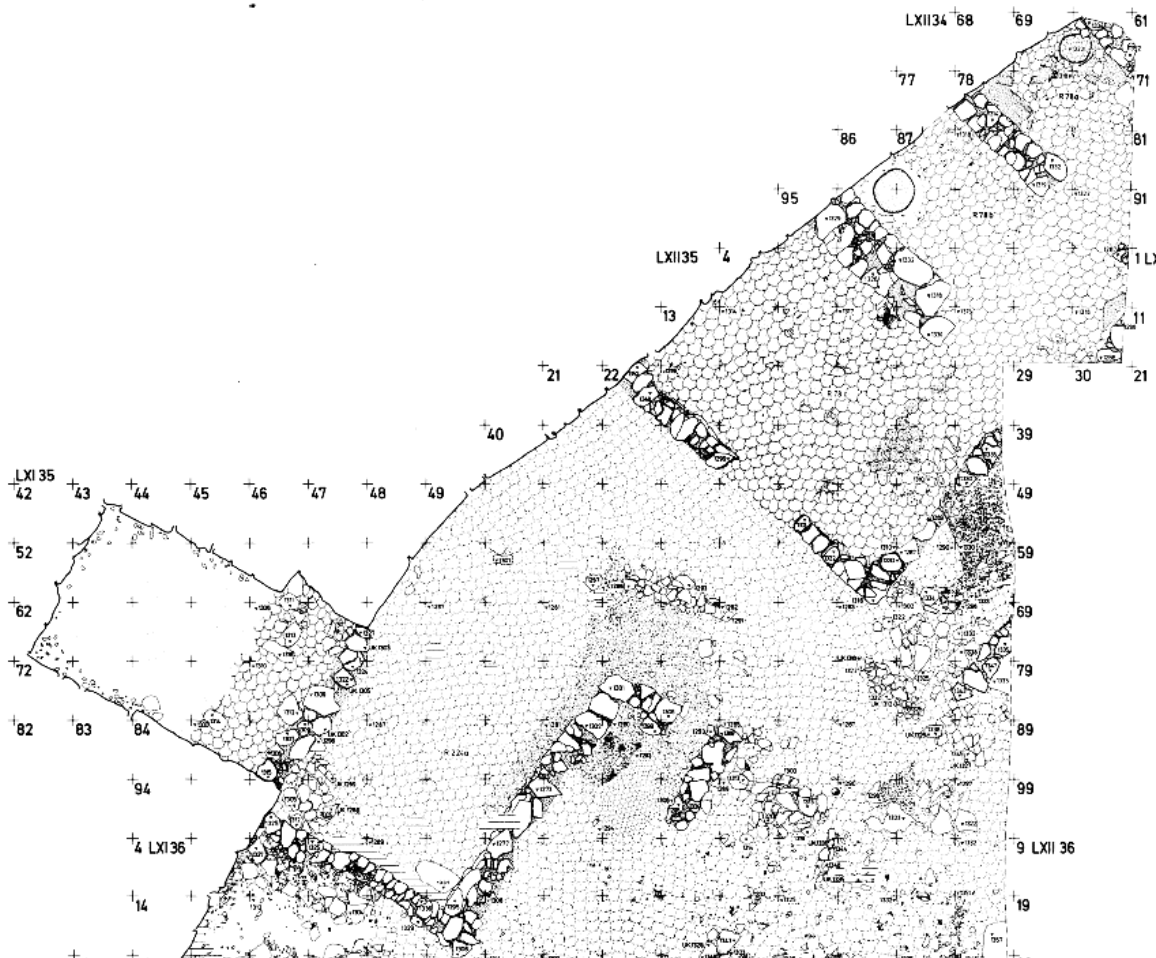


Figure 4.23: Northwest area, Kilian's excavations (Mühlenbruch 2013, Beilage 8).

The main building consisted of four rooms at the end of LH IIIC Middle 1. Rooms 78a-c were partially uncovered by Klaus Kilian (figure 4.23). A fourth room, 2/02, was discovered by Maran, who also uncovered the eastern part of Room 78b (Maran 2008; figure 4.24). A double-entrance to the complex was uncovered in the southeast corner of the complex, from which the visitor entered into the central room, 78b. One doorway connected Room 78b with the courtyard to the south and one, with a built step, gave direct

access to the road to the east (Maran 2008, 68, fig. 58). In its final form, Room 78b was L-shaped. This area has been interpreted as a courtyard by Maran on account of its built installations (Maran 2008, 65-66), but does not need to be and was in fact very likely roofed over. The largest part of Room 78b was excavated by Maran. He found a large oven and a rectangular platform, very likely another oven, in the northwestern and northeastern corners respectively. A smaller, well-preserved, oven stood alongside the eastern wall (Maran 2008, 67-68). Lead slag suggests that small-scale lead working may have taken place in one (or more) of the ovens (Rahmstorf 2015, 147). A decorated krater was found smashed in the doorway connecting Rooms 78b and 78c (Maran 2008, 66, fig. 54). The number of ovens found in this space suggests the household was involved in some form of industry, whether metallurgical or food related.

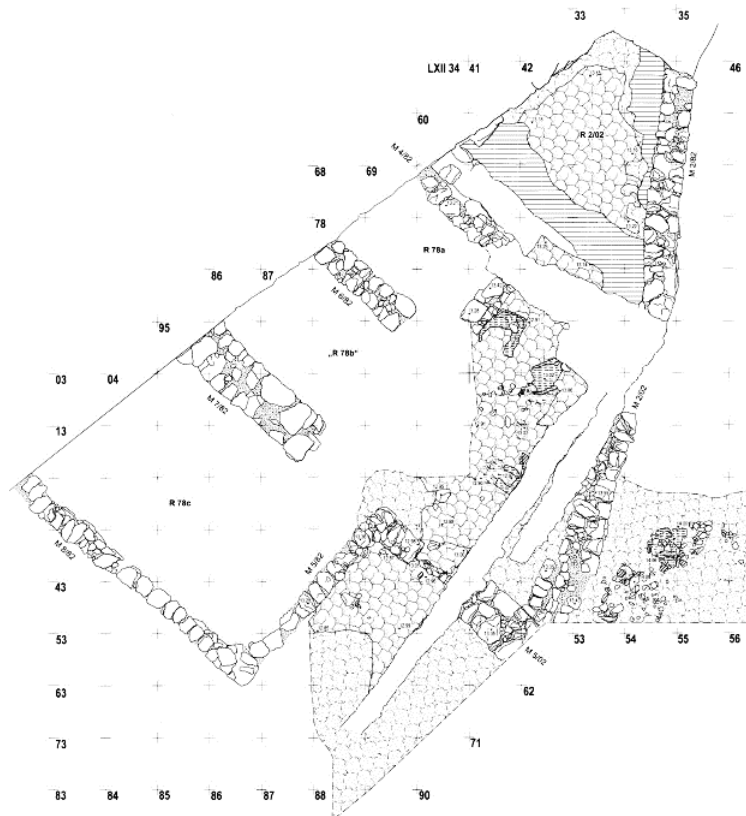


Figure 4.24: Nordwestareal, Maran's excavations (Maran 2008, fig. 55).

Kilian (1988, 111), unfortunately, has little to say about the rooms he excavated. Two kotselles are, however, noted on his plan: one in the northwest corner of R78a and one in the southwest corner of Room 78b (figure 4.23). Veters (2011, 21, fig. 5) notes additional accumulations of burnt mudbrick in the area of Room 78a. Maran is similarly laconic regarding Room 2/02, recording only that it had a brown clay floor (2008, 67). Concerning Room 78c, Mühlenbruch (2013, 73-77) reports that no profiles or small finds were reported. Room 78c also opened onto a courtyard to the south.

The finds from Room 224 and Kammer 14 are noted by Kilian (1988, 111) in his report. For the first part of LH IIIC Middle he refers to a bench inside the Kammer. Christian Podzuweit (1983, 363, figs. 1.1, 3, and 5) published two deep bowls and a jug from the same area. Room 224, which was approached by a series of steps from the court to the north, contained two kotselles and two unpainted bathtubs. The latter are now lost (Mühlenbruch 2013, 78). A hearth was also found (Mühlenbruch 2013, pl. 69.2), which according to Lorenz Rahmstorf (2015, 247) had traces of small-scale lead working nearby including a crucible fragment. The contents, taken together, suggest a storage area, although the presence of the bathtubs may also indicate industrial activities.

The layout and location of this complex suggests it was an important residence, an image underscored by the discovery of a clay ball inscribed with three characters in the Cypro-Minoan script found just outside the entrance through the southeast corner of Room 78b (Veters 2011, 21, fig. 5). It was found in association with a cluster of small

finds, thought to have been swept out from Room 78b including a terracotta wall bracket, obsidian debris, and grinding stones (Vetters 2011, 22; 43, table 4).⁷⁷

LH IIIC Middle 2-Late: Raumkomplex 127a.127b.Hof 3



Figure 4.25: Raumkomplex 127/127a/Hof 3 (Mühlenbruch 2013, plan 51).

⁷⁷ This floor maintenance again suggests that Room 78b was likely a roofed space opening onto a courtyard to the south.

This very large room complex was connected with Court 3, which appears to have functioned as an enclosed courtyard, not accessible to the general public (figure 4.25). In its final phase this household consisted of two rooms separated by a mudbrick wall with a 0.70m opening allowing movement between them (Kilian 1981, 156).

Room 127a was founded against the citadel wall. Part of this room had been dug by Georg Karo in 1905 (Kilian 1981, fig. 7). It was built on top of an earlier, single room household, Room 127. Although it connected with Room 127b through its north wall, it also opened onto Court 3 through its northeast corner. By this entranceway there was a hearth with a quern placed alongside it (Kilian 1981, 154-156). The phasing of this hearth is unclear, since a number of hearths of different date were found inside this space. Originally Room 127a made use of the large central hearth from Room 127, but in later levels, three smaller hearths occupied the center of the room (Kilian 1983, 280). A medium-sized pithos was placed in the northwestern corner of the room. In the southeastern corner a small cross-wall demarcated a small area, perhaps to serve as a storeroom.⁷⁸ Most of this area was badly damaged by a later pit.

Room 127b was a long narrow room. It opened to the east onto a narrow street, separating Room 127b from Bau VIa. In the northwest(?) corner (Kilian 1983, 280),⁷⁹ a stone-lined base seems to have been the foundation for a kotselle. In addition to a kotselle, an unpainted bathtub was also found on the LH IIIC Late floor level (Kilian 1983, 280-281, fig. 4).

⁷⁸ Traces of a kotselle may be indicated on the Phase X plan (Kilian 1983, 283, fig. 6).

⁷⁹ Kilian says northeast, but the phase plan seems to place it in the northwest corner (Kilian 1983, 283, fig. 6).

Court 3 was a very large, triangular space bounded by the citadel wall to the west and south and a low socle, which must have supported a mudbrick wall along its east side. An entrance corridor paved with small stones led from the street into the court, as well as to the entrance of Room 127a.

In terms of finds, Podzuweit (1983, 380, fig. 6) records a wavy band krater, a large krater with a triglyph panel with streamers and stemmed spirals (1981, 215, fig. 64), and a stirrup jar from the LH IIIC Middle 2 levels (1983, 385, fig. 8). Kilian also mentions many cups, including fragments of bull's head protomes (Kilian 1981, 156). A monochrome deep bowl with reserved lower body comes from an LH IIIC Late context (Podzuweit 1983, 397, fig. 15.11). Rahmstorf (2008, pl. 140-141) documents seven spools from LH IIIC Late levels in Room 127b and four additional spools from LH IIIC Late levels in Room 127a. Interestingly thirteen spools are documented from an LH IIIC Middle horizon below Room 127, but apparently these predate the construction of the household (Rahmstorf 2008, pl. 138).

Despite its late construction date, this household was also equipped with a water channel (Mühlenbruch 2013, 211-217). A rare feature in any post-palatial settlement, documented also in the Northwest Lower Town and the Phase 3, South House at Xeropolis.

Although an exact understanding of this household is difficult on account of its frequent modification, it is clear that this was a large and well-appointed household in its final phases. Small-scale domestic textile production is attested – a rarity elsewhere at Tiryns. It is of course interesting to note the occurrence of an unpainted bathtub here in conjunction with the evidence for textile production.

LH IIIC Late: Raumkomplex 106.106a.124

This cluster of rooms, opening onto Court 2, is one of the best preserved households of the Lower Citadel (figure 4.26). Because its furnishings remain largely in situ, it offers some help in understanding the organization of the post-palatial period settlement at Tiryns as it transitioned towards the Early Iron Age.

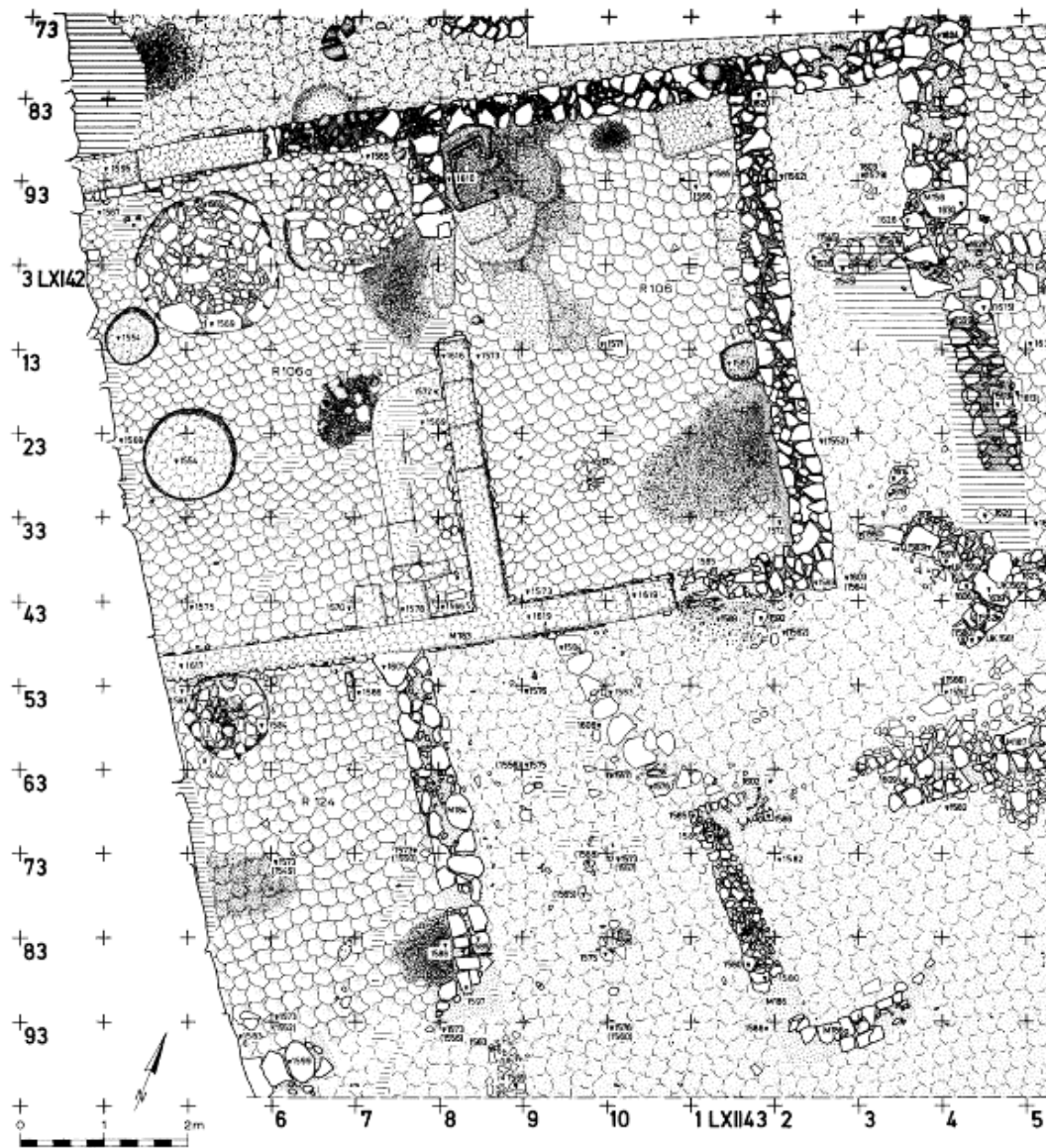


Figure 4.26: Raumkomplex 126/126a/124 (Mühlenbruch 2013, plan 37).

The household consists of three rooms. Two of these rooms, Rooms 106 and 106a, communicated via a doorway in the final configuration. Room 106 communicated also with Court 2 via an entrance in the southeastern corner of the room. This room featured an oven in its northwestern corner measuring 0.95 x 0.60 m. Lead slag in the firing chamber demonstrates the use of this oven for metallurgical purposes (Kilian 1978, 459-460; Rahmstorf 2015, 147). Room 106 may have served as the main hall of this household. The presence of an oven is, however, somewhat unusual. A very large krater decorated with octopus motif was found here (Kilian 1978, 460, fig. 16), a wavy band krater (Podzuweit 1979, 428, fig. 44.7), a krater with running spiral (Podzuweit 1979, 432, fig. 48), monochrome deep bowls, some with reserved lower body (Podzuweit 1979, 429, fig. 45.6-8), a small linear stirrup jar (Podzuweit 428, fig. 44.4), and a jug with scroll (Podzuweit 1979, fig. 44.6). Also associated with this deposit is the intriguing find of a clay sealing to a closed vessel stamped with a lentoid seal, suggesting continued administrative activities at a very late date (Kilian 1979, 384).

Room 106a was constructed against the Cyclopean circuit wall. Its internal features demonstrate that it was primarily used for storage. Along its north wall, two very large kotselles were placed on stone packing (Kilian 1979, 383). The larger one, placed in the northwest corner, measured 1.64 m in diameter. Assuming a maximum height of 0.60 m, this kotselle would have had a capacity of 1,270 L, if however its maximum height was 1.00m, this kotselle would have held 2,110 L! While I have used the minimum estimate in table 6.2, it is important to realize that these calculations could be upwards of 40% greater than presented there. The second kotselle, positioned in the northeastern corner, is only slightly smaller in diameter, coming in at 1.44 m. This kotselle would have had a minimum

capacity of about 980 L. Beyond these two kotselles, the excavator also reported two clay-lined conical pits in Room 106a (Kilian 1979, 383-384). These had diameters of 0.64 m and 1.00 m. Both were placed along the western, Cyclopean circuit wall. Although the excavator compares these to the kotselles from the Granary, it seems more likely that these were pithos emplacements similar to those found in the ruins of the megaron and associated above with Building T.⁸⁰ If so, these would have held one medium and one large sized pithos perhaps giving another 500 L or more in storage space. In addition, a long rectangular receptacle was created with mudbricks (3.00 x 0.90 m) (Kilian 1979, 384; Mühlenbruch 2013, 181), perhaps also intended for storage? A small hearth was placed along the south wall of the room (Kilian 1979, 384). This room was clearly used as a storeroom. In its latest use levels, three spools are documented (Rahmstorf 2008, pl. 130). As seen elsewhere, textile equipment is frequently stored alongside dry goods when not in use.

In Room 124 there was a 0.96 m kotselle placed in the northwest corner of the room (Kilian 1979, 385). Near the entrance to the room was found a hearth with a quern placed nearby. No ceramic finds are mentioned. This area seems to have served as a kitchen, perhaps serving the courtyard to the south, onto which it opened.

LH IIIC Middle 1: Megaron W and House O

Megaron W is one of the most impressive post-palatial structures at Tiryns architecturally (figure 4.27), but contained few finds that aid in the understanding of its use. A bronze chisel with deer antler handle was found in the central hall, but no other small finds are

⁸⁰ A large portion of a pithos can also be seen in the excavation photos (Mühlenbruch 2013, pl. 68.1-2).

recorded (Gercke and Hiesel 1971, 15, pl. 23.2-4). The scattered sherd material contains a variety of open and closed shapes: kraters, deep bowls, a large mug fragment, small globular stirrup jars, and jug/hydria/amphora fragments with tassel and elaborate tails extending from the handles onto the belly (Gercke and Hiesel 1971, pl. 17-18). As the pottery was not published by room, no functional analysis of spaces based on ceramic finds is possible.



Figure 4.27: *Megaron W and House O (Gercke et al. 1975, Beil. 3).*

Architecturally, the house is arranged along an axial “megaron” model. It consists of three rooms: a shallow porch, a large central hall, and a small rear chamber. Despite the simplicity of its design, the household was impressively built and a built feature in the corner of the central hall appears to have been a staircase to an upper story, attic, or roof level. The most notable feature of this central hall are three column bases, evenly spaced along the central axis of the hall. Between the first and second bases a large hearth was excavated.

Associated with Megaron W, was House O. In fact, House O may be an expansion of Megaron W, since its foundations were built abutting Megaron W and they appear to have been in use simultaneously (Gercke et al. 1975, 11). Its only internal feature was a central hearth (Gercke et al. 1975, 10), although a stone base found approximately in the center of the room may also be associated, since it is built above the earlier architectural remains as well (see figure 5.26). This room opened onto an apparently open space to the east. Although its floors produced only sherd material, a small deposit of mendable vessels was found just outside the entrance (Gercke et al. 1975, 15, nos. 18-23). This material is likely of LH IIIC Late and dates to the abandonment of the complex. This deposit includes at least four mendable deep bowls (one in a degenerate close style), a trefoil jug, and a large closed shape with elaborate tails decorating the handle attachment point.

LH IIIC Early 2: Northeast Lower Town

The Northeast Lower Town was excavated by Joseph Maran and Alkestis Papadimitriou between 1999 and 2000 (Maran and Papadimitriou 2006). The ceramics from this

excavation have been studied in detail by Philip Stockhammer (Stockhammer 2008, 2011), thus allowing a detailed analysis of the use of space in this quadrant of the settlement (figure 4.28). Unfortunately, much of the area excavated consists of an open courtyard throughout the LH IIIC period, meaning only small portions of the surrounding households have been explored. The excavation is important for producing evidence for the use of the large halls explored elsewhere on the site (e.g., Building T, Megaron W), but unfortunately lacking the rich assemblage of finds found in situ in the Northeast Lower Town.

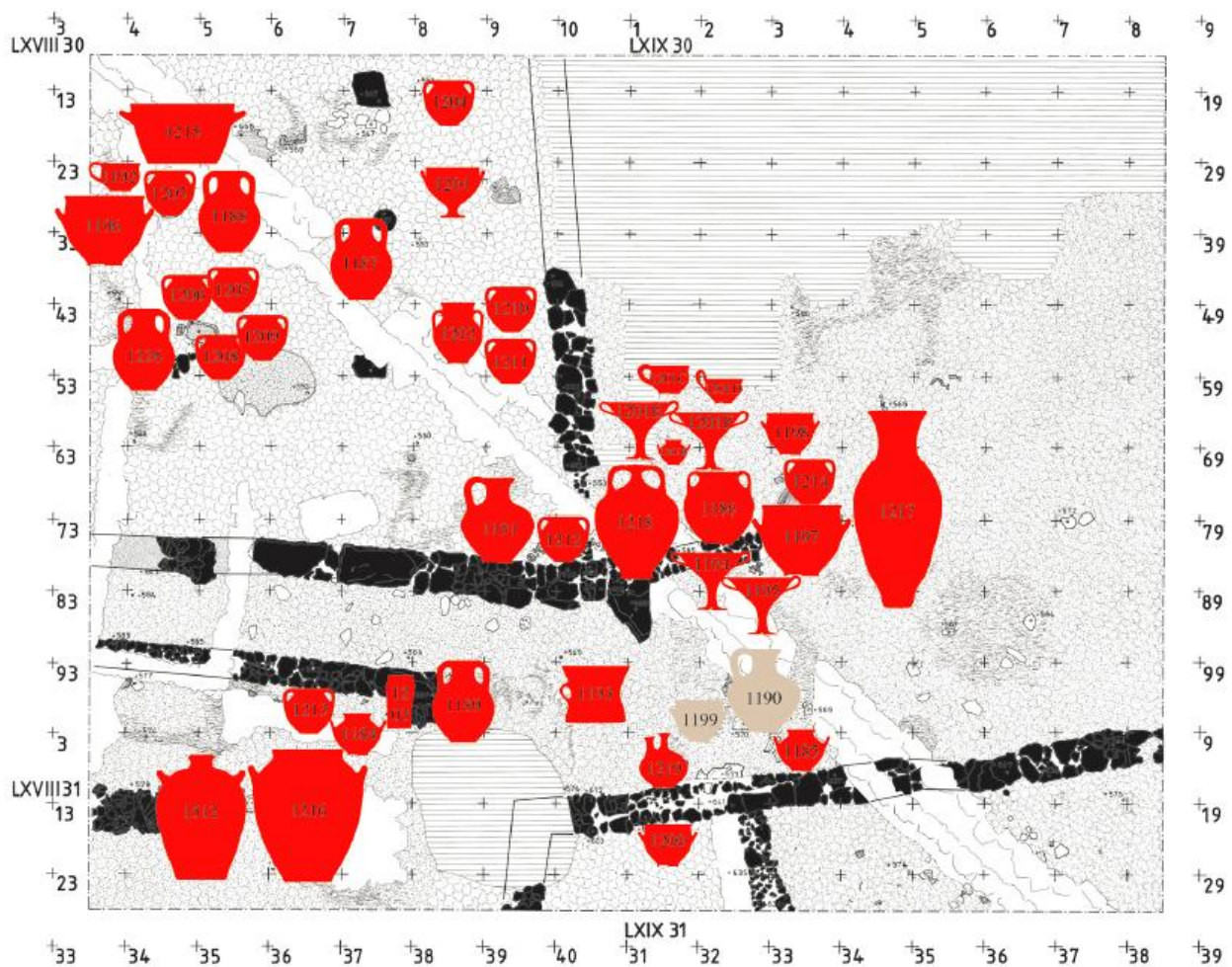


Figure 4.28: Northeast Lower Town, Phase 2 (Stockhammer 2008, fig. 90).

The architecture of the hall in the Northeast Lower Town may be even more monumental than Megaron W or Building T, as its internal features include a double-row of columns placed on round or rectangular bases at regular intervals. Because the northern and eastern limits of the hall were not uncovered in the excavations, the exact dimensions of this hall are unclear. Using the intercolumniation of the rest of the building, however, we can project the total width of the hall to have been around 8.00 m. At a minimum, the length was 9.00 m, although another pair of columns to the north would make it closer to 12.00 m. At a minimum, the total area of hall 8/00 was 72.00 m², with an additional row of columns, however, its total area could have been closer to 96.00 m², and thus the largest roofed space in LH IIIC Tiryns. Even using the minimum size, however, the total area of Room 8/00 fits the range of other similar halls at Tiryns. Beyond its internal columns, the only other recorded feature is a large hearth positioned between the two southernmost columns (Maran and Papadimitriou 2006, 108, fig. 10; fig. 6).

As mentioned above, the value of this hall is its in situ deposit of ceramics. Stockhammer interpreted the distribution of finds as the remains of a feasting event gone wrong. That is to say that a fire broke out during the feast and everyone was forced to abandon their positions, perhaps only taking their most valuable possessions with them. Support for a sudden abandonment comes from four cooking pots in situ on the hearth, one of which contains the remains of a soup or stew in progress (Stockhammer 2011, 220, n. 13). Another five cooking pots, ranging from small one-handled pots to large two-handled versions were found scattered throughout the room, many stored alongside the walls in the usual fashion. Three amphorae (or similar closed shapes) were found near the

cooking pots on the hearth, perhaps to provide water for boiling/simmering. In the vicinity of the second column base (not preserved) in the western series the lower half of a vat, a semi-globular cup, and a very large krater decorated with a nautilus motif was found. Along the eastern wall, a badly broken, but restorable stemmed bowl marks another rare open shape. Lastly, a linear-banded jug and a tenth cooking pot was found in the southeastern corner of the hall, although these should likely be considered part of the large assemblage found just outside the door (discussed below). Other than the large decorated krater and stemmed bowl, all of the vessels found inside the hall suggest that it served as the kitchen of the household. So far, however, only a limited number of small finds from hall 8/00 have been published (Maran and Papadimitrou 2006, 108-109). These include a wall-bracket found alongside the southeast column base, perhaps once nailed to the column. Wall-brackets are of Cypro-Levantine origin, but came to be produced locally at Tiryns (Rahmstorf 2014, 193-194). While their function is not known with certainty, it seems that they may have been a specialized form of incense burner (Rahmstorf 2014, 190-191). While this may have been employed in cultic/ritual settings, one can imagine it being useful in banqueting settings as well. Two round loom weights, not illustrated by Maran and Papadimitriou, attest to some textile production in the large hall as well (Maran and Papadimitriou 2006, 108). It would be interesting to know what form is meant by round. These clearly are not the usual post-palatial spools (although these seem to be rare at Tiryns prior to LH IIIC Middle) and, therefore, must be discoid loom weights of the Minoan type, or large torus weights such as those found at Eleon, Xeropolis, and the Citadel. In any case, the appearance of loom weights suggests that these large halls served as multi-functional domestic spaces.

It is unclear what other architecture might go with this hall. The bulk of the residence, including any storage facilities, must have lain to the west or south (although at present the three rooms to the south appear to form a separate complex). To the east, a large open space is found that served as a courtyard. A doorway appears to have connected the hall with this courtyard in the southernmost part of the east wall of hall 8/00. Just outside this doorway, an abundance of shattered fine ware ceramics was found where it must have been abandoned at the time of the fire. Thus, it seems that participants in the feast were assembled outside, rather than in the hall itself. The equipment contains all the necessary elements to host a small drinking party. Four kylikes, found in discrete pairs, and a large elaborately decorated mug would have served to distribute alcoholic beverages to the assembled group of individuals. Including the cooking pot just inside the doorway, two cooking pots were already in use outside, perhaps providing a *meze*, prior to the main course. A deep bowl may have allowed the food to be served. Two cups with dotted rims, one semi-globular and one carinated could have been used to transfer liquids or food from one container to another. A krater served as a mixing bowl for the wine, which may have been held in the large amphoriskos. Water was held in the jug found just inside the doorway. A small closed shape may have served to hold spices as noted by Stockhammer (Stockhammer 2011, 226), although honey is perhaps equally likely. The remaining two vessels are both storage vessels. One is a Cretan transport stirrup jar, prominently placed at the entrance to the hall, and the other is a medium sized pithos. Both of these vessels may have served to broadcast the wealth (and perhaps generosity) of the host: the former containing olive oil (whether for cooking or perfumed), the latter cereals or lentils. It is notable that courtyards elsewhere often feature storage

installations. The pithos also indicates that access to this court was controlled, likely by means of a gateway in the southeast corner, and thus foodstuffs could be left in a relatively exposed position.

LH IIIC Middle 1: Northeast Lower Town

Following the major destruction event that took place at the end of LH IIIC Early 1, the lower town of Tiryns was extensively rebuilt. The overall density of the settlement may have been reduced. This was likely a reaction to the devastating fires that swept through the settlement. The basic organizing principles nevertheless remained the same: large courts were surrounded by rooms that fulfilled the various needs of each household unit.

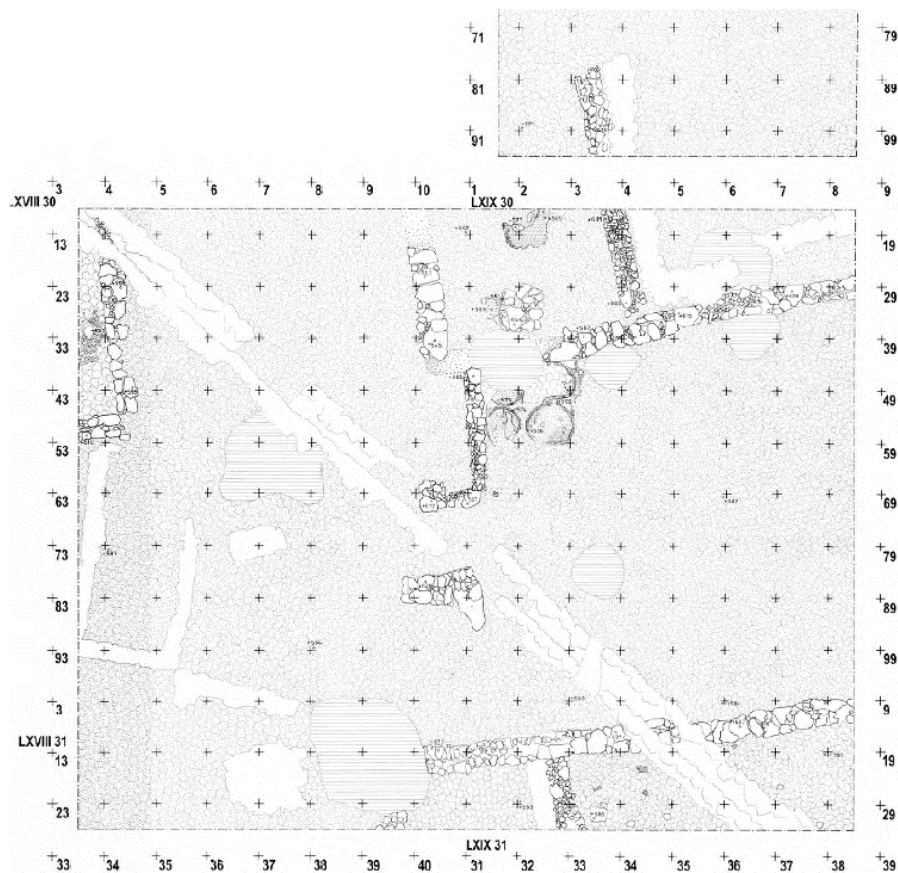


Figure 4.29: Northeast Lower Town, Phase 3 (Maran and Papadimitriou 2006, fig. 16).

An unfortunate result of such large courtyards is that when an excavation is centered on one, as in the present case, very little of the surrounding rooms are explored. Thus, while Maran and Papadimitriou exposed the basic layout of the Phase 2 settlement in the Northeastern town, they only really explored the two northern rooms in any manner approaching complete excavation (figure 4.29).

The courtyard was approached from the west where a gate complex was formed by two projecting antae. This must have been closed by some form of gate, since just to the north upon entering was a battery of four medium-sized kotselles (Maran and Papadimitriou 2006, 114). These ranged in diameter from 0.60-0.80 m. These must have been protected somehow from the rain, since they were made of unfired clay, but no post holes were noted. Some sort of casual shed or roof is probable.

Rooms 6/00 and 7/00 formed the northern boundary of the complex. Room 7/00 contained a centrally placed hearth and two fragmentarily preserved kotselles (Maran and Papadimitriou 2006, 113-114). No connection was observed between this room and the central courtyard or the adjacent Room 6/00. Room 6/00 was devoid of any built features.

Rooms 1/00 and 2/00 formed the southern boundary of the complex. Much like the two rooms defining the northern boundary, there is no evidence for a connection between each other or with the central courtyard.

LH IIIC Early 2: Northwest Lower Town

The Northwest Lower Town was first explored by Kilian in 1976. He uncovered a multi-phase household and courtyard complex, but did not explore it further (Kilian 1978, 449-

457; figure 4.30). Few finds are recorded from this excavation (Mühlenbruch 2013, 224-246), which is notable in light of the mostly intact destruction deposits observed elsewhere in the LH IIIC Early Lower Town. A wall bracket and a griddle are of special note (Kilian 1978, 451-452, figs. 5 and 7). A brief rescue excavation by Katie Demakopoulou and Nicoletta Valakou in the same area indicated a similar organization of space, but was limited in extent (Demakopoulou and Valakou 1982, 85, fig. 2, pl. 41-42a).

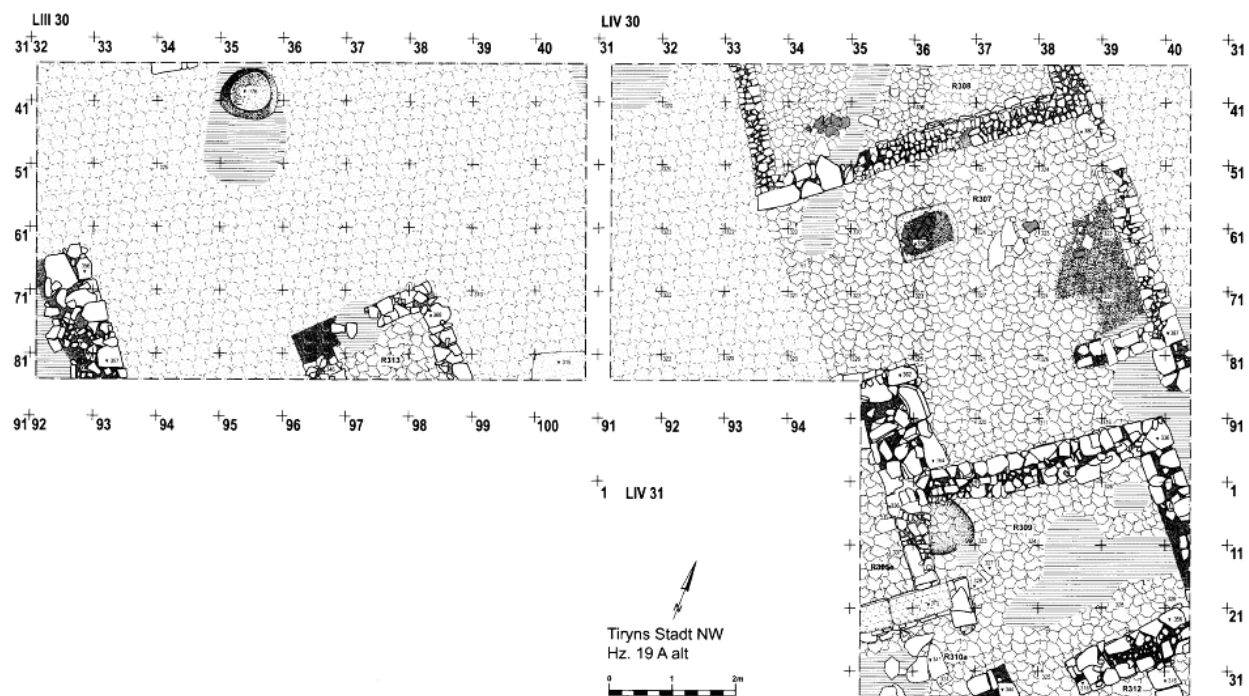


Figure 4.30: Northwest Lower Town, Kilian excavation, Phase 1 (Mühlenbruch 2013, plan. 57).

The most recent German and Greek excavations at Tiryns have focused on a new section of the Northwest Lower Town in an attempt to define the extent of the post-palatial period settlement, as well as to distinguish as much as possible any differences in the use of households. Due to the recent date of the excavations, only preliminary reports of the finds are available, nevertheless they present a picture similar to that seen

elsewhere in the lower town, consisting of a series of seemingly domestic rooms organized around open courtyards.

As in the Northeastern Town, a major destruction horizon at the close of LH IIIC Early 2 is noted. While the architecture needs further study, Maran has already highlighted the importance of Room 1/14, on account of its similarity to Room 8/00 in the Northeastern Lower Town. This room featured a hearth and multiple columns. These appear to have been rearranged during its use and abandonment, so their exact placement in their final configuration is unclear (Maran 2016, 208-209, fig. 12.4). Continuity in the function of this space is demonstrated by the restoration of the hearth and rearrangement of the columns, demonstrating their centrality to its organization. In the remains of the earlier phase of this room, ivory inlays attest to the furnishing of this space with elaborate furniture (Maran and Papadimitrou 2016, 30, fig. 14).

