

CHAPTER 49

LERNA

MARTHA HEATH WIENCKE

ANCIENT Lerna forms a low mound of some 12,000 sq. m. on the west shore of the Bay of Argos, beside an abundant spring. The inhabitants had easy access to good farmland, timber, and main routes north to Argos (10 km.) and south into Arcadia.

Excavation at the site was carried out in the 1950s by the American School of Classical Studies under the direction of John L. Caskey (Caskey 1954–1960), when some 20% of the mound was excavated. Most of the deposits belong to the Neolithic and Early and Middle Bronze Ages; the preserved finds are kept in the Archaeological Museum of Argos.

LERNA I AND II (NEOLITHIC)

The Neolithic occupation at Lerna left three-meter-deep deposits, of which only little could be excavated. Some 10% of the Neolithic ceramic material, most frequently the painted Urfirnis (Urf), was preserved for study by Karen D. Vitelli.

By comparison with the pottery from Franchthi, which Vitelli had classified earlier (Vitelli 1993–1999), it was clear that the major Neolithic occupation at Lerna belonged to the earlier part of the Middle Neolithic (MN) period, with very little later Neolithic. It is unclear whether the first Lerna settlers used only Early Neolithic pottery. The very earliest deposits at Lerna correspond to Franchthi “F Interph 1/2,” “the earliest transition to the MN” (Vitelli 2007, 128).

LERNA III (EARLY HELLADIC I–II)

After the Neolithic occupation, Lerna may have been abandoned for a time. A vigorous Early Helladic (EH) II people occupied Lerna for four or five hundred years; the evidence dates chiefly to the latter half of that period. Little more than 10% of the Lerna III deposits could be excavated (Wiencke 2000, 3). The material retained represents only a fraction of that recovered (Wiencke 2000, 315–16), but major deposits were preserved with little discard.

Although EH I inhabitants may have been resident in the first centuries after the end of the Neolithic, they left only a scattering of sherds, identified by comparison with the pottery of neighboring Tsoungiza and Talioti. Two important ceramic deposits in the earliest EH II (Early Phase A) level contained nearly all totally dark-painted fine pottery (“Urfirnis”), red or black, often well polished. No recognizable sauceboat sherds were present, but basins, early saucers, and ladles were recovered.

No constructions of Phase A could be identified. Deep areas of stony fill were found without habitational remains but containing both Neolithic and EH sherds in various percentages (Wiencke 2000, 29–33, Vitelli 2007, 135–37). These fills lie beneath the earliest walls and floors of EH II Phase B. The EH sherds recovered from the lowest “mixed fills” are clearly of an early type; many resemble the Early Phase A pottery, and some are of newer types.

The contents of these fills point to the original existence of a second, early habitation level (Late Phase A); it is here that sherds of the most characteristic EH II shape, the sauceboat, first occur, with the first light-painted pottery.

The first Phase B house walls and floors were found in widely scattered spots. The observable sequence of strata allowed for an arbitrary division of the material into three levels. No overall plan for the Phase B early and mid-occupation could be recovered, only the existence of small, usually rectangular houses, and largely dark-painted pottery, which underwent gradual changes.

In Late Phase B, an extensive, pebble-paved area with two built gutters for drainage lay beneath and south of the later Building BG. The direction of wall fragments beneath that building hint at its later orientation. Significant household deposits included early, dark-painted sauceboats (Wiencke 2000, P371–73) and other early vessels.

Many small bronze objects came from Late A through B contexts (Banks 1967, 15–80), though there was no evidence of actual bronze working. Obsidian cores, at this time and later, testify to knapping on the site, and unused blades suggest the manufacture and exchange of the imported obsidian (Hartenberger and Runnels 2001). Beans, peas, lentils, figs, and barley were available, as was wheat (emmer and einkorn; Hopf 1961, 1962) by Late B at least. Olive wood is attested in Middle B but not the pits (Hopf 1961, n70V; Wiencke 2000, 49). The increased variety of ceramic shapes, especially for storing and pouring of liquids, is notable and indicates some change in diet and social behavior. Sheep, goats, cattle, and pigs were all present; the donkey is identified in Early B (Gejvall 1969, 35–36). Animals may have been used for transport and plowing (Pullen 1992).

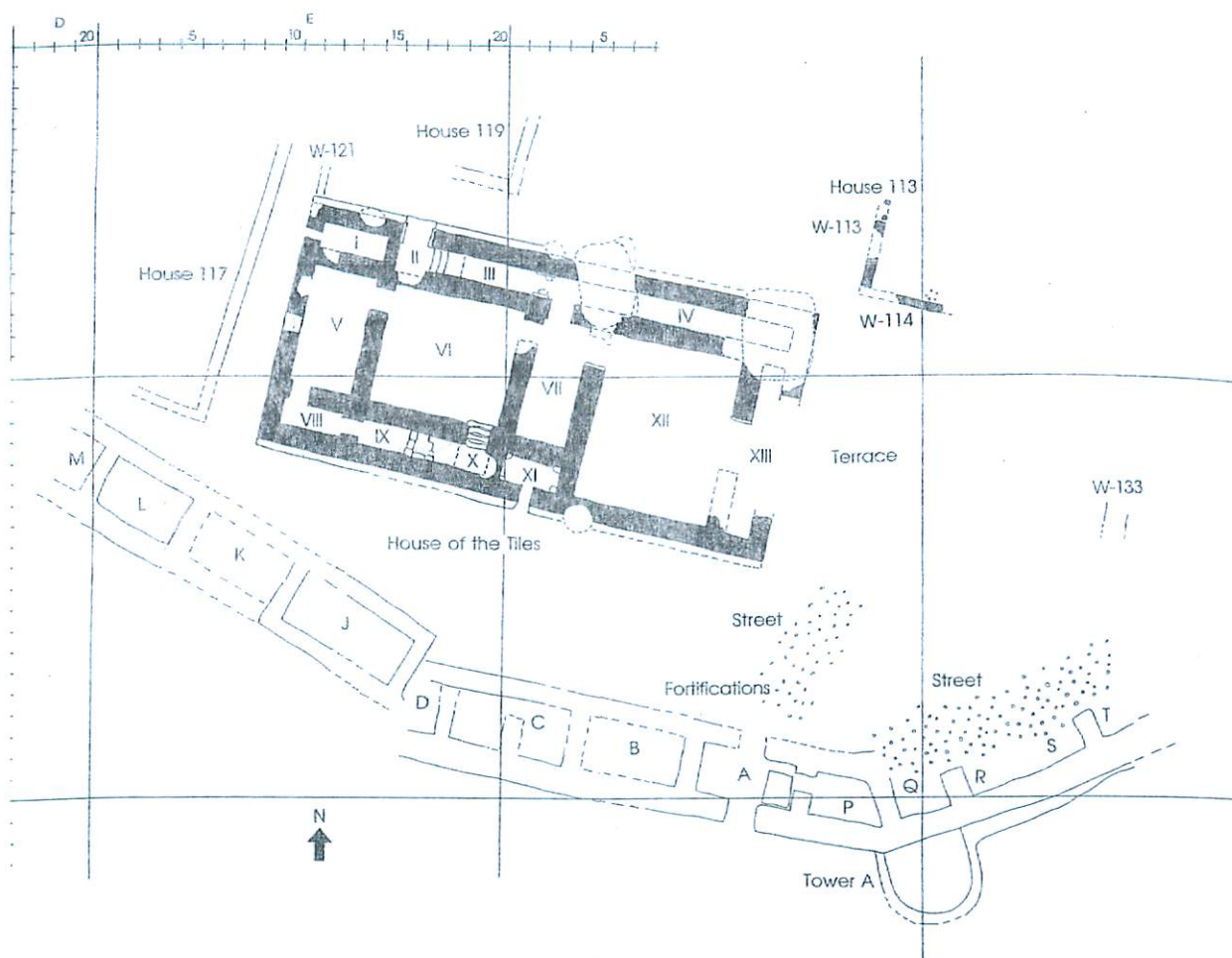


Figure 49.1. Site plan of Lerna (after *Lerna IV*, plan 8, courtesy of the Lerna Excavations Archive, ASCSA).

There is no sign of general destruction or abandonment between Phases III B and III C at Lerna. The pebbled area south of later Building BG remained partly open until the end of Lerna III, and vestiges of house walls indicate a sequence of construction throughout Phase C. The triple division of Phase III C is based on changes in the fortifications (enclosure walls).

In Early Phase C, the eastern end of the impressive, thick, double fortification wall and the round Tower B were constructed with an exterior broad flight of low stairs leading up to a lost gate. In Middle C, the double wall was extended westward, and a new Tower A, perhaps a second (West), were added; the stairway was abandoned, and a new gateway (Room A) was built (figure 49.1). This gate served as an approach to the large corridor house, Building BG, built at some early stage of Phase C. Building BG, which was poorly preserved, lay partly beneath the House of the Tiles and could be only partly excavated. It had many features of the later house: similar dimensions, heavy stone foundations, corridors along both long sides, and a series of large rooms down the center. The front vestibule was open and very deep. No evidence for doors could be found. A brick paving in one corridor may have

supported a stairway to the second floor. The roof had been covered with both terracotta tiles and masses of schist slabs (shale: Shriner 2007).

A westward extension of the fortification rooms (J–M) narrowed the habitation space of the site late in Phase C (Fig. 49.1). It was not connected to the earlier wall and seems never to have been properly finished.

The Phase C household pottery was abundant and markedly different from that of Phase B: a greater variety of shapes, many vessels only partly painted, much unpolished light paint, some extremely fine vessels, but many more unpainted pots. Technical researches (Shriner and Dorais 1999; Shriner and Murray 2001) identify a change in clay source for the pottery at about this time.

The House of the Tiles

Building BG underwent some changes (a terracotta baked hearth in one corridor was certainly not in situ) and stood for some time, but the house was finally demolished to make room for the House of the Tiles. This new House (figures 49.1, 49.2) was oriented to face east instead of south. It measured 25 meters in length and existed only for a brief time; its burnt ruins were partly preserved by the earth tumulus built over it. The mud brick walls still stood to over a meter high in places, and were often plastered in clay, even with fine lime plaster in important rooms.

The bottom clay and brick steps of two burnt stairways to the second floor remained, as did also marks of the wooden facings along certain doorways. The low pitched roof was covered with hundreds of fired clay tiles, coarser than earlier ones, and the eaves bore a border of schist (shale) slabs. Finds were few; the plastering appeared incomplete. It seems likely that the House had not been long occupied before it burned. Only one small storage room, XI, opening to the exterior, contained notable finds: many plain saucers, a few sauceboats, and many fragments of broken clay sealings, stamped when damp by some seventy different seals with mostly geometric designs. The clay had been fired hard in the destruction. The actual seals were of course no longer present.