This hall communicated indirectly with the large, enclosed Courtyard 2/15 through a door in its north wall (Maran 2016, 207, fig. 12.3; Maran and Papadimitrou 2016, 32-33). This courtyard measured 11.80m along its east-west axis and 4.40m along its north-south axis. It also communicated with Rooms 1/15 through its western wall and Room 5/15 through its eastern wall. Maran posits a doorway through the north wall connecting it with the so-called backyard (“Hinterhof”), but the presence of an unexcavated bulk prevents certainty. What is clear is that Courtyard 2/15 played a critical role in linking Rooms 1/14, 2/14, and 4/14 with Rooms 1/15, 4/14, 5/15, and 6/15. This would have created a rather sprawling complex, but may have functioned to divide space functionally into living, working, and storage spaces. The courtyard features a well-preserved destruction deposit. In the western half of the court, were found a number of crushed

vessels in situ. A clay platform along the north wall supported a strange, likely Italian-style, situla made with a tournette. Traces of burning on its interior suggest that it held some commodity or food at the moment of destruction. Nearby was found a cooking pot and a kylix. Several stone pounders, apparently unused were also found. Along the south wall, two pithoi were found fallen on their sides, just inside the entrance to the court from Room 1/14, an arrangement directly imitating that of the pithos outside the entrance to Room 8/00 in the Northeastern Lower Town. Nearby the pithoi were found other crushed vessels, including a strainer jug, a handmade burnished cup, and other handmade burnished jars. A further concentration of vessels, not yet published, was found near the entrance to Room 1/15. Farther east, towards the center of the courtyard, was a hearth with sherd-pavement, although this lies mostly in the unexcavated baulk. On the eastern half of the courtyard, fired red clay bricks suggest that already ovens of the type preserved from the second settlement were in use (Maran and Papadimitriou 2016, 36). These were associated with further deposits of crushed vessels, including a tripod cooking pot, a jug, a bathtub, and two decorated kraters. A small figurine of a boat was also found in this area. A third pithos was positioned in the northeast corner of the courtyard, adjacent to the entrance into Room 5/15.

In the backyard, a large stone slab with an unworked deer antler placed on it perhaps served as a locus for ritual activity, although this is better documented in the second habitation phase. Associated pottery fragments will likely help clarify this. The only vessels described are a carinated kylix near the stone slab and a cooking pot found elsewhere in the backyard (Maran and Papadimitriou 2016, 39-40).

In the LH IIIC Early 1 phase of use, Room 1/15, which communicated with Court 2/15 via a narrow door in its eastern wall, produced a bronze sickle and a double mold for the manufacture of bronze sickles (Maran and Papadimitrou 2016, 30-31, figs. 16-17). This was an approximately square room with a central post support. The second phase of use offered fewer finds. The only feature noted in the preliminary report is a possible kotselle in the southeastern corner of the room (Maran and Papadimitriou 2016, 40). While the excavators found no evidence for bronze working in Room 1/15, it is tempting to connect the storage of a mold here with potential metallurgical activities in Court 2/15 during the earlier phase of use.

Rooms 4/15, 5/15, and 6/15 may have formed a storage area for the activities occurring in Court 2/15. Room 4/15 and Room 5/15 were connected via a doorway in the northern wall of the latter. A large sawn stone block of the same material as the stone forming the floor of the bathroom on the Upper Citadel is thought to be reused from a palatial period construction. Although found displaced, the interpretation of this block as the threshold between these two rooms seems likely. The western portion of Room 4/15 was crammed with three kotselles. In the excavation report Maran and Papadimitriou describe a low clay brick wall, which has kotselles on the eastern side. Although no clear traces are preserved, it seems possible that kotselles also were positioned to the west of this mudbrick wall. This arrangement parallels that seen in the Northeastern Lower Town in Phase 3, and was probably meant to support these unfired constructions from the external forces exerted by the stored cereals inside. In the eastern portion of this room an unfired rectangular clay bin, a clay platform, and a pithos were found. Scattered in the same area were the remains of a small tripod, a small jug, a handmade burnished jar, and

a krater. Rooms 5/15 and 6/15 were unfortunately much disturbed by later constructions, but traces of disturbed clay constructions in Room 5/15 point to a storage function for it as well.

Rooms 1/14, 2/14, and 4/14 likely made up the domestic quarters of this household. Room 1/14 was especially impressive, featuring a double row of columns and a large hearth. This undoubtedly served as the main hall of the household, although few finds remain from its second phase of use. Room 2/14 seems to have had a double row of internal supports as well, perhaps suggesting an upper floor. A great deal of fallen red clay overlying the destruction deposits here may derive from such a second story. At least two cooking pots, two jugs, a kotselle, a skyphos, a small globular stirrup jar, and an unidentified vessel were found in the destruction layer. Finds that suggest this may have served as a storage space for the adjacent hall. Room 4/14 produced similar finds, including the fragmentary remains of another kotselle, a kylix, a jug, and an unidentified vessel. Room 1/14 produced few finds and little trace of the burnt destruction. Damage to the hearth of the final phase, suggests that some of this may have been caused by later building activities, but it is also possible that it simply had little permanent equipment, especially given the concentration of finds in Courtyard 2/15.

While the eventual publication of these deposits in full will greatly aid our understanding of their function, the general pattern seems remarkably similar to the arrangement of space elsewhere at Tiryns during the post-palatial period. The storage capacity of the household seems to have been significant, as might be expected for such a sprawling complex. The lack of published diameters or a detailed site-plan makes any analysis of storage capacities difficult. It is notable that pithoi and a bathtub were

employed in the courtyard. This may be due to the fact that fired vessels were more suitable for an outdoor environment (although kotselles are recorded outdoors elsewhere at Tiryns), or it may be due to the semi-public nature of the space as the dining equipment suggests. Fired vessels may have been intended to communicate the wealth or material networks of the household. Whatever the case, unfired clay containers predominated in the interior spaces and storerooms. The variety of handmade/Italian type jars/situlae observed is unusual, although their usage in the household seems to parallel that of vats at Xeropolis.

The Northwest Lower Town was clearly the location of an impressive household during this period. The wide-ranging network of contacts revealed by its material assemblage, including valuable commodities such as ivory in its initial phases, suggest the residence of a prominent family. The abundance of Italian-influenced ceramics once again begs the question of whether foreign peoples might be present in the family unit and, if so, what exactly their status was in relation to other members.

LH IIIC Middle 1-2: Northwest Lower Town

After a fiery destruction that is attested across the lower town, rebuilding took place nearly everywhere. In the area of the Northwest Lower Town, the rebuilding seems to have created even more open spaces (Maran 2015, 213; Maran and Papadimitriou 2016, 47, fig. 58). It is tempting to connect this development with the fire that seems to have spread through the settlement in the previous phase. Whatever the case, many of the excavated areas dating to this phase are courtyards, rather than households (compare the

Northeastern Lower Town). These are frequently occupied by ovens of the type observed in the household of the previous phase, suggesting continuity in the local industry.

Court 3/15 continued in use during this phase. Three ovens, probably representing frequent re-buildings of a single oven over time, are recorded in the eastern portion (Maran 2015, 214-215), marking a continuity in the use of this space from the preceding phase. These ovens have been analyzed thoroughly, but have revealed no evidence for craft production. They appear to be used for specialized cooking. Maran suggests that this may be for baking meat, on account of specialized ceramic vessels found alongside them (Maran 2015, 215). Another possibility would be leavened bread. This was regularly prepared in ceramic containers used as molds in ancient Egypt and Mesopotamia as a form of ration (Chazan and Lehner 1990). As in the previous phase, when kraters and other fine wares attest to drinking activities, it appears that communal drinking events continued to be held in the courtyard during this phase, as several kylikes were found deposited in the final kiln (Maran 2015, 214).⁸¹

Court 4/15 also seems to have maintained its function during this phase. An elaborate ceramic rhyton was found buried in a pit, apparently intentionally broken and burned (Maran 2015, 215-217, figs. 12.18-19). Other ceramic vessels also seem to have received similar treatment (Maran and Papadimitriou 2016, 55-56, figs. 78-80).

Another important development was the construction of a drainage channel (Maran 2015, 213), a rare instance of post-palatial infrastructure. A similar channel appears in the Lower Citadel alongside Room 127.

⁸¹ Maran is clear that these are deposited after the oven went out of use and were not being fired.

Mycenae

Although Mycenae is generally thought to have declined rapidly after the palatial period, the depth of post-palatial period deposits in those areas not touched by early excavators demonstrates that the entire acropolis was occupied by a thriving settlement through the LH IIIC Middle. Indeed, Spyridon Iakovides, reanalyzing many of the excavated areas within the citadel, was able to show that almost all areas were reoccupied in the post-palatial period (Iakovides 1986, 2013). Domestic remains of the post-palatial period are also recorded from the Lower Town of Mycenae, and although very fragmentary, they demonstrate that the settlement may have been more significant than recent works suggest.

LH IIIC Early 1: The West Complex

This complex consists of three large rooms opening onto a street running along its south façade (figure 4.31). The limits of this structure are undefined to the east, but cannot have extended much farther north on account of the South House. The rooms all communicate and thus their identification as a single unit is assured.

Room xxxii was entered through an entrance communicating directly with the street to the south. This is somewhat unusual for a post-palatial household as there is normally an intervening corridor or porch delimiting exterior and interior spaces. Perhaps the most comparable space is the entrance to Oikos 12 at Kynos, which likewise opens onto a street. Overall dimensions for this room were 3.50 m north-south and 7.00 m east-west. The room has three main built features: a hearth near the center of the south wall, a bench coated with clay in the northwest corner, and a kotselle, approximately 0.60

m in diameter positioned to the west of the doorway connecting Room xxxii with Room xxxiii (French 2011a, CD 172). This kotselle would have had a capacity of at least 170 L. The hearth was slightly unusual. Although founded on the usual substructure of re-used potsherds, but was not a typical open clay hearth or a fully enclosed oven, the hearth was instead bounded on the north and south by mudbricks laid on edge (French 2011a, 18, CD 170). This created permanent firedogs, which would have allowed spits of meat to be laid across the fire, or perhaps a griddle, fragments of which were found in the room (French 2011a, 19), to be placed over the flames. Such food preparation activities may have been connected with the open street to the south, or perhaps with Room xxxiv, which communicated with Room xxxii through the latter's east wall.

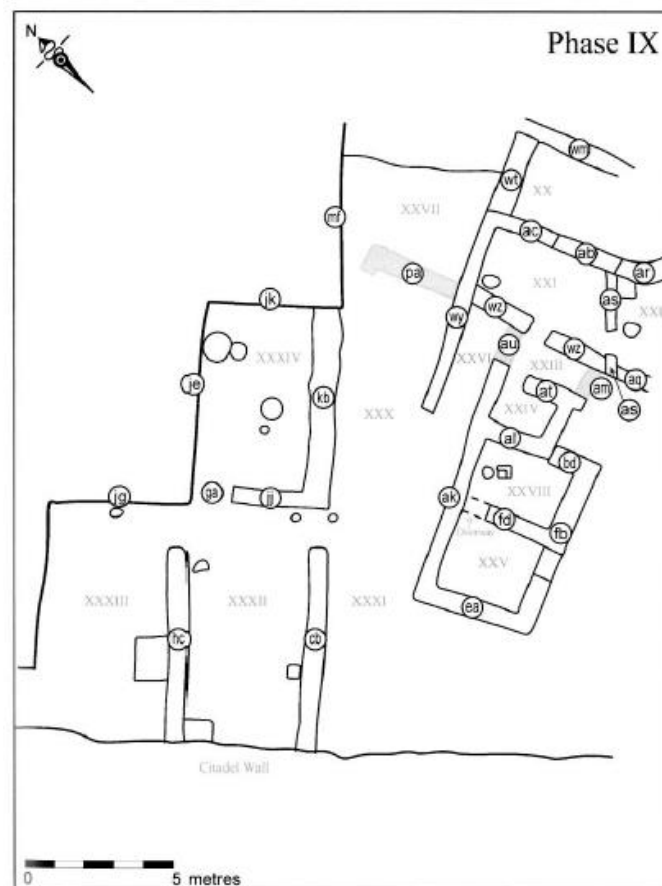


Figure 4.31: Mycenae, Phase IX architecture (French 2011, 3, fig. 1).

The bench was 0.50m high, 1.00m along its north-south axis and 0.75m along its east-west axis. The whole structure was coated in a thick layer of clay, which melded into the clay plaster of the west wall (French 2011a, 18). On top of the bench was placed an unfired clay tray (French 2011a, 19). The interior of this vessel shows traces of burning, likewise noted in the situla from Tiryns, perhaps this tray contained some flammable material at the time of its destruction. Kyle Jazwa (forthcoming) has associated similar low-fired utilitarian trays with craft activities at Mitrou.

The ceramic assemblage of the room was limited. Near the bench was located a near-complete linear kylix and a similarly near-complete panelled krater. Near the entrance to Room xxxiv two more vessels, a linear-banded hydria and a high-footed piriform jar, perhaps an heirloom pot (French 2011, 19), were found. These may have spilled out from the other room, which was found densely strewn with shattered vessels. The only other possible primary finds are three pounders/rubbing stones appropriate to a kitchen/craft context (French 2011a, CD 175-177).

Passing through the entrance through the north wall of Room xxxii, one came to a similarly arranged Room xxxiii. Its overall dimensions were identical to Room xxxii, 3.50 m along the north-south axis and 7.00 m along the east-west axis (French 2011a, CD 178). A portion of the northern section of the room was left unexcavated due to an overlying burial (French 2011a, 19). Its only built features were a second clay coated bench situated mid-way along the southern wall of the room and a kotselle placed in the center of the eastern wall. No dimensions for the kotselle are given and there is no photo to estimate them from. The bench is similar in dimensions to that in Room xxxii, measuring 0.60 m high, 1.00 m along its north-south axis, and 0.40 m+ along its east-west access (French

2011a, CD 179). The east-west axis could not be fully ascertained however due to an overlying wall (French 2011a, 19).

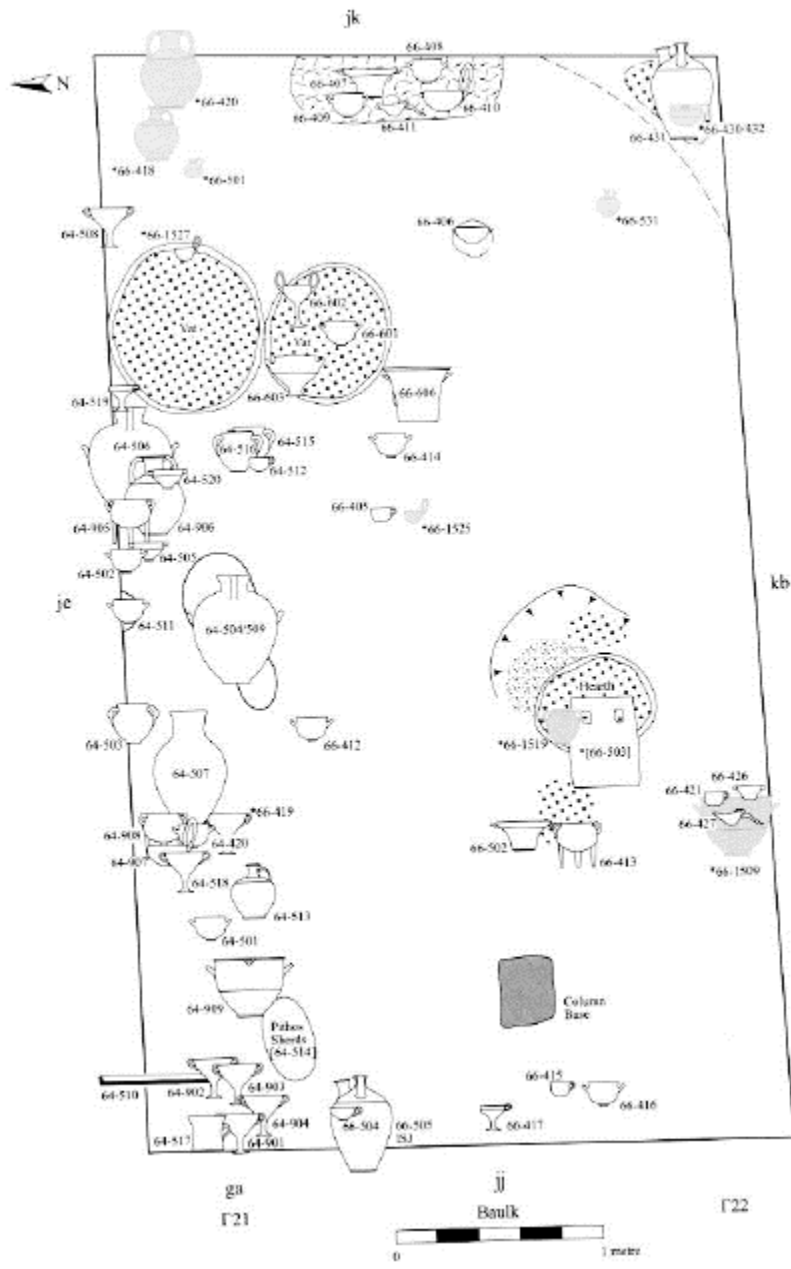


Figure 4.32: Plan of Room xxxiv showing findspots of mendable vessels (French 2011, 44, fig. 16a).

The finds, ceramic and otherwise, were extremely limited. Only one vessel, a linear decorated shallow angular bowl is close to complete. Three other mendable vessel

fragments, a linear basin, a shallow rounded bowl, and a lip-band deep bowl with monochrome interior, may have fallen from above. An interesting find is a one-handled handmade burnished ware cooking pot (French 2011a, CD 379). The only other possibly primary small finds are a few stone conuli (French 2011a, CD 185-187)⁸².

The final excavated room of the West Complex was Room xxxiv (figure 4.32). Its excavation was complicated by the fact that it was built over Room 36 of the phase VII settlement, which also features a large deposit of smashed vessels. It took many years to sort out the two floor levels, as the floor levels were only separated by about 0.35 m, causing confusion in the field during the early stages of excavation (French 2011a, 18). Despite being the smallest room of the Western Complex, measuring 3.50 m long on its north-south axis and 6.00 m along its east-west axis, it contained the richest assemblage of finds. Its interior features included a round central hearth and two large kotselles placed along its north wall. One of these appears to have contained olives at the time of destruction, based on the find of olive pits adjacent to it (unless these were stored in perishable containers?) (French 2011, 43, fig. 15). A central post/column base was noted to the west of the central hearth. Precise measurements for the built features are lacking and must be measured from the plan and photographs. This would make the central hearth, about 0.55m in diameter and the kotselles 0.75m and 0.55m in diameter respectively (French 2011a, 43, fig. 15, also CD 193 and 195).

Additional storage was provided by one or two pithoi (sherds of a second pithos are noted on the plan in French 2011a, 44, fig. 16, no. 64-514) and two vats (no. 66-606; one incorrectly called a kalathos, French 2011a, CD 480, no. 66-502). Both pithoi were

⁸² These seem refer to the stone item of adornment and not to steatite spindle whorls.

placed along the north wall of the room. One of the vats was placed on the floor near the two kotselles while the other was placed adjacent to the hearth, perhaps being used to transfer cereals or other crops for cooking activities.

The ceramic assemblage found on the floor of Room xxxiv was extremely rich. Most of the vessels were found clustered along the west and north walls, where it seems likely that they occupied shelves from which they fell and shattered during the event that ended this phase of occupation, likely an earthquake as suggested by the excavators (French 2011a, 4). This appears to have caused a considerable amount of chaos and no clear underlying logic emerges as to how vessels may have been stored. A couple of rough concentrations may be observed, although this interpretation is by no means final.

In the northwest corner of the room a number of vessels were found that seem to be focused on drinking activities. Interestingly, all of these vessels are undecorated. They consist of a mug (no. 64-517), five conical kylikes (nos. 64-518, 64-901, 64-902, 64-903, and 64-904); an inscribed transport stirrup jar (no. 66-505) found near the entrance to the room may have contained wine. A medium coarse spouted krater in cooking pot fabric (no. 64-909), although found in the same area, is probably not related to drinking, although a dipper (no. 64-907) found nearby would make a convenient utensil for transferring its contents.⁸³

The second cluster of vessels, located in the central area of the north wall included a concentration of cooking vessels and most of the closed shapes, as well as a fair quantity of dining vessels. These included three two-handled cooking pots (nos. 64-503, 64-515,

⁸³ Thomas suggests these may have been used for industrial purposes, such as the manufacture of perfumes, an identification taken up by Lis (Thomas 1992, 297; Lis 2016, 519). While the krater at Mycenae is unlikely to have been used in perfume manufacture, its use here probably superseded wine consumption.

and 64-516), two tripods (nos. 64-505 and 64-908), and three hydriae (nos. 64-504, 64-506, and 64-509) and a narrow-neck amphora (no. 64-906). The dining ware consisted of seven deep bowls evenly distributed along the wall (nos. 64-412, 64-414, 64-420, 64-501, 64, 502, 64-511, and 66-601), as well as two shallow angular bowls (nos. 64-905 and 64-520) and two semi-globular cups (nos. 66-405 and 64-512). Probably to be associated with this group, although found inexplicably near the doorway, was an additional deep bowl (no. 66-416) and semi-globular cup with dotted rim (no. 66-415). A carinated cup was also found here (no. 66-417).

Just north of the main deposit, and fallen into the kotselles, were four additional vessels that are perhaps better suited with those in the northwestern corner. These include an additional unpainted kylix (no. 64-508), a stemmed bowl (no. 66-603), a kylix with upswing handles (no. 66-602), and a carinated kylix (no. 64-519). This last may have served as a lamp.⁸⁴

A further cluster of vessels along the eastern wall may document the presence of a shelf here as well, although the six vessels found here are an eclectic mix, comprising two deep bowls (nos. 66-408 and 66-409), a kalathos with dotted rim (no. 66-407), an unpainted dipper (no. 66-410), a brazier (no. 66-411), and an unpainted shallow bowl (no. 66-406). A second coarse ware transport stirrup jar was placed in the southeast corner of the room, although this was probably in situ on the floor at the time of destruction (no. 66-431).

A final cluster of vessels is noted in the vicinity of the hearth. These include the vat already mentioned, a tripod (no. 66-413) in use at the time of the destruction, a semi-

⁸⁴ Carinated kylikes are known to have regularly served as lamps, see Lis 2016, 514 with references.

globular cup (no. 66-421), a shape regularly used for dry scooping, a brazier (no. 66-427), which may have been useful for arranging the coals, and a miniature handmade bowl (no. 66-426).

The precise locations of other vessels were not recorded, but these were found among the pottery recovered from the room. They include a low-fired ceramic tray similar to that found on the bench in Room xxxii, which also had traces of burning on its surface (French 2011, CD 402-403).

William Taylour (1981, 11, 42) interpreted this complex as a cultic space due to the fact that the benches resembled the altars of the Cult Center, over which the post-palatial structure was built. It is important to note that in many places, a large amount of fill was deposited over the palatial period remains and there seems to have been little attempt made to rebuild the Cult Center as it was. The equipment of the West Complex, as noted by Elizabeth French (2011a, 46) is notable for a preponderance of unpainted hydriae, but this is perhaps unsurprising given the number of dining and drinking vessels found within.

LH IIIC Early 1: The South Complex

This structure is oriented on a different axis than the preceding structure and consists of a number of relatively small rooms (figure 4.31), some of which produced good ceramic material. Its main entrance appears to have been off of the road to the north, which separated the South and West Complexes during Phase IX. More of the household must have lain to the south, where Christos Tsountas' early excavations had done considerable damage (French 2011, 14). The household may have been organized around a central

courtyard, although the evidence for this is not certain. The largest preserved room, Room xx, has no finds and it may have been a terrace during this phase.

Room xxi was a medium-sized space. Its only internal feature was a medium-sized kotselle preserved to a height of 0.75 m (D=0.65 m) (French 2011, CD 111). This gives a minimum volume of 250 L for this lone vessel. A second storage vessel, a pithos, which was unfortunately not kept for cataloguing, indicates that this space likely served as a storage room. A group of mendable ceramic vessels seems to have fallen from a second story space (French 2011, 14). This includes a near-complete ring-based krater decorated with scale pattern, a linear-banded jug, a ring vase, a linear-banded hydria, a strainer-jug, a collar neck jar, a tripod cooking pot, a monochrome carinated cup, and a dotted rim deep bowl with lozenge. This mix of vessels is indicative of an upper story hall, which likely extended over multiple semi-subterranean basement spaces. Notable small finds from this space include an unfinished bone pin and a tool made from an antler tine (French 2011, CD 120).

Room xxi communicated with Room xxii through its south wall. This space was partly dug by Tsountas' early explorations in this area (French 2011, 14). The northern part of the room still preserved two hearths, however: one in the northeast corner, rectangular in shape, and one southeast of the entranceway that was round in shape (French 2011, 14). The hearth in the northeast corner was characterized by the carbon deposited on top of it, but the excavation photo shows the remains of a vertical wall and it seems possible that this was actually an unfired bin (French 2011, CD 122-123). French interpreted this space as an open lobby on account of the hearths, it seems likely, however, that it served as a kitchen. This would create a typical kitchen and storage room unit of

the kind typical at Xeropolis in LH IIIC Early. Only one vessel is catalogued from this room: a kalathos with decorated rim and a flower on the interior. This came from upper fill and likely fell from above where it would be appropriate with the dining equipment fallen into Room xxi.

Room xxi also communicated with Corridor xxiii, through its west wall. The finds from this space are minimal. It may have led to rooms farther to the south, in addition to giving access to the very small Room xxiv to the west. This small rooms contained a deposit of pottery, including a one-handled cooking pot, a bowl with added white decoration (perhaps an earlier vessel?), and a medium-band deep bowl. A bronze knife and a fibula incised with an ivy motif suggest that this material fell from the upper story (French 2011, 51). French suggests that Corridor xxvi to the north may have functioned as a stairway to the upper story (French 2011, 14), so it might be possible that this space was used as a light well, although the fact that Corridor xxvi is an exterior wall would seem to negate this. Perhaps it served as a cupboard, or other such small storage space.

Two other rooms to the west, Rooms xxv and xxviii, possibly communicating, are on the same orientation and seem to form part of the same complex. Room xxv appears to have communicated with a courtyard to the south. Room xxv had no internal features that would help in its interpretation. The ceramics fallen into it are fragmentary, but include a medium-band deep bowl, and two other shallow bowls. In contrast, Room xxviii preserved a fragmentary kotselle (French 2011, CD 155), which was about 0.40 m in diameter. This suggests that it too served as a storage space of some sort.

LH IIIC Early 2: Phase X Complex

Very little can be said about this complex due to a paucity of finds. On account of the “tower” outside its entrance (French 2011, 4-5, see figure 5.31), one might assume a ritual or cult function for the space. There are no internal features that aid in understanding its function.

LH IIIC Middle 2: Phase XI House

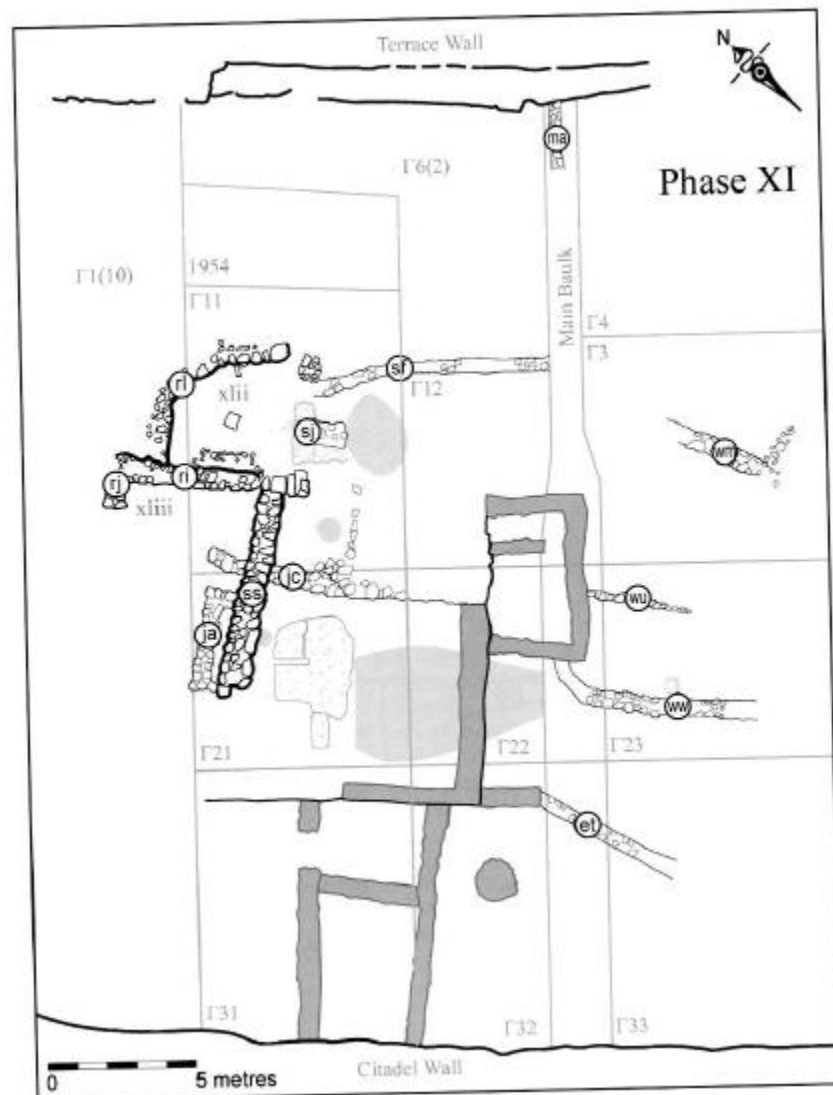


Figure 4.33: Mycenae, Phase XI architecture in stone plan. Phase X architecture in grey (French 2011, 6, fig. 3).

An unfortunately fragmentary household of advanced LH IIIC Middle date represents important evidence for the continued occupation of the citadel concurrent with the use of the Granary (figure 4.33). Only two rooms were excavated, but both preserved mendable ceramics from a burnt destruction likely contemporary with that of the Granary (French 2011, 23).

Room xlii lay to the east. It had a curved eastern wall, a central column base, and a hearth in its earliest configuration. It is unclear whether these were subsequently used or renewed in its final floorings (French 2011, CD 265-266). On the final floors was found six nearly complete vessels: a hydria with elaborate tails at its neck handle attachment (no. 60-402), a narrow neck jug with stemmed spirals on the shoulder (no. 60-319), an amphoriskos with concentric arcs (no. 60-401), a linear decorated semi-globular cup (no. 60-404), a relatively shallow vat (no. 62-421), and an intact linear decorated shallow angular bowl (62-422). Also from this room came three spools, indicating small-scale textile production and a stone mortar, likely indicating the use of the hearth for food preparation (French 2011, 54).

To the west, at a lower level, was a rectangular room, approximately 7.00 m along its north-south axis, but with only a narrow strip of floor preserved adjacent to it (French 2011, CD 285). This room appears to have had at least one in situ pithos (French 2011, CD 282). Two deep bowls, one monochrome with reserved bands (no. 62-402) and one with a running spiral (no. 62-536), were badly burnt but otherwise completely mendable. An intact bone pin and a stone pendant in the shape of a bull's head represent interesting domestic adornments (French 2011, 54).

LH IIIC Middle 2: The Granary and Lion Gate Strata

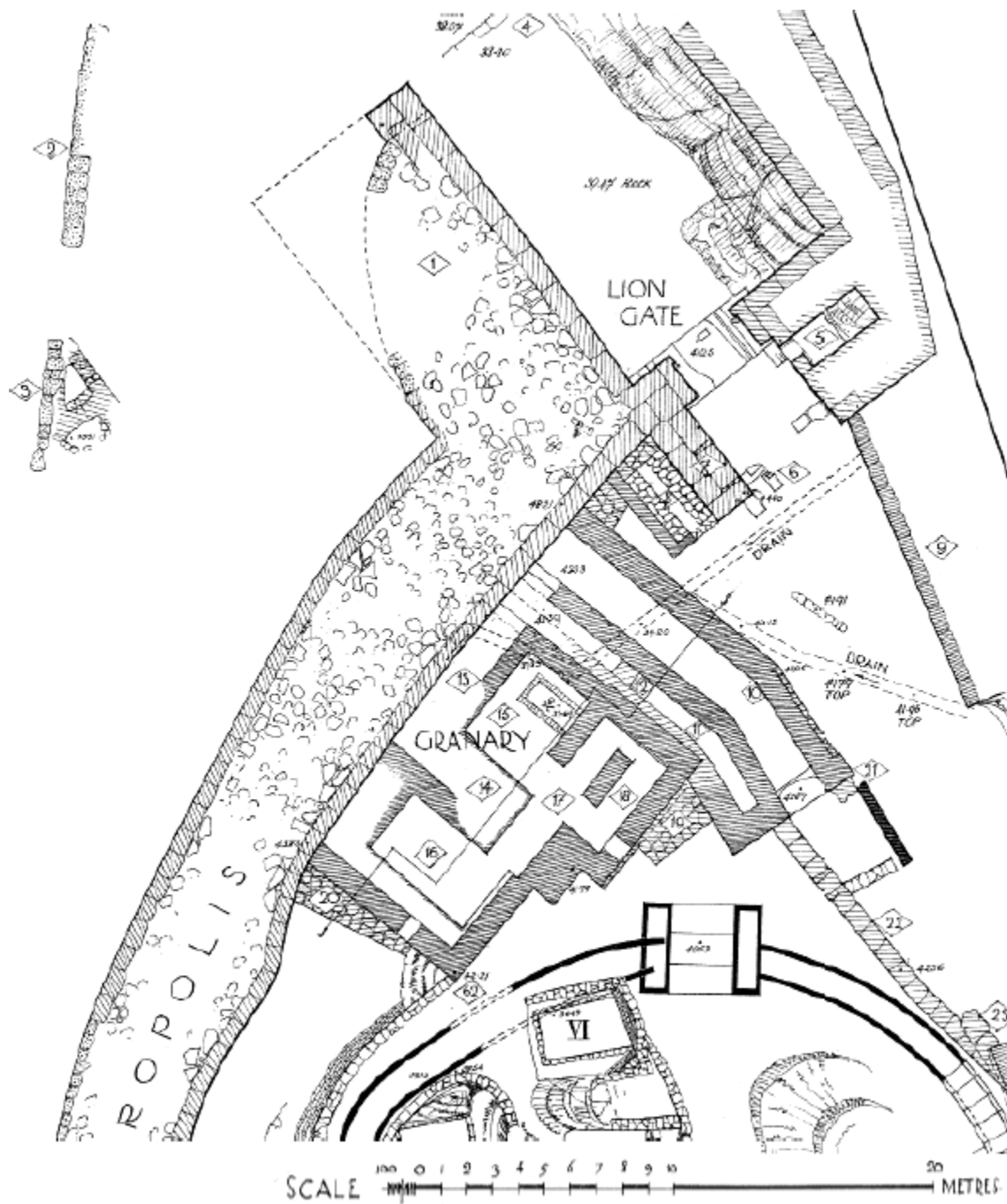


Figure 4.34: *The Granary at Mycenae (modified from Wace 1921-23, pl. I).*

Despite being one of the best preserved pieces of architecture of any period in the Mycenaean world (figure 4.34), the Granary has received little scholarly attention since

its publication. Its finds, dating mainly from its final destruction towards the end of LH IIIC Middle, represent a rare closed deposit of post-palatial pottery from Mycenae. The fact that a good deal of this material still survives, despite its early excavation date, is a testament to the careful work of Alan Wace.

The Granary at Mycenae was first excavated by Schliemann in 1876 (Schliemann 1878, 99-100, 123, 141-142), but he was forced to leave a large portion unexcavated (Schliemann 1878, 144). Thus, it was left to Alan Wace in 1920 to finish the excavation of this area (Wace et al. 1921-23, 9-61). Architecturally, the Granary presents a number of features that make it unique in the post-palatial period. Unfortunately, there is no good evidence to base a firm construction date for the structure. French (2009) would place the construction very early in LH IIIC. Among her more compelling arguments is that the Granary is built against the inner face of the Cyclopean circuit wall, which elsewhere in the citadel seems to be indicative of LH IIIC constructions.⁸⁵ The associated ceramic material is of little help; although a couple of early looking pieces discovered by Wace on or within floor levels may suggest an LH IIIC Early destruction event, they tell us nothing about its construction date. Our few clues then, have to derive from its placement wedged between the Cyclopean circuit wall, which it must post-date, and Grave Circle A, which it also must post-date (Wace 1921-23, 60-61). If we take into consideration a likely LH IIIC Early destruction event, we are left with the most plausible conclusion that the Granary was constructed at the very end of LH IIIB2 or at the very beginning of LH IIIC Early. There is no way of determining which interval precisely. The architecture of the Granary

⁸⁵ Although this rule is not set in stone. Building II of the Northwestern Quarter at Mycenae, which is plausibly interpreted as a large storage complex was built on the inner face of the Cyclopean wall towards the middle of LH IIIB (Iakovidis 2006, 122-124; 175-177; Pl. 1.1).

is very impressive, however, and it is difficult (although not impossible) to believe that this was accomplished in the immediate aftermath of the palatial collapse.

While Schliemann's final account gives minimal information about the Granary, his notebooks provide additional information, as he believed the west basement to be a tomb for a short period of time and thus wrote more extensive observations (Schliemann Diary 15A). Schliemann's observations seem to correlate well with Wace's later observations, indicating a roughly parallel function for the West Basement. Among the "millions of fragments of decorated archaic sherds" that he found there (Schliemann 1878, 100), however, Schliemann appears to have only saved one or two mendable vessels: a belly-handled amphora with close-style decoration described by Schliemann (NAM 1126) and a three-handled goblet found by Schliemann at Mycenae of the type from the Granary (NAM 1078). These indicate that large stores of pottery of similar type to the East Basement were also stored in the West Basement.

The Granary is divided into two main rooms, a stairwell, and three corridors, one of which, the West Corridor, almost certainly functioned as a second stairwell.⁸⁶ By the time Wace began his excavations, Schliemann had already cleared the West Basement and most of the East and West Corridors. He also seems to have cleared part of the stairwell, or at least the hallway connecting the stairwell with the West Basement. Thus, the main stratigraphic sequence that remained was the material overlying the East Basement. Wace dug the basement in levels recorded in his notebooks. These were somewhat arbitrary, however, and seem to have been dug unevenly from day to day.

⁸⁶ Similar dead end corridors are interpreted as stairwells at Gla (Iakovidis 1989, 106, plan 11; 120-121; 2001, 31, plan 13).

It was to both Schliemann and Wace that the Granary must have had at least one upper story and my own reanalysis of Wace's notebooks suggests that additional finds seem to indicate two upper stories: Thus there was a basement level, consisting of the East and West Basement, a ground floor level consisting of the corridors and rooms overlying the East and West Basements, and an upper story, perhaps with a relatively open roof top terrace? Specific classes of finds can be associated with each level: in the upper debris, this includes an abundance of quern stones and spools, as well as a wavy band krater; the ground floor spaces were dedicated storerooms filled with kotselles and pithoi, each containing cereals, olives, and vetches at the time of the final destruction; and the basement proper was reserved for ceramic storage, perhaps arranged on wooden shelves. While a detailed reconstruction of the stratigraphy is beyond the scope of this dissertation, it is clear that Schliemann encountered approximately the same levels. Both Schliemann and Wace report a relatively high concentration of spindle whorls and figurines throughout all the levels.