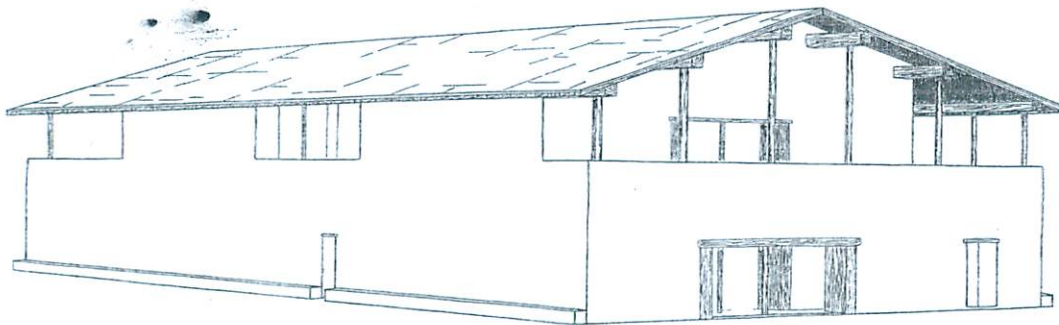


Figure 49.2. House of the Tiles (after *Lerna IV*, figure I.107a, courtesy of the Lerna Excavations Archive, ASCSA).

The use of seals in Early Bronze Age mainland Greece had hardly been recognized in the 1950s, although numerous ivory and bone seals were known from the Early Minoan (EM) tombs of Crete. A few seal impressions were discovered in Lerna Phase C household contexts (Wiencke 1975). More recently, discoveries of clay sealings in Geraki (Laconia) and in Petri near Nemea have reinforced the importance of seal use in the EH II (Korakou) culture (Weingarten 2000; Weingarten et al. 1999; Kostoula 2000; Renfrew 1972).

The purpose of these corridor houses and of other similar ones since identified in the Peloponnesus, Aegina, and Boeotia (Karagiorga 1971; Walter and Felten 1981; Felten 1986; Aravantinos 1986; Pullen 1986) has been much discussed, but it is clear that they were not private houses. The House of the Tiles is still the best preserved and one of the latest in date (Shaw 2008). The contemporary but circular Rundbau at Tiryns exhibits the same massive walls and tiled roof and almost certainly served as a massive granary (Kilian 1986; Nilsson 2004, 146–49), but no large storage vessels were found in the House of the Tiles.

The Lerna sealings had been applied, often to wooden peg closures, on boxes or doors, and a few were used on bags or baskets (Heath 1958; Wiencke 1975, 29). The many Type B fragments bore the impressions of only three individual pegs, which had been repeatedly sealed, according to E. Fiandra (Fiandra 1968, 392). The sealings indicate the presence of marked stores, provided by or dispensed to many individuals, and the saucers suggest entertainment for guests (Peperaki 2004, 222–26), who were perhaps seated on the clay benches along the sides of the House. The plan of the House allows highly controlled access to its various rooms at both levels and provided some spaces perhaps for large public groups, while others were more private.

There were other smaller structures surrounding the House of the Tiles, and part of the fortification walls, which were awaiting repair, may have been still standing at the time of the fire. The pots in Room XI (Phase D) are somewhat different from the latest Phase C ones. The sauceboats in particular bear some resemblance to sauceboats from the Weisses Haus at Kolonna, the corridor house most closely resembling that at Lerna (Berger 2003; Felten 1986).

After the House of the Tiles had burned, a low mound (18.75 m. in diameter) was constructed out of the clay and brick debris, directly over the remains of the walls. A circle of round stones was placed at the circumference of this tumulus, and the surface within the circle was covered with small stones (Wiencke 2000, 310). It is not clear who was responsible for this monument. Scholarly consensus favors the Lerna III inhabitants, who may have been marking the spot before their departure (Banks in press). The next settlers did not at first construct any houses within the circle; possibly the space was seen as sacred.

Tumuli in later times served as burial mounds, but the contemporary EH Pelopion tumulus at Olympia, like the one at Lerna, does not lie above a grave (Forsén 1992, 232–34). A newly discovered tumulus near the new museum at Thebes was built of mud brick over both a multiple grave and late EH II apsidal houses, and its surface was not disturbed by construction for many centuries (Aravantinos and Psaraki 2007).

Final Years of EH II Period

The last years of the EH II period present many puzzles. There is no clear evidence that Lerna was abandoned after the fire. Caskey in 1960 pointed to destruction at other sites besides Lerna as evidence for invasion from abroad (Caskey 1960, 1968). Forsén has demonstrated that these destructions were not all simultaneous or universal (Forsén 1992, 248–60).

There does seem to have been a widespread collapse of the common continuum of EH II culture across the Peloponnesus and beyond, however, and a shift to more localized patterns. Architecturally, the large corridor houses were no longer built, seals were no longer in use, and the forms of sauceboat and saucer were replaced by new shapes (Rutter 2001, 113; Maran 1998, 463). The shift, however, did not take place everywhere in the same way. At nearby Tiryns, in the *Übergangs* transitional period, much EH II pottery was still in use, together with some early EH III. Only in the next level, *Apsidenhorizont*, did some of the characteristic patterned dark-on-light pottery appear (Weisshaar 1981, 1982, 1983; Rutter 1995, 645–47).

Beyond the Peloponnesus, new ceramic shapes (Lefkandi I or *Kastri*) derived from Anatolia appeared at Thebes, in the late EH II Thebes B (Konsola 1981, 120), at Askitario and Raphina in Attica (Theochares 1952, figures 110, 12), and in Kolonna III on Aegina (Berger 2003). At Lerna and elsewhere in the Peloponnesus, however, the Lefkandi pottery was lacking during EH II.

LERNA IV (EARLY HELLADIC III)

The Lerna IV settlers brought in great changes. Three main phases of occupation have been recognized, the first (IV.1) a small settlement beginning with a large wattle-and-daub apsidal “Chieftain’s House” just outside the stone circle (Banks in press). A two-handled, marble drinking cup (rhyton?) was found nearby (Caskey 1956, 162–64, pl. 47 i, s). Other, more permanent apsidal houses (and some trapezoidal) of mud brick with stone foundations soon followed in a pattern that suggests a community directed by a headman. The settlement increased in size over the years. A reorganization and expansion of the village in IV.3, with exclusively apsidal houses in the tumulus area, coincided with a change in pottery. The older drinking vessels (Depas, ouzo cup) were replaced with new shapes (and customs), and there was an increase in both coarser pots and the use of the wheel (or *tournette*) for the gray ware, a forerunner of the MH Minyan (Rutter 1995, 23, 475). Potters continued to prefer the coarser clay source (metamorphic window: Shriner and Dorais 1999; Shriner and Murray 2001), which had been adopted in later Lerna III.

Bothroi, always common, increased in number in IV.3. Evidence for on-site casting of bronze and various tools showed the availability of arsenical copper, probably from Kythnos. Pottery was quite frequently imported, probably from the Corinthia, perhaps also from Aegina, the Megarid, and Boeotia (Rutter 1995, 736–49; Attas 1982; Attas, Fossey, and Yaffe 1987).

The population in Lerna IV was evidently a mixed one that likely included survivors of Lerna III. The pottery betrays some Anatolian influences; it has in fact a “highly heterogeneous” ancestry, perhaps the result of a stylistic fusion within central Greece (Rutter 1995, 649). The characteristic dark-on-light patterned ware is quite unlike that of Lerna III. The geographical extent of this culture cannot be traced precisely as yet, but it appears to have been lacking in Attica, Laconia, and Messenia (Rutter 2001, 122–23).

At Lerna, the settlement continued from EH III into Middle Helladic (Lerna V) without destruction or major changes.

LERNA V (MIDDLE HELLADIC) AND LERNA VI, VII (LATE HELLADIC)

Apsidal and rectangular houses continued to be built. Habitation was continuous throughout MH, and in some areas up to nine levels of rebuilding are seen. Metalworking took place on the site. Burials, often in stone cists by the middle of the period, became common and were sometimes grouped together as a cemetery within the settlement (Zerner in preparation; Angel 1971; Voutsaki et al. 2006). Tomb gifts, which were not always present, were simple and few.

The most telling discovery from MH Lerna, however, has been Carol Zerner’s analysis of the ceramic wares, which is based on the sequence of deposits from early MH I to the latest MH III and into LH I (Lerna V.1–V.3 and VI; Zerner 1988; Zerner, Betancourt, and Myer 1986). Zerner has identified some 40% of the total ceramic assemblage as imported wares. The other, local, Argive wares included the local Gray Minyan, a later yellow version (YM); the new Matt-Painted (MP) and Bichrome Matt-Painted; noncalcareous Dark Burnished wares; and coarse wares.

Of the imported wares, the commonest examples by far were of a volcanic (gold mica) fabric from Aegina of various finishes (MP, Dark Burnished, Red Slipped and Burnished, Plain, and Cooking ware) and produced in a wide range of shapes (Zerner 1993). This pottery has been found all over much of southeast Greece and seems to have reached Corinthia and Laconia by the end of the period. The distribution indicates a widely successful commercial enterprise based on Aegina, where Brophy and Shriner and team have identified the important clay source near Kolonna (Brophy, Shriner, et al. in preparation). Michael Lindblom sees the pre-firing potter’s marks, found on much Aegina pottery, as reflecting the economic needs of several family potting groups working together (Lindblom 2001, 41).

Other wares also reached Lerna from Kythera and the southern Peloponnesus (Lustrous Decorated), central Greece (the true wheel-made Gray Minyan), and the Cyclades and Crete. Middle Minoan pottery was now common in early MH Lerna, whether imported or made by resident Minoans. Little MH pottery reached Crete at first, although the wheel was introduced early in MM I (Rutter and Zerner 1984, 80n26).

This astonishing picture of human expansion greatly contrasts with the narrower contacts of Lerna IV and the wide, unified continuum of Lerna III (Rutter and Zerner 1984, 76).

The small MH site of Lerna, serving as a trading port for a wide area, grew prosperous. By the start of the LH period, it had acquired enough importance for persons of status to be buried there in two Shaft Graves dug into the site of the old House of the Tiles. These resemble the Shaft Graves of Mycenae in their stone grave chambers, but only a few adult bones and a pair of LH I cups remained of the original contents. The deep shafts, however, were filled with masses of shattered LH I pottery, more than half of it Aeginetan, as well as much early Mycenaean. From the presence of two LH III vessels in one shaft, it seems that the bodies were deliberately removed at that later date, and that the remains of the nearly one thousand pots, other objects, and animal bones were redeposited in the shafts with the earthen fill. Lindblom (2007) has concluded that the bulk of the pottery and the animal bones constitutes evidence for the feasting of a large company on the occasion of the original burials, commemorating among much else the importance of the Aeginetan presence at Lerna.

Early Mycenaean material at Lerna is otherwise confined to a few graves (LH I and II), two bothroi, and some mixed surface deposits. Later evidence at Lerna is largely lost. A few house remains and graves of LH III survived above MH deposits. Population had expanded by LH IIIA2, when Lerna had become part of the Mycenaean sphere (Wiencke 1998). There was a horse burial in LH IIIB (Wiencke 1998, 184–87; Reese 2008), but the site was probably abandoned by LH IIIC. Geometric graves found on the slopes of nearby Mount Pontinus, ancient wells, and other scattered finds (Erickson in preparation) indicate a modest classical occupation.

BIBLIOGRAPHY

- Angel, J. Lawrence. 1971. *Lerna II: The People*. Washington, D.C.: American School of Classical Studies at Athens and Smithsonian Institution Press.
- Aravantinos, Vassilios L. 1986. "The EH II Fortified Building at Thebes: Some Notes on Its Architecture." In *Early Helladic Architecture*, 57–63.
- , and Kyriaki Psaraki. 2007. "The Early Helladic Burial Mounds of Thebes." Abstract in *Helike IV: The Fourth International Conference on Ancient Helike and Aigialeia: The Early Helladic Peloponnesos; Aigion, September 1–3, 2007*, 13. Aigion: Helike Society.
- Attas, Michael. 1982. *Regional Ceramic Trade in Early Bronze Age Greece: Evidence from Neutron Activation Analysis of Early Helladic Pottery from Argolis and Korinthia*. PhD diss., McGill University.

- , John M. Fossey, and Leo Yaffe. 1987. "An Archaeometric Study of Early Bronze Age Pottery Production and Exchange in Argolis and Korinthia (Corinthia), Greece." *Journal of Field Archaeology* 14, 77–90.
- Banks, Elizabeth C. 1967. *The Early and Middle Helladic Small Objects from Lerna*. PhD diss., University of Cincinnati.
- . In press. *The Architecture and Stratigraphy of Lerna IV*.
- Berger, Lydia M. 2003. *Die frühhelladische II Keramik von Agina Kolonna und ihre Stellung im ägäischen Raum*. PhD diss., University of Salzburg.
- . 2007. "The Late Early Helladic II Pottery of Aigina Kolonna." Abstract in *Helike IV: The Fourth International Conference on Ancient Helike and Aigialeia: The Early Helladic Peloponnesos; Aigion, September 1–3, 2007*, 24. Aigion: Helike Society.
- Brophy, J., Christine Shriner, et al. In preparation. "A Method of Explanation for the Process of Cultural Change I: A Definition for Aeginetan Ware Based on Its Physical Properties."
- Caskey, John L. 1954. "Excavations at Lerna, 1952–1953." *Hesperia* 23: 3–30.
- . 1955. "Excavations at Lerna, 1954." *Hesperia* 24: 25–49.
- . 1956. "Excavations at Lerna, 1955." *Hesperia* 25: 147–73.
- . 1957. "Excavations at Lerna, 1956." *Hesperia* 26: 142–162.
- . 1958. "Excavations at Lerna, 1957." *Hesperia* 27: 125–44.
- . 1959. "Activities at Lerna, 1958–1959." *Hesperia* 28: 202–207.
- . 1960. "The Early Helladic Period in the Argolid." *Hesperia* 29: 285–303.
- . 1968. "Lerna in the Early Bronze Age." *AJA* 72: 313–16.
- Erickson, Brice. In preparation. "Post-Bronze Age Lerna."
- Felten, Florens. 1986. "Early Urban History and Architecture of Ancient Aegina." In *Early Helladic Architecture*, 21–28.
- Fiandra, Enrica. 1968. "A che cosa servivano le cretule di Festos?" In *Proceedings of the 2nd International Cretological Congress*, 383–97. Athens: University of Crete.
- Forsén, Jeannette. 1992. *The Twilight of the Early Helladics: A Study of the Disturbances in East-central and Southern Greece towards the End of the Early Bronze Age*. Jonsered, Sweden: Aström.
- Gejvall, Nils-Gustav. 1969. *Lerna I: The Fauna*. Princeton: American School of Classical Studies.
- Hägg, Robin, and Dora Konsola, eds. 1986. *Early Helladic Architecture*.
- Hartenberger, Britt, and Curtis Runnels. 2001. "The Organization of Flaked Stone Production at Bronze Age Lerna." *Hesperia* 70: 255–83.
- Heath, Martha C. 1958. "Early Helladic Clay Sealings from the House of the Tiles at Lerna." *Hesperia* 27: 81–121.
- Hopf, Maria. 1961. "Pflanzenfunde aus Lerna/Argolis." *Der Züchter* 31: 239–47.
- . 1962. "Nutzpflanzen vom lernäischen Golf." *JRGZM* 9: 1–19.
- Karagiorga, Theodora G. 1971. "Akovitika Kalamatas." *ArchDelt* 26:B: 126–29.
- Kilian, Klaus. 1986. "The Circular Building at Tiryns." In *Early Helladic Architecture*, 65–71.
- Konsola, Dora N. 1981. *Promykenaike Theba*. Ph.D. diss., University of Athens.
- Kostoula, Maria. 2000. "Die frühhelladischen Tonplomben mit Siegelabdrücken aus Petri bei Nemea." In *Minoisch-mykenische Glyptik*, 135–48.
- Lindblom, Michael. 2001. *Marks and Makers: Appearance, Distribution, and Function of Middle and Late Helladic Manufacturers' Marks on Aeginetan Pottery*. SIMA M128. Jonsered, Sweden: Aström.
- . 2007. "Early Mycenaean Mortuary Meals at Lerna VI with Special Emphasis on Their Aeginetan Components." In *MH Pottery*, 115–35.

- Maran, Joseph. 1998. *Kulturwandel auf dem griechischen Festland und den Kykladen im späten 3. Jahrtausend v. Chr.: Studien zu den kulturellen Verhältnissen in Südosteuropa und dem zentralen sowie östlichen Mittelmeerraum in der späten Kupfer- und frühen Bronzezeit*. Universitätsforschungen zur prähistorischen Archäologie 53. Bonn: Habelt.
- Nilsson, Monica. 2004. *A Civilization in the Making: A Contextual study of Early Bronze Age Corridor Buildings in the Aegean*. PhD diss., Gothenburg University.
- Peperaki, Olga. 2004. "The House of the Tiles at Lerna: Dimensions of 'Social Complexity.'" In *The Emergence of Civilization Revisited*, 214–31.
- Pullen, Daniel J. 1986. "A 'House of the Tiles' at Zygouries? The Function of Monumental Early Helladic Architecture." In *Early Helladic Architecture*, 79–84.
- . 1992. "Ox and Plow in the Early Bronze Age Aegean." *AJA* 96: 45–54.
- Reese, David. 2008. "Faunal Remains from Late Helladic Lerna (Argolid, Greece)." *Mediterranean Archaeology and Archaeometry* 8(1): 5–25.
- Renfrew, Colin. 1972. *The Emergence of Civilisation: The Cyclades and the Aegean in the Third Millennium B.C.* London: Methuen.
- Rutter, Jeremy B. 1995. *Lerna III: The Pottery of Lerna IV*. Princeton: American School of Classical Studies.
- . 2001. "The Prepalatial Bronze Age of the Southern and Central Greek Mainland." In *Aegean Prehistory*, 95–155.
- , and Carol Zerner. 1984. "Early Hellado-Minoan Contacts." In *Minoan Thalassocracy*, 75–83.
- Shaw, Joseph W. 2008. "Sequencing the EH II 'Corridor Houses.'" *BSA* 102: 137–51.
- Shriner, Christine M., and Michael J. Dorais. 1999. "A Comparative Electron Microprobe Study of Lerna III and IV Ceramics and Local Clay-rich Sediments." *Archaeometry* 41: 25–49.
- Shriner, Christine M., and Haydn H. Murray. 2001. "Explaining Sudden Ceramic Change at Early Helladic Lerna: A Technological Paradigm." In *Archaeology and Clays*, ed. Isabelle C. Druc, 1–16. *BAR-IS* 942. Oxford: Hedges.
- Shriner, Christine M., and Erika R. Elswick, Hannah L. Timm, Haydn H. Murray. 2007. "Clay Mineralogical Studies for Greek Bronze Age Roofing Technology." Paper for Conference of the Clay Minerals Society, June 5, 2007.
- Theocharas, Dimitris R. 1952. "Anaskaphe en Arapheni." *Prakt* (1955): 129–51.
- Vitelli, Karen D. 1993–1999. *Franchthi Neolithic Pottery*. Bloomington: Indiana University Press.
- . 2007. *Lerna V: The Neolithic Pottery from Lerna*. Princeton: American School of Classical Studies.
- Voutsaki, Sofia, Sevi Triantaphyllou, Anne Ingvarsson-Sundstrom, Kalliope Sarri, Michael Richards, Albert Nijboer, Sophia Kouidou-Andreou, Leda Kovatsi, Dimitra Nikou and Eleni Milka. 2006. "Project on the Middle Helladic Argolid: A Report on the 2006 Season, Section 1 Lerna." *Pharos* 14: 60–68.
- Walter, Hans, and Florens Felten. 1981. *Alt-Aigina III.1, Die vorgeschichtliche Stadt: Befestigungen, Häuser, Funde*. Mainz am Rhein: von Zabern.
- Weingarten, Judith. 2000. "EH II Sealings from Geraki in Lakonia: Evidence for Property, Textile Manufacturing, and Trade." In *Minoisch-mykenische Glyptik*, 317–28.
- , Joust H. Crowel, Mieke Prent, and Gillian Vogelsang-Eastwood. 1999. "Early Helladic Sealings from Geraki in Lakonia, Greece." *OJA* 18: 357–76.
- Weisshaar, Hans-Joachim. 1981. "Ausgrabungen in Tiryns 1978, 1979: Bericht zur frühhelladischen Keramik." *AA* 1981: 250–56.
- . 1982. "Ausgrabungen in Tiryns 1980: Bericht zur frühhelladischen Keramik." *AA* 1982: 440–66.

- . 1983. "Bericht zur frühhelladischen Keramik: Ausgrabungen in Tiryns 1981." *AA* 1983: 329–58.
- Wiencke, Martha H. 1975. "Lerna." In *CMS*, vol. 1, *Kleinere griechische Sammlungen, I*, ed. Ingo Pini, 23–32, 36–114. Berlin: Mann.
- . 1998. "Mycenaean Lerna." *Hesperia* 67: 125–214.
- . 2000. *Lerna IV: The Architecture, Stratification, and Pottery of Lerna III*. Princeton: American School of Classical Studies.
- Zerner, Carol. 1988. "Middle Helladic and Late Helladic I Pottery from Lerna: Part II, Shapes." *Hydra* 4: 1–10.
- . 1993. "New Perspectives on Trade in the Middle and Early Late Helladic Periods on the Mainland." In *Wace and Blegen*, 39–56.
- . In preparation. *Middle Helladic Pottery from Lerna*. Princeton: American School of Classical Studies.
- , Philip P. Betancourt, and George Myer. 1986. "Middle Helladic and Late Helladic I Pottery from Lerna." *Hydra* 2: 58–74.

CHAPTER 50

MYCENAE

ELIZABETH FRENCH

MYCENAE was inhabited for several millennia before the start of the Bronze Age and remained occupied, if not prosperous, for at least a millennium after its end. The evidence for the early occupation is sporadic and tantalizing but probably often unidentified.