From Wace's excavations alone, 69 complete or nearly complete vessels survive (French 2011, CD 732, table A). This includes three hydriae, an amphora, and a closed style stirrup jar among the closed shapes. Open shapes include four semi-globular cups (one undecorated), one undecorated kylix, one krater, one unpainted dipper, one monochrome carinated cup (probably goes with bull's head protome), nine deep bowls (one Close Style), three kalathoi (one undecorated), and two shallow angular bowls. In addition, there was one decorated lid. One tripod cooking pot and one one-handed cooking pot were kept. Last but not least, there are 39 unpainted three-handled goblets. Nine vessels kept by Wace are now lost or unidentified because they no longer preserve

their markings. This is clearly only a representative sampling of the much greater quantity of sherds found by Wace, as his publication of the finds indicates (Wace 1921-23, 38-60)

The massive quantities of pottery stored in the basement of the Granary mark it out as special. Although the presence of kotselles, millstones, and textile tools give the impression that the Granary was operating as just another household, the presence of a large quantity of three-handled goblets is unparalleled. A single example, however, was found in the area of the bench shrine in House G at Asine (Frödin and Persson 1938, 299-300, fig. 206). A second three-handled cup was found in an overlying context, perhaps dislodged from its original position.⁸⁷ A lone three-handled goblet very similar to those from the Granary was also found in Tomb 59 at Perati (Iakovides 1969, 184-187, pl. 54στ.502). The only other post-palatial examples of this shape come from the temple at Phylakopi on Melos, where they are large and, in one instance, decorated with linear bands (Mountjoy 1985, 176-177, fig. 5.13.130, pl. 23.130, 196, pl. 21.372). Earlier examples from clear ritual contexts also occur sporadically during the palatial period at LH IIIA Mitrou (Vitale 2008, 232, pl. XLV.d) and LH IIIB2/C Pefkakia (Batziou-Efstathiou 2015, 66-67, fig. 42a-b). In addition to the three-handled goblets, it is worth pointing to the discovery of strange, anthropomorphic jugs, which appear to have come from the Granary. Wace found one fragment in the stairwell of the Granary, but Schliemann notes several in his diary and at least one is preserved in the National Archaeological Museum (NAM 1249; Papazoglou-Manioudaki 2016, 263-267). If this piece does not originate from the Granary, then it demonstrates strong links between the material stored in the Granary

⁸⁷ On the question of the second cup, see House G at Asine below.

and Grave Circle A. For the present work this suffices to demonstrate the unique character of this assemblage, which supersedes that of an ordinary domestic deposit.

Likely to be associated with the finds from inside the Granary is a deposit of mendable ceramic vessels of the same date found in the area of the Lion Gate strata, that is, the space directly east of the Granary. Here Wace (1921-23, 31-34) reports finding two mendable hydriae, one trefoil-mouthed jug with high-swung handle and scroll motif decoration, two monochrome deep bowls (one with reserved lower body, one linear-banded semi-globular cup, a shallow angular bowl with linear decoration on interior, a kalathos with monochrome interior and barred rim, and one two-handled cooking pot. This material is directly comparable to that found fallen into the East and West Corridors and almost certainly originates from the collapse debris of the Granary's upper story(ies).

LH IIIC Middle 2: Southeastern Sector

Although much of the southeastern sector of Mycenae was excavated by Tsountas, a few rooms remained unexcavated, and thus Iakovides was able to reinvestigate the chronology and use of this area. Among the most important post-palatial discoveries was a small room, Γ3, with an intact floor deposit (Iakovides 2013a, 173-192, 535-536). Despite its small size (3.79 x 2.00 m), this room was crammed with broken vessels. Iakovides records 18 mendable vessels from the floor alone: fragments of a large pithos (or multiple pithoi?), four cooking pots, two jugs, a brazier, a monochrome deep bowl, a hydria, a tray, two amphoras, a griddle, a monochrome cup, a shallow angular bowl with linear decoration, a pyraunos, and a badly burnt cookware shape. In the fill above the floor was a large number of carbonized olive pits and a bronze knife. There seems to have

also been mendable pottery in this layer, since many fragments of two large, elaborately decorated kraters are published from it (Iakovides 2013a, pl. 29.g6+pl. 31.a1, pl. 30.a4+pl. 31.a2), as well as at least one mendable deep bowl (Iakovides 2013a, pl. 30.b1+30.b10-11+30.b4?). Beyond the pottery, the only features in the room were two low, clay platforms, one-rectangular in shape, the other semi-circular. It is tempting to think that these may have been the bases to low-fired kotselles, but no picture is published. Alternatively, they may have supported the shelves for this rich ceramic assemblage. The space likely served as a storeroom for a household largely dug away.

LH IIIC Early-Late: Lower Town

Various ceramic finds and the remains of one or more kotselles indicate a post-palatial period reoccupation in the area of Room 16 of the Panagia Houses (Mylonas Shear 1987, 39, pl. 12), although they were not interpreted as such at the time of excavation. The excavator describes the base of this kotselle as 0.30 m above the restored floor level, suggesting that a second, upper floor level likely existed in this area.⁸⁸ At any rate, scattered LH IIIC material was found in the surface layers, attesting to continued occupation here in the post-palatial period (Mylonas Shear 1987, pl. 52c).

A number of recent publications have demonstrated that LH IIIC material is found in many areas of the lower town in disturbed levels. In the area of the new Mycenae Archaeological Museum, LH IIIC material spanning LH IIIC Early-Middle was excavated (Onasoglou 1995, 140-147; Iakovides 2008, 256-257, 260-261, 342-343, 345-346).

⁸⁸ Certain other vessels from the excavations, such as a dotted rim deep bowl lacking a rosette (Shear 1987, fig. 13.76), an undecorated kalathos of advanced FS 291 shape (Shear 1987, fig. 15.112), and a medium band deep bowl with joining semi-circles (Shear 1987, fig. 14.91) would also be comfortable in an LH IIIC Early context.

Particularly impressive are two large fragments of a deep bowl or krater with a filled antithetic spiral panel decoration that must come from the same vessel (Iakovides 2008, pl. 64.13, pl. 66). Probably also of LH IIIC date is the impressive Tripod Tomb, a cist grave which contained 20 bronze double-axes and an eponymous tripod cauldron (Onasoglou 1995, 25-29, 32-41). In addition, Iphigenia Tournavitou (2015) has published material from the so-called East House adjacent to the famous West House Complex (or Ivory Houses) that suggests a post-palatial period household was established here in LH IIIC Middle with occupation continuing as late as LH IIIC Late, attested by multiple stratified floor deposits. Although it was not very well-preserved, a limited number of published mendable pottery vessels, including a monochrome deep bowl, a collar-neck jar with wavy band, a kalathos with added white decoration, and linear-banded shallow angular bowl lend support to this dating.

Midea

Midea was an impressive palatial period citadel, located high above the Argive Plain. It continued to be inhabited after the collapse of the nearby palatial centers at Tiryns and Mycenae. The post-palatial period remains have been mainly identified scattered across the lower terraces, where the depth of deposit is greater. It is difficult on account of erosion to say how important the settlement was during this phase. Recent research has demonstrated however that significant repairs to the fortification wall took place in the post-palatial period (Demakopoulou 2015, 189). This same excavation has also produced a mendable floor deposit with LH IIIC pottery (Demakopoulou 2015, 192-193, fig. 15).

The only significant exposure of architecture from the post-palatial period, however, is the so-called Megaron Complex.

Megaron Complex

Although the LH IIIC levels at Midea are frequently disturbed by later activities, clear evidence for a post-palatial remodelling of the palatial megaron complex on terrace 10 has been published in full by Gisela Walberg (2007). The structure in LH IIIC follows the typical colonnaded hall model seen at Tiryns (figure 4.35). The Megaron Complex at Midea seems to have been used until an early stage of LH IIIC Middle and then abandoned, although the site itself continued to be inhabited through LH IIIC Late (Walberg 2007, 150-151). Consequently, no complete, or even largely complete, ceramics were found in situ. Sherd evidence, however, can still be of some use in understanding the function of the rooms over time.

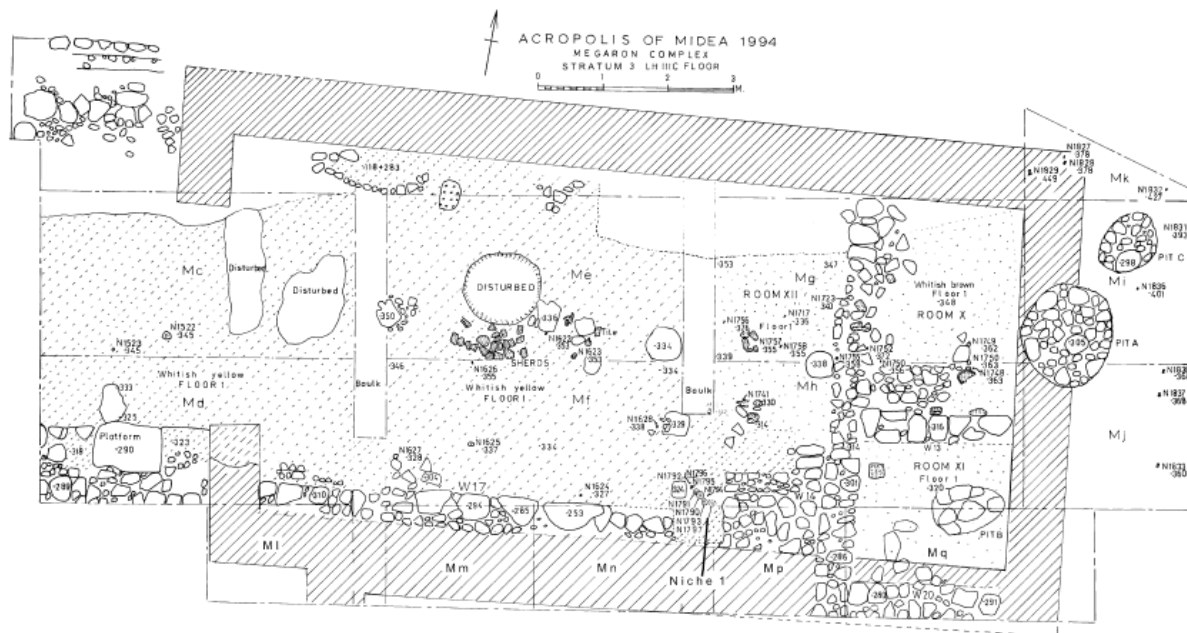


Figure 4.35: LH IIIC megaron at Midea; note sherd hearth (Walberg 2007, fig. 25).

The architectural arrangement of the Megaron Complex in LH IIIC consisted of a large central hall with four column bases arranged along the central axis marking a distinct rearrangement from the LH IIIC period (Walberg 1995). Between the second and third column bases, in the region of the LH IIIB2 hearth, there was a scatter of sherds drawn on the plan between columns two and three, partially cut away by the same pit that destroyed most of the LH IIIB2 hearth (Walberg 2007, fig. 25, square Me). This appears to be the emplacement for a typical LH IIIC hearth. No mention of this scatter occurs in the text, nor is there any detailed published photo of this area. Nevertheless, such a feature is expected based on the model established at Tiryns.

Due to the thin accumulation of material above the post-palatial remains and the Late Roman constructions disturbing its eastern half, there are few finds associated with this architecture. Of particular note is a hoard of three Early Mycenaean sword pommels and a faience necklace (Walberg 2007, 66, 170, 178-179, 198). These may have formed a votive deposit.

Asine

Asine was a Late Bronze Age port town located on the route between the Saronic and Argolidic Gulfs. The surrounding cemeteries demonstrate continuous occupation through the Late Bronze Age and Early Iron Age. Excavations carried out from 1922-1930 by a Swedish team demonstrated continuity in the settlement as well (Frödin and Persson 1938). A particularly important phase in the occupation of the settlement was during the post-palatial period, when a well-organized settlement with regularly planned households

was constructed (figure 4.36). The best preserved architectural remains date to the LH IIIC Late period, a period generally not represented at other sites.

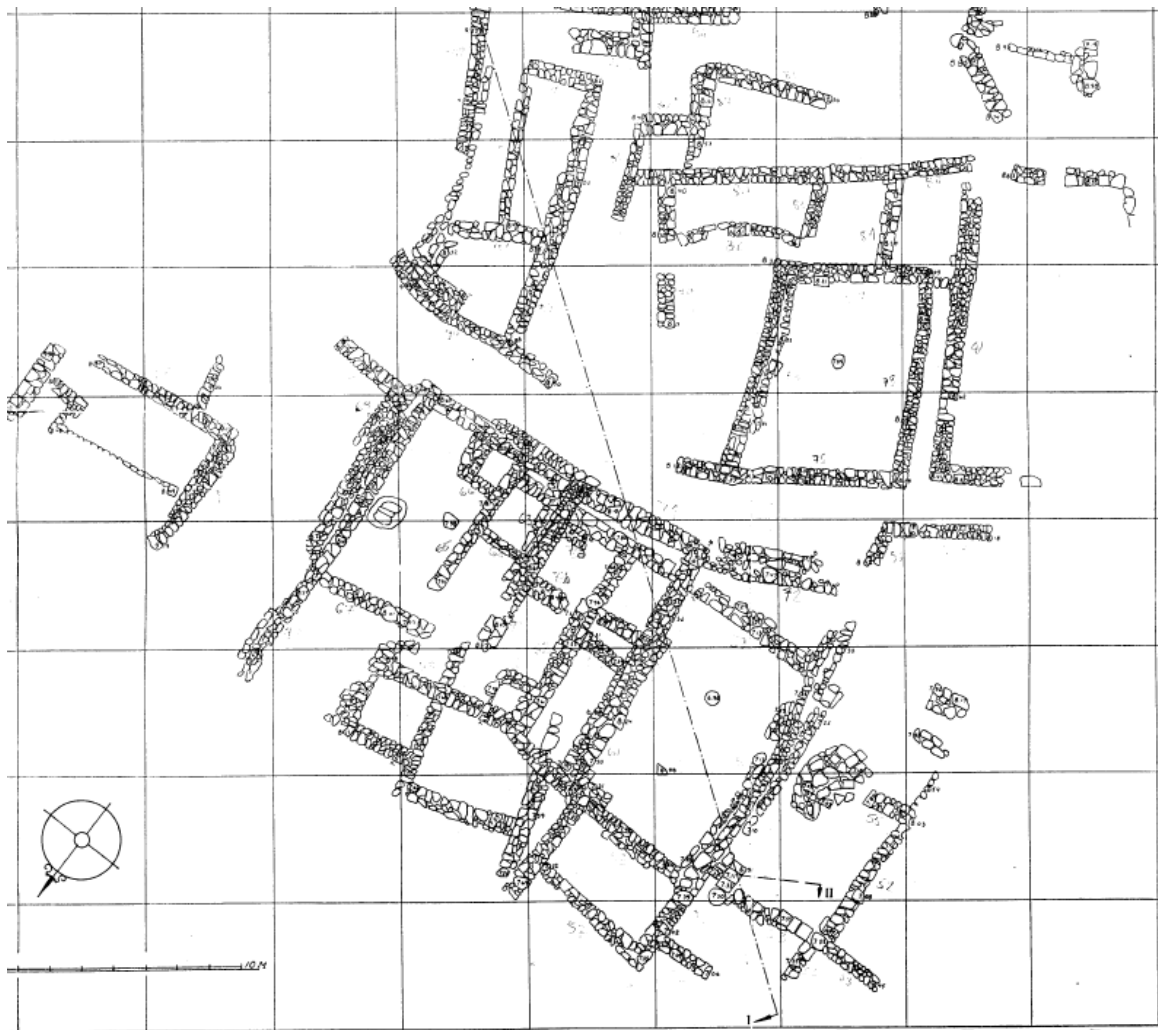


Figure 4.36: *Asine LH III architecture (Frödin and Persson 1938, fig.43).*

LH IIIC Middle 2: House G

This was the richest post-palatial period household at Asine in terms of finds. The character of these finds, however, casts doubt on the function of this structure. A bench found with figures and figurines in situ suggests a cultic character. It is possible, however, that this material is better understood as domestic rather than public cult. Certainly the

organization of this structure closely parallels that of the other excavated households (figure 4.37). The lack of clear connection between rooms, with the exception of a communicating stairway between Rooms XXIX and XXX, hinders our understanding of the use of the space.

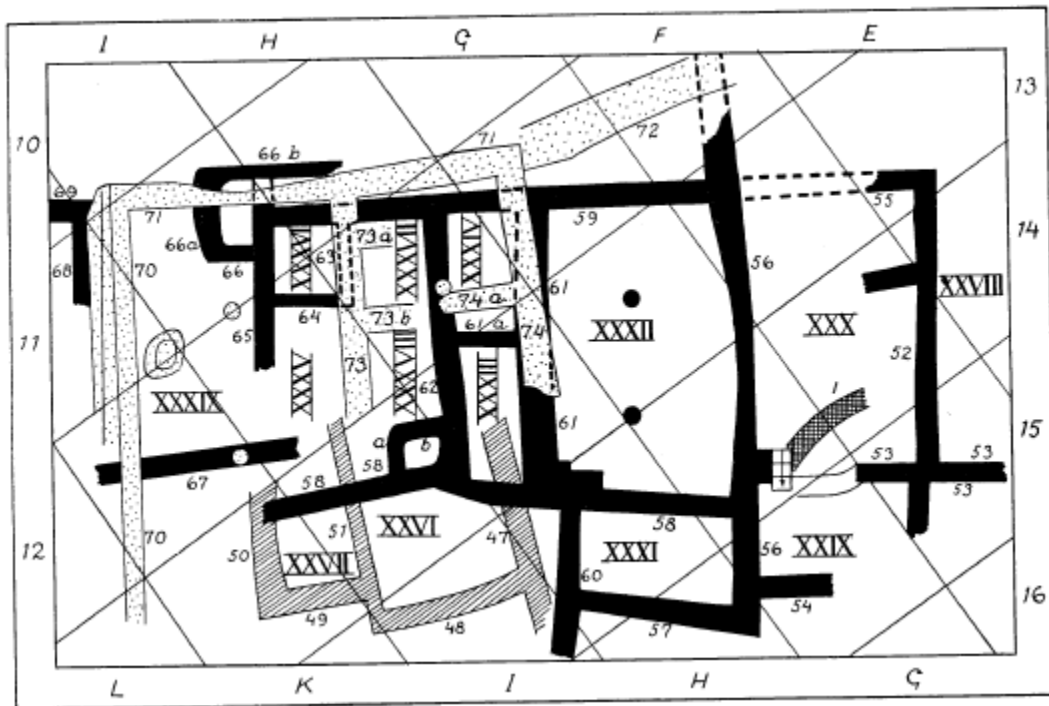


Figure 4.37: Houses G [black] and H [punctated] at Asine (Frödin and Persson 1938, 75, fig. 53).

Room XXXII was clearly the most important architecturally. It featured two, well-shaped column bases along its central axis and a hard cement pavement (Frödin and Persson 1938, 75). Its dimensions are not given, but can be measured on the stone plan as 7.00 m north-south and 4.60 m east-west. In its northeast corner a bench shrine was excavated with a number of more or less intact finds. These include a moderate sized deposit of ceramics. One vase, a neck-handled jug with necklace pattern, was found built into the bench, inverted, with its base removed to allow liquid offerings to be poured into it (Frödin and Persson 1938, 298-299, no. 1, fig. 206, upper right). The rest of the pottery

must have been used in the ritual activities centered on the bench. These include a composite alabastron vase, a decorated kalathos, an undecorated swollen-stem conical kylix, a three-handled, undecorated cup similar to those found in the Granary at Mycenae, an undecorated shallow angular bowl, an undecorated cup with basket handles, and a two-handled cooking pot (Frödin and Persson 1938, 298-300, nos. 2-8, fig. 206). Two other vessels, a semi-globular cup with wavy band and a belly-handled amphora with two wavy bands between the handles, are also assigned to this room, but not associated with the bench deposit (Frödin and Persson 1938, 304-305, nos. 14 and 24).

The presence of rare shapes, including the composite vase, the three-handled cup, and the cup with basket handles, supports the notion that this was a closed, special deposit. The presence of a large head to a male figure (the so-called Lord of Asine) alongside three intact and two broken figurines amply demonstrates the ritual character of this bench deposit. The cooking pot and kylix suggest that eating and drinking played a role in these activities, although it is unclear if this was a symbolic offering for the figurines or meant to be consumed by participants in ritual dining.

An additional three vases were found in House G, although their findspots within it are not specified: a tripod alabastron (Frödin and Persson 1938, 300, no. 3, fig. 207.3), a small globular stirrup jar with a pictorial depiction of a Mycenaean galley (Frödin and Persson 1938, 300, no. 2, fig. 207.2), and a decorated tray (Frödin and Persson 1938, 305, no. 25, fig. 209.3). A second three-handled cup from Square G 12 is said to have come from the stratum of House H, but given their rarity it seems likely that this vessel was displaced from House G (Frödin and Persson 1938, 302, no. 11, fig. 208.4).

LH IIIC Late/Submycenaean: House H

Built partially overtop the remains of House G, House H must represent a very late Mycenaean household. Unfortunately, very few finds are associated with the architecture. The construction is nevertheless impressive. Its main hall, Room XXXIX, is the largest roofed space attested at Asine from any period, with total preserved dimensions of 10.20 x 4.80 m (figure 4.37). If, as the excavators suggested (Frödin and Persson 1938, 77), we should expect yet a third column to the north, we can calculate a total length using the intercolumniation of the first two as a basis to be around 12.0 m. This would give a total area in the realm of 57.60 m². A pair of rooms flanked the main hall to the south, the eastern of which, Room XXXVII, appears to have had a central column base, which was displaced towards the north of the room (Frödin and Persson 1938, 75, fig. 53).

The only other feature that is recorded from this household is a kiln placed along the center of the north wall of Room XXXIX (Frödin and Persson 1938, 67; 77). While the description of the structure leaves little doubt it is a kiln, its placement within the main hall of the household is puzzling. One could point to analogous ovens in the large columned hall of Trial IV/V at Xeropolis, but this probably had a second story hall. The kiln also poses problems for roofing – would one really want a kiln indoors? Perhaps the best solution is that the kiln should be placed earlier or later than the use of House H.

LH IIIC Middle 2: House I

House I was architecturally speaking the best preserved household from the post-palatial period settlement at Asine (figure 4.38). It was clearly bounded to the south, east, and north by streets, which defined it as an approximately rectilinear complex. Rooms XL and

XLI, loosely built onto the northwest corner of the block, were later additions, as they did not bond to the core architecture, although they were in contemporary use with the rest of the household (Frödin and Persson 1938, 78). It is possible that XLI served as an external staircase similar to the use proposed for a similar feature on the southeast corner of House G.

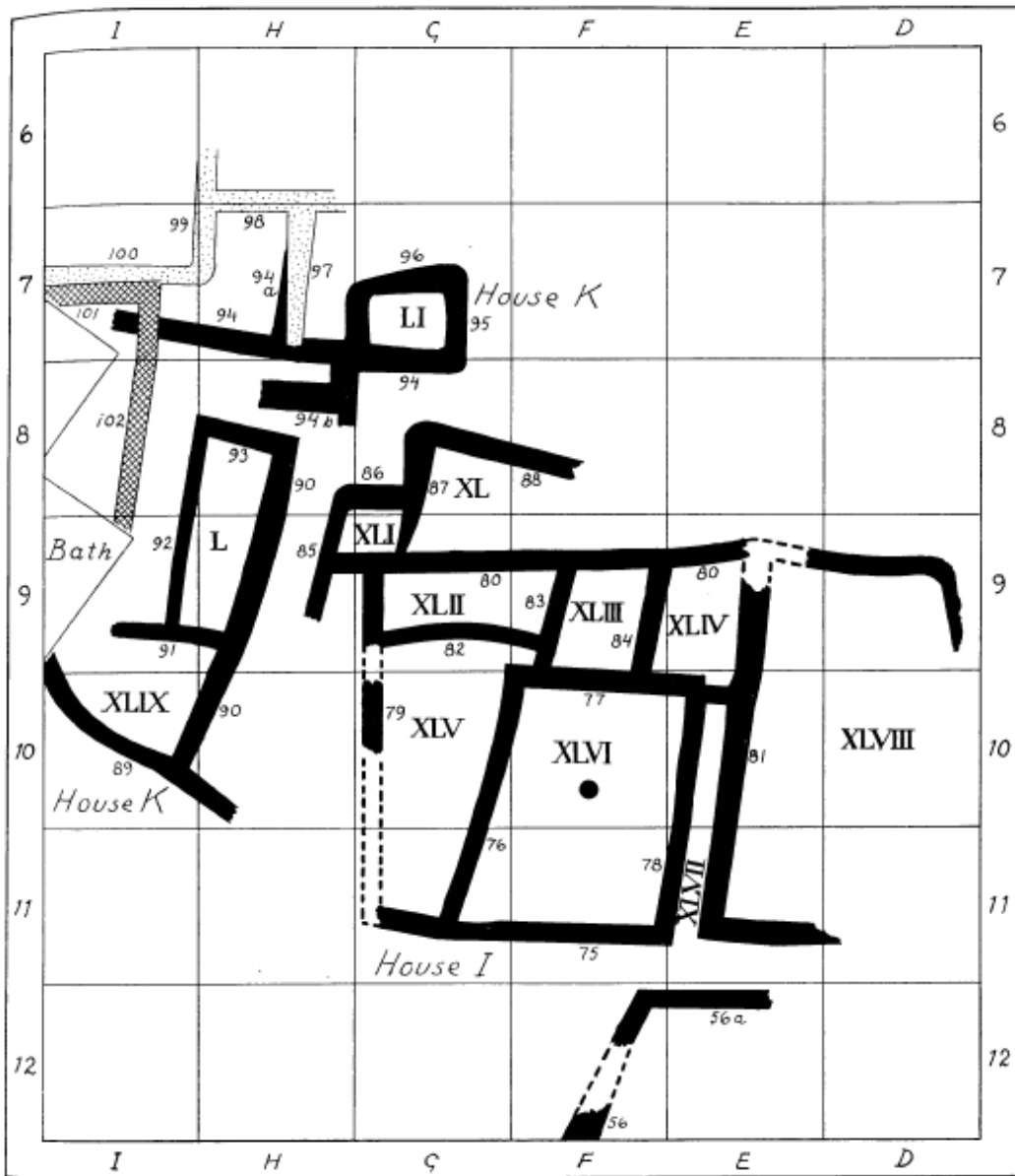


Figure 4.38: House I at Asine (Frödin and Persson 1938, 79, fig. 58).

A central room preserved a single in situ column, located slightly north of the center of the room (Frödin and Persson 1938, 79, fig. 58). This room seems to have been a multi-functional space of the usual type. The only published ceramic from the space is a monochrome deep bowl (Frödin and Persson 1938, 302-303, fig. 208.2). Lacking any reserved bands, this piece could date anywhere in LH IIIC. Stratigraphically, however, the house is said to be contemporary with House G. While surprisingly few ceramic finds are mentioned in the original publication from this building, “an accumulation of thread reels of different sizes, made of poorly fired clay” was located in this room (Frödin and Persson 1938, 310, fig. 213.7). The published example confirms that these were spools. Unfortunately no exact quantification is given. This would seem to suggest that the space was used for craft activities, although these may also have taken place on the proposed upper story.

Additional craft activities are documented in Room XLII, which contained a well preserved pottery kiln along its southern wall (Frödin and Persson 1938, 67, 87, fig. 66). This was found with “large pieces of vases” on the floor of the room, although these are unfortunately not illustrated.

Despite featuring another four rooms, House I has no other recorded ceramic or small finds. Little can be said therefore about how they would have functioned. Furthermore, a lack of clear doorways makes it difficult to understand circulation patterns or access. To the west of room XLVI, a narrow corridor, about 0.60m wide and 6.00m long leads off the street. This ends at a dead end, and it is probable that a staircase ascended here to a second story. Room XLVIII, which was incompletely excavated (Frödin and Persson 1938, 78), seems likely to have formed the main hall of the

household. Its dimensions are appropriate for a long, colonnaded hall of the type preferred at the site.

The Peloponnese

Aigeira



Figure 4.39: Phase 1a [blue], Phase 1b [orange], and Phase 2 [green] households on Aigeira acropolis (Aram-Stern 2003, 16, fig. 1).

A small settlement of about 1.2 hectares located in Achaea adjacent to the Corinthian Gulf, Aigeira was a defensible site perched atop a steeply sloped mountain (figure 4.39). The prehistoric focus of settlement was a rather small, circa 750m², acropolis surrounded on three sides by sheer cliffs (Deger-Jalkotzy and Aram-Stern 1985, 395). This acropolis could be approached from the east, however, up a comparatively easy incline that connected it with a broad saddle where the majority of the settlement was located. The

acropolis was defined by its physical geography, and later in the post-palatial period through the construction of a fortification wall separating it from the main town. The size of the phase II complex suggested to the original excavators that the acropolis was the seat of a “local landlord” (Aram-Stern 2003, 19).

LH IIIC Early 2: Northwest Acropolis Complex Phase Ib

It is difficult to define rooms, let alone define the limits of households during this phase of occupation (Aram-Stern, 2003, 19; figure 5.37). A strange feature of this phase is that, despite thick destruction deposits, only scattered traces of wall foundations were uncovered. There must have been some combination of reused foundations from the preceding phase and overbuilding/stone-robbing in the following phase that has rendered the footprint of these households a mystery. Despite this general lack of walls, however, this phase has produced abundant finds. Unfortunately, only the precise contexts of small finds, archaeobotanical, and faunal remains have been published fully (Aram-Stern and Deger-Jalkotzy 2006). The post-palatial period pottery has only appeared in preliminary publications. Despite these limitations, the account that follows sketches a picture approximating the situation seen at other sites during this and the succeeding phase.

The most important feature of the Aigeira household(s) is the presence of large storage rooms packed full of kotselles. Fired pithoi are rare. These storerooms also preserved carbonized remains of their crops, consisting of barley, emmer, vetches such as fava bean, and figs (Aram-Stern et al. 1985, 403-404, n. 18; Schachl 2006). The kotselles fall largely in the usual range: the largest are around 0.70 m in diameter, crammed into

rooms with many in the 0.30-0.50 m range.⁸⁹ Three main storage loci can be identified. Two of these were likely dedicated storage rooms, while one was likely more multi-purpose. For the sake of discussion, I will follow the excavator's terminology and call the dedicated storerooms the West and Central Storeroom.

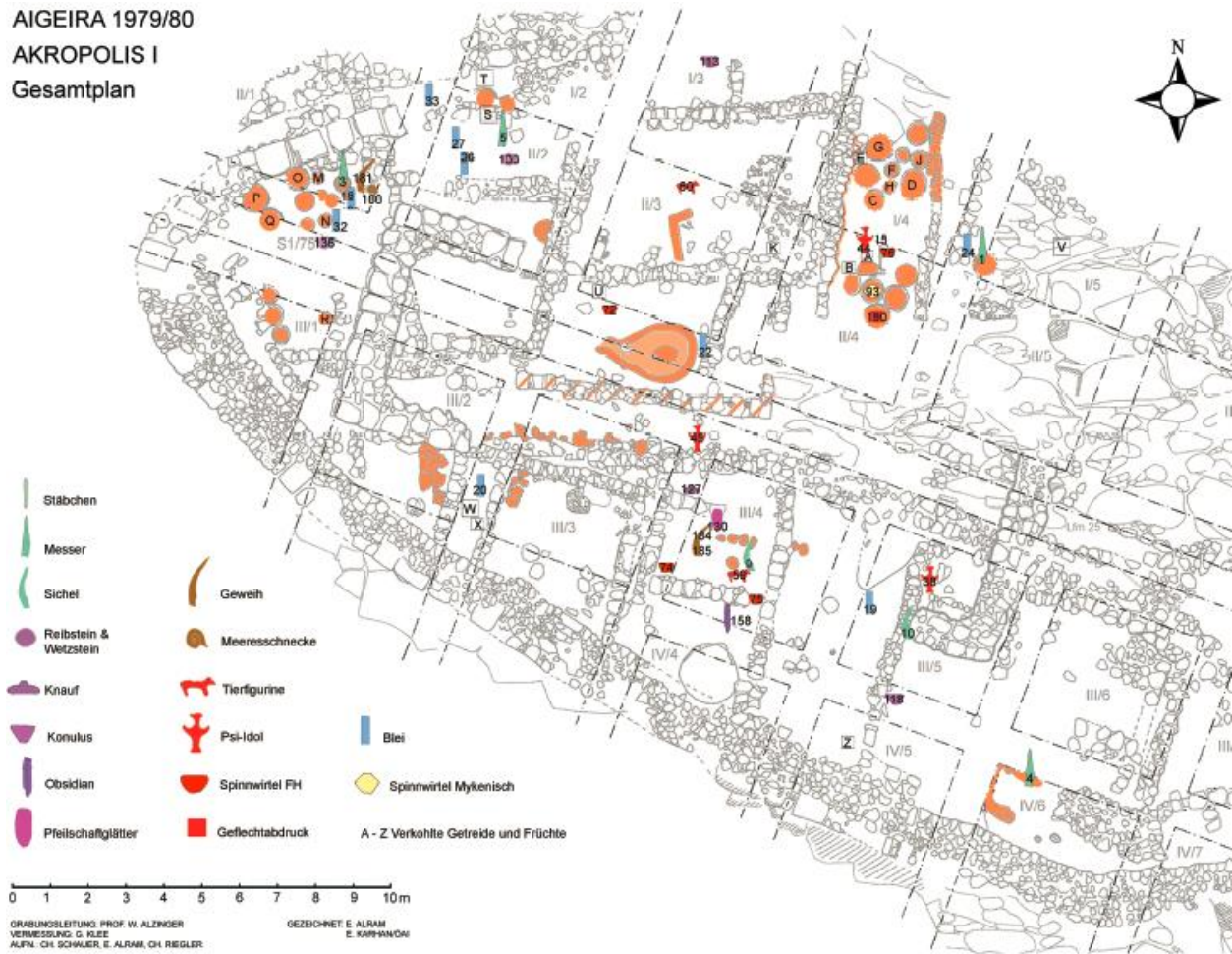


Figure 4.40: The in situ small finds from Phase Ib at Aigeira (Alram-Stern 2006, Beil. 20).

The West Storeroom, occupying the space at the farthest tip of the acropolis, was a very large storage complex. It contained 14 preserved kotselles, although the central and southern part of the room was badly disturbed by a pit. These were organized into two

⁸⁹ I would like to thank Dr. Eva Alram-Stern for kindly measuring the diameters of the kotselles for me.

groups separated by a central aisle. The northern group consists of two kotselles of 0.70 m diameter, three of 0.60 m diameter, and five of 0.40 m diameter. The southern group preserves four bins around 0.50 m in diameter (Aram-Stern pers. comm.). A fair quantity of scrap lead, as well as a lead-clamp mended ivy-leaf krater, were also found in this storage space (Aram-Stern 2007, 16-17). The only other small find noted here is a bronze knife (Aram-Stern 2007, 16; figure 4.40), a typical find in storage or kitchen contexts. No hearth or other built features were noted.

To the northeast of the West Storeroom, there is an undefined space containing two more preserved kotselles (D=0.60 m). Also associated with this space are a series of lead sheets. These may have been stored here, or perhaps, along with the lead from the West Storeroom, they have fallen from an upper story.

A large and generally open space seems to have existed between these two spaces and the East Storeroom. This seems to have formed an enclosed courtyard used for various activities. Most important is the presence of a large ceramic kiln in the southern portion of the courtyard (Aram-Stern 2003, 19). It would seem, therefore, that this large and well-appointed household was involved in pottery production. This should not be taken to mean that the house was a potter's house, but rather that the household produced pottery. This may have been the result of attached specialists operating out of the courtyard or even dependent laborers such as slaves. While we know little about pottery workshop organization in the palatial period, it is clear from the large and well-appointed Petsas House at Mycenae, that similar elite-monitored workshops existed as early as LH IIIA2 (Shelton 2015b with earlier bibliography). Lead slags associated with this area suggested to the excavators that the potter working in this area may also have repaired

pots (Aram-Stern 2007, 17). It is interesting to note the large quantities of lead found in the West Storeroom, which would seem to link the courtyard with this storeroom. The kiln was not the only pyrotechnic feature uncovered in the courtyard. A large rectangular feature (1.25 x 0.75 m) to the north of the kiln appears to be a hearth or oven (Aram-Stern et al. 1985, 403; Aram-Stern 2003, 19).

The Central Storeroom was even more densely packed and with larger kotselles than the West Storeroom (Aram-Stern and Deger-Jalkotzy 2006, Beil. 20). A similar layout can be noted, however, with a corridor running between two clusters of kotselles. The kotselles in this room are larger on average than in the previous room. In the northern block, there are three of 0.70 m diameter, one of 0.60 m diameter, one of 0.50 m diameter, two of 0.40 m diameter, and two of 0.30 m diameter (Aram-Stern pers. comm.). In the southern group, there are five preserved bins: three of 0.60 m diameter, one of 0.50 m diameter, and one of 0.40 m diameter. When a minimum total storage is calculated for this room (using a height of 0.60 m), it comes out to 1,912 L. This storeroom also contained additional ceramic storage vessels, such as an amphora and pithos, and likely perishable containers (e.g., basketry, sacs), the latter of which appear to have contained figs (Aram-Stern pers. comm.). Combined with the Western Storeroom, the storage total of this complex must have been one of the largest documented anywhere in the post-palatial Aegean.

In an undefined space to the east of the East Storeroom, a pithos was found in situ with a second bronze knife (Aram-Stern 2007, 16). Could this be associated with an adjoining kitchen on the Xeropolis model?

LH IIIC Early 2: South Acropolis Complex Phase Ib

South of a narrow street or alley, a second household seems to have extended along the southern portion of the acropolis during the advanced stage of LH IIIC Early (figures 4.39 and 4.40). Unfortunately, most of the internal walls of this area have been destroyed. The complex seems to have consisted of a series of rooms in the western portion of the household, a large courtyard analogous to the Northwest Complex, perhaps with additional rooms to the east.

In the center of this complex, one of the most interesting deposits from the Phase Ib destruction includes a lime plaster base or platform adjacent to a small wall fragment (Aram-Stern et al. 1985, 404; Aram-Stern 2007, 18). Scattered around this platform were an unpainted cup, a kylix, two worked deer antler tines, and a bronze sickle (Aram-Stern 2007, 18). The excavator compared this to cultic installations at Tiryns, to which could be added more recent finds from Xeropolis. Farther to the east, presumably in an adjacent room, was found a second bronze sickle.

To the southeast, where the Phase Ib deposits become less well-preserved, a bronze mold for a spear-butt and a possible metal working installation were found (Aram-Stern 2007, 16). Nearby a bronze knife was found (Aram-Stern 2006, Beil. 20). This area appears to have functioned as a courtyard. The placement of an industrial installation here closely parallels the Northwest Complex.

LH IIIC Middle 1/2: West Acropolis Complex Phase II

In contrast to the Phase I complex, Phase II had well-preserved architecture, but nearly no in situ floor or destruction deposits, rendering an exact understanding of the function

of any space difficult (Aram-Stern 2003, 19; figure 4.39). Although Eva Aram-Stern (2003, 19) has noted a change in the organization of the acropolis, it is difficult to understand why. The basic organizing principle, the central court, appears to live on. While the main residence may have grown in size, cannibalizing its neighbor across the street, there is no reason to assume that this is the result of an influx of new people, but rather demonstrates the general tendency of households to increase in size during LH IIIC Middle. What is clear is that in this period the complex was bounded to the east by a broad north-south aligned street.