The site lies on a rocky knoll between two hills in the northeast corner of the Argive plain some eight miles from the sea. The location allowed exploitation of both the pasture and grazing lands of the hills, the arable lands of the adjacent uplands, and the plain below. A convenient node of routes in all directions, it also became a network of built roads in the LBA. It is probable that the environment of the Bronze Age was similar to that of the earlier part of the 20th century AD, as it seems that the north and east sections of the Argolid suffered less than other areas from poor land management in the EBA, which caused major changes in the landscape.

Mycenae was identified through both legend and Homer at least until Roman times, with the walls and Lion Gate remaining visible. It had always been assumed that the Lion Gate was never lost, but a surprising lack of mention in travelers' accounts, even of the correct placement of the site on early maps, has led to the suggestion that it was only in 1700 that the Lion Gate was rediscovered during a search for stone by the Venetians (Lavery in French and Iakovidis 2003).

The Archaeological Society of Athens began work on the site in 1841 and has continued ever since. Following the death of George E. Mylonas in 1989, Spyros E. Iakovidis has been in charge. In 1876 Heinrich Schliemann excavated test trenches widely on the acropolis and discovered Grave Circle A. Christos Tsountas (Archaeological Society) worked from 1884 to 1902 and cleared almost the whole area of the citadel, as well as more than one hundred chamber tombs.

Alan J.B. Wace (on a concession granted to the British School at Athens by the Archaeological Society) worked at intervals from 1920 to 1955, variously on the tholos

and chamber tombs, the citadel, and structures outside the walls. His work on what we now know as the Cult Center was completed after his death. Its particular importance lies in the fact that this was the one area within the acropolis not touched by Schliemann or Tsountas, and it has thus given an opportunity to reassess the stratigraphic history of the site.

All recent interpretive work is based on these excavations. The extensive archival material concerning Mycenae, its discovery, and its remains can be utilized most effectively in conjunction with close study of the site itself; notable recent studies are Shelton (1993) on the chamber tombs and Tournavitou (2006) on the West House.

The first period of the Bronze Age, the Early Helladic, is attested by sherd evidence from the acropolis and several of the adjacent hills. This material appears to be largely from occupation, though occasional whole or restorable pots from near Grave Circle A may indicate that the lower West slope had already begun to be used for burials. The presence of a considerable amount of EH pottery in the fills on the very top of the citadel suggests that it might have been the site of a notable and noticeable building (Palace I), such as those known from Lerna and Tiryns.

How the various sites of the Argolid interact at this period is not clear and has not been investigated in depth. There are several small to medium-sized sites nearby, but the organizational structure cannot be determined on present evidence. The Middle Helladic period is widely documented over almost all of the site but, as previously, the evidence is largely from sherds, though now also from burials. Both types of evidence are currently under detailed study. The pottery is easily identified as it exhibits a complete change from that of the EBA, and gray burnished and matt-painted wares are particularly conspicuous. At present, pottery of the types of the transition from EH to MH, well known from Lerna, have not been identified, but this might be because the intrusive new styles were slow to penetrate to a site obviously flourishing in the EH III period.

Several walls from the deeper levels in later terraces are assigned to this period, and one structure has been excavated: a kitchen and storage area beside the later ascent to the summit from the Cult Center. It awaits full publication.

The most striking feature of the MH period is the clear growth of wealth apparent in the burial evidence of Grave Circle B. Here the series of pit graves, which gradually transform into full shaft graves and with an accompanying increase in both the number of interments and the number and quality of grave goods, documents this transformation. Manufacturing techniques in both metal and pottery develop to a high standard that will be retained throughout the LBA.

By the end of the period, pottery is being imported widely, mainly from the Cyclades, but there are also examples from northern Greece and types that are clearly imitations of Cretan wares, though actual Cretan pottery is very rare at Mycenae itself. This is in direct contrast to a site such as Lerna by the coast. It seems clear that during the later part of the period, Mycenae becomes one of the most important sites of the Argolid and that its leaders enjoy a clear degree of preeminence.

The Late Helladic period is divided into the usual canonical three divisions, which are copiously subdivided in terms of pottery development. These divisions

are not on the whole helpful in defining the architectural phases, though recently it has been decided that the time of the major destructions at the end of the Palace period in the Argolid should be termed in a manner coincident with the pottery terminology (French and Stockhammer 2009).

To overcome the terminological difficulties, it is becoming customary to use the terms coined for Crete (Early Palatial, Palatial, and Postpalatial) to designate the major developments. It is particularly important to understand both that the structures visible on the site today are not necessarily contemporary, that each area within and without the citadel has an independent structural history, and that, on the whole, they can be compared one with another only hypothetically.

By chance, or perhaps because of intensity of study, we can understand the site's structural history best from one of its least well-preserved areas: the so-called Palace. The history of the site is thus discussed in relation to the phases identified there.

The Early Palatial period is particularly interesting but has been covered in some depth in a very recent account (French and Shelton 2004). For this period we have evidence (pottery, wall paintings, and domestic debris) of an élite presence on the summit of the citadel (Palace II, plan: French 2002, figure 14), possibly demarcated by a surround wall, and widespread settlement in the surrounding area. It is also marked by the climax of the shaft grave era and the transition to tholos and chamber tomb cemeteries, most of which begin to be used at this time. The prosperity of this period is apparent in the number of tholos tombs built (six of the unique total of nine).

The Palatial period as a whole covered most of the 14th and 13th centuries BC. From Palace III, as well as a pottery deposit, there are now some residual walls that show a change of alignment of the major structure on the hilltop. Traces of settlement of this period have been widely found both on the acropolis (notably below the Ramp House) and outside (on the Atreus Ridge and in the Pezoulia area).

A single, perhaps *corvée*, workforce was likely employed, and when work on this "maison de chef" had been completed, the workers may then have been assigned to the construction of the Treasury of Atreus, which is by far the largest and most elaborate of the tholos tombs. The period is well represented among the chamber tombs, with many richly endowed examples, and both the quantity and the quality of imported material are particularly notable. This well accords with the strong evidence of overseas expansion of Mycenaean culture in this period.

Related to this expansion is one of the structures on the Pezoulia slope known as Petsas House. Though known from preliminary work in the 1950s, it is only since 2000 that further excavation has taken place. It appears to be a workshop complex for the storage and distribution of pottery. The earliest Linear B tablets not only from Mycenae but also from mainland Greece as a whole have been found here.

The pottery can be linked closely in style to that found at Tell el-Amarna in Egypt and on the Uluburun wreck. Wood samples have been recovered, and key dating evidence, which may give important cross-cultural links, should become available. Interestingly, one vessel found in the original excavation, a handsome pictorial krater with birds, is considered to be by the same hand as one exported to Enkomi on Cyprus.

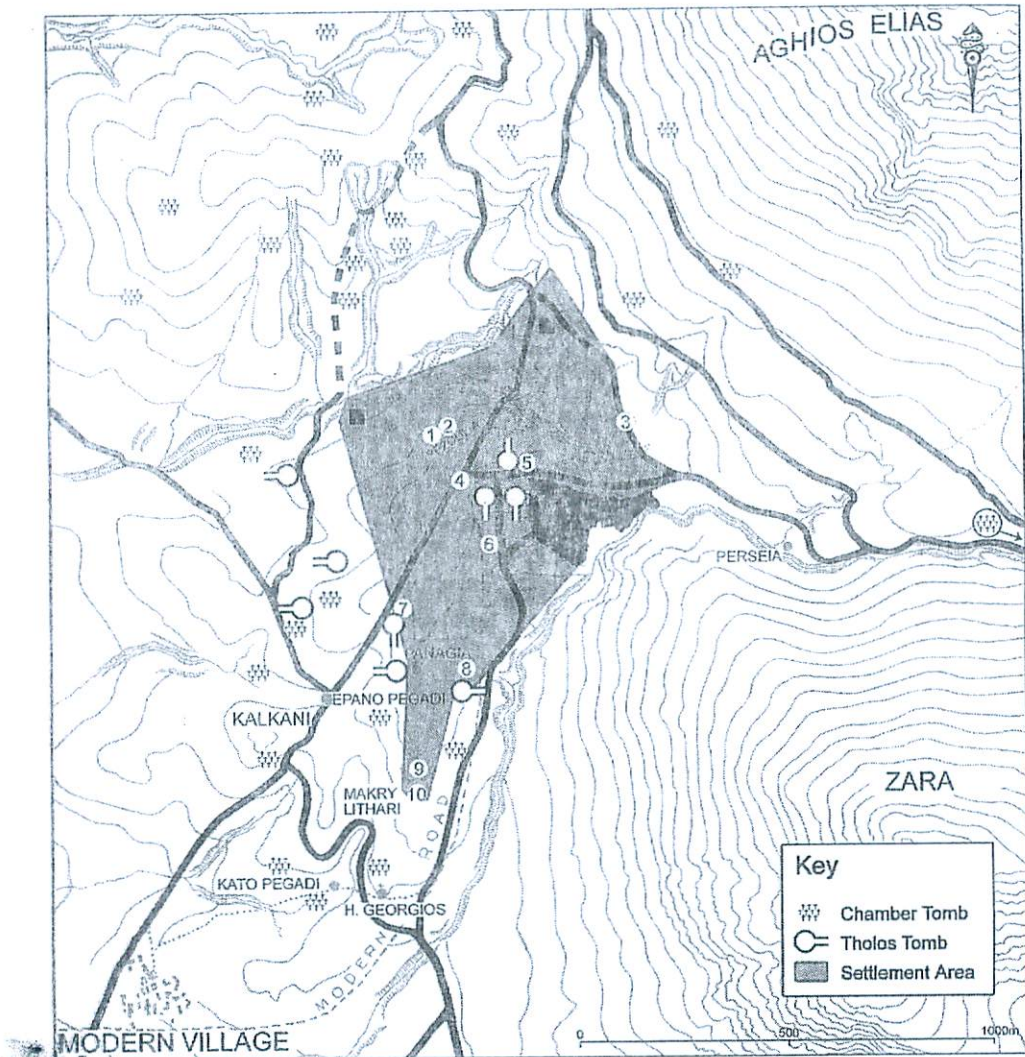


Figure 50.1. Greater Mycenae (copyright Mycenae Archive).

The first stage of the circuit wall of the acropolis was built at this time. The north wall remains today, but both the east and the west walls were altered later.

Then, using the south section as a terrace, the large and elaborate Palace IV was constructed at the very edge overlooking the gorge to the south. This was architecturally sophisticated, with decorative stone work and fresco-painted walls. The plan now shows clearly the division between public and private apartments, as well as workshops and storage areas. When this work was completed, the same workforce turned to the Tomb of Clytemnestra and then to widespread building outside the acropolis and some within.

Outside there was construction in the Pezoulia area, with occupation again in the Petsas House area (figure 50.1:2) and a new structure, possibly not completed, the Cyclopean Terrace Building (figure 50.1:1). To this period can be assigned the workshop complex, found during the construction of the new museum, known as the House of the Tripod Tomb (figure 50.1:5). It is probable that the Plakes House (figure 50.1:3) on the west slope of Aghios Elias also dates to this period.