A few scattered spools attest to weaving activities on the acropolis at this time (Aram-Stern 2006, 128-129), but there is little other evidence for craft production.

LH IIIC Early 2: The Lower Saddle

More recently, a new series of excavations has revealed that the Mycenaean settlement extended over a much larger area than previously realized. While the total area of the settlement revealed so far is fairly restricted, the results point to an important destruction horizon contemporary with the acropolis Phase Ib destruction.

The organization of this household appears to mirror that of the contemporary acropolis complex, featuring a large courtyard with central hearth, and an adjacent room with a kotselle preserved in situ, likely a storeroom of the sort ringing the central courtyard of the acropolis complex (Gauss et al. 2015, 23-28). While it would be remiss to extrapolate too much based on the limited area of excavation, the preliminary report offers corroborating evidence to support this interpretation.

In the suggested storeroom, the ceramic assemblage included an undecorated hydria or belly handled amphora and small finds included two steatite spindle whorls and a fragment of a tripod mortar. Such weaving equipment and food preparation tools are common in storerooms elsewhere.

In the courtyard, a large pithos with plastic decoration appears to have been positioned along the wall separating the storeroom from the courtyard, perhaps adjacent to a communicating doorway? Meanwhile, a dense accumulation of ceramics and small finds were found, including a bronze knife, stone pounders/rubbing stones, and figurine fragments (Gauss et al. 2015, 26). The only ceramic from this deposit mentioned in the report is a linear decorated dipper. In general, the equipment found here is what one would expect from a kitchen or courtyard used chiefly for food preparation. The concentration of figurines found here may suggest some evidence for domestic cult, although the difficulty with making a direct connection between figurines and cult practice is well-established.

Conclusions

The evidence for post-palatial households has increased greatly over the last twenty years with the final publication of key sites, such as Xeropolis, Mycenae, and Tiryns, and extensive preliminary reports on new work at Aigeira, Kynos, Tiryns, and Eleon. This chapter has attempted to analyse these households critically, seeking to form an understanding of the basic design and layout of a post-palatial household. I have attempted to highlight the presence or absence of features that will be key to the discussion in the following chapter, including the presence and location of portable finds

and storage features. This analysis allows Eleon to be placed more properly within its post-palatial context.

In chapter one, I noted the ‘Dark Age’ hypothesis suggested collapse would be followed by a shift to pastoralism and less sedentary way of life. Tough economic times would result in limited access to foreign imports, including bronze, and may have manifested itself archaeologically in a higher reuse of ceramic vessels. The abundance hypothesis, on the other hand, suggested thriving post-palatial communities such as Xeropolis, Kynos, and Tiryns would have large storage capacities, diverse material assemblages, and more foreign contacts. The evidence gathered here, at least subjectively, supports the abundance hypothesis. A close examination of households reveals their complexity and size throughout the post-palatial period. Evidence for large-scale domestic textile production suggests the presence of household-workshops with dependent laborers or slaves. While the implication of these findings seems persuasive, in the following chapter household size, storage capacity, craft production, and metal finds are used as a proxy for empirically investigating the relationships between post-palatial households, as well as contrasting them with their palatial predecessors whenever possible. The results of the empirical calculations support the findings of the present chapter and undermine the validity of the ‘Dark Age’ hypothesis.

CHAPTER FIVE

ANCIENT ELEON (ARMA, GREECE): A CASE STUDY IN THE POST-PALATIAL PERIOD

*So they spoke, and armed themselves in their weapons of terror,
and Thrasymedes the stubborn in battle gave the son of Tydeus
a two-edged sword (his own had been left behind by his vessel)
and a shield; and he put over his head a helmet
of bull's hide, with neither horn nor crest, which is known as
the skull cap, and guards the heads of strong men in battle;
while Meriones gave Odysseus a bow and a quiver
and a sword; and he too put over his head a helmet
fashioned of leather; on the inside the cap was cross-strung firmly
with thongs of leather, and on the outer side the white teeth
of a tusk-shining boar were close sewn one after another
with craftsmanship and skill; and a felt was set in the centre.
Autolykos, breaking into the close-built house, had stolen it
from Amyntor, the son of Ormenos, out of Eleon,
and gave it to Kytherian Amphidamas, at Skandeia;
Amphidamas gave it in turn to Molos, a gift of guest-friendship,
and Molos gave it to his son Meriones to carry.
But at this time it was worn to cover the head of Odysseus.*

Homer *Iliad* 10.254-271 (trans. Lattimore 1951)

This chapter examines the community of ancient Eleon in Boeotia. Careful attention is paid to the development of the site from the Early Mycenaean to post-palatial period. In a detailed analysis of a post-palatial household, the Northwest Complex is presented based on the ongoing study of the ceramic assemblage and small finds from ancient Eleon.⁹⁰ While some details are likely to change owing to the ongoing excavation and study of finds from previous seasons of excavation, the account presented here focuses

⁹⁰ The prehistoric pottery from Ancient Eleon is under ongoing study by myself and Bartek Lis. A fuller presentation of the material than can be addressed here can be found in a chapter in progress on the preliminary results of work conducted at the site from 2011-2016 (Lis and Van Damme in progress). This chapter is the result of several years of collaboration between Bartek and myself and while I take full responsibility for the views expressed within this chapter, my analysis could not have been conducted without relying on interim notes and ideas shared over many early morning coffees in the apotheke.

mainly on the ceramic finds associated with a major destruction event at the end of the LH IIIC Early 2 period. I present a working model of the Northwest Complex, identifying the use of each excavated space, and compare its built features with those at other sites. The Northwest Complex at Eleon shows some features hitherto unattested in post-palatial period architecture, including tiled roofs, four column bases arranged around a central hearth, and a ramped entrance. All of these features are attested in palatial period architecture, where they are usually associated with the architectural syntax of palatial elites. In this chapter I argue that the Northwest Complex demonstrates a complicated relationship between the newly emergent elite of the post-palatial period and their palatial past. I argue that by incorporating familiar architectural features, with foreign elements of dress, a newly emergent elite sought to distinguish themselves from their communities, while simultaneously connecting themselves with their past.



Figure 5.1: *The acropolis of ancient Eleon from the south (Courtesy of the Eastern Boeotia Archaeological Project).*

The Site

The acropolis of Eleon rises above a flat plain stretching between Thebes and the Euboean Gulf (figure 5.1). Located at the juncture, both ancient and modern, of the road connecting

Thebes with Attika via Tanagra and the road connecting Thebes to Chalkis, Eleon was an important node linking Thebes with the eastern seaboard. The acropolis is composed of an upthrust limestone outcrop, fairly young in geological terms, formed in the last 10,000 years (R. Siddall, 2009 unpublished report). The sheer cliffs created by the upthrust protected the acropolis from the west and south. Steep yet accessible slopes predominated on the north. A low saddle on the east, however, allowed relatively easy access to the acropolis, which would become the main access point for wheeled traffic, as indicated by the gate complex uncovered in the recent excavations. A permanent spring flows from the base of the southwest corner of the acropolis, making it an attractive place for habitation.

The name of the site is first recorded in the Linear B texts from Thebes (**Ft 140.5; X 155.1**). Just what this name refers to has been discussed since the Roman period. Strabo says that the site acquired its name from the τῶν ἐλῶν (marshes) nearby (9.2.12), but this seems to be a folk etymology. Although Ulrichs mentions that winter rains caused the area to the northwest of the site to flood (Ulrichs 1863, 78-79), the area is not part of the great karstic basin of the Kopais, and did not feature the same kind of marshy bottomlands. Instead, the landscape tends more towards rolling hills than low bottomlands. A more likely suggestion, put forward by García Ramón, is that the name describes the shape of the acropolis, being linked with the historical Greek word ὀ ἐλεός/τὸ ἐλεόν, meaning a butcher block or cutting board (Hom. *Il.* 9.215; Hom. *Od.* 14.432; Arist. *Eq.* 152; 169; García Ramón 2011, 241). This would follow a Mycenaean practice of descriptive naming. In any event, Eleon does not seem to be connected with the etymology of marsh, since this is already attested as a place-name in the Pylos tablets spelt *e-re-i* in the dative/locative case (**PY Jn 829.19**; Aura Jorro 1985, 238), suggesting

a different derivation for *e-re-o-ni*. García Ramón's suggestion is therefore an attractive one.

Site History



Figure 5.2: Blue Stone Structure at Eleon at the close of 2016 season (Courtesy of the Eastern Boeotia Archaeological Project)

The date of the first occupation of the acropolis identified with the ancient site of Eleon is still unknown, although abundant ceramic evidence suggests that there was a thriving

community on the acropolis during EH II-III. No architecture from the earliest phases of occupation has been excavated however. Continued occupation through the Middle Bronze Age also relies on ceramic evidence, much of which dates to the Shaft Grave era (MH III-LH I). During this phase ancient Eleon seems to have become the seat of a prominent local household. This social unit buried their dead in the northeastern corner of the acropolis – one of the highest points on the ancient acropolis. While this burial enclosure is still the focus of ongoing excavations, it is clear that it consists of a cemetery of elaborate cist and built chamber tombs marked by at least two unworked stelai still standing vertically above the graves that they marked. At some point, this was monumentalized further and cut off from the rest of the cemetery through the erection of an impressive enclosure wall topped with blue-gray limestone slabs. On account of this, the enclosure has become known as the Blue Stone Structure (figure 5.2). While the earliest graves may date to the Middle Helladic period, it is clear that the largest and most elaborate grave (Tomb 5) uncovered so far continued in use into LH I. While settlement evidence for this period remains elusive, a deposit of fine burnished goblets and a narrow-based stamnos with bichrome decoration may suggest habitation or at least communal dining took place on the acropolis as well. At some point in LH I, the burial enclosure was sealed off through the construction of cobble stone pavements, rough spine walls, and a mudbrick and earth superstructure that likely formed a tumulus that became a local *mnema* (monument). It is significant that this burial complex remained virtually untouched throughout Classical antiquity.⁹¹ Only in the Medieval period was a small

⁹¹ The presence of a couple of small fragments of clearly intrusive Archaic/Classical pottery were recovered from the upper fill of Tomb 3, but it seems possible (if not probable) in retrospect, that these were introduced by bioturbation. At any rate, the burials appear to have remained intact up to the present and the Medieval occupants seem to have been unaware of the monument.

construction, likely a humble dwelling, established on top of the tumulus, but its foundations were shallow and never penetrated the burials below.

During the palatial period, ancient Eleon entered the historical record for the first time, when it is mentioned in Linear B texts from Thebes (**Ft 140.5; X 155.1**) that demonstrate its role as a second order center. How ancient Eleon became integrated into the Theban sphere of influence during the Late Bronze Age, however, remains unknown, as the great overbuilding of later periods has limited exploration of the Early Mycenaean (LH I-III A1) phases of the settlement.

The palatial period is only marginally better understood. Deposits of LH III A2-B1 date have been excavated in the Northwest sector, by which time Eleon was likely already incorporated into the Theban polity. A jewelry mold of this date demonstrates Eleon's role as a center for the production of luxury goods (Burke and Burns 2016), likely made with imported glass,⁹² further emphasizing Eleon's location on an important trade corridor connecting it with the Euboean Gulf. While scattered fragments of walls attest to architectural remains preserved beneath the Northwest Complex, most of the excavated deposits come from floor levels with no clear architectural associations. If there was an LH III B2 phase in the Northwest Sector, it seems to have been destroyed by later constructions, since the material immediately beneath the unburnt destruction deposits is early LH III B1 at the latest. Only the Southwest preserves a closed deposit of LH III B2 date. This final palatial deposit indicates that ancient Eleon was continuously occupied

⁹² Numerous studies have demonstrated that glass ingots were imported during the Mycenaean period (e.g., Walton et al. 2009; Polykreti et al. 2011). While Mycenaeans were capable of remelting these ingots to produce locally manufactured objects, such as mold-made beads, they never acquired the knowledge of how to produce glass from scratch. Although a Boeotian glass production center was previously hypothesized (Nikita and Henderson 2006), the original authors now accept a foreign origin for this raw glass as well (Henderson et al. 2010).

from LH IIIB-C. Called Structure A, the destruction deposit from this room consists of a stirrup jar, fragments of deep bowls, a cooking pot, a bathtub, an undecorated carinated kylix, and at least three interesting linear-banded cups of a form [FS232] thought to be Levanto-Mycenaean in origin by Arne Furumark (1941, 56; 1992, pl. 131, fig. 232.2). The closest parallels for these appear to come from Cyprus and may attest to Eleon's continued importance as a trade node. Carved bone inlays, including a head that stylistically resembles Levanto-Syrian products of the Early Iron Age (figure 5.3),⁹³ but was found in a clear Late Bronze Age context, demonstrate foreign stylistic influences, if not direct imports. A medium-sized chamber tomb cemetery of at least 30 graves is located on the hill of Profitis Ilias to the south of the acropolis, which seems to date to the Mycenaean palatial period, although the few tombs visible today were all previously looted (Fossey 1988, 92).



Figure 5.3: Carved bone head with inlaid eyes (Courtesy of the Eastern Boeotia Archaeological Project; scale in cm).

⁹³ Although initial reports indicated that these were made of ivory, analysis by specialists indicates that they were manufactured from bone. The closest stylistic parallels for the Eleon head come from the destroyed Palace of Shalmanezar III at Nimrud dating to the ninth century BCE (Herrmann 1986, pl. 123.536-537). These share the same soft, rounded features and broad nose present in the Eleon piece. Interestingly, examples of pieces of plaques show that the faces could be joined to larger plaques (Herrmann 1986, pl. 109.490), a technique that seems to be in evidence on the back of the Eleon piece.

There was no break between the palatial and post-palatial period occupation of the site. Immediately on top of Structure A, Structure B was constructed. Although only one room of this building has been excavated, it contains a rich ceramic deposit dating to LH IIIC Early 1. It features the largest wall socles of any post-palatial period structure at ancient Eleon and its internal dimensions are equally large, measuring 8.05 m on its east-west axis and 5.05 m on its north-south axis, if a stone in the north scarp is in fact a perpendicular cross-wall. Although due to later constructions on top of this impressive structure, only a small portion of its total area has been explored, it had a relatively short period of use, perhaps even a single generation. After its destruction, the Southwest Sector seems to have been left open throughout the rest of LH IIIC Early. The former Structure B appears to have been filled intentionally to serve as a terrace wall. Thick deposits of material then began to accumulate over the remains.

The nature of these deposits was initially characterized as rubbish, but continued study has demonstrated a pattern of repetitive pattern of deposition that reached its peak in LH IIIC Middle. At this time, an architectural complex was erected in the northern portion of the Southwest Sector consisting of a series of interconnected small rooms and a corridor. In the southeastern corner, there are also traces of walls that indicate additional LH IIIC occupation. My own investigation of the ceramic assemblage that continued to be deposited in the central portion of the trench suggests communal eating and drinking events took place in the empty area south of Structure C. This is evidenced by a high-density of pictorial kraters, deep bowls, semi-globular cups, and kalathoi employed as table wares. Food preparation is indicated by fragments of cooking vessels, in particular, a large tripod with struted legs imitating a metal vessel (**P0723**). The

continuity of these activities from the destruction of Structure B until the abandonment of this area of the site in LH IIIC Middle shows that the function of the space remained stable throughout much of the post-palatial period.



Figure 5.4: Wheelmade bull figure (left) and wheelmade anthropomorphic figure (right; not to scale) from the Southwest Sector (Courtesy of the Eastern Boeotia Archaeological Project).

The fact that this equipment is interspersed with large deposits of faunal material, shattered wheelmade bull figures (figure 5.4), ring vases, and stirrup jars may indicate a ritual aspect to these activities. That such activities may have been carried out here even when Structure B was in use is suggested by the discovery of a wheelmade anthropomorphic figure (SF0447; figure 5.4), discovered in the fill of Structure B (Nikoloudis in progress). The presence of large faunal deposits in the fill of Structure B also suggests that it may have served a special function (Lam and Bullock in progress), but the limited area of excavation limits the certainty of this interpretation. No special features have been excavated from within Structure B that might support such an interpretation. Another possibility is that the area served as a courtyard between multiple

post-palatial households where communal events took place.⁹⁴ Similar dining and cult activities are documented in the Northwestern Lower Town at Tiryns discussed above. The selected fragmentation, burning, and burial of vessels in the latter case also supports this hypothesis.

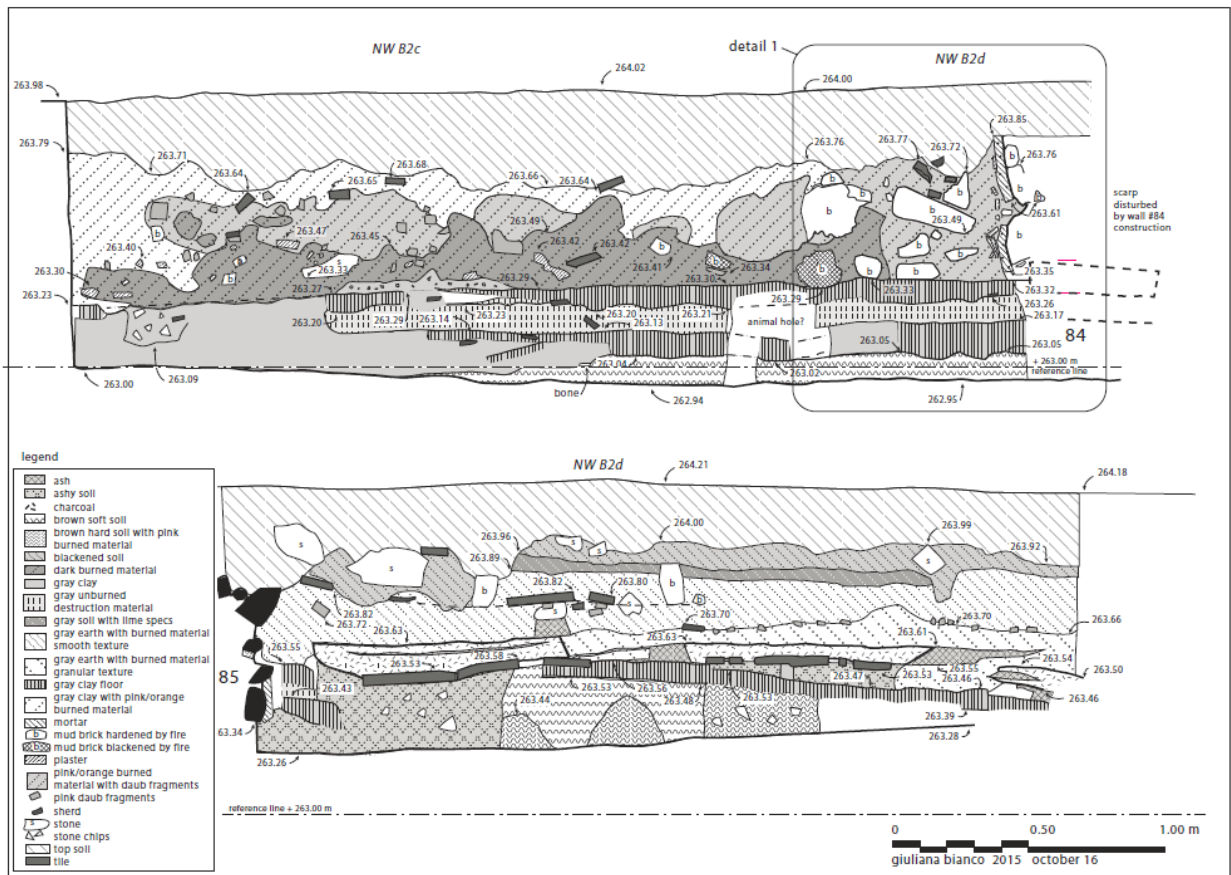


Figure 5.5: East-west section through north scarps of NW B2c and B2d. Note final floor levels around 263.30 masl for Room 3 and 263.60 masl for Room 5 (G. Bianco; courtesy of the Eastern Boeotia Archaeological Project).

The Northwest Sector at Eleon was also occupied throughout the post-palatial period. Here a household was established that underwent several modifications over its apparently long-lived existence. While the architectural development of this complex

⁹⁴ Communal here could be limited to the households bordering on the courtyard.

structure has yet to be fully untangled, the final plan is relatively clear with the exception of the western central portion of the building, where later inhabitants, likely during the Medieval period, removed key sections of walls. A destruction horizon consisting of unburnt, mendable ceramics dating to LH IIIC Early 1 may have occurred slightly later than that documented in the Southwest, although this may be due to functional rather than chronological differences in the ceramic assemblage. Evidence for this phase is most prominent in Rooms 1, 2, and 7. Room 4 appears to have sat directly on top of palatial period remains (figure 5.5).

Eleon saw renewed importance in the historical period. Its early importance may be indicated by two references to the site in the *Iliad* (2.501; 10.266). Archaeological finds on the acropolis attest to activities beginning in the last half of the eighth century BCE and continuing into the fourth century BCE. By the seventh century BCE, imports reached Eleon from Corinth and Athens, as attested by a plate or lekanoid bowl fragment with a winged figure, most likely a siren (**P1113**), and an SOS amphora respectively (**P0467**) (figure 5.6).



Figure 5.6: Two joining fragments of an SOS amphora (left) and a Corinthian plate or lekanoid bowl fragment (right) (T. Ross; courtesy of the Eastern Boeotia Archaeological Project).

The site flourished in the sixth century BCE when large deposits of votive material and drinking vessels were deposited in pits/bothroi located in the Gate Area and the Southwest Sector. These deposits are almost entirely comprised of locally produced vessels, with only rare Attic imports attested.⁹⁵ Bronze phialai and terracotta figurines emphasize their votive character. Late in this same century, the monumental polygonal wall was constructed and the gateway to the acropolis was modified.⁹⁶ It seems no coincidence that the only two historical figures associated with Eleon lived during the Archaic period. Bakis of Eleon, the earliest named individual from the site, was a noted seer, who shared his name with men from Athens and Arcadia (Paus. 10.12.11; Ael. *VH* 12.35; schol. Ar. *Av.* 962; schol. Ar. *Eq.* 123; schol. Ar. *Pax* 1071; Suda s. v. Βάκις). He was said to be possessed by the Nymphs (Ar. *Pax* 1070-71; Paus. 10.12.11).⁹⁷ His earliest recorded prophecies are found in Herodotus and were interpreted as referring to the Persian Wars (Hdt. 8.20; 8.77; 9.43; Paus. 10.14.6; Paus. 10.32.8-9). His prophecies may also have been consulted during the Peloponnesian Wars, when Aristophanes lampooned them in several of his works (Ar. *Av.* 962; 970; *Eq.* 123; 1003-4; *Pax* 1070-71). Pausanias (4.24.4) also says they were consulted during Epaminondas' campaign against the Spartans, and apparently continued to circulate as late as the second century CE (Paus. 9.17.5; 10.12.11). He seems to have been equated with the Sibyl from an early date (e.g. Pl. *Theagenes* 124b). Likewise, Antichares of Eleon is mentioned by Herodotus as giving

⁹⁵ A large number of miniature kotylai contained in these deposits are traditionally ascribed a Corinthian origin, but this has not been proven.

⁹⁶ Several phases of reorganization have been identified architecturally throughout the Archaic period.

⁹⁷ Interestingly, an inscription observed on the acropolis of Eleon, now lost, may make mention of the Nymphs. Although currently interpreted as a tombstone, uncertain readings allow the possibility that it is a dedication (see Preuner 1924, 123-124, no. 18.2).

advice to Dorieus on where to found the colony of Herakleia (Hdt. 5.43). He is said to have interpreted the oracles of Laios. Interestingly, both of these figures were seers or local wisemen. This may suggest the presence at Eleon of a local oracular cult of the type seen at other sites across Boeotia (e.g. Tilphousa, Lebadeia, Ptoïon). Despite increased activity on the acropolis, however, there is so far no evidence of habitation here. Thus, we might assume that the population settled in the lower town, closer to the spring that served as the primary water source. This settlement was likely not large as indicated by its lack of a mint.⁹⁸

Activity on the acropolis at Eleon seems to have declined rapidly after the Persian Wars, although material dating as late as the fourth century BCE does occur (Aravantinos et al. 2016, 37-38). This is likely to be associated with a sharp economic decline across Boeotia in the aftermath of its alliance with the Persians (Kraay 1976, 110). Nothing definitively Late Hellenistic or Roman has been found to date,⁹⁹ and this is likely why the site was not visited or described by Pausanias in the second century CE.¹⁰⁰ Although Strabo, writing at the very beginning of the first century CE, mentions the site as part of the *tetrakōmia* of Tanagra (9.2.12; 9.2.14), he was relying on earlier sources and is not necessarily describing the contemporary geographical situation.¹⁰¹ Even if Strabo is

⁹⁸ Notably, the nearby settlement of Mykalessos, where a very large and very rich Late Archaic-Early Classical cemetery has been excavated (Burrows and Ure 1907/8; 1909; 1910; Ure 1913; 1927; 1934), did mint coinage at this time (Kraay 1976, 110).

⁹⁹ Fossey (1988, 92) records Pergamene and Roman sherds, but the intensive survey of the acropolis produced neither. Some Medieval combed wares may have been mistaken for Roman and perhaps poorly fired black gloss wares for Pergamene?

¹⁰⁰ He did, however, mention an Athenian grave stele mentioning two Athenians who died in a battle near the site (Paus. 1.29.6).

¹⁰¹ For instance, at 9.12.14 Strabo says that Harma is part of the *tetrakomia*, but previously stated that it is abandoned (9.2.11).

describing the present day, Eleon's designation as a *kōmē*, would imply that it was a rather small settlement. At present, it seems likely that the acropolis at Eleon was abandoned sometime between the fourth and third centuries BCE. Only further exploration of the lower town can confirm whether these conclusions are valid for the lower settlement during this period as well. The latest reference to Eleon from Classical antiquity comes from Plutarch's *Moralia* in the late first or early second century CE (*Quaest. Graec.* 41). In answer to the question "Whence in Boeotia, near Eleon, is there a river called Scamander?" Plutarch recounts an aetiology, not only for the river, but for all the streams and springs around Eleon. Included in his tale are the three daughters of Scamander and Acidousa, "who are still honored to the present day, being called 'parthenoi'". Plutarch, a native Boeotian, is a much better source for local information than Strabo and his testimony would suggest that both the place name and the cult may have continued into the Roman period. If so, it may be that the focus of cult shifted to the area of the spring at the foot of the acropolis. Alternatively, as a local, Plutarch may have knowledge of relatively ephemeral and archaeologically invisible cult practices.

Cemeteries of the historical period appear to have ringed the settlement and these seem to confirm that the site reached its historical peak in the Late Archaic period.¹⁰² These include the north cemeteries mentioned above (see also Fossey 1988, 92), which were used from the Archaic period through Classical period,¹⁰³ an Archaic cemetery

¹⁰² Two inscriptions were read built into local churches. These appear to have been grave stones. The first, only read by Ross (1848, 109), who reports that the inscription was complete, read ΦΟΡΑΣ. The second inscription was read by both men. Ross (1848, 109) reports it reading YATMA and says that it is fragmentary. Ulrichs (1863, 79, n.22) read this TAYMAΣ. It is clear that the same inscription is referred to, although Ulrichs made out a final sigma that Ross missed.

¹⁰³ During the survey, a grave stele was recovered from a farmer's stone pile north of the acropolis. Several other grave stelai have been recovered from the surrounding area, all in epichoric script (*IG* vii 620, 629, 634, 672).

located to the southwest of the acropolis during the recent survey (pers. comm. B. Burke), and tombs in the area of the modern settlement recorded by Fossey (1988, 92).

The Northwest Complex

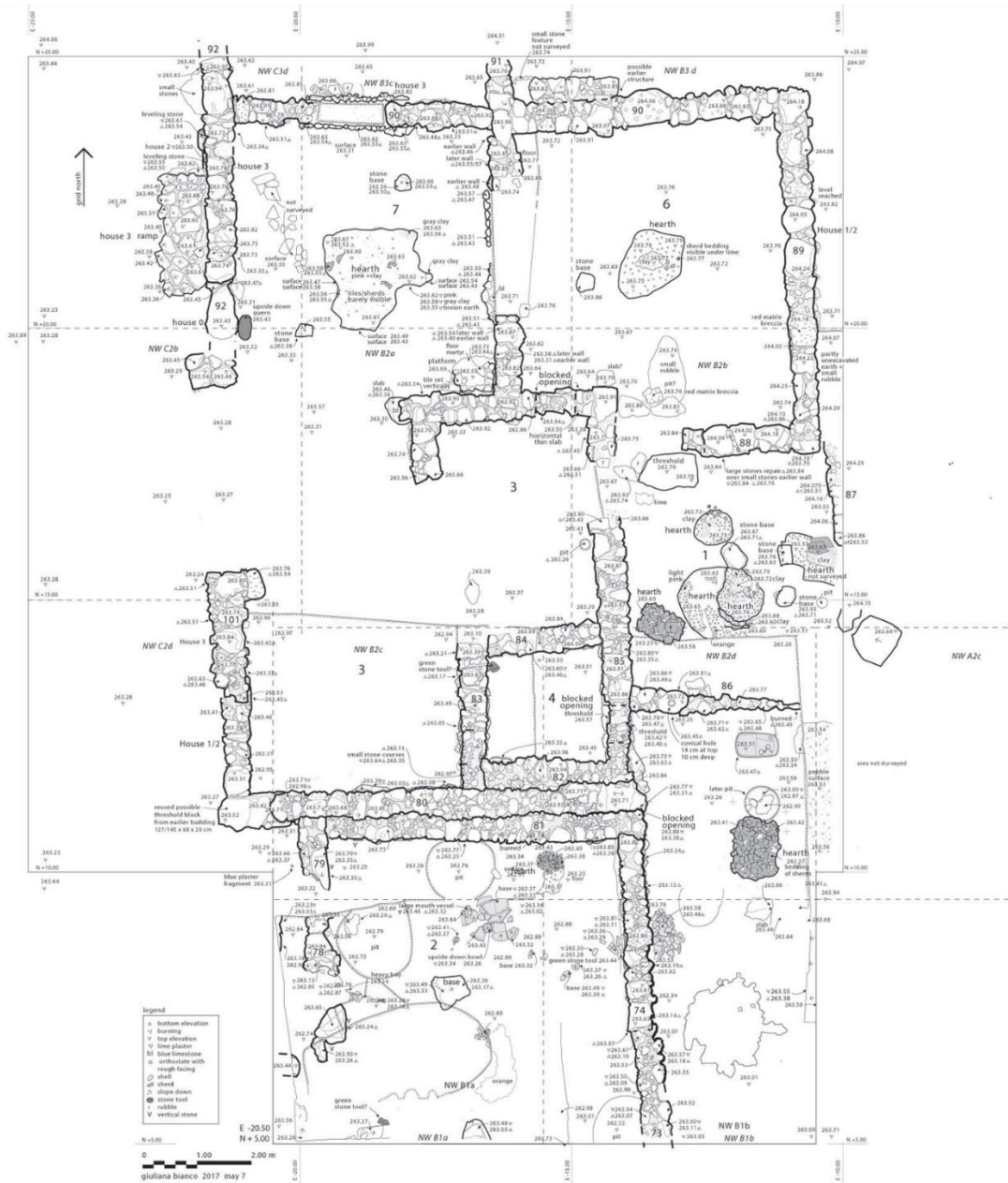


Figure 5.7: State plan of post-palatial period architectural remains (G. Bianco; courtesy of the Eastern Boeotia Archaeological Project).

In the Northwest Sector of the site, a sprawling complex of rooms, perhaps best identified as a residential block has been excavated by the Eastern Boeotia Archaeological Project from 2011 until the present (figure 5.7). The complex is on a more or less north-south alignment. A clear road appears to have demarcated the western side of the complex, where an area between 3.30-5.05m wide has been excavated producing no architecture and only highly fragmented pottery, of a generally earlier date. That evidence, combined with the ramp feature observed on the western side of the Northwest Complex, suggests a regular maintenance of this area for wheeled traffic. The eastern limits of the complex also appear to have been reached, at least in the northern half of the trench. The eastern walls of rooms 6 and 5 are known with certainty, and there are possible traces of the eastern wall of room 1. Whether this side was also bounded by a road or alley is not clear from the small areas excavated outside these rooms.

The architecture of the Northwest Complex has a number of features that connect it with an elite palatial period architectural vocabulary. Room 7 preserved three in situ bases for wooden posts/columns around its central hearth, an arrangement that directly imitates the elite Mycenaean architectural vocabulary seen in palatial Megara, as well as other elite residences of the palatial period (Walberg 2007, 64-66, 197-198, fig. 26; Cosmopoulos 2010, 46-48). The same room appears to have had access to the road to the west, at least in its final phase, via a ramp. Ramped entranceways are rare in the Mycenaean world, with most known examples occurring at the Mycenaean citadel of Gla. Here the ramps seem to have facilitated access to large storage facilities (although it should be noted that ramped entrances also occur on the Melathron). Thus, despite not being functionally necessary, ramps may have served to monumentalize an entranceway.

Finally, most areas of the NW complex also produced evidence for tiled roofs.¹⁰⁴ A near complete pan tile gives dimensions of 0.535 x 0.445 m. While no complete cover tile was found, the length of these is likely to have closely paralleled the pan tiles. Similar roof tiles are now recorded from numerous Mycenaean sites, although most of these date to the palatial period. With the exception of a single pan tile from Xeropolis (published as a gutter; see below) and fragments of roof tiles from Thebes that may be residual (see chapter four), I am not aware of any stratified post-palatial roof tile deposits outside of Eleon.

Following an earlier destruction horizon, the northwest complex was rebuilt, in many places reusing the walls of its predecessor. A number of blocked entranceways attest to the reorganization of the interior circulatory patterns. In some places, there must have been a significant rearrangement of rooms as well. For instance, a number of unburnt vessels mend between Rooms 1 and 2, suggesting that they were a single space prior to the rebuilding. The discovery of roof tiles above and below the final floors of the Northwest Complex suggest that both phases featured tiled roofs. The final destruction was by a violent fire. Its effects were felt most strongly in Rooms 1, 2, 4, 4N, and 5. This may be due to the presence of a second story over most of the central part of the household as attested by burnt vessels with joins from the fills of multiple rooms. While traces of the same fire have been noted in Rooms 6, 7, and 8, their stratigraphy is not as clearly understood. At least in Room 6, the floor levels of the final destruction may not have been reached.

¹⁰⁴ Kyle Jazwa (2017), "The Late Helladic Roofing Tiles from Eleon, Greece: Construction and Form," *118th Annual Meeting of the Archaeological Institute of America*.

Room 1

A small part of Room 1 was excavated in the very first test trench laid out in 2011. The room was then further explored in 2012, 2013, and 2015. Room 1 contains one of the best-preserved destruction deposits from the conflagration. Thus, even from an early date, a relatively secure reconstruction of the stratigraphy and the distribution of the finds was possible (Van Damme 2017). Room 1 remains incompletely excavated along much of the east and the entirety of the south, although the preserved dimensions show it was a very large space. In its current form, its maximum dimensions are 7.95+m along the north-south axis and 3.91m along the east-west axis.¹⁰⁵ Patches of a floor embedded with small pebbles and plaster nodules were noted during the excavations at an elevation around 263.50 masl (EBAP NW B2d 2012, June 27). Two Medieval pits containing material of mixed date were cut through the room, but no later architectural features were noted and the later pottery is restricted to these pits. The only other built feature in room 1 is a large rectilinear sherd hearth, measuring 1.25 m x 0.88 m, located exactly mid-way along the proposed central axis of this room (figure 5.8). Just to the south of this large hearth and on the same axis was a large post/column base (see above, figure 5.7). It is unclear what the position of this post means for the roofing of this space, perhaps it was only partially roofed given its large size and the large hearth? Similar stones placed near hearths at Korakou were interpreted as pot-stands by Blegen (1921, 88; 90), and it is possible that they performed a similar function at Eleon. The organization of this space seems somewhat analogous to the enclosed courtyards of the Northwest Lower Town of Tiryns (see chapter four).

¹⁰⁵ This measurement was obtained from measuring the distance between the west wall of room 1 and an alignment of stones uncovered in 2015 in NW A2c.



Figure 5.8: Central hearth in Room 1 under excavation (Eastern Boeotia Archaeological Project; large scale 0.50 m).

Room 1 contains storage features placed along its north and south walls. In the north, a large, unpainted bathtub (**P1170**) was found in situ oriented east-west along the north wall. This bathtub was found intact, although the rim had been plowed away. The base dimensions (0.80 x 0.45 m) are comparable with similar bathtubs from Xeropolis. Along the west wall a medium-size pithos (**P0523**) was found fallen on its side and shattered, but otherwise near complete (figure 5.9).¹⁰⁶ An adjacent pit appears to have just missed it, taking with it a small part of the base of the pithos. A second medium-sized pithos (**P0970**) was found in the north of the room, but the positioning of this pithos is unclear. It may have stood somewhere along the north wall, although its position in the notebooks would seem to imply that it fell from above – perhaps from the same storeroom as the vats fallen into Rooms 3 and 4 (see below).

¹⁰⁶ Pithos **P0523** has a rim diameter of 0.25 m, a height of 0.68 m, and a maximum width around 0.48 m.



Figure 5.9: *Pithos crushed along west wall of Room 1. Note the Medieval pit to the northwest (courtesy of the Eastern Boeotia Archaeological Project; scale 0.20 m).*

Numerous other mendable ceramic finds were found scattered on the floors. Some of these were crushed in situ and others may have fallen from a second story. They are easily identified due to the heavily burnt nature of some or all of their sherds. A number of these vessels were clustered in the northern portion of the room (figure 5.10). In the northwest corner a large two-handled cooking pot (**P0024**) was excavated in situ, badly burnt, and somewhat friable. Moving eastwards, a complete jug with rare branch motif was also positioned along the wall (**P0015**). Just to the east of this a cluster of three deep bowls was found. This cluster is of interest since all three are decorated differently: one is monochrome (**P0032**), one is linear (**P0025**), and one has a central triglyph flanked by antithetic spirals (**P0001**). These were assumed to have been positioned in situ, or have

fallen from a shelf along the north wall. The discovery of a spectacular join between the linear deep bowl and numerous sherds fallen into Room 4 makes this reasoning impossible. At least the linear deep bowl and more likely all three must have fallen from an upper story. Exactly how all three managed to work their way so deeply into the fill of Room 1 is difficult to answer, unless a portion of Room 1 was unroofed and they fell outwards with the upper story into this empty space. Also possibly fallen from above is a large monochrome-painted carinated cup (**P0246**).