Definitely built now are the large “houses” south of the Tomb of Clytemnestra, known as the Ivory Houses (figure 50.1:6). Farther south other less imposing houses, the Panagia Houses (figure 50.1:8), were built beside the Treasury of Atreus, and another was built at the far end of the Panagia ridge, the House of Lead (figure 50.1:9). These buildings, all well constructed, exhibit the two levels of elaboration devised to describe the nonpalatial structures of the Late Bronze Age and all varieties of plans, including hybrids among them. No evidence exists for the construction date of the other excavated areas outside the citadel (figure 50.1:4 small houses west of the modern parking lot; 1:7 Lisa’s House; and 1:10 the Makri Lithari structure). The part of the lower town lying beneath the outer Hellenistic settlement is currently under investigation.

At this time there was a well-organized road network that radiated from the citadel (French 2002, figure 3), as well as other public works such as flood control (French and Iakovidis 2003, 22).

On the acropolis itself, the large and imposing South House (figure 50.2:8) was built on the west slope outside the west wall, which at that time seems to have followed the contour higher up the slope (French 2002, figure 16). The first building of the Cult Center, Shrine Gamma (figure 50.2:11) is somewhat earlier, probably the first structure in the immediate area.

It is less clear exactly when the other main component structures of the Cult Center (figure 50.2:10, 14, 15) were built, but all antedate the west extension of the Citadel Wall. Indeed, it is likely that the alterations to the Room with the Fresco (figure 50.2:15), changing its entrance from east to northwest and adding the fresco from which it takes its name, also belong to the later part of this period. The Cult Center would at this time have been approached mainly from the west and would have been situated beside the approach to the citadel entrance.

The extension of the citadel to the west to enclose the Grave Circle and the Cult Center was a very considerable enterprise and must have commanded the city’s full resources. The plan included changing the approach, constructing a monumental gate (the Lion Gate, figure 50.2:1), and completely altering and refurbishing the Grave Circle (figure 50.2:3) at a higher level to make a singularly impressive sight to one entering the walled acropolis. At this point, the line of sight between the gate and the entrance to the Grave Circle was unimpeded as the Granary had not yet been built.

The old west wall of the citadel was demolished as part of this enterprise, and the whole area within the walls was covered with buildings. We know that the Northwest Quarter was built soon after the Citadel wall and probably the Southwest Quarter also. Note that this latter area is separated from the Cult Center by a built street and flight of stairs and did not form part of that complex. It seems likely that the old approach from the west was retained with a west gate at the end of that street, now hidden by Hellenistic Tower (figure 50.2:16). We await the full publication of the other building complexes within the citadel, but it is likely that they, too, in the form preserved today, were constructed sometime within this period.

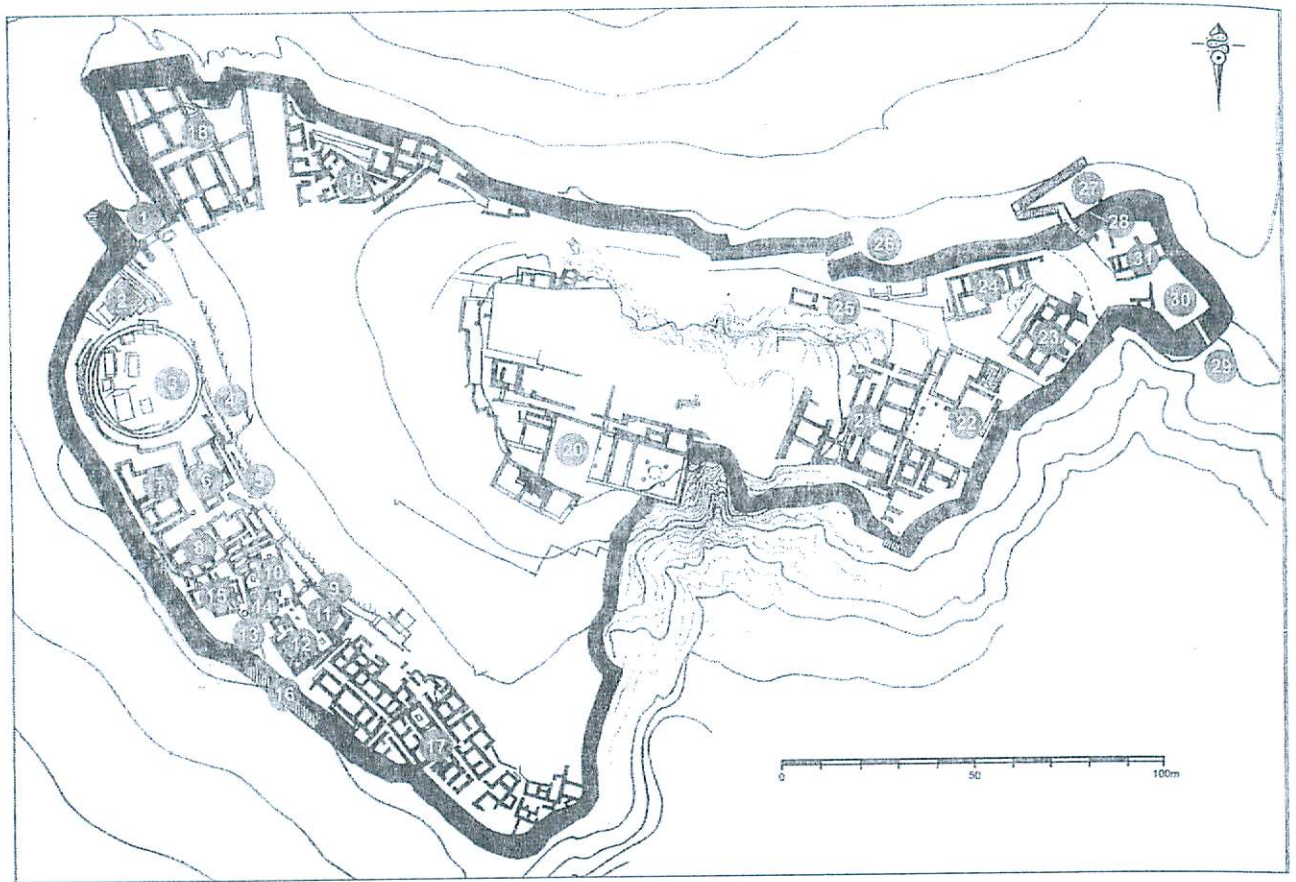


Figure 50.2. Plan of the Citadel at Mycenae: (1) Lion Gate; (2) Granary; (3) Grave Circle A; (4) Great Ramp; (5) Little Ramp; (6) Ramp House; (7) House of the Warrior Vase; (8) South House; (9) Processional Way; (10) Megaron; (11) Shrine Gamma; (12) Tsountas's House; (13) Central Court; (14) Temple; (15) Room with the Fresco; (16) Hellenistic Tower (possibly overlying the West Gate); (17) Southwest Quarter; (18) Northwest Quarter; (19) House M; (20) Palace; (21) Artisans' Quarter; (22) House of Columns; (23) House Delta; (24) House Gamma; (25) North Storerooms; (26) North or Postern Gate; (27) Underground Cistern; (28) North Sally Port; (29) South Sally Port; (30) House Alpha; (31) House Beta (copyright Mycenae Archive).

It is at this time that palatial authority becomes very apparent in the burial evidence (Fréché 2009). There seems to have been some kind of building control that delimited the areas where chamber tombs could be cut and sumptuary rules on grave goods. There are no longer any contemporary imported objects in the tombs except for rather ill-made scarabs, and the Mycenaean pottery offerings are much less ostentatious.

This period is clearly the acme of Mycenae itself. The end was brought about by a catastrophe of some kind, evidence for which has also been found at various other sites in the northeast Peloponnese. Occupation at some did not resume. This catastrophe is attributed to a major earthquake for several reasons.

There are no traces of fire at this point, but large deposits of pottery are found on the floors. In the Cult Center, a group of cult figures with pottery and a variety of small offerings are carefully placed both in a small room that was then walled up and sealed and also in an adjacent alcove. The cult fresco is covered with a layer of whitewash before the room in which it stood was carefully filled.

The start of the next period sees widespread repairs, but they are largely of poor quality. Notable are walls with gaps infilled in pisé and the quickly laid plaster flooring of the Palace Court instead of the cement. To this phase belongs Palace V, which is visible today. It is almost identical in plan with the previous one; there were new wall paintings, but overall the repairs were shoddy.

Though this period was very considerably shorter than the one before, it saw the final alterations to the west slope and to the citadel wall. The so-called Grand Staircase of the Palace and the elaborate ramp system to the east of the Cult Center belong to this phase and seem to be connected, making a processional way between the two areas.

Alteration was also undertaken on the citadel wall. In order to construct an eastern extension, the short cross wall at the east end of the circuit was almost totally demolished, and a new Postern or North gate (figure 50.2:26) was built. This allowed two measures that seem to have been occasioned by the need for security: a lookout post at the southeast corner (figure 50.2:29) and a covered approach (figure 50.2:27) from within the circuit to the water reservoir, to which water was brought from the Perseia spring to the west. The other Argive palace sites, as well as Athens, also took precautions at this time with the apparent aim of safeguarding a water supply, but it is not clear whether these measures are the result of an actual threat or merely fashion.

This period ends with a major destruction accompanied by widespread (but not universal) burning. It may once again have been occasioned by earthquake, but the circumstances differ considerably. On this occasion almost nothing is left on the floors—a factor that has made determining the exact pottery types in use at this historic point in time extremely difficult.

There is also some evidence that conditions following the destructions were made worse by heavy rains falling on the burnt debris of the limestone walls, turning them into a concreted mass that necessitated rebuilding at a higher level.

This destruction is assumed to be the end of the Palatial period, ending the bureaucratic centralized government with its elaborate records in the Linear B script. Some form of governance, however, remained, and in a period of extreme austerity, rebuilding was organized.

The standing walls, particularly the west citadel wall, were used as extremely heavy foundations, filled with the debris of the burnt destruction, for a series of new buildings. The Granary (figure 50.2:2) is one, but there is also a pair of elaborate complexes over the west area of the Cult Center and an apparently lesser building over the House of Columns (figure 50.2:22). There may be evidence for other reoccupation of this first Postpalatial phase in the buildings of the east slope, but it is not yet published.

It has been suggested that a rectangular structure built closely over the floor of the court of the Palace may have formed some kind of central focus. This idea is based on the recent identification of a rebuilt megaron at Tiryns. At Mycenae, the artificial terrace that supported the southeast corner of the megaron of the Palace probably fell into the ravine at the time of the great destruction, thus precluding the reuse of the megaron itself. Unfortunately, this structure over the court was removed in 1920 without being sufficiently recorded. If there was such reoccupation in the Palace area, this would form Palace VI.

The later phases of the Postpalatial period see very striking prosperity, at least in terms of pottery, but the architectural evidence is extremely meagre. The Granary, following some alteration, was fully in use in this period. From it and another building over the South House Annex, we know that the period ended again with heavy burning.

There is some scanty evidence for one further phase of the Bronze Age and for some occupation throughout the first millennium, before an artificial revival as a Hellenistic *kome*.