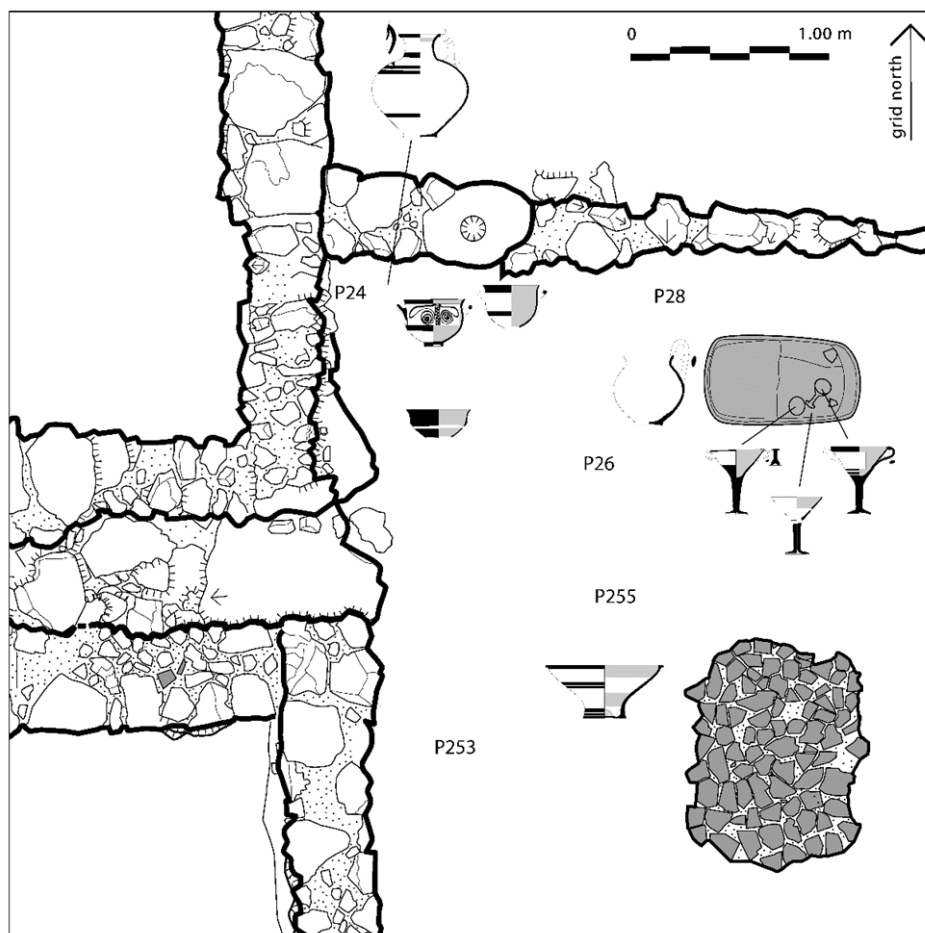


Figure 5.10: Northwest corner of Room 1 during excavation (Courtesy of the Eastern Boeotia Archaeological Project).

Approximately in the center of the north wall was positioned the bathtub, leaving a gap of about 0.50 m between the wall and the bathtub. Placed at its western end was an

in situ dipper jug (**P0027**), and a one-handled cooking pot (**P0028**). A badly burned, but nearly complete linear jug found in the same area likely also fell from an upper story (**P0026**). When the bathtub was excavated, we were surprised to find that it held three burnt, mendable, decorated conical kylikes (**P0009, P0010, P0243**). The fact that none of these kylikes was entirely complete suggests that these too fell from above, although whether from a shelf or upper story is not clear. While it would seem extremely coincidental that a cluster of kylikes would fall together into the bathtub, their final position is difficult to explain otherwise. A kylix was found in the bathtub at the Palace of Nestor at Pylos (Blegen and Rawson 1966, 185-189), although this was an undecorated version, which has many potential uses beyond drinking. The decorated conical kylikes from Eleon were almost certainly used as drinking vessels; thus, the best explanation remains that their appearance in the bathtub was an accident, rather than any form of intentional deposition (cf. Van Damme 2017).

To the northwest of the central hearth, three more vessels were found. These were found fairly high in the fill and probably fell from above. The first was a hydria decorated with tassels, antithetic streamers, and a wavy line (**P0255**), found shattered into over 300 small fragments exhibiting differential levels of burning. The second is a badly burnt and fragmented linear kalathos (**P0254**). The greater part of this kalathos appears to have been plowed away, although a complete profile has been preserved. The jagged break edges of some of its sherds attest to the fierceness of the fire destruction. Lastly, closer to the west wall of Room 1 was found a third vessel, also likely fallen from above. This is also

a jug decorated with linear bands (**P0253**), which had been burnt in such a way that the lower portion of the vessel had delaminated, making its reconstruction a slow process.¹⁰⁷

Room 2



Figure 5.11: *Room 2 from the south during excavation. Note orange clay east of the central column base [hearth] and emerging bathtub in upper right. The robbed western wall is seen at left (Courtesy of the Eastern Boeotia Archaeological Project; large scale 1 m).*

This space is interesting in that it appears to duplicate most of the functions of Room 1. Combined with the triple wall to the north, it seems fairly certain that Room 2 belonged to a different household than the rest of the Northwest Complex in its final phase. This must have continued to the south and perhaps east as remains of LH IIIC walls adjacent

¹⁰⁷ The recent completion of the restoration of this vessel demonstrates that the complete profile of the vessel is preserved. A dark greasy stain on the side of the vessel was caused by contact with some unknown material during the conflagration.

to the Blue Stone Structure suggest. A poorly preserved hearth was located near the center of the room, although this was badly damaged by a large Medieval pit located to the southwest. Nearby, a central column base or pot-stand(?) indicates that this large room was may originally have been partially roofed over as is the case with Room 1. Although pitting has disturbed most of the southwestern portion of the room, a fairly regular clay floor was identified in the north and along the eastern wall of the room at 263.40 masl. Unfortunately, this clay floor seems to have been mixed in some areas with a second clay floor lying below it and including unburnt material from an earlier destruction event. The same pitting that destroyed the floors also resulted in the removal of most of the western wall of the room. Enough stones remained in situ, however, to get a firm measurement on the area of the room: 5.45 m east-west and 5.60+ m along the north-south axis.¹⁰⁸

The ceramic assemblage of this space is similarly well-preserved as in Room 1, where not disturbed by later pits, with near complete burnt pots lying crushed on the floor surface. The only storage feature is a large bathtub (**P0981**) found in situ in the northern part of the room (figure 5.11). Unlike the bathtub in Room 1, that from Room 2 was oriented north-south rather than east-west along the wall. Although partly destroyed by a Medieval pit, approximately one-third of the bathtub remained ($W=0.50$ m), including the full profile, from base to rim ($H=0.585$ m). Intriguingly, this piece was discovered after cleaning to include painted decoration on its interior. Unless this bathtub was in secondary use, therefore, it is unlikely to have served a storage function and may in fact, as its name suggests, have functioned as a bath. Although the design on the interior of the bath is not well preserved, it appears to be a series of crudely drawn waterfowl motifs.

¹⁰⁸ No traces of a south wall have been observed.

Similar painted bathtubs, if with much more elaborate and well-executed designs, comes from a palatial context on the Kadmeia at Thebes (Aravantinos 2010b, 96), as well as post-palatial levels from the Citadel House Area at Mycenae (Crouwel 1991, 24-25, fig. 7; pl. 4.G1). The former features fish swimming in a seaweed-filled environment. The latter features hunters with a dog and wild boar on the exterior(?) and fish on the interior(?). Despite the decoration, the positioning of this bathtub along the north wall of this large room mirrors the adjacent Room 1, as does the centrally placed column base/hearth combination. It is worth pointing out the most of the interior of the bathtub is badly worn and the decoration is only barely visible in a few places close to the rim. This may in fact lend weight to the suggestion that it was in secondary use.

The other ceramic finds reinforce the initial impression that Room 2 reduplicates the function of Room 1. Finds crushed near the bathtub include a near-complete dipper jug (**P0343**), a one-handled cooking pot (**P0344**), three monochrome deep bowls (**P0341**, **P0342**, **P0573**), a conical kylix (**P0576**), and a linear semi-globular cup (**P0575**). Other burnt shapes were found scattered in the northwest corner, although they do not seem to have been in situ and generally are only partially preserved. These include a burnt closed shape with Lefkandi-banding (**P0309**), a large linear deep bowl/krater (**P0473**), a patterned krater with spiral decoration (**P0392**), a small globular stirrup jar (**P0307**), another large burnt closed shape (**P0384**). A few ceramic finds also appear to have originally been situated in the area of the central hearth. Unfortunately, the large pit cut through this area disturbed most of it. Substantial portions of mendable Mycenaean vessels, however, were recovered from within the pit, mixed with later materials, suggesting that adjacent strata collapsed into the pit or the fill was redeposited into it

from adjacent areas by the later inhabitants. For some of these vessels, joins made with stratigraphically excavated layers allows their dating. In other cases, the presence of burnt sherds provides a relatively secure link with the LH IIIC Early 2 destruction of the Northwest Complex. Although many vessels from Room 2 have one or two sherds that came from the pit. Two vessels were found largely complete *inside* the pit with only one or two joins coming from *outside*: a handmade burnished jar (**P0397**), a very large linear basin (**P0306**). These may have been vessels placed near the hearth that collapsed into the pit during its construction, use, or abandonment. The most interesting other find in this space was a near complete Mycenaean pan tile (**SF0230**), found broken, but otherwise intact on the surface of the floor (figure 5.12).



Figure 5.12: Mycenaean pan tile lying on the floor of Room 2 (Courtesy of the Eastern Boeotia Archaeological Project; scale 0.20 m).

Room 3



Figure 5.13: Room 3 during excavation from the north. Three kotselles emerge along the eastern wall (Courtesy of the Eastern Boeotia Archaeological Project, large scale 1 m).

A medium sized space (3.57 m along the north-south axis and 4.00 m along the east-west axis) lies to the north of Room 2, but does not share a party wall. This seems to confirm the suggestion made above that Room 2 belongs to a second household extending farther to the south. Room 3 is generally well-preserved, although a Medieval pit was located just inside its western wall. Furthermore, most of the northern wall appears to have been robbed away by later inhabitants of the site. A few small stones, still in situ today, may in fact have served as wedging stones for a wooden threshold separating Room 3 from the area designated Room 3N. If this was the case it is difficult to understand the precise arrangement of the area to the north, but the general lack of finds may suggest some form

of entryway opening onto the street to the west. Its most important internal feature appears to be three kotselles erected against its eastern wall (figure 5.13). These were approximately 0.50-0.60 m in diameter and would have held around 170L each. Room 3 appears to have been a storeroom, which held equipment for use elsewhere in the Northwest Complex. A well-preserved clay floor was observed throughout most of the room and was also documented in the north baulk section at approximately 263.30 masl.

When excavated, Room 3 was filled with collapsed mudbrick, carbonized beams, and a great deal of ceramics. The depth of the deposit, as well the discovery of numerous joins from the upper fill of adjacent rooms, supports the reconstruction of a second story over this space. The presence of textile equipment also located in the fill of the room, seems to be due to at least two looms standing in an upper story room at the moment of the destruction. This equipment includes three very large torus weights (**SF0247**, **SF0248**, **SF0249**), four spools (**SF0469**, three not catalogued), and a bronze needle (**SF0015**). The two intact torus weights weigh in excess of 1.500 kg and would have been used in the production of a heavy textile or rug. The intact spools weigh between 0.050-0.100 kg and would have produced a very light, open weave fabric.¹⁰⁹ Thus, these loom weights cannot have been used together, but rather give evidence for at least two looms in an upper story room at the time of the fire. Other finds of considerable importance include an intact bronze sickle (**SF0252**), which appears to have been lying on the floor at the time of the destruction, and some fragmentary scraps of copper alloy sheet with an

¹⁰⁹ The textile equipment from the site of Eleon has been studied by Max MacDonald (2017). I thank him for supplying the weights and contexts of the equipment from the Northwest Complex.

embossed guilloche pattern (**SF0251**). A nail hole in the largest fragment shows that this was a decorative element, likely affixed to a wooden box.

The finds from this room suggests a number of the objects originated from an upper story. These often have complex networks of joins that extend into neighboring trenches and often join vessels found scattered in surface soil or deep in the fill of adjacent rooms. The only way these vessels could exhibit such join patterns is having fallen from above. The severe burning these vessels exhibit attests to their exposure to burning during their descent and breakage. Included with these vessels are two wheelmade bull figures that also originate from the upper story and are generally considered cult items elsewhere (**P0353** and **P0904**). Open shapes include a large krater with side triglyphs (**P0583**), a pictorial krater with a bird (**P0744**), a monochrome deep bowl (**P0634**), and an undecorated vat (**P0906**). The other half of linear deep bowl **P0025**, mentioned in the inventory of vessels found in Room 1, came from deep within the fill of Room 3, very close to the floor. Closed vessels include a linear decorated hydria (**P0897**), a jug with Lefkandi-banding (**P0895**), a very large transport stirrup jar (**P0894**), a thin-walled closed shape (**P0366**), and another linear closed shape (**P1403**). A linear decorated globular stirrup jar (**P0018**) was found relatively high in the fill, but is complete other than its spout, and thus it is not clear if it fell from above, or from a shelf within Room 3.

Some finds must have been in Room 3 when the Northwest Complex was destroyed. These include a large, undecorated hydria (**P0017**), which appears to have sustained damage to its neck and one belly-handle in antiquity, since no trace of these missing parts was found in the room. Stylistically this piece could well date earlier than its destruction context, and thus it may be that it had a long use life. Other finds lying near

the floor include a complete one-handled cooking pot (**P0019**) and two mostly complete two-handled cooking pots (**P1417** and **P1422**). A near-complete deep bowl with side triglyphs and monochrome interior (**P0362**) and a linear amphora (**P0360**) may originate from either the upper story or the basement.

Room 3N

This room consists of two spaces north of Rooms 3 and 4, which may or may not have formed a single contiguous space. Once again, the damage caused by Medieval stone robbers and pit diggers in the west of the trench has hampered a clearer understanding. The eastern portion of this area, however, can readily be called one of the best preserved destruction deposits anywhere in the Northwest Complex. The area produced well-fired mudbrick, tile fragments, and roofing or packed clay flooring from the second story. In total, some 225 kg of identifiable architectural debris was recovered (NW B2a end-of-season report 2014). The concentration of this material in the eastern area was noted by the excavator. This seems to indicate that the heat of the fire was particularly intense in this area. Our architect, Giuliana Bianco first noted in the field that the collapsed debris might in fact have served as a stairwell. Given the placement of Room 3N in relation to the proposed light well (Room 4; see below), this suggestion is well-supported from an architectural standpoint. Given the fact that most finds from this space fell from above supports this view as well. A wooden staircase would have fueled the fire and led to the preservation of mudbricks and other superstructure elements fired to a much lower degree elsewhere in the building.¹¹⁰ This stairwell would have had maximum dimensions

¹¹⁰ A comparable situation occurred at the Granary, where even today the mudbrick of the stairwell forms a well-preserved, vitrified mass.

of 3.90 m along its north-south axis and 2.90 m along its east-west axis. It would have originally formed a U-shaped stairwell. While the central spine wall was not preserved, stone robbing in this area, as indicated by a vertical plaster surface with robbed out stones visible in the north scarp prior to its removal (figure 5.14). This stairwell would provide a convenient mechanism for straddling the difference in elevation between Room 5 and Room 3N despite sharing a communicating doorway.¹¹¹



Figure 5.14: North baulk of SW B2c/B2d showing destruction debris and vertical plaster surface (Courtesy of the Eastern Boeotia Archaeological Project).

In the southeast corner of this room, high in the fill, there is a cluster of bronze finds likely to have fallen from an upper story storage space. These bronzes included an intact knife (**SF0288**), a folded and broken sickle (**SF0253**), a spear butt (**SF0254**), and badly folded fragments that may be the crushed and warped remains of the spear head or *sauroter* (not catalogued). A similar sickle head found along the northern edge of Room 3 could have originated from the same source if it fell down the proposed stairwell

¹¹¹ A similar arrangement is seen in the Chania farmhouse near Mycenae, although that structure preserves a ramp instead of a staircase (Palaiologou 2015, 58-59, figs. 4 and 11).

and through a doorway in the southwestern corner of Room 3N. When the rubble and mudbrick that was identified as the collapsed remains of a staircase was cleared,¹¹² a number of querns and pounders were recovered. These reached down to the floor level and may have originally been stored away beneath the staircase.

Few ceramic finds seem to have been in situ on the floor of this room, supporting its identification as a stairwell. Important ceramic finds were made in the destruction fill, however, a number of which make joins with the upper story collapse debris in adjacent rooms, especially from Room 3 or Room 5. This supports the notion of an upper story, perhaps with a rather open floor plan. A rare exception to this network of joins was a complete twisted handle amphora (**Po428**) found inverted in the fill. Although broken by the fall of the overlying debris, this amphora was found more or less intact. This may have fallen from the same upper story space that housed other closed shapes fallen into Room 3 mentioned above. Other mendable vessels include a deep bowl with stemmed bowl banding and u-pattern (**Po638**).

Room 4

This is a small, nearly square room at the heart of the Northwest Complex, measuring 2.20 m along its north-south axis and 2.18 m along its east-west axis. At an earlier date it must have extended farther north, since its present north wall is a later addition. Also during this earlier phase, two doors existed in its southeast and southwest corners, giving

¹¹² The largest preserved mudbrick fragments had dimensions of 0.40 x 0.10 x 0.10 m; 0.35 x 0.18 x 0.09 m; 0.30 x 0.24 x 0.10 m; 0.28 x 0.19 x 0.09 m; 0.22 x 0.19 x 0.11 m; and 0.20 x 0.13 x 0.07 m (EBAP Notebook NW B2a, June 24, 2014). This suggests a standard brick around 0.40 x 0.20 x 0.10 m. While this may seem rather large to modern standards, bricks of even larger dimensions are documented at Kynos (Kounouklas 2011, 57).

access to Rooms 1 and 3. These were blocked, likely after the first LH IIIC destruction event, and the present south and north walls were built to create the square space. In its final form there was no entrance to the room, unless it was from a ladder lowered from an upper floor. The finds from this area are minimal, however, and there is good reason to believe that this space was modified to create a light well in the final architectural phase. Its placement to the south of the hypothesized staircase in Room 3N would be appropriate, and finds a parallel in the House of the Ladies at Akrotiri, Thera, where a small light well was created to let natural light into a stairwell surrounded by rooms (Palyvou 2005, 84-85, fig. 112; 135, fig. 195).

The only mendable ceramic, a coarse ware vat (**P0355**), found in the light well originated high up in the fill and consequently can be assigned to the upper story with confidence. Numerous joins to this same vessel were found high up in Room 1, confirming this suggestion. Also found in the fill of this room was a cluster of seven spools (**SF0468**, **SF0471**, **SF0472**, **SF0473**, **SF0474**, **SF0475**, and one not catalogued), which could, hypothetically, be associated with those found in the upper fill of Room 3 to the west.

Room 5

This is a medium sized, 3.85 m square room, located to the north of Room 1. In its final form it may have communicated with Room 1 via a door in its south wall. A pivot stone found built into this wall suggests as much. The difference in floor levels at this time, however, was 0.20 m, if not greater. Thus, a couple of steps might be expected adjacent to the pivot stone to facilitate this drop in elevation. No traces of such steps existed archaeologically, however, the entire area was badly burned and it is possible that two

wooden steps made up the difference. Alternatively, the pivot stone may be in secondary reuse.¹¹³ Doorways are more clearly preserved in the north and east walls, the former giving access to Room 6 and the latter giving access to Room 3N. This doorway runs into a similar elevation problem as that suggested to link Room 5 with Room 1, but unless the stones were robbed out here, which seems unlikely given the well-preserved collapse layer here, they must have made do somehow. The northern entrance was more clearly defined with large wedging stones framing a gap formed by the decay of a wooden threshold (figure 5.15). The only other architectural feature of this room is an approximately central column base, suggesting that part or all of this small space was roofed, a surprising fact given the number of small hearths that apparently were in use simultaneously in this space. The floors of this room seem to have been frequently re-laid, perhaps due to the continuous use of multiple hearths in such a confined space, nevertheless, the final floor is documented in the north baulk section of NW B2d around 236.60 masl.



Figure 5.15: Room 5 with central column base in situ. Note the large slab step in the background leading into Room 6 and the earlier hearth in the scarp at lower right (Courtesy of the Eastern Boeotia Archaeological Project).

¹¹³ Similar pivot stones from Akrotiri were solely employed on upper floors (Palyvou 2005, 142, fig. 210), likewise, a pivot stone fallen from an upper floor of similar design was discovered at Lefkandi: Xeropolis (Evely 2006, 17, no. 23).



Figure 5.16: Room 5 from north. Latest two hearths shown at time of excavation. Traces of possible third hearth seen to the lower left (Courtesy of the Eastern Boeotia Archaeological Project; large scale 1 m).

At the time of the destruction there were at least three, if not four hearths in active use. Two were located to the north and south of the central column, one approximately in the center of the east wall, and a fourth, now removed, seems to have existed approximately in the center of the north wall (figure 5.16). The number and size of these hearths is puzzling and based on the parallel at Xeropolis, I hypothesized that they may in fact be emplacements for kotselles rather than hearths. Their positioning follows the usual layout of storerooms in the Phase 1b settlement. This interpretation is difficult, however, in light of a section cut through the southern portion of this room that clearly shows ashy lenses overlying the clay bases. While this could be explained as carbonized floral remains, the lack of any noticeable traces of vertical side walls makes this improbable. Although I await the result of floral and faunal analyses from the room to make a more informed judgment, it seems likely that these were hearths. Explorations

below the final floor revealed earlier hearths positioned beneath the final hearths, suggesting a continuous use of this space throughout the life of the household.

Food preparation activities in this space would seem to be documented by stone pounders found alongside the north hearth, as well as in some fragmentary cooking pots from the accumulation in the room. The only mendable finds from the destruction deposit include a monochrome carinated cup (**P0584**), a large portion of a handmade jar (**P0738**), and a nearly complete lip band cup with monochrome interior (**P0739**). While the handmade jar may have served as a cooking vessel in its own right, all of these shapes are commonly found in food preparation spaces. Cooking pots used in Room 5 at the time of the destruction may have been stored in Room 3. A large fragment of a krater with possible octopus motif (**P0759**) and part of a burnt, barred rim kalathos (**P0593**), are likely fallen from above.

Room 6

The excavation of Room 6 remains incomplete, although enough excavation has taken place to produce a rough idea of its organization. A central hearth appears to be indicated by a clay patch with plaster inclusions in the center of the room. In its final phase the room communicated with Room 7 through an exceptionally wide doorway (2.80 m) in its eastern wall and with Room 5 via a smaller doorway in its south wall (figure 5.17). The western doorway must have had two leaves. Its threshold, like all those documented in the Northwest Complex was of wood.¹¹⁴ Small wedging stones are preserved on both the

¹¹⁴ Wooden thresholds are well-documented archaeologically, occurring at Xeropolis (Evely 2006, 26), the Ivory Houses at Mycenae (Tournavitou 1995, 2-3; 11; 29; 33; 42; 44; 47; 289; 294), the Panagia Houses (Mylonas Shear 1987, 16; further bibliography, n. 6), and the Chania farmhouse near Mycenae

western and eastern sides of the threshold. Ceramic tiles were preserved in the destruction fills of the room, including a rare piece of a pan tile with an incised maker's mark (**SFo261**). A similar such tile fragment was discovered at Thebes and may suggest a common community of practice (Keramopoulos 1917, 20).

Only a few ceramic finds are reported from the fills of this room, a monochrome carinated cup (**Po760**) and a small cooking pot from near the hearth (**Po761**). These vessels are both likely to have come from the area of the hearth. Additional vessels may be recovered when the excavation of this room is completed.



Figure 5.17: Room 6 from the west with Room 7 hearth in foreground (Courtesy of the Eastern Boeotia Archaeological Project; large scale 1 m).

(Palaiologou 2015, 57; 61-62; 64), as well as in the literary descriptions of Homer (*Od.* 17.339 [ash]; 21.43 [oak]).

Room 7



Figure 5.18: Ramped entrance to Room 7 with adjacent road (Courtesy of the Eastern Boeotia Archaeological Project; large scale 1 m).

Architecturally speaking, this is the most interesting room in the Northwest Complex to have been completely excavated. Its architectural features, briefly outlined above, include three in situ column bases, and the packing for a forth, as well as a wide ramped entrance (figure 5.18; 5.19). Ramps of a similar type are best known from the palatial period architecture at Gla (Iakovides 2001, 28, plan 11; 30-32, plan 13; 50-51, plans 21-22; 66-69, plans 29-31), although a ramp was also used to monumentalize the propylon at Dimini (Adrimi-Sismani 2016, 48). Wedging stones for wooden thresholds located in the north and east walls are well preserved and provide clear evidence for the communication of this room with other parts of the Northwest Complex. Four column bases surrounding a hearth are traditionally associated with the architecture of the megaron, although recent

finds from Iklaina suggest that it may be more common in palatial period architecture than previously recognized (Cosmopoulos 2010, 46-48; Petrakos 2015, 20-21, fig. 14). Additionally, the southeast corner of the room preserved a loosely built platform or bench on which a low-fired tray (**Po423**) was discovered in situ. The final floor of this room was approximately 236.50-60 masl, roughly level with Room 5.



Figure 5.19: *Ramped entrance to Room 7 from the west. Note three in situ column bases and small wedging stones in northern and eastern doorways (Courtesy of the Eastern Boeotia Archaeological Project).*

Beyond the low-fired tray, there were few finds in the room at the time of the final destruction. A significant deposit of material from the unburnt destruction has, however, been found beneath its floor. This includes two bone combs (**SFo462** and **SFo463**) and a number of mendable vessels for dining and drinking, including a wavy band krater with

linear interior (P0745), a dotted rim deep bowl lacking a rosette (P1112), and a linear semi-globular cup with use-wear on the rim (P1131). If the function of the room remained unchanged, as the architectural arrangement of the space seems to suggest, than it was likely used as the main hall of the household.

Room 8

Only a narrow strip of this room has been excavated, although it is clear that it continued north, likely for approximately five meters, based on the model of its southern neighbor, Room 7. No finds have been inventoried.

Discussion and Conclusions

The Northwest Complex functioned in its final phases by at least one, and in all likelihood, two households. As argued in this analysis, Room 2 is likely to have been part of a second household to the south. The other rooms apparently formed a single household organized over two levels in its final phase. The upper rooms, including Rooms 5, 6, and 7 all featured hearths, but while Room 5 seems to have functioned as a kitchen, Rooms 6 and 7 apparently served a different function. Based on their elaboration, with colonnaded interiors, large central hearths, and a ramped entrance, it seems likely that this served as the central hall of the household. The large doorway between these two rooms, almost three meters in diameter, would have created a relatively open plan on the interior, and thus together they would have formed an approximately 5.00 x 10.00 m hall. To the south of this hall/kitchen area were located Rooms 1, 3, and 4/4N. These spaces were located at

a lower level, partly on account of the local terrain, which slopes to the south, but also due to the presence of a second story over Rooms 3, 4/4N.



Figure 5.20: Mycenaean pan tile with incised mark (Courtesy of the Eastern Boeotia Archaeological Project).

The presence of palatial architectural elements such as four columns surrounding a hearth, a ramped entrance, and roof tiles suggests a conscious attempt, at least by its builders, to invoke an architectural setting from an earlier era. The presence of a Mycenaean pan tile with a maker's mark only otherwise attested at Thebes may even suggest the movement of skilled craftspeople seeking out new opportunities in the wake of the palatial collapse (figure 5.20). At Eleon, weaving activities seem to have been located on an upper story, and produced at least two distinct fabrics, suggesting a certain degree of specialized labor. While there is no evidence for bronze working, several bronze tools for agricultural activities, suggest that the household continued to farm in the surrounding landscape. Kotselles in Room 3 would have provided storage for some of the crops, pithoi

and vats from the upper story and Room 1 would have enhanced this capacity. The enigmatic bathtubs from Rooms 1 and 2 may also have provided short-term storage space, or have been used for bathing, or for industrial activities. Given the evidence for cloth production in the Northwest Complex, it is tempting to link the bathtub with the cleaning of wool (see chapter six for further discussion).¹¹⁵

The ceramic assemblage demonstrates that the vast bulk of fine ware dining and drinking vessels were originally stored on the second story as well. This suggests that a large open hall may have existed here that could be used for weaving activities during the day and dining during the evenings. In many ways this arrangement of space closely parallels that of the West House at Akrotiri, and suggests that this was an enduring Aegean model for the arrangement of space. The ground floor rooms were dominated by large central hearths. At least one of these, Room 1, may have been a partially roofed enclosed courtyard. This could have served as a locus of food preparation, but also may have served an industrial role in the preparation of wool for spinning and weaving. The appearance of so many hearths in the Northwest Complex still demands explanation, but the lack of any obvious craft debris associated with them renders them obscure. The presence of two wheelmade bulls in the upper story may suggest the occurrence of domestic cult practices, although it is equally tempting to think that these were used in the communal ritual activities in the Southwest Sector that resulted in a number of smashed bulls accumulating there.

¹¹⁵ A bathtub was found in the area of the Of tablets at Thebes (Spyropoulos and Chadwick 1975, photos 9-11), which record distributions of wool to textile groups. It is tempting to connect this bathtub with the preliminary processing of the wool in preparation for its shipment. Indeed, Spyropoulos connected the archive with a wool-processing depot, but does not make a connection with the bathtub (Spyropoulos and Chadwick 1975, 20-23). See also Mazow 2008; 2013; 2014.

Eleon's role as a second order center in the palatial system centered at Thebes makes it an ideal case study in the aftermath of collapse. Initially, it appears that Eleon was the seat of one or more prominent local families, who perhaps even established a hereditary chieftdom at the site, during which time prominent persons and their family were buried in an elaborate funerary enclosure (the BSS) with markers of their status including bronze weapons, imports such as ivory, and a few small bronze items of personal adornment, such as rings.¹¹⁶ Although these grave goods are humble by comparison to the rich shaft graves at Mycenae, they mark an attempt by a local group to distinguish themselves spatially and materially from the rest of the population. At first, Eleon's relationship with Thebes may have been mutually beneficial for the elites at both sites as indicated by the foreign contacts. Eleon secured access to the eastern ports necessary for acquiring foreign imports for Theban elites, which may have allowed local elites to coopt new sources of wealth for themselves. But this alliance came with a trade off as autonomy was lost to the palatial center and annual taxation diverted local resources, especially of all important staples to Thebes (or at least under their control).

Eventually this system broke down. While no clear evidence for the cause is preserved, we might speculate that local elites incorporated into a loose hierarchical structure chafed at the increasing demands placed on them by palatial elites at Thebes. Whatever caused the final destruction of the palace there, the evidence from Eleon suggests that the immediate effects at the site were limited. Structure B seems to represent an attempt at rebuilding or replacing Structure A, but the limited area excavated prevents us from assessing the intent behind this change further. Perhaps within fifty years of the

¹¹⁶ This remains a hypothesis. Future work on the genetic relationships between the dead will greatly aid in the interpretation of the development, use, and memorialization of this funerary monument.

palatial collapse, however, a disaster struck Eleon that resulted in damage across the site. Structure B in the Southwest Sector was abandoned and the Northwest Complex was heavily remodeled and expanded. Given the fact that even at this advanced LH IIIC Early date, the Northwest Complex featured tiled roofs and was organized at least partly in accordance with palatial architectural syntax suggests that the palatial ideology was still strongly observed at the site. The placement of the Northwest Complex in relation to the Blue Stone Structure, however, may suggest a conscious attempt by a local elite to connect themselves with an early line of rulers, perhaps even their distant ancestors. By the LH IIIC Middle, Eleon appears to have fallen victim to an unexpected network reorganization resulting from the decline of Thebes and the rise of the coastal centers of Xeropolis and Kynos. The dwindling opportunities available to the inhabitants at Eleon due to this network shift may have encouraged emigration elsewhere.

CHAPTER SIX

MODELLING POST-PALATIAL DOMESTIC ECONOMIES

“Tell me, Critobulus, is estate management (οικονομία) the name of a branch of knowledge, like medicine, smithing and carpentry?”

“I think so,” replied Critobulus.

“And can we say what the function of estate management is, just as we can say what is the function of each of these occupations?”

“Well, I suppose that the business of a good estate manager (οικονόμος) is to manage his own estate well.”

“Yes, and in case he were put in charge of another man's estate (οίκος), could he not, if he chose, manage it as well as he manages his own? Anyone who understands carpentry can do for another exactly the same work as he does for himself; and so, I presume, can a good estate manager.”

“I think so, Socrates.”

“Is it possible, then, for one who understands this art, even if he has no property of his own, to earn money by managing another man's estate, just as he might do by building him a house?”

“Yes, of course; and he would get a good salary if, after taking over an estate, he continued to pay all outgoings, and to increase the estate by showing a balance.”

“But what do we mean now by an estate? Is it the same thing as a house (οικία), or is all property that one possesses outside the house also part of the estate?”

“Well, I think that even if the property is situated in different cities, everything a man possesses is part of his estate.”

Xenophon *Oikonomikos* 1.1-6 (trans. E. Marchant 2013)

This chapter interprets the data presented in the preceding chapters for all post-palatial households from mainland Greece, excluding northern Greece. By analyzing post-palatial households in detail, I argue that the economic situation during the post-palatial period was much more robust than previously considered. Building on recent research that challenges the dominance of the palace in the economies of the palatial period, my study demonstrates that households continued to engage in production activities during the

post-palatial period and that, at least in the case of textiles, this occurred at multiple scales of production. I argue that recent research has focused too much on the presence or absence of imports in the post-palatial period, largely driven by the use of cemetery data at the expense of settlement data. As Xenophon outlined above, economics has its roots in the management of households; inclusive of property and buildings, possessions and people.

In this chapter I characterize post-palatial households by four metrics: household size, storage capacity, productive capacity, and ceramic assemblages. Complementary lines of inquiry concerning diet and metal artifacts are addressed when necessary in order to complete our understanding of the post-palatial household. The state of preservation and partial excavation of post-palatial households makes them a less than perfect data set. I have tried wherever possible to use the largest sample size, while still only presenting the data for those households where we can be reasonably sure that the data is meaningful. Although the figures presented here may seem high to some scholars, I have at all times calculated figures that represent bare minimums, and, so, if more households were fully explored, it is likely that the totals, whether household size, storage capacities, or number of vessels, would rise.

Putting the *Oikos* back in Economics

The study of post-palatial economics has become increasingly divorced from the material remains of settlements and instead focused on debatable wealth indicators such as imports, ceramic style, and funerary evidence. Previous generations of scholars working on the period from 1200-800 BCE had no choice in this matter: Snodgrass (1971, 360-

367) mainly utilized settlement data to support his arguments of demographic decline. Although aware of new discoveries emerging from Xeropolis and Tiryns, Snodgrass utilized a landscape perspective to highlight the precipitous drop in sites especially during the 11th and tenth centuries BCE. Vincent Desborough (1972, 261-265) could devote only five pages in summary to the topic of Dark Age settlements and he lamented that the state of research was “extremely depressing.” But the very word economy emphasizes the role of the household as a central unit of study. The centrality of such works to the formation of historical narratives up to the present has resulted in the continuous underestimation of the post-palatial period. While scholars have subsequently attempted to counter this view, by devoting greater attention to settlement data (e.g., Thomatos 2006), it is striking that even Oliver Dickinson’s (2006) more recent historical treatment of the period, which devotes considerably more attention to settlements (Dickinson 2006, 79-113), pays little attention to the household as a unit of meaningful analysis. His economic modelling, therefore, derives from a homogeneous treatment of diverse data sets from all over the Aegean. While a useful synthetic view of the period, such homogenization is at odds with the regional variation observed archaeologically throughout the Late Bronze Age and Early Iron Age. Furthermore, it relies on personal interpretation of trends derived from small samples or incomplete data sets, rather than a holistic review of the evidence.

Despite these attempts to reintroduce settlement data as a major source of evidence for the period, the most recent historical treatment of this period, *The Collapse of the Mycenaean Economy: Imports, Trade, and Institutions 1300-700 BCE* by Sarah C. Murray (2017), relies heavily on import data in order to make sweeping conclusions about the Greek economy during the post-palatial period and Early Iron Age. This reliance

on imports is highly problematic, however, since, as Arjun Appadurai (1986) has demonstrated, imported commodities, especially in pre-modern societies, cannot be viewed in simple terms of supply and demand. They are, in fact, the result of a range of social, ritual, and economic factors. Thus, changes in the types and quantities of imports arriving in Greece are complicated, and certainly impossible to interpret as reliable evidence for broader economic changes during the post-palatial period. Further difficulties arise when the archaeological contexts of the imports are interrogated, since, especially for the post-palatial period, most of the imports are found in mortuary contexts. As Anastasia Dakouri-Hild (2003, 160-167) demonstrates, depositional practices are highly variable in the mortuary sphere throughout the palatial and post-palatial periods, thus these data sets are the product of choices that extend far beyond economic considerations alone. Imports can nevertheless provide information about the networks of interaction that households and settlements were involved in and, in this regard, imports can be a useful tool for accessing networks in prehistory (e.g., Knodell 2013).

In the present study, I focus on the domestic economy in order to understand what was being stored, produced, and consumed in post-palatial households. These data are then compared to the hypotheses espoused in chapter one in order to examine which hypothesis better fits the assembled data sets. The patterning of these data are also combined to form a picture of life in a post-palatial settlement. The chronological scope of the present study is admittedly narrow, but it is my hope that by focusing in detail on the post-palatial period the benefits of such an approach will be apparent.

Household Size and Organization

Household size has been seized upon by Classical scholars in recent years as a wealth indicator (e.g., Morris 2004, 720-728; 2005; Kron 2014). While this may be generally true of sedentary agricultural societies (M.E. Smith 1987, 301 with bibliography), it becomes more difficult to assume all changes in household form from prehistory through the Roman Period were driven by fluctuations in wealth alone. In fact, multiple variables, including wealth, family size, sumptuary laws, and mobility, can be at play in changes in household form (e.g., Wilk 1983). Furthermore, small sample sizes and unclear data sets have diminished the size of post-palatial households. Ian Morris, not citing specific sources for his measurements, but integrating Cretan, Cycladic, and mainland data, gives a median house size for 1200-1075 BCE of 52 m² with a sample size of 19 (Morris 2007, 227, table 8.2). In the present study, I have considered 32 households from mainland Greece alone (table 6.1), many of which are incomplete, and thus would have had even larger total areas. The median size of the ground floors of these households was 99.88 m² – almost double Morris’ estimate and this is *without* taking into account the abundant evidence for second stories in many of the LH IIIC Early households. In reality, houses of the average size proposed by Morris are rarely (if ever) observed on the mainland during this period. While some might object to the inclusion of enclosed courtyards in the total area of households (highlighted in grey in appendix 6.1), similar studies of Archaic and Classical houses include enclosed courtyards and thus this provides a more comparable estimate.¹¹⁷ Furthermore, it highlights the role of courtyards as lived space, rather than empty space. The dramatic difference between Morris’ calculations and my own

¹¹⁷ Not all courtyard spaces are enclosed. Communal or public courtyards also existed, both in the post-palatial period and in the Archaic period (e.g., shared courtyards of Zagora). These have not been included, since it is impossible to establish ownership over them (even though open courtyards could have been the property of one or more household).

underscores the importance of regional studies during the post-palatial period, but also the use of larger data-sets. Furthermore, it highlights the importance of replicability in the calculation of such figures.

Table 6.1: Average Post-palatial Household Size by Sub-phase

	Median (m ²)	Mean (m ²)	Number
LH IIIC Early	75.64	90.72	20
LH IIIC Middle	147.94	136.36	6
LH IIIC Late/Submycenaean	89.78	85.11	6
Total	99.88	98.22	32

Data derived from appendix 6.1.

The total area of households compared with the palatial period does not seem to have changed significantly. At the site of Kalamianos in the Argolid, the mean household size (n=19) is 149.19 m² and the median household size is 110.00 m² (Tartaron et al. 2011, 589, table 1). This compares favorably with the evidence for the post-palatial period, particularly given the fact that few of the households are complete. The biggest difference, however, is in the extremes in household size seen during the palatial period.