Mycenae's prime position in the hierarchy of the Late Bronze Age is shown in the levels of craftsmanship displayed in the many finds now housed in the National Museum in Athens and the Mycenae Museum on the site itself. The grave offerings from the shaft graves are unique, not least in quantity. Other items, preserved mainly from the earlier burials in the chamber tombs, are of high quality and diverse origin. An important development is the growing use of glass ornament.

Despite the apparent sumptuary regulation of the Palatial period itself, we may note an intriguing group of artifacts from the House of Shields, consisting of locally made stone bowls, faience vessels that show the influences of a mixture of Near Eastern cultures, and the small-scale carved ivories that have become a hallmark. Several show the same stylistic features as the large-scale lion relief from the Lion Gate itself, one of the earliest examples of such monumental sculpture.

Trade can be assessed only by the materials that are preserved; imports seem to have been mainly raw materials that were often then reexported as value-added products or the invisibles. Exports, probably mainly high-value invisibles, can be traced by the distinctive pottery that served as containers or merely space-filling accompaniments. By the Palatial period, this pottery was very much a mass production of high quality. Through scientific analysis (largely Neutron Activation Analysis), we can test the provenance of this export pottery. Most interestingly, the Argolid area divides into a northern section centered on Mycenae and a southern one centered on Tiryns.

The palace archives of Mycenae have not been found, but tablets inscribed in the Linear B script have been discovered in several of the so-called Houses (French 2002, figure 61), probably indicating their commercial and administrative activities. The tablets are preserved in buildings destroyed in both the late 14th-century-BC destruction and that of the mid-13th century. Only one inscribed stirrup jar comes from a context at present known definitely to be later than this.

BIBLIOGRAPHY

- French, Elizabeth B. 2002. *Mycenae, Agamemnon's Capital: The Site in its Setting*. Stroud: Tempus Publishing.
- . 2009. "Town Planning in Palatial Mycenae." In *Inside the City in the Greek World: Studies of Urbanism from the Bronze Age to the Hellenistic Period*, ed. Sara S. Owen and Laura J. Preston. Oxford: Oxbow, 55–61.

- , and Spyros E. Iakovidis, (with contributions by Anton Jansen, John Lavery and Kim S. Shelton). 2003. *Archaeological Atlas of Mycenae*. Athens: Archaeological Society of Athens.
- French, Elizabeth B., and Kim S. Shelton. 2004. "Early Palatial Mycenae." In *Autochthon*, 175–84.
- French, Elizabeth B., and Philipp Stockhammer. 2009. "Mycenae and Tiryns: The Pottery of the Second Half of the 13th Century BC: Contexts and Definitions." *BSA* 104: 173–230.
- Shelton, Kim S. 1993. "Tsountas' Chamber Tombs at Mycenae." *Αρχαιολογική Εφημερίς* 1993: 187–210.
- Tournavitou, Iphiyenia. 2006. "A Mycenaean Building Reconsidered: The Case of the West House at Mycenae." *BSA* 101: 217–67.

CHAPTER 51

PYLOS

JACK L. DAVIS

THE discovery of Bronze Age Pylos followed many frustrating efforts to locate the home of Homer's hero, Nestor. The quest had occupied scholars and travelers since antiquity (McDonald and Thomas 1990).

Pausanias, the Roman author of a travel guide to Greece, identified a cave on the slopes of the medieval acropolis of Navarino as the place where Nestor and his father penned their cattle. A millennium and a half later, in 1829, soon after Greece won its independence from the Ottoman Turks, members of the great French cultural mission, the *Expédition scientifique de Morée*, sought Nestor's palace not far away, near a village called Pyla. In the 1880s Heinrich Schliemann dug in the medieval fortress at Navarino, looking for prehistoric remains comparable to those that he had already investigated at Mycenae, home of King Agamemnon. Others searched much farther afield, even many kilometers farther north, in Elis, in vain attempts to discover the elusive Palace of Nestor. Both in ancient and modern times, the location to which the place name Pylos was attached shifted.

Then, at the beginning of the 20th century, a Greek schoolteacher found squared limestone blocks associated with Mycenaean pottery of the 13th century BC in an olive grove on a knoll on the spine of a ridge called Englianos, overlooking the Bay of Navarino (figure 51.1; Davis 2008). Following the ridge east leads a traveler ultimately to the valley of the Pamisos River near the modern city of Kalamata. The finds were reported to the Greek Ministry of Education and came to the attention of Konstantinos Kourouniotis, director of the National Museum of Greece. Kourouniotis, in turn, discussed them with his friend Carl W. Blegen of the University of Cincinnati. In 1929 a joint excavation was proposed, but Blegen would soon become preoccupied with directing an expedition to Troy, and the collaboration did not materialize until 1939.

On the very first day of excavation at Ano Englianos, Blegen and his colleagues, including William A. McDonald (who would, in the 1960s, direct the Minnesota

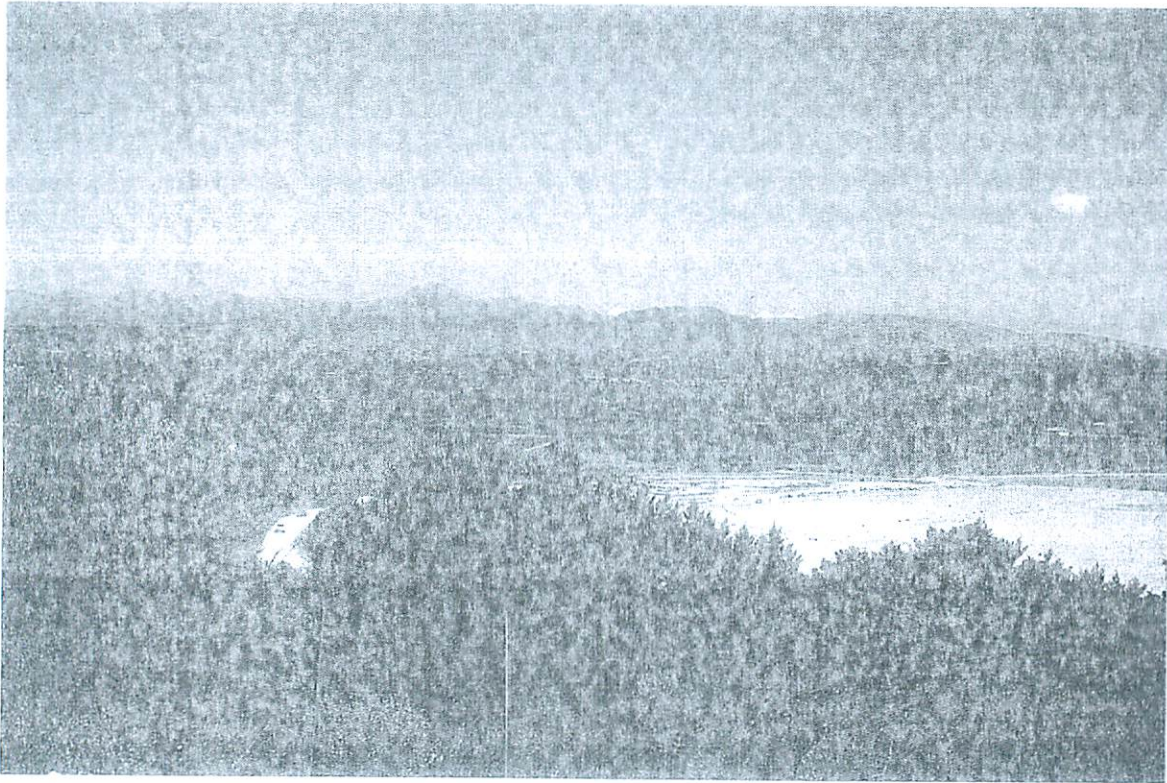


Figure 51.1. Englianos Ridge and the Palace of Nestor from the Bay of Navarino (courtesy of the Department of Classics, University of Cincinnati).

Messenian Expedition), exposed part of the archives of a Mycenaean palace of ca. 1180 BC and uncovered the first substantial cache of clay tablets with texts written in the Linear B script ever found on the Greek mainland. The script was, of course, already known, principally from Sir Arthur Evans's excavations at the Palace of Minos at Knossos in central Crete.

Transcriptions of about a thousand texts were circulated among researchers and, by 1952, had made possible the decipherment of Linear B by Michael Ventris, an English architect (Bendall 2003a). The complex social and economic system reflected in these documents was headed by a wanax (king), who organized some aspects of agricultural and industrial production within an area of about two thousand square kilometers in the southwestern Peloponnese. Certain resources were allocated for the benefit of designated elite, "collectors," and other resources were taxed directly for the benefit of the palatial administration. Feasts that involved sacrifices are recorded, as are offerings to the gods, many of them the same as those worshipped in historical Greece (e.g., Zeus, Poseidon, Hera, Ares, and Dionysos).

The king supported a workforce that comprised various kinds of dependent labor, among them slaves; he appointed officials, organized feasts, and in general played a major role in religious affairs (Bennet 2007a; Shelmerdine 2007, 2008). The kingdom was divided into Hither and Further Provinces—the latter probably in the valley of Kalamata, the former around the palace in the west. Within the two provinces were a total of sixteen or seventeen districts, each headed by a governor and a vice governor who reported to the center at Pylos.

All of the clay documents date to the final year of the palace, and none were baked on purpose. These were not intended to be part of a permanent archive. There are no legal, literary, or diplomatic texts among the surviving documents; even letters are lacking. Any such documents that would have retained significance beyond the current year may have been written on a perishable material (e.g., parchment or papyrus), which would have been long ago destroyed by the fires that ironically preserved their clay counterparts. In any case, only a few dozen scribal hands have been identified, and it is clear that literacy was restricted to a small segment of the population.

The palatial buildings and archives discovered by Blegen on that first day of excavation were finally and definitively destroyed soon after the start of the 12th century, probably ca. 1180 BC, in a fearsome conflagration. This, of course, is the traditional date of the Trojan War.

After WW II, Blegen vigorously pursued his investigations in partnership with Marion Rawson, a Cincinnati architect. Blegen and Rawson's excavations between 1952 and 1971, complemented by surface investigations in 1992–1994, also conducted under the auspices of the University of Cincinnati, documented a long history of settlement—one reaching back a millennium or more before the palace was built in a definitive and final form.

Their authoritative three-volume publication of the results of their excavations focuses on the palace of the 13th century BC and its contents and on associated cemeteries (Blegen and Rawson 1966; Lang 1969; Blegen et al. 1971). Recent reexamination of the unpublished finds from their excavations now allows much more to be said about the development of settlement on the Englianos Ridge, as well as the contacts between those who lived there and the larger Aegean world, while a definitive publication of the Linear B documents will soon appear (Bennett et al. in preparation).

The earliest finds are as yet unassociated with architecture. Fragments of pottery of the Early Helladic II period (ca. 2600 BC), including bases of small vases pierced and reused as spindle whorls have been found mixed in deposits of later date.

The first extensive remains of settlement seem to date to the time of the transition between the Early and Middle Bronze Age, not long after 2000 BC. These have been most thoroughly documented in a small excavation undertaken by Lord William Taylour (well known as the investigator of the Cult Center at Mycenae). Taylour uncovered parts of two superimposed apsidal buildings (Stocker 2003). It is now clear that houses of this same phase existed elsewhere on the Englianos Ridge, even under the later palace buildings, and it seems most probable that several separate but related hamlets coexisted.

Remains of the developed Middle Helladic period have been preserved in almost every place where excavations reached deeply. These, together with surface investigations, make it clear that even by the start of the Late Bronze Age the settlement at Englianos was quite large (Stocker and Davis in press).

Like those at sites in the Argolid such as Lerna, ceramics of Minoan Crete reached the Englianos Ridge—actual imports and imitations, at least by the time that the

first palaces were established at Knossos. By the beginning of the Late Bronze Age, Cretan influence was extensive. One of the most substantial Minoan contributions was to the architecture of the settlement, where so-called ashlar masonry was used for the first time: Squared blocks of carved limestone were laid in courses, probably to adorn façades of the most significant structures of the community. Ashlar masonry was also employed about the same time in the façade of a tholos (beehive-shaped) tomb at the site of Peristeria, an hour's drive to the north of the Palace of Nestor, where two blocks are incised with mason's marks of a type appearing at the Palace of Minos at Knossos. The style of stonework has a very old history in Crete.

From ca. 1600 BC, there is evidence of intense and continuous building (Nelson 2001). Plaster floors, cut-stone column bases, and walls of orthostate construction appear, and, by 1500 BC, two or three monumental buildings had been erected on the acropolis—all with ashlar façades. The largest, Building A, on the southwestern brow of the acropolis had a massive stone façade. Building B and Building C were situated to the northeast, in the position of the later Main Building of the Palace of Nestor; it is unclear whether they were independent structures or wings of the same complex. Space between the three buildings may have formed one large open court, in a manner reminiscent of the Minoan palaces.

This older "palace" is poorly preserved, and it is not possible to say much about the activities that were conducted in it. If, as seems virtually certain, these anticipated the administrative functions of the later Palace of Nestor, there are no signs yet of a literate bureaucracy. Indeed, the earliest conclusive evidence for documents written in the Linear B script consists of the clay tablets retrieved from the debris of the Archives room, from the palace's final destruction. The Linear B script is itself, however, a legacy of contact between Crete and the Greek mainland and was in use at Mycenae as early as the 14th century BC and at Knossos in Crete before that.

In the period of the Shaft Graves at Mycenae (17th to 15th century BC), western Messenia witnessed a remarkable explosion in the construction of tholos tombs. During the Middle Helladic period, low circular mounds of earth (tumuli) had frequently been employed for tombs. A central grave, whether pit, stone cist, or box, was set in such a mound, and earth and stones were then heaped over it, with additional burials later inserted around its circumference. In at least one instance, a body was deposited in a large storage jar or pithos, positioned in the tumulus so that the mouth of the jar faced outside. Its rim was framed by three stone slabs, arranged as if to form a post-and-lintel doorway leading into the tomb. It has been suggested that mounds with burials of this sort inspired the genesis of the tholos tomb.

The first true tholos tomb that survives intact in Messenia is unprepossessing and dates to the final phase of the Middle Helladic period (Lolos 2008). It lies only a few kilometers from the Palace of Nestor, near the village of Koryphasion (formerly Osmanaga), and was dug not into the side of a hill but into dead-flat ground. The walls of the tomb are built of small, roughly coursed stones rather than the more impressive ashlar employed in some tholos tombs of the Early Mycenaean period. By the end of the 15th century in western Messenia, only those tombs associated with the Palace of Nestor were regularly in use. It is likely that their neglect elsewhere in the

region reflects the rise to political ascendancy of the Palace of Nestor and a general acceptance that the right to be buried in such a tomb was the prerogative of its elite (Bennet 2007b).

In the 16th and 15th century, three tholos tombs were built on the Englianos Ridge: one, called Tholos IV by Blegen and Rawson, was excavated into the side of a low hill immediately northeast of the visitors' parking lot. The dromos (passageway) leading into it appears to have been deliberately aligned on a monumental gateway through the fortification wall that surrounded the acropolis in the Early Mycenaean period. One can easily imagine that it was placed here to serve as a visible reminder, when opened to receive a new burial, of the continuity of the power of the dynasty that held sway at Pylos. Equidistant (ca. 200 m.) to the southwest, Lord William Taylour excavated a "Grave Circle," also of the Early Mycenaean period but slightly earlier, most probably the eroded remains of another tholos tomb. Two kilometers farther toward the sea Tholos III was found, the so-called Kato Englianos tomb. These graves continued to be used throughout much of the Late Bronze Age.

Around 1400 BC, the buildings on the Englianos Ridge burned, occasioning the construction of a new complex. This final Palace of Nestor consisted of a Main Building, Southwestern Building, Northeastern Building, and Wine Magazine—structures that stood until the destruction of the site, ca. 1180 BC. The walls of the Main Building and the Southwestern Building were extensively decorated with wall paintings applied in tempera rather than true fresco technique (Brecoulaki et al. 2008).

The Main Building, as its name implies, was central to this final complex, the best-preserved and most fully excavated palace of 13th century BC Greece. From the existence of staircases, it can be deduced that the palace had an upper floor, although little of it is preserved other than fallen plaster. The Main Building was rectangular in plan, unlike the structures that preceded it. Its central rooms were the most elaborately decorated parts of the entire palatial complex and consisted of a series of axially arranged spaces oriented northwest-southeast: a Propylon with access to the Archives; a Court; and three rooms of a Megaron, culminating in a Throne Room for the wanax (figure 51.2).

It is likely that those traveling to the palace from the coast followed the floor of the valley bordering the Englianos Ridge on the north, then ascended as they approached the palace. Access to the Main Building was secure. Someone entering for the first time would have been impressed by the decorative program: first, in the Propylon, a life-sized procession of tribute bearers, then smaller figures of men, women, and animals, and architectural façades. Smaller than life-size men carrying objects decorated the walls of the Vestibule of the Megaron.

The decorative program of the Throne Room itself is only partly restored, but it certainly emphasized the role of the wanax and his significance. In the center of the room, surrounded by four fluted columns, was a large plastered hearth, its rim painted with a "flame" pattern. The columns seem to have supported a clerestory, through which smoke from the hearth vented to the sky. The floor of the room was plastered and divided into a rough checkerboard, all squares of which, except one, were decorated with geometric motifs. The exception, painted with an octopus, was

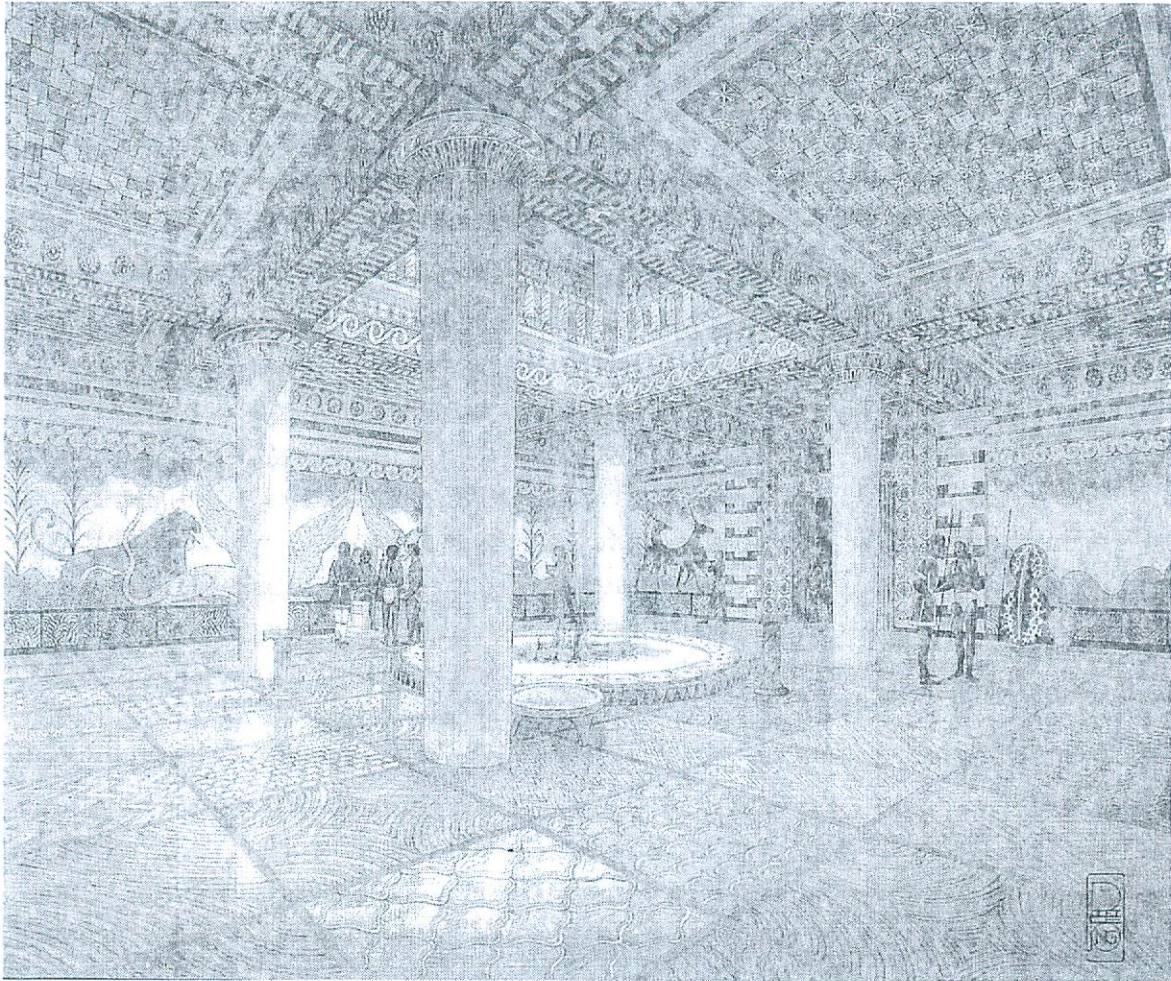


Figure 51.2. Throne Room of the Palace of Nestor. Watercolor reconstruction by Piet de Jong, digitally restored by Craig Mauzy (courtesy of the Department of Classics, University of Cincinnati).

set in front of a low, plastered platform that almost certainly supported a wooden throne. To the left, one shallow basin in the floor was connected to a second by a shallow channel; liquid offerings or libations were likely poured into it. As at the Palace of Minos at Knossos, the king (whether in a secular capacity or that of a high religious official), when seated on his throne was flanked by lions and griffins, symbols of his majesty and power. Elsewhere in the room were scenes of men drinking, presumably at feasts, and of a lyre-playing bard seated on multicolored rocks, singing epic tales to diners (Bennet 2007c).

Other rooms of the palace served storage, production, or administrative functions. To the left of the entrance porch, a two-room Archives complex held ca. 80% of all of the Linear B documents found by Blegen and Rawson's team. These had been stored in baskets and other containers in the innermost of the two rooms; scribes wrote the documents in the other.