Kron (2014) has utilized the Gini coefficient, a measure of inequality among values of a frequency distribution, where zero expresses perfect equality, in order to consider the relative levels of economic inequality from the Classical period through to the present. Changes in the Gini coefficient between periods represent changes in the relative level of equality or inequality. While the cause of such shifts is generally tied to relative levels of wealth, as mentioned above, we should accept this with some caution. I have calculated the Gini coefficient for all the post-palatial period homes cited in this study to be G=0.255, whereas the Gini coefficient for the palatial settlement at Kalamianos comes out to G=0.348. This demonstrates empirically that there was a greater inequality in housing

size during the palatial period. What significance should we attach to such a change? A redistribution of wealth? Perhaps a greater anti-sumptuary ethos in effect during this period? Given the fact that large colonnaded halls and other sumptuary behaviors such as feasting seem to continue, the redistribution of wealth seems more probable.

While admittedly small compared to their Classical and Hellenistic successors, which average 240 m² of roofed space by the fourth century (Morris 2004, 720-721), post-palatial households do appear to be significantly larger than Early Iron Age households, which generally had few rooms and small areas (Nevett 2010, 20-42, fig. 3.3). In fact, post-palatial household sizes were likely not exceeded on the mainland until the sixth or even fifth centuries BCE (cf. Morris 2014, 721). Whether this should be interpreted as the result of a deep depression after 1200 BCE, as Ian Morris suggests (2014, 729), is debatable. Anthropological studies demonstrate the hazards of using household size uncritically as an economic indicator (Wilk 1983, 100-101). Following Wilk's four corollaries concerning household size, a decrease in house size could indicate: 1) a decrease in the number of inhabitants; 2) a decline in wealth; 3) an increase in mobility, or 4) a shorter use life of the house itself. So while a decline in household size in the Early Iron Age may indicate a sudden economic decline in the Early Iron Age, the fact that the economic situation appears stable in the post-palatial period suggests other factors are at play. It seems probable that this has less to do with economics and more to do with changes in the number of occupants as well as the short-term use of the households themselves. It is probably significant that this pattern closely resembles the Early Helladic II to III architectural transition on the Greek mainland (cf. Weiberg 2017), during which comparable changes in settlement patterns are seen.

Kyle Jazwa (2016) has recently studied the construction techniques employed in households from the EH III to Geometric periods on mainland Greece. Jazwa notes (2016, 368-385) the sudden appearance of innovative construction techniques which follow a different *chaîne opératoire* during the Early Iron Age, suggesting the arrival of new peoples or at least different communities of practice at this time. Whether these practices were inspired by foreign teams of builders cannot be assessed from the data presented here, but it is attractive, given the presence for foreign populations evidenced in the ceramic and textile industries. The change in household form is therefore unlikely to be directly related to changes in household wealth over the same period.

The Relationship to Palatial Architecture

During the palatial period, many elite households followed the architectural blueprint of the corridor house (Pantou 2011). During the post-palatial period, however, this blueprint was abandoned for unknown reasons. Certain elements, however, including the enduring megaron unit of vestibule, hall, and storeroom, which has its roots in Early Bronze Age architectural traditions (Hiller 1986), continues to be widely used. Palatial elements, such as colonnaded courtyards and halls also continue, although there is often a preference for axial arrangements of columns rather than four columns arranged around a central hearth, which may indicate a conscious rejection of palatial ideology associated with this arrangement. At Tiryns, however, architects took palatial inspiration one step further and actually integrated recycled materials from palatial constructions into their households. These seem to have been placed in intentionally visible positions such as thresholds and column bases (Maran 2015, 210). At Eleon, the use of tiled roofs continued a roofing

tradition that was widely used in the elite architecture of Boeotia, although their wide distribution suggests that tiles were always used outside the palatial centers.

The Organization of Households

My research supports the identification of two main household models across mainland Greece during the post-palatial period: the first organized around a megaron style central unit of vestibule, main hall, and storeroom (e.g., Xeropolis Phase 2a/b North House and the Region I “Megaron”/Building M, Building T and Megaron W at Tiryns, Houses H and L at Korakou) and the second featuring a non-axial arrangement of rooms, normally organized around a courtyard (e.g., Eleon NW Complex, Xeropolis Phase 1b East and West Houses and the Trial IV/V Mansion, Aigeira Phase Ib Northwest Complex, Korakou House P, and Tiryns NW Lower Town Phase 2). In both instances, the architecture appears to have been agglutinative (i.e., rooms were added to the original plan as needed). There is no clear geographic or chronological division in their use.

The Multifunctional Hall

The main room in any post-palatial period household was a large central hall. This likely served as a multi-functional space for entertaining, as well as a large, well-lit workspace. It is interesting to note that similar multi-functional spaces are common at Akrotiri (Palyvou 2005, 106-107). Homer (*Il.* 3.125; *Od.* 2.94; 4.134-7; 5.61-2; 6.305-6; 10.221-2; 19.139) also records the presence of similar multifunctional spaces where weaving and spinning took place in addition to entertaining or socializing – activities documented archaeologically in these spaces as well. The multifunctional hall was generally the largest

enclosed space in any house by area and its centrality in the household was regularly expressed through its physical placement in the design of the household, as well as through connections with other rooms.

A great deal of attention was paid to the layout of the main hall and it is frequently elaborated through the installation of columns or hearths, as well outright size. There is a tendency towards axially, although this is not always fully observed. The multifunctional hall seems to have hosted similar sorts of activities as those documented in courtyards and it is possible that its use was seasonal. Halls sometimes, but rarely, contain other built features such as ovens or kilns. As is pointed out above, these need not always be chronologically synchronous with the main phase of use.

Courtyards

Courtyards appear to have been a common organizing feature of post-palatial households and communities at large. Larger houses are likely to have regularly had their own courtyards, while it is possible that smaller households shared more public spaces. While the inspiration for the design of large households organized around enclosed courtyards may have its origins in palatial architecture, the layout also looks forward to the development of Classical period households. Courtyards were ideal for hosting larger groups of people and so it is unsurprising that they are regularly equipped with hearths for preparing food, storage vessels, dining assemblages, and even cult equipment. It is likely that courtyards were one of the most public places in the household, and this seems to be the reason that a considerable amount of attention was paid to their elaboration. While the organization of households at Tiryns around courtyards has been long

observed, it is probable that this was a widespread phenomenon. Similar households are observed at Aigeira, Korakou, Eleon, and likely Xeropolis as well, although in the latter the situation is less clear.

The presence of storage vessels in open courtyards may seem impractical, yet the evidence shows that this was a fairly widespread practice. Patterning is observed in the placement of pithoi at liminal zones linking the more public and private spaces of the household. A similar pattern of intentional pithos display has been noted for the storerooms of Iron Age Greek households at sites across the Cyclades, Euboea, Boeotia, and even Crete (e.g., Ebbinghaus 2005; Haggis and Mook 2011, 379-380). In all cases pithoi seem to have been intended as social capital in elite displays of wealth or largess. A similar function might be posited for pithoi or other storage facilities in post-palatial enclosed courtyards, as they would have been visible during feasting events, where they could have served both a practical and/or symbolic function¹¹⁸.

Storerooms

Dedicated storerooms were common in post-palatial households. These could be semi-subterranean, ground floor, or upper story rooms. The precise placement may have been dependant on the materials being stored, although the limited quantities of archaeobotanical remains that are preserved within specific vessels limits a clear analysis of storage patterns, although general trends are clear enough. Storerooms examined in my analysis of post-palatial homes tended to be compact spaces, jam-packed with pithoi,

¹¹⁸ The placement of pithoi or other storage facilities is so far documented only in courtyards that restricted access from the outside – those that are clearly organized as part of a household and, therefore, not regularly intended to be accessible to the public. They do not seem to have functioned as communal spaces.

kotselles, or ceramic storage vessels like vats and access was generally restricted. Larger households generally had more than one dedicated storage space between which dry commodities could be divided. This was inherently practical, since it mitigated the loss of all of a harvest due to infestation or fire in one storeroom. Storerooms are regularly connected with kitchens, where their contents would have been in regular demand. Smaller quantities of storage vessels generally appear in the kitchens themselves, as well as courtyards, where they provided supplies for immediate food preparation.

Elite architecture of the palatial period featured large storage magazines specializing in specific commodities, whether pottery, wine, oil, or chariot parts at Pylos, cereals and bulk liquid commodities (wine or oil) in Buildings H and M at Gla, jewelry in area of the Treasury Room at Thebes or ivories (perhaps furniture?) and armor in the area of the Arsenal/Armory. Such specialization is also seen in large household complexes of this period including the massive pottery stores at Petsas House at Mycenae, or eponymous ivories (again probably representing furniture) from the Ivory Houses at Mycenae.

The Linear B texts from Pylos complement the storage pattern observed archaeologically. For instance, the **Sh** Series from Pylos represents a single inventory of armor, presumably stored in one place, which was reviewed by a scribe and sent to the central archive (Palaima 1996). Similarly, the Pylos **Ta** Series recalls an inventory of furniture and equipment possibly in a storeroom, apparently destined for use at a particular event (Palaima 2000). Both of these series find strong archaeological correlations in the Arsenal/Armory at Thebes, where similar materials were stored. Linear B texts also offer insights into materials that are not visible archaeologically,

however, such as stores of timber, whether for ship-building, chariot-manufacture, or construction projects (e.g., **PY Vn 10**, **Vn 46**) or cloth (e.g., **KN Ld (1) Series**; Killen 1979).

In contrast to palatial storerooms, post-palatial storerooms were smaller and less specialized. Storerooms held an ad hoc mixture of products and equipment suitable for daily use. In the households with the smallest storage capacities, small- to medium-sized vessels were scattered throughout the household. While more formalized storerooms exist at the largest elite complexes, such as the Northwest Complex at Aigeira, these are nowhere near the scale of the largest palatial storerooms. A more apt comparison might be made between the storage facilities of elite households at Mycenae during the palatial period. Although little attention has been devoted to quantifying the precise storage capacities of these households, and it is beyond the scope of the present work, storage tended to take place in pithoi arranged in dedicated storage areas, often equipped with drains and clay balustrades to support the pithoi. It is interesting to note that in a number of instances (e.g., the Ivory Houses, the House of the Wine Merchant, and the House of the Columns) these pithoi are often interpreted as evidence for long-term liquid storage (Tournavitou 1995, 70). If they were employed as such, however, there must have been some other method of storing cereals, whether in perishable containers such as sacks, which cannot be quantified. The presence of transport stirrup jars in close association with these pithoi is often taken as supporting this assessment. It seems possible, however, given that these transport stirrup jars are generally found sealed in palatial households

(e.g., Tournavitou 1995, 80) that they may actually have supplied much of the long-term storage space needed for liquid commodities.¹¹⁹

If we focus on what remains, however, and accept for the moment that it is fairly representative of total storage volumes, we can make a fairly accurate comparison between the Ivory Houses (here taken as a single household unit). The Ivory Houses produced 19 pithoi (Tournavitou 1995, 69), the majority of which (11) come from a single storeroom, Room 1 of the House of the Oil Merchant (Tournavitou 1995, 71). Another two come from Room 4 of the House of the Oil Merchant. Five additional medium-sized vessels were found fallen from an upper story of the House of the Sphinxes (Tournavitou 1995, 71), suggesting a dedicated storage space there. The final pithos comes from Room 3 of the West House (Tournavitou 1995, 70). The larger pithoi from Room 1 of the House of the Oil Merchant probably had capacities in the range of 200-300 L each based on comparison of their measurements with those calculated for Xeropolis. This gives this storeroom a total capacity of 2200-3300 L. The rest appear to have been smaller in size, ranging from 100-200 L (if not less). This would supply an additional 800-1600 L of storage for a household total between 3000-4900 L. This total is surprisingly close to that of the largest households in the post-palatial period and suggests that there may in fact have been little change in domestic storage patterns between the palatial and post-palatial

¹¹⁹ There were at least 32 transport stirrup jars found in the destruction levels of the Ivory Houses (Tournavitou 1995, 79-80), 29 of which clustered in the basement corridor of the House of the Oil Merchant (Tournavitou 1995, 78; elsewhere given as 27, Tournavitou 1995, 81). Tournavitou (1995, 81) estimates their capacity at 13.5 L each. This would give a total liquid storage capacity of 432 L from transport stirrup jars alone; a significant quantity in its own right. Kim Shelton (2014, 27-28) identifies three size groups of kylikes from palatial Mycenae: 0.10 L for miniature vessels, 0.75 L for the usual decorated version, and a class of extra large undecorated vessels up to 2.74 L, which, as Shelton notes must have been used communally. The transport stirrup jars from the Ivory Houses could therefore fill a standard size kylix 576 times or a large-sized undecorated kylix almost 158 times over. Thus, it would seem that this quantity would be more than enough for meeting household needs.

periods (at least among elite households). A more detailed study of palatial storage practices would surely bear further fruit. Particular attention is owed to the possibility of shifting ratios of liquid and dry storage capacity as it may relate to broader changes in labor mobilization and risk management.

Storage



Figure 6.1: *Transport stirrup jars from Eleon [left] and Xeropolis [right] (Courtesy of the Eastern Boeotia Archaeological Project and Archaeological Museum of Eretria, photo T. Van Damme; scale in cm).*

Physical storage took place in a variety of fired and unfired vessels. These included kotselles, pithoi, and vats. Bathtubs, which I have included in the storage totals on account of their large capacity and ability to function as short-term storage vessels, are perhaps more likely to have served an industrial function (see below). In all households a great deal of the liquid storage would have been handled through the use of transport stirrup jars, amphoras, and hydriae. I have not calculated their total storage potential, since I am mostly concerned with dry storage capacity. The presence of transport stirrup jars with a

stylized olive motif from both Eleon and Xeropolis (figure 6.1) suggests that they were regularly used for storing olive oil (whether perfumed or not), although the motif does not preclude their use for other commodities such as wine. Further investigation of liquid storage patterns is likely to produce interesting results and would be a fruitful line of future inquiry.

Kotselles

Dry storage in post-palatial period households was dominated by unfired clay vessels, normally cylindrical in construction, although a few rectangular examples are also attested (figure 6.2). These were generally free-standing, and entirely built above ground. In this study, I have followed Alan Wace (1921-23, 48) in calling these installations *kotselles* in order to distinguish them easily from *pithoi* or *vats*, both of which were fired ceramic vessels. I have not distinguished between rectangular or round *kotselles* in the present study as there is no evidence that they functioned differently. Since they were unfired, *kotselles* could have been produced on a relatively ad hoc basis, requiring only the specialized knowledge of their construction. It is unclear whether they would have been repeatedly rebuilt seasonally, although there does not seem to be much evidence for their frequent renewal. Thus, it seems reasonable to conclude that they functioned more or less as fixed features in households. *Kotselles* may also have been preferred to *pithoi* in the post-palatial period because they were inexpensive to produce, and did not require a potter's knowledge of pyrotechnology to create. While the production of the largest *kotselles* (especially those over 1.00 in diameter) involved careful planning and a prolonged construction period to achieve the final form, there is

no reason to believe that they could not have been produced at the household level to meet household needs (see ethnographic data below).



Figure 6.2: *Kotselles (round and rectangular) from Xeropolis (Evely 2006, pl. 6c).*

Widespread use of kotselles is a phenomenon of the post-palatial period across southern mainland Greece. Similar clay installations for storage have been documented at Archontiko and Sitagroi in northern Greece towards the end of the Early Bronze Age (Renfrew et al. 1986, 187-188, 441; Papanthimou et al. 2013), and they are also documented in northern Greece during the Late Bronze Age at Assiros (Wardle 1987; 1988) and Toumba Thessaloniki (Margomenou 2005, 279). Some understanding of their function can be gained from the ethnographic record. Unfired clay bins documented in Morocco, called *tonna*, are constructed from dung and or clay and plant fibers using a coiled construction technique (Peña-Chocarro and Zapata 2014; Peña-Chocarro et al. 2015, 381-383, fig. 4). These range in size from 50 kg of storage to 200 kg (Peña-Chocarro and Zapata 2014, 209). They are constructed on a seasonal basis by the women of the household and generally used for the storage of pulses, dried fruits, and non-staple crops.

Notably, the staple cereal crop was not stored in the tonna, but rather in large wicker baskets made by male specialists (Peña-Chocarro and Zapata 2014, 208-209). Above ground clay installations are also documented in southern Syria for the storage of cereals, made from coiled clay or mudbricks (Anderson 2014, 211). Given that Wace (1921-23, 48) mentions similar unfired clay storage vessels still in use in the Argive Plain in the 1920s, it seems likely that the use of unfired clay vessels was a long-standing pan-Mediterranean aspect of traditional agriculture. The sudden appearance of such containers across southern Greece during the post-palatial period, nevertheless demonstrates a widespread shift in storage behaviors around this time.

The archaeological evidence suggests that kotselles were exclusively used for the dry storage of cereals, vetches, and lentils. Since they were unfired, they were not capable of liquid storage. Traces of fibers in some kotselles from Xeropolis may suggest the storage of wool (Evely et al. 2006, 302), but these could equally derive from coverings used to close the kotselles, which are likely to have been made from cloth or light basketry, or even from sacs used to store other commodities. Profiles of kotselles in sections demonstrate that they were open at the top, but the upper body closed over them to form a neck and rim similar in shape to a pithos.

Because they were not intentionally fired, sites unaffected by fire destructions will have little evidence for their use. This has important implications for their archaeological visibility.¹²⁰ The widespread distribution of kotselles however, leaves little doubt that they were in use across the mainland during the post-palatial period. One tell-tale feature of

¹²⁰ Although the fact that they have not been noted in secure palatial contexts, despite an abundance of fire destructions dating to this period, would suggest that their sudden visibility in the post-palatial period is far from accidental.

kotselles is that they were normally founded on a base of pebbles or stone paving (e.g. Evely et al. 2006, 18; Kilian 1979, 383). This must have been designed to buffer between the moisture of clay or dirt floors and the unfired base of the kotselle.

Pithoi



Figure 6.3: *Pithoi from Xeropolis (Evely 2006, 214, fig. 2.39.1; pl. 24.1-2).*

Pithoi and pithoid jars are fired ceramic vessels with capacities ranging from 40 L to 450 L (figure 6.3). They are much rarer in post-palatial households than kotselles. As I have suggested above, pithoi were more costly to produce than kotselles, given their lengthy production process, specialized construction techniques and know-how, in addition to their kiln and fuel requirements (cf. Giannopoulou 2010). Indeed, evidence for the price of pithoi in the Classical period suggests that even with the advent of larger potter's workshops, the largest storage vessels were still quite expensive (Amyx 1958, 168-170; Cahill 2002, 228). Furthermore, although we think of pithoi as bulky and unwieldy, ethnographic and archaeological evidence demonstrate that they travelled widely in many periods and potters specializing in their production need not have been local, adding

shipping costs on top of the cost of production (e.g. Blitzer 1990; Christakis 2005, 84; Lis and Rückl 2011, 161-162). Itinerant craftspeople are also possible, in which case the costs of transportation would be lower, but the availability would have been limited and, in all likelihood, seasonal. Such restrictions are likely to have made pithoi difficult to acquire in small communities, since they relied on access to cargo or the vagaries of roaming teams of itinerant craftsmen. The presence of large numbers of pithoi at a given household, therefore, is potentially linked to the wealth of that household, although one cannot rule out specialized storage functions, such as greater quantities of liquids at a given household. As the evidence presented below suggests, however, we have little conclusive evidence for the bulk storage of liquids in the post-palatial period. The presence of pithoi in display contexts may also suggest that pithoi could reflect optative wealth, or rather self-aggrandizing displays of wealth. Thus, while useful as a general measure of wealth, they should be approached with some caution.

Since they were fired, pithoi were the only suitable option for the long-term storage of liquids in the post-palatial period, unless some sort of perishable barrels existed. Despite this, however, it is clear that some, if not most, pithoi were still regularly used to hold cereals (e.g., at Kynos Oikos 10 and at Xeropolis East House); so we cannot assume *a priori* that pithoi equate with liquid storage. Indeed, Christakis has demonstrated the wide array of commodities found in pithoi from archaeological excavations across the Aegean including the usual range of cereals and pulses, but also fruits, nuts, and salted fishes (Christakis 2005, 50-53 with bibliography). In addition to wine and oil, barley-based beverages, including possibly mead, have also been detected. Ethnographic evidence from pre-Industrial Crete suggests that only about 30% of pithoi were used for

the storage of cereals and pulses, the rest being devoted to oil, wine, or other minor commodities (Christakis 2005, 65). Thus, while lone pithoi are not convincing evidence for widespread liquid storage, dedicated storerooms of pithoi are statistically more likely to have been focused on liquid storage. Remarkably, only three households preserved more than one or two pithoi (table 6.2): Building T at Tiryns produced a storeroom with twelve pithos emplacements, Trial IV/V at Xeropolis produced six large pithoi in two large rooms, and the Northwest Lower Town at Tiryns produced a household with at least four pithoi, three from the central courtyard and one from a storeroom (table 6.2). It seems no coincidence that these represent some of the largest households at their respective sites and all featured elaborate colonnaded rooms. In the case of Building T at Tiryns, it seems reasonable that these pithoi may have held liquids. The presence of kotselles in additional rooms to the east of Building T may have been dedicated to the storage of dry commodities. If we accept that all of these formed a single large household complex, then Building T would likely be placed in a different category. If large-scale liquid storage was limited to a few households during this period, it may relate to the ability to mobilize the labor necessary to produce wine.

Yannis Hamilakis (1996; 1999) has convincingly argued that wine and olive oil were tightly controlled by elites during the palatial period on Crete. He argues that a decline in olive oil and wine production in the post-palatial period is the result of decreased competition among elites. This interpretation however, relies on *a priori* assumptions about the nature of the post-palatial period. The evidence presented above suggests that they remained tightly controlled commodities. Nevertheless, new evidence from mainland Greece suggests the continued production and circulation of wine and oil

in the LH IIIC Early-Middle periods through the means of transport stirrup jars, both imported from Crete (Maran 2005), as well as within massive mainland-produced containers (e.g., Eleon Northwest Complex and Xeropolis East House). So while a decline in competitive feasting may be documented on Crete, it is not noted in the post-palatial mainland; a conclusion that is backed up by the regular occurrence of drinking sets in post-palatial households. Indeed, one of the biggest challenges in the production of oil and wine is the mobilization of labor for the crushing of grapes and olives. Thus two models of production can be suggested: communal crushing events or elite producers who utilized slaves or dependent workers. The archaeological concentration of storage magazines suitable for large-scale storage of liquids in only two households, Building T at Tiryns and Trial IV/V at Xeropolis, would tend to support the latter.

Vats



Figure 6.4: *Vats from Xeropolis (Evely 2006, 212, fig. 2.37.1-3; pl. 24.3).*

Vats were a relatively standardized shape, measuring 0.30-0.40 m in diameter, 0.30-0.40 m in height, and normally providing 50-60 L of storage space (figure 6.4). While they were fired and could technically have held liquids, the lack of any spout or other pouring device would seem to preclude such a function. Due to their large diameters, vats would have been employed to store commodities that required no sealing. This may have included seasonal crops such as fresh or dried fruits, as well as small quantities of grain that were being transferred from storerooms to kitchen spaces for use. Their tendency to cluster in kitchens, upper story rooms, or stacked in storerooms, suggests they were employed for a variety of tasks whenever the need arose. At least in one instance, a vat at Xeropolis was used for storing spools (Evely 2006, 28). The discovery of stacked vats in Room 4 of the East House underscores the impression that they were used as needed (Evely 2006, 30).

Bathtubs

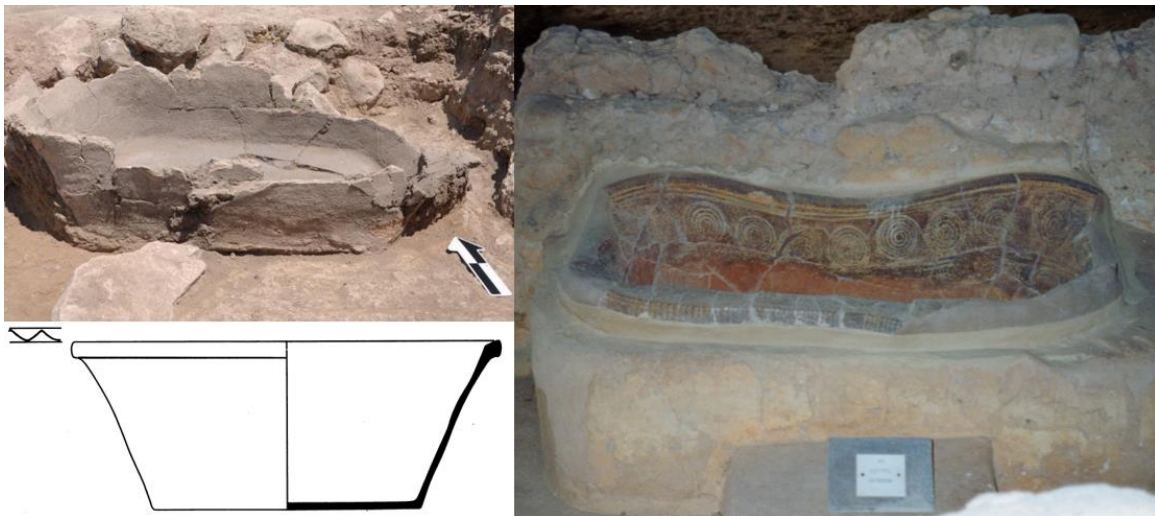


Figure 6.5: Undecorated bathtubs from Eleon and Xeropolis [upper right and bottom left] and decorated bathtub from Palace of Nestor, Pylos [right] (Eastern Boeotia Archaeological Project; Evely 2006, 213, fig. 2.38.3; Palace of Nestor Archaeological site, photo T. Van Damme).

Bathtubs are slightly more complicated, given their enduring presence in the Aegean, as well as the Levant and Cyprus. While some examples of painted bathtubs, such as those from the Palace of Nestor at Pylos (figure 6.5, right), and fragments found by Schliemann that may have originated from the so-called bathroom at Tiryns, it has been argued that they may have served as catch basins for water during bathing (Blegen and Rawson 1966, 185-190, fig. 36; Schliemann 1885, 140-141; 229-234; pl. 24d-e; Shaw 2012). The identification of the more commonly occurring undecorated bathtub is far more contentious (figure 6.5, left). The most practical explanation for these bathtubs, a regularly occurring feature in post-palatial households, is that they were employed in some aspect of textile production, whether washing wool, producing lanolin, or fulling finished cloth (Mazow 2008; 2013; 2014). Recent residue analysis from an Early Iron Age bathtub seems to provide indirect confirmation of this (Mazow et al. 2016), although it would be essential to sample an Aegean Bronze Age bathtub for independent verification. Since the answer to the question of their use remains elusive, and their frequent placement in kitchens or enclosed courts would make them equally useful as short-term storage containers, I have included them in the totals in table 6.2.

Post-Palatial Storage Capacities

Table 6.2: Storage capacities of select post-palatial households

	Room	Kotselles	Pithoi	Vats	Bathtubs	Total (L)
<i>Xeropolis</i>						
1b: West House	9	2 (390)	2 (360)	2 (148)		898
	10	2 (540)		1 (49)		589
	11	3 (742+)		1 (57)	1 (260)	1,059+
	Total					2,546+
1b: East House	2	1 (120)	1 (220)			330

	3	5 (1,128)	2 (121)	1,249
	4	6 (1,066)	1 (250) 4 (219)	1,535
	5	2 (440)		440
	6	1 (120)		120
	7	2 (120+)		120+
	Total			3,686+
1b: Trial IV/V	North Room		3 (965)	965
	Northwest Room	1 (159)		159
	South Room		3 (870)	870
	Total			1,994
2a: North House	1		1 (200)	200
	2	2 (500)		500
	4	1 (300)		300
	5	1 (300)		300
	10	3 (510)		510
	11	1 (300)		300
	Total			1,910
2b: North House	2/1	1+ (340+)	1 (200)	540+
	4	1 (1,900)	1 (200)	2,100
	5	1 (620)		620
	10/11	1 (920)		920
	Total			4,180
<i>Kynos</i>				
7: Oikos 10	XMA	2 (150)		150
	XMB	10 (2,014)		2,014
	XMG	8 (626)	2 (272)	898
	Total			3,062
7: Oikos 11	XMET	2+ (1,180+)		1,180+
	XMZ		2 (210)	210
	Total			1,390+
7: Oikos 12	XMN	5 (1,440)		1,440
	XMNA		2+ (60+)	60+
	Total			1500+
6: Oikos 8	XKΘ	1+ (170+)		170+
	XΛA		1 (205)	205
	XΛΣT	6 (1,620)	1 (274)	1,894
	Total			2,269+
<i>Eleon</i>				
NW Complex	1		2 (120) 1 (260)	380

	3			1 (55)	55
	4	3 (520)		2 (110)	630
	Total				1,065
<i>Mycenae</i>					
West Complex	Xxxii	1 (170)			170
	Xxxiii	1 (75)			75
	Xxxiv	2 (470)	1 (150)	1 (42)	662
	Total				902
Granary	East Basement	6 (915)	1 (200)		1,115
	West Basement	+	1 (200)		200+
	Total				1,315+
<i>Tiryns</i>					
Building T	Former Megaron		12		
			(2,400+)		
	Total				2,400+
Raumkomplex 126.126a.124	126a	3 (3,870)	2 (400+)		4,270+
	124	1 (430)			430
	Total				4,700+
3: NE Lower Town	Court	4 (1,300)			1,300
	7/00	2 (740)			740
	Total				2,040
2: NW Lower Town	1/15	1 (120)			120
	Hof 2/15		3 (600)	1 (260)	860
	4/15	4 (630)	1 (200)		830
	5/15	+	(+)		+
	2/14	1 (120)			120
	4/14	1 (120)			120
	Total				2,050+
<i>Korakou</i>					
House L	Megaron		1 (200)		200
	Rear Chamber		1 (250)		250
	Total				450
<i>Aegeira</i>					
1b: West Complex	West Storeroom	14 (1,825)			1,825
	Central Storeroom	14 (1,919)	1 (200+)		2,119+
	North Storeroom	2 (240)			240
	Total				4,184+

Source: Xeropolis: Evely 2006, 13-75; Kynos: Kounouklas 2011, 58-77; 125-132; Mycenae: Wace NBK x003,4, 46; 50-53; French 2011, CD 166-217; Tiryns: Schliemann 1885, 341; Kilian 1979, 383-385; Maran and Papadimitriou 2006; 2016; Korakou: Blegen 1921, 73-74; Aigeira: Alram-Stern pers. comm.

In table 6.2, the storage capacities of 17 households and the Granary at Mycenae are calculated.¹²¹ These numbers represent minimum storage capacities, since in most cases the households are not fully excavated, or preservation issues prevent us from ascertaining exact figures. What is clear from these data, however, is that there was a great variety in the total storage capacities of post-palatial period households. At the upper end, Raumkomplex 126.126a.124 at Tiryns appears to have had a storage capacity of at least 4,700 L, whereas the lower limits are represented by House L at Korakou, with perhaps as little as 450L of storage – although we cannot rule out that additional storage vessels made of perishable materials were also employed as is attested at Aigeira (pers. comm. Eva Alram-Stern).

Table 6.3: Cretan LBA storage patterns		
	<i>Capacity (L)</i>	<i>Characteristics</i>
Storage Pattern I	0	No storage facilities attested. Small domestic units of simple architectural design.
Storage Pattern II	~250-1,000	A few medium-sized storage vessels are present. Households are small and of simple construction. Dedicated storerooms are rare.
Storage Pattern III	~1,200-2,000	Large pithoi (2-9) with low transportability are combined with medium-sized vessels. Small dedicated storerooms are present, but storage containers are also found in food

¹²¹ Calculations were done using the provided/measured diameters of kotselles, and applying a consistent height of 0.60m. In many cases, archaeological evidence suggests they may have stood even taller. This would generate even larger storage totals for most of the households. The volumes of vats have been calculated as truncated cones. In a few cases, dimensions were not fully preserved, but due to the standardization of this vessel type, an approximate value of 55L has been assigned. Pithoi volumes are based on published data or the results of volumetric calculations carried out on published vessel profiles using volumetric software (I thank Bartek Lis for his help in obtaining these figures). In cases where no profile exists, but measurements are extant, I have estimated the volume of the vessel using those for which accurate measurements could be made. I have in all cases erred on the side of caution and the resultant calculations are minimum figures.

		preparation areas and upper stories. Elite households with frescoed decoration exhibit this pattern.
Storage Pattern IV	~2,100-4,000	Large pithoi (6-10) with low transportability predominate. Dedicated storerooms have special installations such as drains, paved/plastered floors. Storage is also found in food preparation areas and upper stories. This pattern is found in mansions with evidence for processing of staples (i.e., wine/olive presses).
Storage Pattern V	~5,000-33,650	Large pithoi (14-19) with low transportability predominate. Pithoi are associated with containers to facilitate transfer of contents and short term storage (i.e., transport stirrup jars, amphoras, vats). Dedicated storerooms are present, normally arranged on a standard layout, and often with special features such as drains, pavement, or benches. This pattern only occurs in the most elaborate mansions, which show evidence for administrative activities.

Source: Christakis 2008, 110-113.

A detailed study of domestic storage patterns on Crete during the Neopalatial Period (1750-1500 BCE) resulted in Christakis' identification of five storage patterns (table 6.3). In comparison to the patterns identified on Crete, however, the situation in the post-palatial period of mainland Greece was markedly different (figure 6.6). First of all, only storage patterns II-V are represented, suggesting that there were few households operating below the subsistence level,¹²² or that such households are currently archaeological invisible, whether due to excavation bias or perishable building materials.

¹²² Christakis (2008, 116) calculates the subsistence level of a typical household for one year to be in the range of 1200-2000 L. Only three households surveyed fall below this measure and there is reason to believe that taphonomy has played a role in their restricted storage capacities.

One household, Raumkomplex 126.126a.124 at Tiryns, can be clearly assigned to Christakis' Class V category. This household features the largest known kotselles documented anywhere, in addition to administrative activities (i.e., a stamped sealing), and a dedicated storeroom with a specialized feature. Although the household is not particularly large, it is likely that this was the residence of a prominent family at Tiryns during LH IIIC Late. Two other households are classed here in Christakis' Class IV, but are very close to Class V: the North House at Xeropolis in Phase 2b and the Northwestern Complex at Aigeira during its Phase Ib. These both show evidence for dedicated storerooms with very large kotselles in the case of the North House. Architecturally, these are both clearly elaborate complexes. They lack evidence for administrative activities, but there can be little doubt that both were the seat of prominent families. In addition to these two households, another six meet the requirements for Christakis' Storage Pattern IV: The West and East Houses at Xeropolis in Phase 1b, Oikoi 8 and 10 at Kynos, and Building T and the Northwest Lower Town Complex at Tiryns in Phase 2. These fit Christakis' definition fairly well, demarcating most of the households that are involved in some form of craft specialization including those producing textiles at a level that exceeded household needs (East and West Houses at Xeropolis and Oikos 10 at Kynos; see below).

Due to lack of published information concerning domestic storage capacities for the palatial period of mainland Greece, it is difficult to compare the data presented here with what came before (see above). It is worth noting that the largest household storerooms at Archontiko in the Early Bronze Age held 1,000 L and 450 L respectively (Papanthimou 2013, 109). An EH II household from Thebes in Boeotia had a total storage capacity of around 1,500 kg of liquids, which is roughly equivalent to 1,500 L (Psaraki et

al. 2013, 98). Dietler (1999, 143) describes a ‘multi-centric economy’ where the household engages in commensal hospitality, whereby staple goods can be converted into prestige goods. Greece in the post-palatial period would appear to fit a similar model, as there is no evidence for centralized or communal storage facilities, and little evidence for households with storage capacities below the level of subsistence. In addition, the widespread evidence of commensal dining and drinking activities in open courtyards or the main hall of the households would tend to support this model.

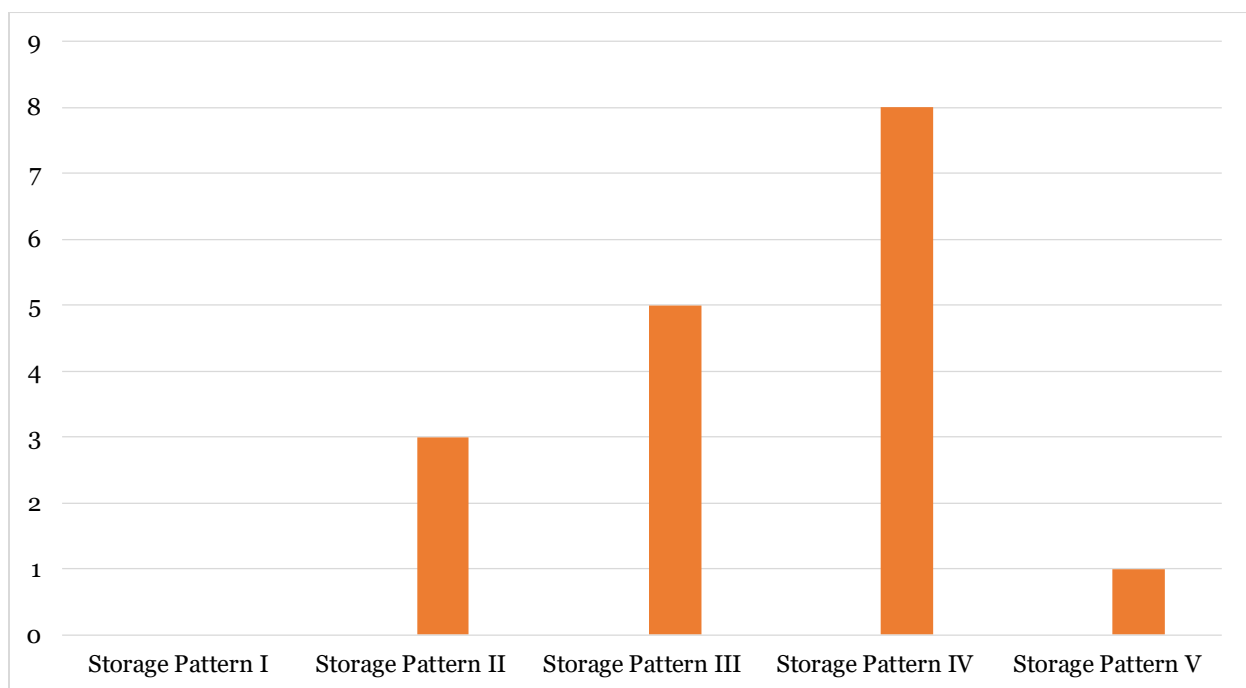


Figure 6.6: *Post-palatial households classed according to Christakis’ five storage patterns.*

What Did They Store?

Post-palatial storerooms were filled with a variety of crops, although the same species are widely represented across the Greek mainland (table 6.4). The main cereal crops were wheat (einkorn and emmer) and barley. These were supplemented by protein-rich vetches

and beans and more rarely lentils or garden peas. The relatively common appearance of figs and olives suggests that these were regularly dried (or brined in the case of olives?) for long-term storage. Grape seeds may be residue from wine, but the fact that they are found mixed in the Granary material suggests that they may have been dried and consumed as raisins/currants. The Granary at Mycenae provides rich data on storage and cultivation practices since discrete samples were taken. This gives good evidence that crops were both intentionally multi-cropped (Hillman 2011, 772-774), as well as mono-cropped (Hillman 2011, 769-772; 774-778). It is interesting to note that cereals are frequently stored in the same storerooms with vetches. According to Pliny (*NH* 18.26), however, vetches could be used as a leavening agent in bread. It is tempting to consider the occurrence of enclosed ovens with little evidence for craft residue as the introduction of a new type of food. Compelling evidence for this is found in the pantries of the Granary, where Hillman observed a fragment of charred bread wrapped in cloth (Hillman 2011, CD 752, table C).

Table 6.4: *Main species of macrobotanical remains in post-palatial storerooms*

	Emmer/Einkorn	Barley	Oats	Vetches	Bean	Pea	Fig	Olive	Grape
Kynos	X	X	X		X			X	
Xeropolis	X	X					X	X	
Aigeira	X	X		X	X	X	X		
Mycenae	X	X		X	X		X	X	X
Tiryns	X	X	rare	X	rare	rare	X	X	X

Source: Kynos (Kounouklas 2011, 30; 61; 69; 130); Xeropolis (Evely et al. 2006, 28; 38-39; 302; pl. 103.1-2); Aigeira (Schahl 2006); Mycenae (Hillman 2011); Tiryns (Kroll 1982).

As Oliver Dickinson (2006, 101) rightly points out, preservation bias has a profound effect on our interpretation of post-palatial agriculture. While he draws attention to the higher preservation of faunal material over floral material on account of

their increased odds of archaeological preservation, I would also add that our image of post-palatial agricultural practice is biased towards those crops dried and stored for long periods of time. Since large stores of such crops were kept indoors, they were much more likely to become charred by the fiery destruction events that punctuated life in the Bronze Age of mainland Greece. Testament to this fact is the wider variety of rare garden vegetables and fruits identified in the careful sampling of archaeological levels from Tiryns (Kroll 1982, 470-471, tab. 1). These include muskmelon, chickpeas, and garden pea. It would likewise be surprising if other vegetables such as onions, cabbages, and other greens did not play an important role in the diet of the post-palatial Mycenaeans, especially in light of their importance in later Greco-Roman agricultural practices (cf. Kron 2015). Since it is normally only the fleshy part of such crops that would be consumed in households, it is unsurprising that their remains have failed to be preserved.

There does not seem to have been much regional variation in the types of crops grown. Cereals including wheat (emmer or einkorn) and barley were recovered at all sites where macrobotanicals have been published. This suggests a relatively stable agricultural system, perhaps driven more by dietary preferences than environmental conditions.

Fauna

Normally relegated to appendices or stand-alone articles, and little-consulted by non-specialists, the fauna of post-palatial settlements can offer important insights into ancient diet and ritual practice. Although not limited to storage rooms, faunal assemblages enhance the picture of post-palatial subsistence practices and are worth their

presentation here. A brief synthesis of the available data also highlights some apparently regional differences in faunal exploitation hitherto unappreciated.

Table 6.5: Post-palatial faunal assemblages: major species (all figures NISP, except Midea MNI)

	<i>Cow</i>	<i>Ovicaprid</i>	<i>Pig</i>	<i>Equid</i>	<i>Dog</i>	<i>Deer</i>
<i>Eleon: SW</i>	107 (10.2%)	632 (60.1%)	115 (10.9%)	12 (1.1%)	63 (6.0%)	123 (11.7%)
<i>Xeropolis: Main Exc.</i>	607 (17.9%)	1660 (49.0%)	563 (16.6%)	127 (3.7%)	62 (1.8%)	366 (10.8%)
<i>Xeropolis: Trials</i>	130 (17.4%)	364 (48.8%)	126 (3.7%)	18 (2.4%)	14 (1.9%)	94 (12.6%)
<i>Xeropolis: Region I</i>	634 (20.9%)	1548 (51.1%)	445 (14.7%)	102 (3.4%)	54 (1.8%)	244 (8.0%)
<i>Kalapodi</i>	978 (16.1%)	4100 (67.4%)	446 (7.3%)	10 (0.2%)	46 (0.7%)	500 (8.2%)
<i>Tiryns: Lower Citadel I</i>	8769 (36.6%)	9177 (38.3%)	4915 (20.5%)	394 (1.6%)	245 (1.0%)	471 (2.0%)
<i>Tiryns: Lower Citadel II</i>	165 (24.8%)	342 (51.3%)	144 (21.6%)	6 (0.9%)	1 (0.1%)	8 (1.2%)
<i>Tiryns: NE</i>	229 (33.0%)	270 (38.9%)	161 (23.2%)	16 (2.3%)	8 (1.1%)	10 (1.4%)
<i>Tiryns: NW</i>	300 (21.9%)	829 (60.4%)	194 (14.1%)	1 (0.1%)	21 (1.5%)	27 (2.0%)
<i>Aigeira</i>	83 (18.2%)	258 (56.7%)	78 (17.1%)	15 (3.3%)	1 (0.2%)	20 (4.4%)
<i>Midea</i>	69 (23.0%)	164 (54.8%)	52 (17.4%)	0 (0.0%)	1 (0.3%)	13 (4.3%)

Source: Lam and Bullock (in progress); Xeropolis: Mulhall 2015, 430-438, tables AIV.5.25a-c, AIV.5.26a-c, AIV.5.27a-c; Kalapodi: Stanzel 1991, 15-16, table 2; Tiryns: Von den Driesch and Boessneck 1990, 93, table 5; 104, table 12; Morgenstern 2016, 89, table 3, 91, table 6; Aigeira: Forstenpointer et al. 2006, 185, table 19; Midea: Reese 1998, 2007.

Two major groups of faunal consumption can be identified in the reports published so far: a central Greece pattern and a Peloponnesian pattern. As more sites have faunal data published this may produce further clustering of the data, but for now, these groups seem reasonably clear. In central Greece, faunal assemblages are characterized by an elevated abundance of deer, dogs, and equids. In table 6.5, all sites with percentage

representation of a species above the median have been highlighted with the highest representation denoted by a darker shade. This exercise allows us to distinguish sites with an elevated representation of specific species. Surprisingly, it produces clear associations between the abundance of not only certain species, but also regional associations that may represent regional faunal exploitation in the post-palatial period.

The contrast between the Argolidic/Peloponnesian and central Greek assemblages is most clearly seen in the representation of deer. The only sites with more than 2% representation of deer in the Peloponnese are Aigeira (4.4%) and Midea (4.3%). While there has been some suggestion that deer consumption might be linked to ritual activity in the post-palatial period on account of their antlers regularly appearing in ritual contexts, this seems to counteract the notion that they were used exclusively for this purpose. In fact, at Kalapodi, where faunal remains should be more representative of a “ritual” assemblage, deer are *less* represented. We seem to have no choice, therefore, but to accept the conclusion that deer formed an important part of the central Greek post-palatial diet.

Ruth Palmer (2012) has discussed the Linear B and archaeological evidence for deer exploitation during the palatial period. Clear references to deer leather and possible references to antlers demonstrate the use of deer for secondary products. She also suggests that two Linear B tablets from Pylos (**Cr 591** and **Cr 868**) might demonstrate palatial management of live deer, perhaps for hunting parks. Deer are also depicted in hunting scenes during the Late Bronze Age, including in scenes from the palace at Tiryns (Palmer 2012), as well as in post-palatial iconography from Mycenae, including the painted grave stele. This is interesting in light of the increased faunal representation of

two other faunal classes in the central Greek region: equids and dogs. These are the same animals depicted in representations of palatial hunting parties (figure 6.7). Support for this notion comes from the treatment of the dogs at Eleon and Xeropolis that have led to their greater representation. For instead of being single bones found mixed with detritus or hearth contexts, the dog bones from Eleon and Xeropolis represent dog burials (Lam and Bullock in progress; Mulhall 2015, 214-215).¹²³ Alexander Mulhall (2015, 215) has interpreted the structured deposition of these burials as a ritual act, perhaps associated with the construction of new buildings at the start of Phase 2a. These burials consist of a cooking pot used to house the remains, as well as apparent grave goods, such as worked antler tines or even a copper-alloy object (Mulhall 2015, 214). It is interesting to consider the treatment of the human occupants of the Phase 2 settlement at Xeropolis in order to understand better the treatment of the dogs. Jonathan Musgrave and Mervyn Popham (1991) show that burials of this phase were commonly intramural, and located along the walls of the households. Burials were normally covered by large coarse pithos fragments and contained few grave offerings, but when included these were normally small personal effects. The similarity in practice between the human burials and the dog burials suggests to me that we may have Phase 2 dog burials that were buried intramurally as well. Far from ritual offerings therefore, these should be interpreted as carefully cared for pets. It is notable that Mulhall (2015, 216) found few signs of maltreatment on the skeletons of dogs, further supporting the notion that they were kept as pets. When this evidence is

¹²³ While dog burials in human tombs, apparently as sacrifices, are known throughout the Bronze Age, dog burials in their own right have rarely been preserved (Day 1984). The recent publication of a dog burial from a LM IIIA context at Chania (Hallager and Hallager 2016, 139, 255, 322), in combination with those from Xeropolis and Eleon suggests that this may be an accident of excavation, rather than a lack of such burials.

combined with that for relatively high representations of equids in the same sample it is tempting to see this as evidence for hunting as a major social activity in these regions.



Figure 6.7: Hunter, horse, and large dog. Fresco from Tiryns (National Archaeological Museum, photo T. Van Damme).

While I would not stress the link between these species too far, it is nevertheless interesting to contrast this pattern with that seen in the Argolid/Peloponnese. This regional pattern stresses the production of two species: cattle and pigs. The greatest representation of cattle is found in the Lower Citadel at Tiryns and, although it is tempting to connect this with the cult building there, Mühlenbruch (2015, 138) reports that the faunal remains associated with Hof 1 (and therefore the cult building erected in succession there) were rich in hare, dog, wild boar, deer, and horses. This seems to indicate that the cattle bones from the Lower Citadel are associated with domestic deposits. Their concentration inside the Lower Citadel suggests that they might be associated with higher status, or elite households. Cattle were, after all, an important commodity in the pre-monetary Mediterranean (cf. Papadopoulos 2012). Thus, in the

Iliad (6.234-236), when the poet wishes to point out how Zeus stole Glaukos' wits when he exchanged his gold armor for bronze, the values are compared in numbers of oxen: the only standardized unit of value that was intelligible to a pan-Hellenic audience. High concentrations of cattle remains in all sectors of Tiryns might suggest that large, valuable herds of cattle were relatively common. Outside of the Argolid, it is worth pointing out that the highest representation of cattle in central Greece comes from Region I at Xeropolis, the area of the so-called Megaron building. This pattern of greater cattle representation is likewise accompanied by greater representation of pigs. I have not distinguished here between wild and domesticated pigs, since the former are not separated in some of the analyses; however, wild pigs rarely form a very large percentage of identifiable specimens. Thus, it is tempting to connect the greater number of pigs at Tiryns with the more urban environment of post-palatial Tiryns, where household pigs may have been a regular sight.

Textile Production

The key industry in any pre-industrial Mediterranean society was textile production (e.g., Waetzoldt 1972; Barber 1991; Gleba 2008; Burke 2010; Nosch et al. 2013; Spantidaki 2017). The same appears to be true of Greece, where important evidence for centrally administered textile production can be found as early as the Middle Minoan Period on Crete (Burke 1997). By the Late Bronze Age, textiles appear to have been an important export commodity (Burke 1999).¹²⁴ This may have been due to the production of highly

¹²⁴ Despite their ubiquity within the wider Mediterranean world, textiles were valuable trade items from an early date, occurring as important trade commodities in the extensive archives of correspondence from the Old Assyrian trade colonies in Anatolia during the 19th and 18th centuries BCE (Michel and Veenhof 2010).

sought after purple dyes, but perhaps also the use of exotic fabrics such as byssus (Burke 2012) and wild silks (Panagiotakopoulou et al. 1997; Van Damme 2012), alongside the usual woollen and linen textiles (Burke 2010, 7-13; Burke and Chapin 2016). Despite intensive study of textile production in the Aegean in recent years, however, the production areas of the palatial period textile industry remain elusive archaeologically. The most likely explanation for this is that textile production was organized on a domestic basis, and thus workgroups were affiliated with wealthy estates (the so-called collectors of the Linear B texts). The lack of obvious archaeological evidence for such work groups is, therefore, due to the selective excavation record of the palatial period (largely focused on palatial centers), rather than on settlements where most weaving activities appear to have taken place.

Our understanding of Mycenaean textile production is largely contingent on the evidence of the Linear B texts recovered from Knossos, Pylos, and to a lesser extent Thebes, listing large work groups, specialized textile workers, wool allocations, and finished cloth (Burke 2010; Del Frego et al. 2010; Luján 2010; Nosch 2012; 2014; Skelton and Vine 2016). Work groups mainly consist of women, often identified by ethnonyms, sometimes denoting their geographical location, but other times apparently referring to their place of origin (e.g., Nikoloudis 2008). Barbara Olsen suggests that foreign dependents at Pylos were likely slaves (Olsen 2015, 111-114), although on Crete, large groups of local laborers might be part of a *corvée* system (Olsen 2015, 256). Stavroula Nikoloudis (2006, esp. 216-217) presents a more complex picture of foreign peoples in the Linear B texts, suggesting that they represent “immigrants”, whether voluntary or not, who were dependent on the palace for their daily survival. This latter view is perhaps to

be preferred, since it better encompasses the variability seen in the treatment of foreigners.

Despite textiles forming one of the chief concerns of palatial administrators, however, archaeologists have struggled to find any trace of palatial textile workshops in the archaeological record.¹²⁵ Thus, a number of key questions concerning the organization of the palatial textile industry remain unanswered. Were there palatial textile workshops at all? Or was textile production managed on the local level and only the finished products sent to the palaces? Were workgroups palatial property? How were such workgroups organized? It is striking that very few palatial period loom weights have been uncovered in either palatial or domestic contexts on the mainland, much less in the quantity necessary to produce the quantities of cloth listed in the Linear B tablets. While palatial centers on Crete, such as Knossos have produced loom weights indicating at least some in house textile production from the Middle Minoan period onwards (Burke 2010, 50-62), the extent to which this system of production was maintained, copied, or modified by Mycenaean elites after their arrival is unclear.

In order to understand continuity and change in textile production it is important to consider the evidence from the texts themselves. While we have lots of evidence concerning the management of flocks, textile work-groups, wool and textile production targets, and receipt of finished goods, the Linear B texts from Knossos and Pylos are remarkably silent on the actual workshops. Fortunately, Thebes has produced some

¹²⁵ A notable exception is the recent discovery of a large-scale industrial installation at Alimos, south of Athens, plausibly interpreted as an industrial installation for the retting of flax (Kaza-Papageorgiou and Kardamaki 2011, 204). Intriguingly, however, no large scale deposits of loom weights have yet been associated with this installation, begging the question of where the actual weaving of textiles may have taken place.

important evidence in this regard; the **Of** series records the distribution of quantities of wool from a central depot (see chapter three). The recipients are both human and divine, local and distant (Nosch 2009, 84, table 2). Of most interest for the present argument is the formulaic expression used for some of the distributions. While the largest distributions are sent to a toponym, expressed in the allative (e.g. *a-ma-ru-to-de*, *a₃-ki-a₂-ri-ja-de*) smaller quantities are sent to households, gods, or humans. This is expressed through the use of the allatives *wo-ko-de* and *do-de* (Classical Greek οἶκος and δῶν)¹²⁶, or more rarely through the use of a male name in the dative. Only a single mention of these words occurs outside of Thebes, Knossos tablet **As 1519.r.11** preserves the word *wo-i-ko-de*, a variant spelling of *wo-ko-de*. Rather than recording wool distributions, however, this tablet records a list of men sent to a **wo-i-ko*.

The exact meaning of *do-de* and *wo-(i-)ko-de* in a Mycenaean economic context is disputed. Sigrid Deger-Jalkotzy (2002, 23, n. 18) suggests that they refer to temple and domestic workshops. Maurizio Del Freo and Françoise Rougement (cited by Nosch 2009, 88 as forthcoming), however, interpret the terms in terms of scales of production; thus, a **wo-(i-)ko* would refer to a dedicated workshop, while a **do* would refer to a domestic production site. In Marie-Louise Nosch's (2009, 82-92) analysis the **Of** series at Thebes, she demonstrates that different quantities of wool were allocated according to where they were sent. The largest distributions were those sent to other geographical places, with smaller allocations going to **wo-ko*, **do*, and private individuals, presumably located in the city of Thebes. The amounts of wool sent to the **do* are the smallest, normally only one or two *PA* units of wool, or around one or two kilograms (Nosch 2009, 86). This is a

¹²⁶ For *do-de*: Aura-Jorro 1985, 185-186; for *wo-(i-)ko-de*: Aura-Jorro 1993, 440.

very small amount, given that even the most basic type of Mycenaean cloth, *pa-we-a*₍₂₎, required around five kilograms of wool to produce (Nosch 2014, 379, table 19.2). Nosch suggests (2009, 90-91), therefore, that the distributions to **do* may simply be rations of wool for the garments of officials, a type of payment recorded in contemporary Near Eastern records. While this interpretation accounts for the relatively small quantity of the distributions, we have no way of knowing how frequently these distributions were made. If monthly, for instance, the amount of wool could quickly add up. At present then, and due to the technical distinction drawn between *wo-ko-de* and *do-de* by the scribe writing the Of series, it seems preferable to follow Del Freo and Rougement in assuming that these represent different scales of production.

If we follow this interpretation we may observe two modes of production in the Mycenaean palatial period: palatially organized workshops **wo-(i-)ko* and household workshops **do*. Given the fact that the palace allocates workers to a **wo-(i-)ko* at Knossos supports the idea that the palace was more involved in their operation, supplying not only raw materials, but also labor. Due to our limited references, however, it is impossible to reconstruct whether household workshops were obligated to return finished textiles to the palace. Much like our knowledge of actual production sites, the fragmentary nature of the archaeological record limits our understanding of the total textile industry.

Ironically, in the post-palatial period, when we no longer possess written records, the archaeological visibility of textile production becomes much greater. Thus, almost every household exhibits some evidence for textile production. The only site where there is none evidenced is Kynos, where taphonomy has surely played a role, since there is no good evidence for a burnt destruction level here. It is worth reviewing in full the types and

findspots of post-palatial textile equipment in order to form a complete picture of this important industry.

Textile Equipment

In the post-palatial period, textile equipment seems to have consisted of three main tools: spindle whorls, unpierced clay spools, and large torus loom weights. While the first served to spin raw wool or linen into thread, the latter two items were used as weights for warp-weighted looms. Notably, the discoid loom weight favored in the palatial period, deriving from a popular Cretan loom weight type, does not appear to have been widely used, if at all, during the post-palatial period. These three tool types document the most archaeologically visible stages of textile manufacture, however, other aspects, including dyeing and fulling cloth must have been important industries in their own manner.

Spindle Whorls

Spindle whorls are more difficult to consider as a measure of textile production because of ongoing debates concerning what precisely constitutes a spindle whorl (e.g., Iakovides 1977; Barber 1991, 51-53; Carington Smith 1992; Olofsson et al. 2015, 77-87). Furthermore, recovery techniques could badly skew spindle whorl data. We also run into a problem of trying to define what whorls were equipment in use at the time of destruction, as well as what whorls were casual losses or released from mudbricks.¹²⁷ As a measure of economic productivity, spindle whorls are best taken with some scepticism. I

¹²⁷ Due to the large dimensions of Mycenaean mudbricks, household debris, including pottery and spindle whorls, regularly became incorporated into their matrix, whether accidentally or intentionally added as temper.

have, therefore, chosen to focus here on loom weights, as these seem more likely to represent in situ finds, particularly when found in quantity. It is nevertheless interesting to note that the East House at Xeropolis produced eight spindle whorls¹²⁸ and Oikos 10 at Kynos produced 18 examples. Thus, it seems likely that the thread or yarn used in the weaving of these textiles was also being produced in-house.

Spools



Figure 6.8: Spools from Eleon [left] and Xeropolis [right] (Courtesy of the Eastern Boeotia Archaeological Project and the Archaeological Museum of Eretria, photo T. Van Damme; scale in cm).

Spools are unfired, normally slightly-waisted, clay cylinders (figure 6.8). They normally range in weight from 0.050-0.250 kg. Various cylinders from Xeropolis show evidence for being laid on the ground to dry while still wet, so they were probably sun-dried, although they could also have been dried indoors by a hearth. The use of spools as weights for warp-weighted looms was first demonstrated by Lorenz Rahmstorf (2003; 2005; 2008, 59-73, pls. 23-32; pl. 90.5-8; 2011, 320-321) in a series of articles, highlighting its introduction to Greece as a case of technological transfer at the end of the palatial period.

¹²⁸ Including those steatite whorls categorized as 'buttons'.

Recent experimental work carried out by the Danish Center for Textile Research has demonstrated that spools, even fairly light ones, work well to produce a fine open-weave fabric (Olofsson et al. 2015, 92-95). In addition, a recent study of the textile tools from Eleon has revealed the discovery of a spool with a thread impression on the exterior – perhaps employed while still slightly soft by an eager worker (MacDonald 2017).

Although they were likely produced as needed, spools appear to have been taken good care of when not in use. At Xeropolis, they were regularly found stored in vats, or recycled ceramic vessels, while as Kynos they were found stored on shelves, likely in basketry containers.

Torus Loom Weights



Figure 6.9: Torus loom weights from Eleon [left] and Xeropolis [right] (Courtesy of the Eastern Boeotia Archaeological Project and the Archaeological Museum of Eretria, photo T. Van Damme; scale in cm).

Large torus loom weights, weighing between 0.500-1.500 kg represent a less common-type of post-palatial textile equipment (figure 6.9), although they are equally foreign to the palatial period (Rahmstorf 2011, 322-323). They are always handmade and ring-shaped, hence their various names: ring weights, donut weights, and torus weights. I have

used the latter term throughout in order to apply some consistency. There is some evidence that these weights were more carefully made than the previous class of loom weights, since slipped surfaces indicate at least some care for their appearance. Whether this is intentional treatment, or an accidental by-product of their manufacture is difficult to determine, however, since they also appear to have been unfired.

The use of such heavy weights for the production of textiles has been questioned, but similar torus loom weights have been found in large quantity at the Early Iron Age destruction levels at Gordion in Turkey (Burke 2010, 116-118). Here, there is no doubt that these were employed as loom weights, since they were found arranged as they were hanging in groups of around 20 weights, at the moment that the city was burnt (Burke 2010, 140-141, fig. 74). These weights seem to be connected with the production of thick cloaks, perhaps the type secured by Phrygian fibulae (see Burke 2016). There is no doubt that they functioned as loom weights on account of the obvious use wear observed on those specimens excavated at Eleon and Xeropolis (figure 6.9). Furthermore, the torus loom weights from Xeropolis were fallen in a linear arrangement indicating that they were hung on a loom at the moment of the destruction (figure 6.10).

The massive size of some torus loom weights indicates that they were employed in the production of a very thick, densely woven fabric, perhaps tapestries or rugs. This interpretation fits well with their limited distribution. So far, only two households have produced in situ finds that have been published: the Northwest Complex at Eleon and the East House at Xeropolis. Rahmstorf mentions five torus loom weights from the Lower Town of Tiryns, which seem to come from secure findspots, but these have yet to be published (Rahmstorf 2011, 322). Additional torus loom weights that likely derive from

post-palatial contexts, but were not found in situ, have been reported at Thebes, the Upper and Lower Citadel at Tiryns, and the new excavations at Xeropolis (Alberti et al. 2015; Schliemann 1885, 146-147; Rahmstorf 2008, 57-58). It is interesting to note that the households that have produced this type of loom weight are relatively large and very likely elite residences. The type of textile they produced may therefore have been employed as a status marker or valued export.

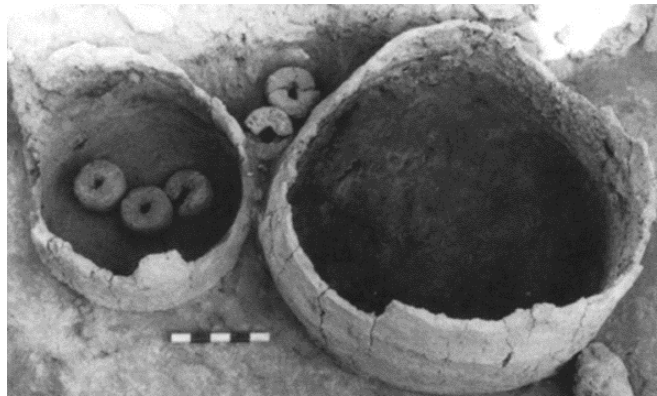


Figure 6.10: *Torus loom weights fallen in roughly linear arrangement suggesting that they were in use at the time of destruction [north to right] (Evely 2006, pl. 7b).*

Textile Production in Post-palatial Households

Following in the footsteps of Barbara Tsakirgis' work on the Classical textile industry, I have examined the evidence for loom weights in households (table 6.6). The total number of loom weights per household is shown, broken down by room, and high and low estimates for the number of looms per space and per household are also given. Totals combine the number of loom weights with contextual considerations, thus one or two spools found in the fill of an adjacent room can readily be interpreted as coming from a single loom, lowering the minimum number of looms, while allowing the possibility for more. Loom weights of multiple types are always considered to belong to separate looms,

resulting in a higher minimum at sites such as Eleon, which has a minimum and maximum of 2 looms, since it produced part of a donut weight set and part of a spool set. The results of this analysis are clear. Most households preserve evidence for one or two looms, essentially what would be expected from a household producing some or perhaps the majority of its own cloth. Three of the four households, however, demonstrate evidence for greater textile production: the West and East Houses at Xeropolis, and Oikos 10 at Kynos. Assuming between 20-40 loom weights per warp-weighted loom (Tsakirgis 2016, 170), the East House at Xeropolis could supply seven to 11 looms with weights, while Oikos 10 at Kynos could supply eleven to nineteen. This pattern of textile production, where domestic production is widespread, but with a few producing textiles on a large scale is very similar to the mode of production observed at Classical Olynthos (Cahill 2002, 250-252), suggesting that this method of production was adequate to produce textiles for export.

Table 6.6: *Loom weights from post-palatial households and loom equivalencies*

	Room	Spools	Torus Weights	Looms (high/low)
<i>Xeropolis</i>				
1b: West House	9	57+		3/2
	11	18+		2/1
	Total	75+		5/3
1b: East House	3	123+		6/3
	4	5	10+	2/2
	5	61+		3/2
	Total	189+	10+	11/7
1b: Trial IV/V	North Room	9		1/1
	South Room	1		1/1
	Total	10		2/1
2a: North House	2	2		1/1
	4	13		1/1
	6a	2		1/1
	7	1		1/1

	10	3+	1/1
	11	3+	1/1
	Total	24+	2/2
2b: North House	7	1	1/1
	2/1	1	1/1
	4	2	1/1
	5	14?	1/1
	10/11	7?	1/1
	Total	25	3/2
<i>Kynos</i>			
6: Oikos 8	XAA	12	1/1
	XAE	8	1/1
	XAST	5	1/1
	Total	25	3/2
7: Oikos 10	XMA	7	1/1
	XMB	279	14/7
	XMG	64	3/2
	XMA	2	1/1
	Total	352	19/11
7: Oikos 11	XMST	14	1/1
	XMZ	13	1/1
	XMH	2	1/1
	Total	29	3/2
7: Oikos 12	XMN	1	1/1
	XMNA	5	1/1
	Total	6	2/1
<i>Eleon</i>			
NW Complex	3	4	3+
	4	7	1/1
	Total	11	3+
<i>Mycenae</i>			
Granary	Corridors	4	1/1
	East Basement	35	2/1
	Total	39	2/1
Phase XI House	Xlii	3	1/1
	Total	3	1/1
<i>Tiryns</i>			
Upper Citadel	Unknown	16	Several
	Total	16	Several
RK 127a.b.Hof 3	127a	4	1/1
		398	

	127b	7	1/1
	Total	11	1/1
RK 106.106a.124	106a	3	1/1
	Total	3	1/1
<i>Asine</i>			
Building I	XLVI	an accumulation	1/1
	Total	an accumulation	1/1

Source: Kynos (Kounouklas 2011, 57-93, 124-143), Xeropolis (Evely 2006, 13-75), Eleon (MacDonald 2017), Mycenae (Wace 1921-3, 39; 54; French 2011, 54); Tiryns: Schliemann 1885, 146-147; Rahmstorf 2008; Asine (Frödin and Persson 1938, 310)

Given the fact that all households engaged in large scale textile production are located at coastal centers raises the possibility that this cloth was produced for ship sails.¹²⁹ The type of cloth produced by spools would be entirely wrong for this purpose, however, being highly susceptible to tearing in even moderate winds. The most likely explanation at present therefore is that we are looking at large-scale cloth production intended for local sale or long distance trade. Given the fact that the largest domestic textile workshops are located at coastal centers with convenient access to foreign markets and that almost every household where textile equipment could reasonably be expected to be preserved contained some loom weights would tend to support this assessment.

Tiryns shows surprisingly little evidence for textile production so far, although this may be due to taphonomy more than anything else. Most spools there have been found in LH IIIC Late contexts, as these are the final phases and in most cases the best preserved phases in the Lower Citadel. Most of those that have been found in situ come from the area of R127/127a. Some of these come from a preceding use of the space (Rahmstorf 2008, 275-276, pl. 138.1), others from the time of destruction (Rahmstorf 2008, 278, pls. 140-141), and still others from a pit to the north that may be associated with the use of the

¹²⁹ I would like to thank John Camp for bringing this possibility to my attention.

space (Rahmstorf 2008, 279, pl. 141). Other concentrations from the acropolis have also been found in pits, suggesting that the loom weights were regularly thrown out with the trash when they were no longer needed. The largest excavated (and completely published) areas of excavation have come from the Lower Citadel, which appears to have been dominated by elite complexes, some of which were engaged in other craft activities, such as metallurgy and, thus, may have acquired the bulk of their textiles from other sources.

Compared to the palatial evidence for textile production a few brief observations can be made. Much as in the palatial period, there is evidence for two different scales of textile production: one produced textiles to serve the needs of the household unit and likely little surplus fabric, the other produced textiles on a much larger scale, evidently aimed at producing surplus textiles that can only have been used for trade, whether domestically or abroad. This begs the question of how different these two categories of production might have been from the **wo-(i-)ko* and **do* described in the Linear B tablets from Thebes. On the surface, it is tempting to say not that different, but it is likely that there were some scalar differences in production before and after collapse, even if the same basic categories of production continued. Certainly, there was no palace to provide raw materials to workshops in the post-palatial period, so these would have been sourced from elsewhere. The appearance of foreign weaving equipment in the archaeological record of the post-palatial period may also suggest that the laborers who engaged in this work were foreigners, or at least partially foreign.¹³⁰ This model would suggest at least some continuity with the palatial period, when we have a good deal of evidence that foreign women formed a large part of the labor force in the textile industry at Pylos. On

¹³⁰ It is possible that foreign textiles came into vogue during the post-palatial period and local producers adapted to the new techniques in order to meet the demand.

the whole then, it is difficult to view changes in the Mycenaean textile industry as a collapse, rather than a reorganization of the scale and intensity of production. Some textile specialists are likely to have remained attached to elite producers, but exactly what continuities or discontinuities in specific personal took place is a matter of conjecture in lieu of textual records.

Other Industries

Table 6.7: *Post-palatial industries attested in households*

	<i>Textile Production*</i>	<i>Bronze Working</i>	<i>Lead Working</i>	<i>Pottery Production</i>	<i>Bakery</i>
<i>Xeropolis</i>					
West House	X				
East House	X				
Trial IV/V		X?			X?
2a: North House		X			X?
2b: North House		X?			
<i>Kynos</i>					
Oikos 10	X				
Oikos 11					X
<i>Tiryns</i>					
126/126a/124			X		
Westareal			X		X?
NW Lower Town		X?			X
<i>Asine</i>					
House I	X?			X	
House F				X	
<i>Aegeira</i>					
NW Complex			X	X	
South Complex		X			

**I only consider large scale textile production here. Nearly every post-palatial household exhibits some evidence for textile production.*

Craft production has a tendency to be viewed as a negative wealth indicator in domestic settings: as Michael Smith (1987, 310) points out “within an elite class...specialized

production tools may have a positive association with wealth if there is a tendency for wealthier households to have attached craft specialists.” It seems no coincidence that the households with the highest storage capacities, particularly those in Christakis’ Storage Pattern IV and V show evidence for specialized activities within the household. The most common of these is metal working, but installations that may be related to bread baking or other specialized food production, as well as ceramic production are also attested.

Ceramic Assemblages

Table 6.8: Post-palatial ceramic assemblages			
	<i># of Vessels</i>	<i># of Shapes</i>	<i>Most Common Vessel</i>
<i>Xeropolis</i>			
West House	58	21	Deep Bowl
East House	58	23	Semi-globular Cup
2a: North House	34	12	Deep Bowl
Trial IV/V	39	19	Deep Bowl
<i>Eleon</i>			
North West Complex	45	19	Deep Bowl
<i>Kynos</i>			
Kynos 8	13	9	Jug/Kylix/Deep Bowl/Pithos
Kynos 10	25	14	Amphora
Kynos 11	25	11	Semi-globular Cup
Kynos 12	12	7	Semi-globular Cup
<i>Korakou</i>			
House H	15	7	Kylix
House L	11	5	Deep Bowl
House P	62	10	Kylix
<i>Tiryns</i>			
1b: NE Lower Town	39	16	Cooking amphora
<i>Mycenae</i>			
West Complex	94	31	Deep Bowl
Room Γ3	19	13	Cooking amphora
The Granary	88	18	Three-handled goblet

Three measures of household assemblages have proven particularly useful as indicators of wealth: quantity, diversity, and place of origin (M.E. Smith 1987, 319-320). Since the

households analyzed here were excavated using highly variable techniques over the last 150 years, I have limited the analysis to the complete or mostly complete vessels. While this is certain to mask some diversity, it also makes the resultant sample more directly comparable between sites. Even after analysis, however, it is unclear how useful the method is between sites. Whereas within sites, it does seem to do well as distinguishing between the wealthier and less wealthy households, between sites it is hard to know how comparable the data sets are. Furthermore, the lack of completely excavated households plays a heavily skewing factor in the popularity of specific shapes. For instance, Oikos 11 and 12 at Kynos have no cooking pots. This doesn't seem to be a functional difference in the households, but rather due to the fact that they were only partly excavated.

Drinking Sets: Palatial Paraphernalia Repurposed?

Perhaps of greater interest is the widespread presence of drinking assemblages in post-palatial households. These assemblages consist of a fairly standard repertoire of shapes including kylikes, kraters, and closed shapes for holding wine and water. Fairly typical examples of these sets can be reconstructed from the finds from Room 2 of the Phase 2a North House at Xeropolis, the Northeast Room at House P at Korakou, the Rear Chamber of House H at Korakou, the Northeast Lower Town in Phase 2 at Tiryns, the upper story deposits at Eleon, the upper story deposits from the Phase 1b West House at Xeropolis, the upper story of Oikos 11 at Kynos, and Room xxxiv of the Mycenae Phase IX West Complex. The widespread distribution of such sets indicates that the palatial tradition of feasting continued at least through LH IIIC Middle. The discovery of kraters on the final floors of the houses in the Lower Citadel at Tiryns suggests that it continued throughout

the post-palatial period. The contexts of post-palatial drinking or feasting were limited to the main hall or the enclosed courtyard. Fine ware assemblages are often found on upper stories, where they may have been stored. In at least some cases, such as the households from Kynos 7 and Xeropolis Phase 1b, the main hall of the household may even have been located on the upper story.

More commonly than any other vase, the kraters used in post-palatial feasting attracted elaborate decoration. During the LH IIIC Middle period this reached its floruit in the Pictorial Style. The iconography of a relatively small number of post-palatial kraters has been taken to depict piracy or raiding expeditions (e.g., Kramer-Hagos 2016, 259-260). This is by no means certain, and yet it is frequently adduced to justify narratives of a warrior-ethos in post-palatial Greece. As Jeremy Rutter (2014) has shown, post-palatial iconography draws on a well-established tradition of iconographical representations from the preceding palatial period and, thus, they cannot be read without their cultural and social context in mind. As vessels used for drinking in communal settings, the scenes chosen for kraters are likely to have had collective meaning. While scenes of besieged cities may invoke a world in disarray to the modern scholar, the long tradition of besieged cities in Aegean art extend back to Minoan art, where they appear on a fresco at Akrotiri and a stone rhyton from Knossos. Sarah Morris' (1989) reading of such art works as visual representation of oral narratives and the origins of the epic tradition is especially attractive in this setting. Furthermore, the depiction of mythical creatures such as sphinxes on other kraters gives us reason to doubt that kraters depict scenes from everyday life. Even the most mundane of vases, such as that from Kynos depicting men heaving on a net filled with fish, need not reflect daily life, but can be read as allegory or

parable (e.g., Luke 5:1-11; John 21:1-14), or local legends (e.g., Paus. 10.9.3). It is worth emphasizing, however, that despite the focus on a relatively small number of extraordinary post-palatial kraters, the most common motifs on kraters were birds, fish, or horses/chariots (Evely 2006, 237; Crouwel 1991, 4, table 1). These motifs simply reflect the liquid contents and elite aspirations of the participants.

Handmade Burnished Ware

In the post-palatial period, a class of handmade and burnished ceramics known as Handmade Burnished Ware (HMBW) or ‘Barbarian’ Ware became widespread across the mainland. While the exact origins of the ware remain somewhat disputed, both Italy and northern Greece have been proposed, there is little lingering doubt that this ware was introduced to Greece towards the end of the palatial period (Rutter 1975, 1976, 1990; Catling and Catling 1981; Deger-Jalkotzy 1983; Bankoff et al. 1996; Jung 2006; Kilian 2007). While David Small’s (1990, 1997) idea that HMBW could have represented a local response to collapse and the best evidence for an extended period of crisis on the mainland of Greece during the post-palatial period is appealing, it seems unfounded based on current analyses. While HMBW was clearly produced from locally-sourced clays (Jones 1986; Whitbread 1992), the *chaîne opératoire* differs sharply from the production techniques of the palatial period, and therefore the know-how must have been imported. An attractive compromise is Lis’ (2009b) proposal that there are actually two distinct handmade traditions that have been conflated, one a foreign tradition imported at the start of the post-palatial period and the second a more locally inspired tradition, which

becomes popular during the Early Iron Age. Certainly, the discussion that follows supports the relatively constricted circulation of HMBW proposed by others.

Stockhammer (2011) convincingly demonstrates close contextual links between HMBW and carinated cups (FS 240) at Tiryns, a shape that appears early in the post-palatial period. At Eleon, Room 5 featured a large mendable carinated cup and a handmade burnished vessel. This room was interpreted as a kitchen. Other findspots of handmade burnished ware and carinated cups included Rooms 1 and 2, both interpreted as enclosed courtyards, possibly with an industrial function. Returning to Stockhammer's analysis, we can compare the findspots of these same vessels in the Northeastern Lower Town. In Phase 2, the results are inconclusive, most fragments of both shapes originated from dumps in an alley or street running east-west south of the main hall. In Phases 3 and 4, however, there are clear concentrations of this material in Room 00/7, a kitchen, and in the large enclosed courtyard, in addition to materials found in the probable street located to the east of the household. A similar picture also emerges from Trial IV/V, where the impressive elite complex, featuring pithoi capable of holding in excess of 400 L, also featured pyrotechnic features and HMBW. In fact, the only relatively small household where HMBW seems to have been found *in situ* is House L at Korakou, where a mixed assemblage of HMBW vessels was found in the main room of the megaron. Could this be the household of an immigrant family? The sample size ($n=1$) is too small to form a convincing argument.

Stockhammer (2008, 283-294, 2011) argues that the distribution of these two ceramic types indicates a low status for its users. Combining this evidence with that from Eleon we might develop this idea further. While the users of HMBW and carinated cups

may have been low status, they were integrated as members of otherwise seemingly elite households. This would suggest that those peoples who came to Greece during the Late Bronze Age may have found themselves working in craft industries, especially the fields of metallurgy and textile workings, where their influence has previously been identified in bronze work (Rahmstorf 2011; Jung and Mehofer 2013). This would help to explain a number of technological changes that appear to have accompanied them in these fields. It seems impossible to discover the exact status of these individuals: whether slaves, dependents, or perhaps even temporary workers.

Metal Finds

One of Snodgrass' (1971, 246-249) main arguments concerning the Dark Ages was the hypothesis of a bronze shortage, caused by the collapse of the states from which the mainland Greeks acquired tin and copper, thus forcing the use of iron instead. In table 6.9, the published metal finds from the 32 reasonably well-preserved households are presented. Considering that taphonomic processes such as looting or reclamation are likely to have resulted in the removal of at least some metal finds when households were abandoned rather than destroyed, this material represents a minimum number of households with access to metals. Notably, few metal finds have been published from Tiryns, especially Kilian's excavations, which form the bulk of the excavated area in the Lower Citadel, nevertheless 16/32 households, or 50%, contained at least one metal find. This suggests, contrary to Snodgrass' hypothesis, that bronze was not only widely accessible, but even relatively low in value, in post-palatial communities. This squares

well with S.C. Murray’s (2013, 320-327) evidence for a healthy mining industry in Attica during the post-palatial period.

Iron and gold, however, had extremely limited distributions, likely reflecting their relatively greater value (see Papadopoulos and Urton 2012): an iron knife was found in the Phase 2a, North House at Xeropolis, a gold ring in the Phase 2b, North House at Xeropolis, and a gold foil pommel or scepter cover was found in Room xxxiv of the West House at Mycenae. The discovery of such objects in the North Household at Xeropolis comes as no surprise as this household exhibits abundant storage, placing it on the border of Christakis’ Patterns IV and V. These finds therefore support the relationship between storage, crafting, and household wealth. The gold foil from Mycenae does not show as obvious of a correlation with storage, but the context of its find was partially mixed with a preceding palatial period destruction level and its assignment to this level probably should be taken with a note of caution (French 2011, 18).

Table 6.9: Post-palatial households with metal finds (bronze unless noted)

	<i>Knife</i>	<i>Sickle</i>	<i>Chisel</i>	<i>Punch</i>	<i>Pin</i>	<i>Other</i>	<i>Total</i>
<i>Xeropolis</i>							
West House	1	1		1	1		4
East House					1		1
Trial IV/V	2					1 Spearhead?	3
2a: North House	1 iron				2		3
2b: North House					1	1 Gold ring	2
<i>Kynos</i>							
Oikos 10						1 Axe	1
Oikos 11	3		1			2 Arrow heads	6
Oikos 8						1 Bracelet	1
<i>Eleon</i>							
NW Complex	1	2				1 Spearhead? 1 Spear butt 1 Needle	6
<i>Korakou</i>							
House H			1			1 Fibula	2
House P*	1						1

<i>Tiryns</i>			
Megaron W		1	1
<i>Mycenae</i>			
West Complex			1 Gold pomel / scepter cover
South Complex	1		1 Fibula
<i>Aigeira</i>			
NW Complex	3		
South Complex	1	2	
			3

Source: Xeropolis: Evely 2006, 13-75; Kynos: Kounouklas 2011, 64, 70-71, 131; Korakou: Blegen 1921, 109; Rutter 1974, 520-528; Mycenae: French 2011, 51; Aigeira: Alram-Stern 2006.
*LH IIIC Middle phase.

In terms of types of objects, the most popular metal finds were knives, which occurred in nine out of the 32 households (28.1%), followed by items of personal adornment (rings, pins, fibulae, and bracelets), which occurred in six out of the 32 households (18.7%). In support of the central Greek pattern of hunting as a major social activity, all four households containing possible weapons/hunting equipment are in central Greece: a possible spearhead in Trial IV/V at Xeropolis, a spear butt/sauroter and probable spear head from the Northwest Complex at Eleon, and two arrowheads from Oikos 11 at Kynos. Sickles, which are more restricted in their distribution, occur at three households: the Phase 1b, West House at Xeropolis, the Northwest Complex at Eleon, and the South House at Aigeira. These suggest that even the most urban households were engaged in some form of agricultural production.

The Northwest Complex at Eleon in Context

Architecturally, the Northwest Complex at Eleon fits the model of a relatively prosperous post-palatial Mycenaean household. In area, it exceeds the average household size for its period. A number of palatial period architectural features indicate a knowledge of and

desire to engage with elite architectural syntax from the preceding phase. This is most manifest in the arrangement of four columns around a central hearth, the ideological heart of the former palatial megara. Other features, such as the ramped entrance from the west and the roof tiles, while not restricted to the palaces, were likely only regularly utilized in elite architecture. Roof tiles in particular must have been costly to produce in terms of labor and firing.

The elite architectural model and size of the household is, however, at odds with the available storage space. Whereas other households of this size and sophistication have storage patterns equivalent to Christakis' Pattern IV, the Northwest Complex at Eleon has only a single small storage space with kotselles, as well as two rather small pithoi in Room 1, supplemented by three vats and an undecorated bathtub. This presents the following possibilities: 1) the production of kotselles was seasonal and thus few were in use at the time of destruction; 2) evidence for storage facilities has been lost through the removal of pithoi or the destruction/lack of preservation of kotselles; 3) the unexcavated Room 8 is a storage room or contains significant storage space. All of these suggestions are possible. Although I have argued that there is less archaeological evidence for option one, ethnographic parallels suggest seasonal construction of kotselles, so we cannot rule out that this has distorted the true picture of the total storage capacity of the Northwest Complex. Option two is also possible, although the preservation of other pithoi and bronzes suggest that no one returned to scavenge these items. Since kotselles were low fired, it is possible that those not accidentally fired in the destruction have been lost, thus, Room 4 may originally have been much more crowded. We cannot rule out option three

either, however, and only the complete excavation of Room 8 can determine what the function of this final space may have been.

It is possible, however, that the Northwest Complex represents a local household, that projected an image of wealth, while living off of considerably less. The household does not appear to preserve evidence for extensive craft activities. Two looms document a fairly standard domestic level of production, although the presence of both spools and torus loom weights do suggest the manufacture of at least two different types of cloth. The correlation of torus loom weights elsewhere with apparently elite households has led me to suggest elsewhere that they represent a type of cloth used to mark elite status, such as heavy mantles, rugs, or tapestries, again suggesting elite aspirations, if not the resources to back them up.

The ceramic assemblage from the Northwest Complex contains all the elements necessary for participation in elite social circles. Kylikes, deep bowls, and numerous krater fragments document feasting and drinking activities. An unpainted bathtub may be related to the domestic textile industry, allowing wool to be washed or cloth to be fulled. The ceramic assemblage from the Northwest Complex also shows strong links with the destruction deposits from Phase 1b Xeropolis. Certain stylistic details are so strong that I (2017) have suggested that Eleon was part of a stylistic koine encompassing East Boeotia and the Euboean Gulf in LH IIIC Early. This attests to the movement of artists, and very likely pots, between these communities. This pattern of inland sites interacting with coastal centers has also been documented between Thebes, Kalapodi, and Kynos (see above). This seems to be confirmed by Selina White's (1981) early provenance study of Mycenaean ceramics in central Greece, which demonstrated the trade of ceramics

between East Boeotia and West Euboea. Unfortunately this study did not control for chronology, mixing palatial and post-palatial material, but based on the stylistic analysis there is no reason why trade was not occurring between these two regions in the post-palatial period. While the storage capacity at Eleon may not have been as substantial as some contemporary households, therefore, it does not appear to have been isolated. Eleon was after all, still located on an important corridor of movement between the Euboean Gulf and the inland, as well as between Athens and northern Greece.

The number of bronzes recovered from the Northwest Complex at Eleon reinforces this picture. With six near-complete bronzes, the Northwest Complex is only equalled by Oikos 11 at Kynos, although two of the bronzes there were arrowheads, and thus relatively small compared to the objects from Eleon. A piece of bronze sheet embossed with a guilloche motif also suggests the presence of a decorated pyxis or architectural element. Although no gold or iron objects are preserved, the metal finds from Eleon suggest a well-to-do household, which acquired bronze, not only for tools, but also for items of personal and household adornment.



Figure 6.11: *Bronze sickle from the Northwest Complex at Eleon (Courtesy of the Eastern Boeotia Archaeological Project).*

The presence of two sickles in the destruction debris (figure 6.11) suggests that the occupants of the household also farmed in the surrounding countryside. Although classed as “sickles,” these blades might better be interpreted as knives/saws/hooks of the sort used for pruning olive trees or vines, such as that wielded by a Satyr in a sixth century BCE Attic vase (figure 6.12). Perhaps then, some form of agricultural produce outside of cereals provided additional income. The presence of a transport stirrup jar in the destruction levels may lend further support for this idea.



Figure 6.12: *Satyr wielding sickle to harvest grapes (Schauenburg 1970, pl. 17.3).*

Overall, the Northwest Complex at Eleon presents an interesting case study of a post-palatial household. While certain elements suggest an attempt by its occupants to engage in elite circles, the relatively poor wealth of the household in terms of storage and production indicate a struggling economy. Indeed, this is likely to be one of the main reasons why Eleon failed to last into the Early Iron Age. Only the excavation of further households at Eleon can confirm the picture of significantly less storage outlined here, but it is compelling.

Conclusions

While household size is fairly consistent across all mainland sites, the evidence presented here suggests that coastal sites exhibited greater storage capacities and more craft activities, including large scale textile production, than inland sites such as Eleon. Whether this is a real difference, or whether this is the product of poor investigation of interior sites remains to be determined. What is clear from the archaeological evidence is that there is a strong correlation between the largest households, abundant and dedicated storage spaces, as well as engagement in surplus craft production for trade. It seems unlikely that the owners of these complexes were the craftspeople themselves, but rather suggests a model of attached craft specialists or dependent laborers. Certainly for the textile industry it is not difficult to imagine that in the wake of the palatial collapse work-groups transitioned into the hands of elite individuals for whom their skills remained valuable and who had the resources to sustain them. Whether such model can or should be applied to all crafts is unclear. It is notable that there seems at least some correlation between metal working activities and handmade burnished ware at Xeropolis, suggesting once again that it might be lower-class and foreign laborers engaged in this industry. Such patterns await further detailed excavations to confirm or modify.

The presence of slaves or dependent workers has been mentioned throughout. The presence of such individuals is unsurprising. Slaves or other dependent laborers are attested both in the Linear B tablets as well as in Homer, demonstrating at least some continuity in the use of terminology, if not their precise roles (table 6.10). The precise meaning of these terms is, however, still debated. For instance, the most common term,

do-e-ro/-ra, is normally translated as “slave,” but Beringer (1982) has argued that in Homer, the legal status of such as individual may not be so simple. In Homer, δούλος is contrasted with ἐλεύθερος, a term which also appears in Mycenaean Greek as *e-re-u-te-ro*. The sense of the word in Mycenaean Greek, however, is “free from obligations/debts” (Ventris and Chadwick 1973, 469). Thus, someone who is a *do-e-ro/-ra* may better be interpreted as someone who owes obligations. This helps to make sense of the regular construction *te-o-jo*, *do-e-ro/-ra*, “god’s slave,” a title which appears to be given to some rather high-ranking individuals. Rather than being a “slave,” a *do-e-ro/-ra* is better construed as an individual owing service. A better translation in an English context might be something like “serf.” Since almost all references to this status appear in land holding tablets, it is tempting to link the use of this land with a tithe paid to the god.

Table 6.10: Mycenaean and Homeric Greek terms for slaves/dependent laborers			
<i>Mycenaean Greek</i>	<i>Homeric Greek</i>	<i>Translation</i>	<i>Reference*</i>
do-e-ra do-e-ro	δούλος	Slave/serf	e.g., KN Ai 824.1; KN C 911.4-6, 9, 11; PY Ae 26; Ae 303.b; Hom. <i>Il.</i> 3.409; <i>Od.</i> 4.12; also see <i>Od.</i> 22.423
te-o-jo , do-e-ra te-o-jo , do-e-ro	-	God’s slave/serf	e.g., KN Ai 966.a(?); PY Eb 156.1b; PY Eb 347.1.
a-pi-qo-ro	ἀμφίπολος	Attendant/servant	PY Aa 804, Ad 690, Fr 1205; TH Of 34.1; e.g., Hom. <i>Il.</i> 3.143, 3.422, 6.286; <i>Od.</i> 1.136, 1.191, 1.331

ra-wi-ja-ja

ληϊάς

War captive/spoil

PY Aa 807, Ab 586.B,
Ad 686.b; Hom. *Il.*
20.193

*I have given representative examples of *do-e-ro/-ra* and *te-o-jo*, *do-e-ro/-ra* in the Linear B texts and ἀμφίπολος in Homer as they are common terms.

It seems difficult to believe that all craftspeople were slaves. One possible solution to this problem – the tension between the simultaneous incorporation of such workers into elite households, all the while ascribing to them a relatively low status – has the hallmarks of caste. Caste groups are normally defined by economic specialization, endogamy, and social moralism (Smith 2013, 279). As argued above, craft activities appear to have been carried out by lower status individuals during the post-palatial period. While it is difficult to uncover social morals in prehistoric societies, such as the Mycenaean post-palatial period, the restriction of HMBW to the same narrow range of contexts over multiple generations (Stockhammer 2011), may in fact suggest that these groups were deliberately marked out and kept separate. While these individuals may not have been slaves, therefore, their low status, despite providing essential services, becomes more readily interpretable. Monica Smith (2013, 290) proposes “that caste develops as a response to sharp declines in economic conditions, in which strictly defined occupational designations become beneficial to laboring groups and in which low social status is accepted in exchange for a guarantee of livelihood.” In the aftermath of palatial collapse, the loss of the single largest economic entity must have had a drastic impact on the lives of dependent work groups in particular. It is tempting to see the institutionalization of caste in post-palatial Greece as a stabilizing mechanism, by which some measure of economic stability was achieved. While Smith (2013, 289-290) places the development of caste in states that avoid collapse, her observation (2013, 283) that “developments were

not dictated by political authorities but emerged as nongovernmental (or extra-governmental) innovations precisely because the state was unable to mitigate economic hardship” leaves open the possibility for caste formation to take place in post-collapse societies as well, since the agency for their creation is bottom-up rather than top-down.

While similar trends in household organization and storage practices are observed across mainland Greece during the post-palatial period, regional variation is seen in ceramic styles (e.g., Mountjoy 1998, 1999; Van Damme 2017) and, as I have argued here, subsistence patterns. Intra-site variation in domestic architecture, ceramic assemblages, and storage practices appear to reflect real differences in wealth, although perhaps the starkest variations in wealth took place within the household itself, with slaves or dependent occupying the same households as the elites.

Appendix 6.1: *Post-palatial household and room sizes (+ denotes incompletely excavated; largest room in blue; enclosed courtyards in grey)*

House	Room	Length (m)	Width (m)	Area (m ²)
Xeropolis				
<i>1b: West House</i> (Evely et al. 2006, 13-26)	9	5.00+	4.00	20.00+
	10	4.25	2.75	11.69
	11	5.00	4.30	21.50
	12	2.50+	0.75+	1.87
	Total			55.06+
<i>1b: East House</i> (Evely et al. 2006, 26-40)	1	9.00	2.00 (avg.)	18.00
	2	6.50	1.40+	9.10+
	3	5.10	4.60	23.46
	4	4.00	2.90	11.60
	5	2.30	2.90	6.67
	6	2.75+	2.00+	5.50+
	7	1.50+	3.50+	5.25+
	Total			79.58+
<i>1b: Trial IV/V</i> (Evely et al. 2006, 117-124)	North Room	5.00	7.25	36.25

	Northwest Room	1.65+	2.00+	3.30+
	South Room	5.00	8.00	40.00
	South Area	2.25+	4.75+	10.69+
	Total			90.24+
<i>2a: North House</i> (Evely et al. 2006, 48-63)	1	5.50	2.20	11.00
	2	5.60	5.10	28.56
	4	5.30	5.00	26.50
	5	5.30	2.20+	11.66+
	6a	4.50+	2.20	9.90+
	7	4.50+	5.10	22.95+
	10	5.00	3.15+	15.75+
	11	4.50	6.00	27.00
	12	3.50+	0.75	2.62+
	Total			155.94+
<i>2b: North House</i> (Evely et al. 2006, 66-74)	2/1	7.80	5.60	43.68
	3	1.15	2.40	2.76
	4	5.50	5.00	27.50
	5	5.50	2.50+	13.75+
	7	5.00	4.60+	23.00+
	10/11	4.65	9.45	43.94
	12	9	0.65	5.85+
	Total			160.48+
<i>3: South House</i> (Evely et al. 2006, 81-87)	1	4.50	1.90	8.55
	1a	4.50	2.20+	9.90+
	3	2.25	1.75	3.94
	4	2.25	1.80	4.05
	5	5.00	1.75+	8.75+
	6	3.50+	1.25	4.37+
	7	3.50+	1.60+	5.60+
	Total			45.16+
Kynos				
<i>Oikos 8</i> (Kounouklas 2011, 125-132)	XKΘ	1.20+	1.00+	1.20+
	XΛ	4.40	3.40	14.96
	XΛA	7.60	4.30	32.68
	XΛB	3.00+	0.50+	1.50+
	XΛΓ	4.40	2.50	11.00
	XΛΔ*	3.60	3.55	8.78
	XΛE	5.80	6.00+	34.80+
	XΛΣΤ	4.70+	3.00	14.10+
	Total			119.02+

<i>Oikos 10</i> (Kounouklas 2011, 58-66)	XMA	2.50+	4.00+	10.00+
	XMB	4.20	3.30	13.86
	XMΓ	3.00+	3.30	9.90+
	XMΔ	2.00	4.20	8.40
	Total			42.16+
<i>Oikos 11</i> (Kounouklas 2011, 67-74)	XMΣΤ	5.40	2.60	14.04
	XMΖ	5.10	4.40	22.44
	XMH	5.00+	2.00+	10.00+
	Total			46.48+
<i>Oikos 12</i> (Kounouklas 2011, 74-77)	XMΝ	7.35	4.00+	29.40+
	XMNA	3.40	2.00+	6.80+
	Total			36.20+
Eleon				
<i>NW Complex</i>	1	7.95+	3.91	31.08+
	3	3.57	4.00	14.28
	3N	3.90	2.90	11.31
	4	2.20	2.20	4.84
	5	3.85	3.85	14.82
	6*	5.82	4.98	26.98
	7	4.92	4.77	23.47
	8	4.90	1.14+	5.59+
	Total			132.37+
Korakou				
<i>House H</i> (Blegen 1921, 89-91; 91-93; pl. VIII)	Porch	2.25	4.60	10.35
	Megaron	3.75	4.60	17.25
	Rear Chamber	4.25	4.65	19.76
	House M North	3.60	6.80	24.48
	House M West	5.50	7.75	42.62
	Total			104.11
<i>IIC Early 2: House L</i> (Blegen 1921, 80- 83)	Porch	1.35	5.09	6.87
	Vestibule	1.28	5.09	6.51
	Megaron	4.84	6.59	31.89
	Rear Chamber	3.60	4.85	17.46
	Total			62.73
<i>IIC Early 2: House P</i> (Blegen 1921, 83- 89)	Vestibule	4.00	3.10	12.40
	Megaron*	8.10	8.20	61.61
	Northwest Room	4.00	5.80	23.20

	Northeast Room	3.85	6.45	24.83
	East Room	6.85	3.25	22.26
	Southwest Room	3.65	4.00	14.60
	Stairwell	1.00	4.50	4.50
	Total			163.40
Tiryns				
<i>Building T</i> (Maran 2000, 1)	Porch	4.60	5.94	27.32
	Megaron	15.22	5.94	90.41
	Rear Chamber^	2.75	5.94	16.33
	Total			134.06
<i>Raumkomplex Nordwestareal</i> (Kilian 1988a, fig. 9; Maran 2008, 66, fig. 55; Mühlenbruch 2013, 73-80)	R78a	2.75	2.00	5.50
	R78b	2.20	2.20	4.84
	R78c	5.20	3.60	18.72
	R2/02	4.30	3.15	13.54
	R78b "Hof"	5.00	5.00	25.00
	R224	3.50	3.85	13.47
	Kw14	4.80	3.00	14.40
	Total			95.47
<i>Bau VIa</i> (Mühlenbruch 2013, 57-61)	Small Room	1.20	1.20	1.44
	Corridor	3.80	1.50	5.70
	R116	2.95	4.60	13.57
	R103	4.60	6.00	27.60
	R107	3.00	4.30	12.90
	R105 (Hof?)	6.00+	8.60+	51.60+
	Total			112.81+
<i>Raumkomplex 106.106a.124</i> (Mühlenbruch 2013, 179-182)	R106	3.50	5.70	19.95
	R106a	3.90	5.70	22.23
	R124	2.60	4.40	11.44
	Total			53.62
<i>Raumkomplex 127a.127b.128.Hof 3</i> (Mühlenbruch 2013, 128-142; plan 51)	R127a	8.40	6.20	52.08
	R127b	3.40	8.30	28.22
	R128	4.45	1.20	5.34
	Hof 3*	13.00	12.00	60.00
	Total			145.64

<i>Megaron W and House O</i> (Gercke and Hiesel 1971, 11; Gercke et al. 1975, 10; plan 3)	Porch	3.00	7.00	21.00
	Megaron	11.00	7.00	77.00
	Rear Chamber	4.50	7.00	31.50
	House O	5.00	3.00	15.00
	Corridor	7.20	0.80	5.76
	Total			150.26
<i>19A: Northwest Lower Town: Kilian</i> (Mühlenbruch 2013, 226-235)	R313	1.50	1.10+	
	R308	4.60	1.70+	7.82+
	R307	5.20	4.75	27.40
	R305a	0.90+	2.80	2.52+
	R309	3.70	2.80	10.36
	R310a	1.60+	1.35+	2.16+
	R312	1.00+	0.40+	0.40+
	Total			50.66+
<i>19B: Northwest Lower Town: Kilian</i> (Mühlenbruch 2013, 234-243)	R302	4.60	1.70+	7.82+
	R304	2.15	4.00+	8.60+
	R305	0.90+	2.80	2.52+
	R306	5.20	4.75	27.40
	R310	1.60+	1.35+	2.16+
	R311	4.10	3.75+	15.37+
	R301(?)	2.70	2.90	7.83
	Total			71.70+
<i>2: Northwest Lower Town: Maran</i> (Maran 2016, 207, fig. 12.3)	R01/15	4.10	4.25	17.42
	H02/15	13.60	4.60	62.56
	Hinter-Hof	9.20	2.00	18.40
	R04/15	2.00	6.50+	13.00+
	R05/15	3.00	3.00+	9.00+
	R06/15	1.50	1.80+	2.70+
	R01/14	7.70	8.00	61.60
	R02/14	3.25	5.60	18.20
	R04/14	3.25	2.50	8.12
	Total			211.00+
<i>2: Northeast Lower Town</i> (Maran and Papadimitriou 2006, fig. 16)	R8/00	6.80+	7.00+	47.60+

	Court	8.10+	7.00+	56.70+
	Total			104.30+
<i>3: Northeast Lower Town</i> (Maran and Papadimitriou 2006, fig. 16)	R7/00	3.50	4.90+	17.15+
	R6/00	4.90+	5.00+	24.50+
	R1/00	2.80	1.40+	3.92+
	R2/00	5.50+	2.10+	11.55+
	Court	7.30	7.30+	53.29+
	Total			110.41+
Mycenae				
<i>Early 1: West Complex</i> (French 2011, CD 166; CD 178; CD 188)	XXXII	3.50	7.00	24.50
	XXXIII	3.50	7.00	24.50
	XXXIV	3.50	6.00	21.00
	Total			70.00
<i>Early 1: South Complex</i> (French 2011, CD 107; CD 110; CD 126; CD 134; CD 151)	XX	4.00+	2.50	10.00+
	XXI	4.00	2.20	8.80
	XXII	1.00+	2.20	2.20+
	XXIII	2.25	1.00	2.25
	XXIV	2.00	1.20	2.40
	XXV	3.00	2.50	7.50
	XXVI	1.00	3.00	3.00
	XXVIII	3.00	2.00	6.00
	Total			32.15
Asine				
<i>House G</i> (Frödin and Persson 1938, fig. 43)	XXIX	1.90	3.60	6.84
	XXX	4.00	6.60	26.40
	XXXI	2.00	3.75	7.50
	XXXII	7.00	4.60	32.20
	XXXIII	1.30	3.25	4.22
	XXXIV	1.30	2.80	3.64
	XXXV	4.00	4.80	19.20
	XXXVI	4.00	1.70	6.80
	Lightwell	0.75	0.75	0.56
	SE Stairwell	3.50	0.75	2.62
	Total			109.98
<i>House H</i> (Frödin and Persson 1938, fig. 43)	XXXVII	3.75	2.75	10.31

	XXXVIII	3.75	2.75+	10.31+
	XXIX	10.20+	4.80	48.96+
	Total			69.58+
<i>House I</i> (Frödin and Persson 1938, fig. 43)	XL	3.50+	2.30	8.05
	XLI	1.00	1.30	1.30
	XLII	1.30	4.20	5.46
	XLIII	2.00	2.60	5.20
	XLIV	2.00	3.00	6.00
	XLV	2.10	7.00	14.70
	XLVI	6.00	4.60	27.60
	XLVII	6.00	0.60	3.6
	XLVIII	4.60	9.00	41.40
	Total			113.31
Midea				
<i>Megaron Complex</i> (Walberg 2007, 78, table II-6; fig. 25; plan 4)	Room V	5.15	12.00	61.80
	Room X	2.10	3.25	6.82
	Room XI	1.90	2.40	4.56
	Room VIII	2.40	1.00	2.40
	Room XIV	2.20	2.20	4.84
	Room XXIII	1.45	3.50	5.07
	Room XX	3.50	2.20	7.70
	Courtyard	5.10	9.00+	45.90+
	Total			139.09+
Aigeira				
<i>Ib: Northwest Acropolis</i> (Alram-Stern 2003, 16, fig. 1)	West Storeroom	3.50	5.75	20.12
	East Storeroom	2.25	6.20	13.95
	Courtyard	6.50	7.25	47.12
	Northwest Room	2.75	2.75+	7.56+
	Northeast Room	2.75	1.00+	2.75+
	West Room	4.05	8.00	32.40
	Total			123.90+

*Denotes room that is not rectilinear; area differs from expected.

^Hypothetical room not identified by excavator.

In the case of trapezoidal rooms, an average distance has been used to calculate the area.

CONCLUSION

SEEKING ABUNDANCE IN THE POST-PALATIAL AEGEAN

“And what if we look at the opposite side of things, i.e. when a resource that had been scarce suddenly becomes abundant?...These can be game-changing occurrences, as some futurists have suggested, especially for people or companies that are able to turn scarcity into abundance. Here I would make the obvious observation, in terms of the Aegean and Eastern Mediterranean at the end of the second millennium and the beginning of the first millennium B.C.E., that when copper, tin and other resources suddenly become scarce, it was iron, which had been scarce or at least under-utilized in the Bronze Age, that began to be used in abundance, thus ushering in a whole new age at the beginning of the first millennium.”

(Cline 2015, 216)

Monica Smith has highlighted the role of abundance as a motivating factor for humans across time and place (2012). Although early cities, and many urban centers still today, are not physically healthy environments, they nevertheless attract new inhabitants on account of abundant opportunities, technologies, materials, and other advantages. In a recent article on international trade in the Eastern Mediterranean during the Late Bronze Age, Eric Cline (2015) questions whether the dynamics of abundance or scarcity played a driving role in exchange relationships. He argues that perceived scarcity of resources towards the end of the Late Bronze Age may have led to increased competition between states and ultimately contributed to the collapse of palatial states/polities in Greece, Turkey, and the Middle East.

In this study, I have suggested that abundance is a useful heuristic for understanding the motivation behind settlement patterns in the post-palatial Aegean. Although such patterns have been interpreted for the last two decades through the lens of world systems theory and the notion of core-periphery dynamics, a careful study of post-palatial settlement patterns undermines the idea that the core area of the palaces was

totally abandoned. In fact, many palatial centers continued to be inhabited into the Iron Age and, in the case of Tiryns, even thrived. The reduction in population at many other locations in the aftermath of palatial collapse can be directly attributed to a sharp decline in available resources and reduced demand for the types of specialized commodities that were produced by the work-groups recorded in the Linear B texts. We know from these texts that a significant population of individuals were dependent or semi-dependent on palatial rations. The collapse of the palatial system rendered these people free agents and they would have faced difficult choices in the aftermath. Although dramatic changes in the social order were possible, the evidence surveyed in this study suggests that the basic social order survived the palatial collapse, even if governing institutions did not, or only did so in a modified form. While it is conceivable that certain newly mobile groups of individuals turned to raiding and plundering in order to sustain themselves, in most of the communities surveyed the picture is one of incorporation into the civic body. The seemingly low status of at least some of these migrants may have found themselves in less than ideal circumstances whether by choice or coercion. Communal responses to economic hardships and foreign immigration may have ultimately led to the formation of a kind of caste system which simultaneously incorporated individuals seeking out economic opportunities, while also maintaining them as a distinct group.

In chapter one I presented two hypotheses concerning the post-palatial period of mainland Greece: the first, the 'Dark Ages' hypothesis, argues for a prolonged economic recession, a return to pastoralism, and a scarcity of resources for the production of bronze (e.g., copper and tin) caused by disruptions in international trade. The second, the abundance hypothesis, argues that the phenomenon of abundance, both natural and

man-made, would be manifested in large storage capacities, large-scale production, diversity (whether in diet, peoples, or ideas), widespread access to bronze, and imported objects. While the presence of curated ceramic vessels¹³¹ and widespread use of unfired ceramic storage containers known as kotselles support the ‘Dark Age’ hypothesis as outlined previously, most of the evidence points to abundance as a motivating factor in the post-palatial period. For instance, I have documented large storage facilities in most post-palatial residences, often well-above the level of subsistence. These storerooms contained diverse crops, including labor-intensive ones such as vines and olives. I also recorded a number of imports in post-palatial households, demonstrating a network of extra-Aegean contacts. Interestingly, a number of these imports are “low-value” commodities such as wall-brackets, mortars, and ceramic vessels. Previous elite status markers such as ivory, glass, and lapis lazuli are rare and mostly documented in the earliest stages of the post-palatial period. The only “high-value” import found in a settlement context was an iron knife from the Phase 2a North House at Xeropolis. That foreign merchants may even have settled in post-palatial communities is suggested at Tiryns by an inscription in Cypro-Minoan script. Indirect evidence for foreign peoples is also provided by a new class of handmade burnished ware and the appearance of new weaving technologies. Furthermore, contrary to the hypothesis of a bronze shortage, my study demonstrates that bronze finds are relatively common in all post-palatial

¹³¹ Much like the appearance of use wear on numerous classes of fine ware vessels, however, many repaired vessels can be dated to the earliest stages of the post-palatial period (Lis pers. comm.). This narrow chronological window suggests that there may in fact have been economic stresses (as one would expect) in the immediate aftermath of the collapse of the palace system, but stabilization and recovery appear to have followed relatively quickly.

households. At present, the evidence strongly supports the abundance hypothesis over the 'Dark Age' hypothesis.

As Eric Cline rightly points out, it is irrelevant whether resources are actually abundant or scarce in the past; the prime motivator of human actions is the *perception* of abundance or scarcity (Cline 2015, 215). The problem with perception is that, in lieu of textual documentation, this is almost impossible to recover archaeologically. A perceived scarcity in bronze, Cline notes, may have driven the spread and development of iron working technology during the post-palatial period and Early Iron Age. The hypothesis of a bronze shortage was first used by Snodgrass (1971) in order to explain technological change. But it is now clear that bronze never stopped circulating within the Eastern Mediterranean and so a "bronze shortage" is unlikely to have ever occurred in terms of supply and demand. But can perceived abundance and scarcity be proven as a more powerful motivator? One only needs to consider the widespread hoarding of bronze in the closing stages of the palatial period (Spyropoulos 1972b; Dakouri-Hild 2003, 170-172) in order to see that Cline's notion of perceived scarcity has great explanatory merit. Although a short lived phenomenon, hoarding may indicate that there was a perceived risk of a bronze shortage, one that did not necessarily materialize.

In the immediate aftermath of the collapse of the palatial system, public perception is likely to have played a major role in shaping the post-palatial landscape. Places perceived as safe may have had a short-term advantage, but after things settled down, areas perceived as rich in opportunity may have drawn individuals away from the palatial centers. Port cities may have become particularly successful due to their access to abundant resources, both terrestrial and marine, as well as new technologies. It seems no

coincidence that Tiryns shows abundant international connections, as well as the presence of foreign scripts in the Lower Citadel at this time. An abundance of cattle consumption at Tiryns may suggest a relatively high level of wealth, something the impressive architectural complexes also reflects. The complete publication of the finds from Tiryns is likely to clarify and enhance this picture, particularly the new excavations of the Lower Town.

S.C. Murray (2017, 276) argues:

The notion of post-Mycenaean Greece as a time of crisis, when much of life was consumed with a fight for survival, and during which institutions that would later become evident as the building blocks of historical Greece formed, seems to fit well with the evidence. Greeks living and dying in the twelfth and eleventh centuries were confronted with a world that bore little resemblance to the world of those living under palatial institutions in the fourteenth and thirteenth.

The present work contradicts such a hard line statement. Strong continuities are observed with the preceding palatial period, including a conscious attempt to connect with palatial elite culture; architecturally, artifactually, and institutionally. I have highlighted the manner in which post-palatial households invoked the architectural vocabulary of the preceding period as well as physically integrated remnants of former palatial structures into new constructions in highly visible and no doubt strategic ways. As Stockhammer (2009) points out, ceramic vessels also became a medium through which post-palatial elites connected with palatial culture as well, possibly going so far as to utilize vases removed from chamber tombs. Far from a world that bore little resemblance to the palatial period, the domestic evidence suggests that, outside the palace, life went on much as it had, with only the venues and scale of elite activities changing significantly. To the use of reclaimed vases, we might also add feasting. Despite the fetishization by scholars of feasting in the palatial period, comparatively little attention has been paid to it in post-

palatial communities. It is clear, however, that feasting playing an important role in the construction and maintenance of inter-household relationships both before and after collapse.

This study does not seek to deny that a collapse took place in Mycenaean Greece, but rather to understand its impact on those who continued to live in post-palatial communities. In contrast to the ‘Dark Age’ model promoted by the Cambridge school, a model informed by resilience theory and highlighting the role of abundance as a motivating concept better fits the archaeological evidence. Collapse caused the breakdown of some social institutions, opening up the opportunity for new ideas, new technologies, and new peoples to be integrated into local communities. But communities in and of themselves were highly resilient to the effects of collapse, continuing on with their lives. As Small (1998, 289) has observed: “The transition from the Late Bronze Age to later Greece was one that witnessed a quantitative change in the size of the oikos unit, as well as a qualitative transformation as the leading oikos lost their scribal recording systems. But all in all, the oikos remained. With its interest in its own estate and its need for retainers, the oikos spanned the collapse of the Late Bronze Age in the Greek Aegean.”

In chapter one of this study, I introduced a model for the post-palatial period of mainland Greece that relies on resilience theory and argued that abundance might have been a powerful motivator of post-palatial population movements. This model emphasizes the human actors and their choices, rather than focusing on the palace as the defining element of Mycenaean culture.

Chapter two discussed Boeotia in the palatial period. I highlighted the regional character of the palatial polity centered at Thebes and reviewed the archaeological

evidence for domestic settlements. Second order centers were identified archaeologically from the presence of extensive fortification walls, wall paintings, and tiled roofs. I argued that in Boeotia, outside the Kopaic Basin, fortification walls utilized a stone socle, but were largely constructed out of mudbrick, as were those in contemporary Anatolia and the Near East. This was likely a local response to available building materials, since the limestones of central Greece are either soft, crumbly Neogene limestone marls or very hard limestone that is difficult to quarry and shape.

In chapter three, I considered the political organization of Boeotia prior to the palatial collapse. I argued that Eleon was a second order center within the Theban polity, as indicated by a rank-size analysis of settlement patterns, combined with the textual evidence from Thebes. Orchomenos and the Kopaic basin were shown to be politically separate from the Theban polity and I presented evidence to suggest that the political structure of that polity is likely to have been significantly different. This may help to explain why the Kopaic Basin seems to have been affected particularly strongly by the palatial collapse. I argued that second order centers could be identified in the texts and proposed new identifications for *a₃-ki-a₂-ri-ja*, *ku-te-we-so*, and *o-ke-u-ri-jo*. I argued for the incorporation of western Euboea into the Theban polity due to reciprocal relationships including distribution of raw materials and receipt of finished goods.

Finally, in chapters four, five, and six, I presented the evidence for post-palatial households at sites across mainland Greece, including the recently excavated site of Eleon. Chapter four presented previously excavated households, from central and southern Greece. In chapter five, I presented an archaeological analysis of ancient Eleon in Boeotia, focusing on the remains and finds from the Northwest Complex. I argued that

architecturally, the Northwest Complex, adopted and adapted palatial architectural vocabulary. I highlighted its placement next to the Blue Stone Structure, an Early Mycenaean burial complex, was a way to connect with an indigenous line of local rulers, an arrangement paralleled at Mitrou. I argued that the household at Eleon was a well-appointed and, in all likelihood, an elite residence engaged in small-scale, but specialized production of textiles. Finally, in chapter six, I calculated the ground floor area of all post-palatial households, as well as their storage capacities, and examined the various craft activities located there. I argued that craft production from the palatial to post-palatial periods was primarily organized on the household level; however, this does not mean that the scale of production was solely for domestic consumption. Something like a caste system may explain the archaeological patterning of the excavation data, but this requires further research. At least three households show evidence for textile production on a scale that superseded household needs, and was likely intended for trade. Abundant storage in these same complexes could have provisioned the labor necessary for weaving.

At the beginning of this study, I posed the question: what was life like in the post-palatial period? As it turns out the answer to this question is more complicated than anticipated. First and foremost, the present study demonstrates that while collapse had a great impact on political structures at the end of the Late Bronze Age, its impact at the household level seems to have been considerably less important. My detailed analysis of post-palatial households has presented evidence for significant continuities in post-palatial architecture, craft production, and ideologies. I have also presented evidence for economic activities that demonstrate production of textiles, metal working, pottery production, and specialized food production (perhaps bakeries) occurring in domestic

work spaces. While some of these industries were widespread, others were concentrated in a few households, which seem to be elite residences. Despite this, access to the crafts that they produced does not appear to be restricted to elites, since bronzes were found in half of all households and ceramics in every household. The presence of large scale textile industries in particular, challenges the picture of a subsistence level economy, and undercuts current models of Kynos and Xeropolis as dens for raiders and pirates. The present work extends our understanding of post-palatial economies to the household, the basic unit of social groupings. I have argued that the household is a more reliable indicator of economic activity and that our limited understanding of post-palatial households in particular has contributed to the Dark Age hypothesis. The Dark Age model, however, can no longer stand, for as the present work has demonstrated the inhabitants of post-palatial communities engaged in most of the same economic activities which they had before. The main difference in post-palatial Greece was an increased social and geographical mobility of its inhabitants as they sought out new opportunities elsewhere. It is my contention that these inhabitants were drawn to a perceived abundance of opportunities, information, and wealth at sites such as Kynos, Xeropolis, and Tiryns. Eleon, as a small inland center, failed to attract new inhabitants, and within several generations the shift in networks unleashed by palatial collapse ultimately led to its abandonment.

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