Much of the remainder of the palatial complex was devoted to storage or craft production. Pantries in the Main Building were full of pottery for consumption of food and drink, most of it unused at the time the palace was destroyed. Large storage

jars, built into plastered benches in magazines behind the Throne Room, were filled with oil. In a freestanding structure immediately north of the Main Building was the Wine Magazine, with several dozen large storage jars. Lumps of clay, stamped with seal impressions, lay on the floor, several of them inscribed with the Linear B sign for wine. East of the Main Building, the Northeastern Building housed a shrine, perhaps dedicated to a Mistress of Horses, which Blegen and Rawson believed to be associated with a workshop partly devoted to chariot repairs. It may, however, have been a "clearing house for goods entering the palatial complex as a whole" (Bendall 2003b).

When the Main Building was newly erected, one secondary entrance led through a shallow porch in its northeast ashlar façade to a small room where a bathtub had been set into a plastered bench. Nearby, a second entrance from the outside led to a majestic complex with a megaron and central hearth similar to that of the Throne Room. Griffins and lions or lionesses adorned its walls, and a small adjacent room had a plastered floor with painted dolphins and octopuses. It is clear that these parts of the Main Building had once been of significance, but that, in the palace's final years, the secondary entrances were blocked by the construction of two courtyards—one perhaps an industrial area for the production of perfumed oils (Shelmerdine 1985).

Although the Palace of Nestor is the most fully documented of the Mycenaean palaces, much about its operation remains poorly understood. Southwest of the Main Building and parallel to it is another extensive complex of rooms. Why does this Southwestern Building contain a megaron hall (Bennet and Davis 1999)? Some scholars have imagined that it was the seat of the *lawagetas* ("leader/assembler of the people"), an official whose title suggests he may have led the kingdom in war. The wall paintings found in Hall 64, adjacent to the Megaron, do project a martial aspect. On its northeast wall, warriors clad in boars' tusk helmets and armor struggle with barbarians clothed in animal skins. A frieze of three warships in procession adorned the northwest wall.

The scenes in Hall 64 would have impressed those gathered in the broad courtyard before it to the southeast. Here it is likely that the wanax's subjects gathered to feast at his expense; they would have been supplied with drinking cups and bowls from the pantries of the palace complex. Documents suggest, in fact, that the provision of food and drink for feasts was a significant concern of the palace authorities (Wright 2004). Cattle, sheep, and pigs were inventoried for such purposes. A large heap of thigh bones and lower jawbones from at least ten head of cattle were, in fact, found gathered on the floor in the Archives, together with twice as many miniature drinking cups (Isaakidou et al. 2002; Stocker and Davis 2004). The bones, parts of the carcass typically offered to the gods, were all burned to a high temperature, probably as an offering. The meat from the sacrifice was presumably distributed to those in attendance at the feast.

The palace was well equipped to support feasting, and it is likely that both diners and drinkers would have partaken of nourishment in various parts of it, too, grouped according to their position in the palatial social hierarchy. Those of the highest status, including the king, would on some occasions have dined in the Throne Room itself (Bendall 2004).

The economic and political domination of the Palace of Nestor is reflected in the fortunes of the regions around it. Near the seacoast, the course of the river

bordering the Englianos Ridge on the northwest appears to have been diverted, and an artificial basin constructed near its mouth—likely a port or harbor contemporary with the final stages of the palace (Zangger 2008). Analysis of prehistoric pollen that settled into a large lagoon north of the Bay of Navarino points to a virtual explosion in the cultivation of olives at this time, one perhaps related to the perfume oil industry supported by the palace.

There was also a proliferation in the number and size range of settlements in the area: Many of the old settlements expanded in area and presumably also in population; some, like Iklaina, displayed palatial features such as ashlar masonry and wall paintings (Cosmopoulos 2006). These are likely to be examples of the district capitals mentioned in the palatial archives. In addition, for the first time, settlements of a smaller, third-order size appear, thus packing the landscape more densely with people than would ever again be the case prior to the time of Alexander the Great.

The destruction to the Palace of Nestor ca. 1180 BC was so devastating that neither the palace nor the community subsequently recovered. Some have suggested that the agents of this calamity were invaders from outside the kingdom, Dorian Greeks or the “Peoples of the Sea” mentioned in Egyptian texts; others that the people of Pylos themselves revolted against their king. The precise causes remain undetermined, but, whatever the case, certain facts are indisputable; for instance, the Main Building burned with such intensity that the Linear B tablets in its Archive Room were fired, and jars in some of the storerooms even melted.

Before the destruction, the town around the palace extended up and down the Englianos Ridge over an area one kilometer in length, and perhaps as many as three thousand individuals were resident there. It, like the Palace of Nestor, was all but abandoned. Tombs used repeatedly for generations were neglected. The area of the Mycenaean kingdom of Pylos remained, as a whole in fact, severely depopulated for nearly a millennium. Unlike the great palaces of the Argolid, such as Mycenae and Tiryns, the ruins of the Palace of Nestor did not become a focus of worship by Greeks of historical times (Davis and Lynch in press). Still-standing walls provided some shelter to a few squatters after the Bronze Age, and small amounts of pottery, some of it as late in date as the 3rd century BC, have been found. But by then, the names Nestor and Pylos were no longer associated with the site.

BIBLIOGRAPHY

- Bendall, Lisa M. 2003a. *The Decipherment of Linear B and the Ventris-Chadwick Correspondence: An Exhibition to Celebrate the 50th Anniversary of the Publication of the Decipherment*. Cambridge: Fitzwilliam Museum.
- . 2003b. “A Reconsideration of the Northeastern Building at Pylos: Evidence for a Mycenaean Redistributive Center.” *AJA* 107: 181–232.

- . 2004. "Fit for a King? Hierarchy, Exclusion, Aspiration, and Desire in the Social Structure of Mycenaean Banqueting." In *Food, Cuisine, and Society in Prehistoric Greece*, ed. Paul Halstead and John C. Barrett, 105–35. Oxford: Oxbow.
- Bennet, John. 2007a. "The Aegean Bronze Age." In *Cambridge Economic History of the Greco-Roman World*, ed. Walter Schiedel, Ian Morris, and Richard P. Saller, 175–210. New York: Cambridge University Press.
- . 2007b. "Pylos: The Expansion of a Mycenaean Center." In *RMP II*, 29–39.
- . 2007c. "Representations of Power in Mycenaean Pylos." In *ΣΤΕΦΑΝΟΣ ΑΡΙΣΤΕΙΟΥΣ: Archäologische Forschungen zwischen Nil und Istros: Festschrift für Stefan Hiller zum 65. Geburtstag*, ed. Felix Lang, Klaus Reinholdt, and Jörg Weilhartner, 11–22. Vienna: Phoibos.
- . 2008. "The Linear B Archives and the Kingdom of Nestor." In *Sandy Pylos 2008*, 111–38.
- , and Jack L. Davis. 1999. "Making Mycenaean: Warfare, Territorial Expansion, and Representations of the Other in the Pylian Kingdom." In *Polemos*, 105–20.
- Bennett, Emmett L., Jr., José L. Melena, Jean-Pierre Olivier, Thomas G. Palaima, and Cynthia W. Shelmerdine. In prep. *The Palace of Nestor in Western Messenia*. Vol. 4, *The Inscribed Documents*. Austin: University of Texas Press.
- Blegen, Carl W., and Marion Rawson. 1966. *The Palace of Nestor at Pylos in Western Messenia*. Vol. 1, *The Buildings and Their Contents*. Princeton: Princeton University Press.
- , Marian Rawson, William D. Taylour, and William P. Donovan. 1971. *The Palace of Nestor at Pylos in Western Messenia*. Vol. 3, *Acropolis and Lower Town, Tholoi, Grave Circle, and Chamber Tombs: Discoveries outside the Citadel*. Princeton: Princeton University Press.
- Brecoulaki, Hariklia, Caroline Zaitoun, Sharon R. Stocker, and Jack L. Davis. 2008. "An Archer from the Palace of Nestor in Pylos: A New Wall-Painting Fragment in the Chora Museum." *Hesperia* 77: 363–97.
- Cosmopoulos, Michael B. 2006. "The Political Landscape of Mycenaean States: A-pu2 and the Hither Province of Pylos." *AJA* 110: 205–28.
- Davis, Jack L. 2008. "The Discovery of the Palace of Nestor." In *Sandy Pylos 2008*, 42–46.
- , and Kathleen M. Lynch. In press. "Remembering and Forgetting Nestor: Pylian Pasts Pluperfect?" In *Archaeology and Homer*, ed. Susan Sherratt and John Bennet. Sheffield: Sheffield Studies in Aegean Archaeology.
- Isaakidou, Valasia, Paul Halstead, Sharon R. Stocker, and Jack L. Davis. 2002. "Burnt Animal Sacrifice at the Mycenaean 'Palace of Nestor' at Pylos." *Antiquity* 76: 86–92.
- Lang, Mabel. 1969. *The Palace of Nestor in Western Messenia*. Vol. 2, *The Frescoes*. Princeton: Princeton University Press.
- Lolos, Yiannos G. 2008. "Mycenaean Burial at Pylos." In *Sandy Pylos 2008*, 75–78.
- McDonald, William A., and Carol G. Thomas. 1990. *Progress into the Past: The Rediscovery of Mycenaean Civilization*, 2d ed. Bloomington: University of Indiana Press.
- Nelson, Michael C. 2001. *The Architecture of Epano Englianos*. PhD diss., University of Toronto.
- Shelmerdine, Cynthia W. 1985. *The Perfume Industry of Mycenaean Pylos*. Gothenburg: Åström.
- . 2007. "Administration in the Mycenaean Palaces: Where's the Chief?" In *RMP II*, 40–46.
- . 2008. "The Palace and Its Operations." In *Sandy Pylos 2008*, 81–96.
- Stocker, Sharon R. 2003. "The Pylos Regional Archaeological Project, Part IV: Deriziotis Aloni: A Small Bronze Age Site in Messenia." *Hesperia* 72(4): 341–404.

- , and Jack L. Davis. 2004. "Animal Sacrifice, Archives, and Feasting at the Palace of Nestor," *Hesperia* 73: 179–95.
- , and Jack L. Davis. In press. "Early Helladic and Middle Helladic Pylos: The Petropoulos Trench and Stratified Remains on the Englianos Ridge." In *Mesohelladika*.
- Wright, James C., ed. 2004. *The Mycenaean Feast*. *Hesperia* 73(2). Princeton: American School of Classical Studies at Athens.
- Zangger, Eberhard. 2008. "The Port of Nestor." In *Sandy Pylos* 2008, 69–74.

CHAPTER 52

THEBES

ANASTASIA DAKOURI-HILD

THEBES commands several alluvial plains of east Boeotia (Christodoulou 1969) extending from Kopais to the Tanagriki and from Paralimni to Parasopia. The Theban plain itself is traversed by the Thespios, Kalamitis, and Isminos riverbeds. The Dirki and Strophia torrents run along the west and east foothills of Thebes, respectively (Symeonoglou 1985, 8–11). Thebes occupies a strategic position along important overland (Buck 1979, 4–5; Fossey 1988, vol. 1, 200) and maritime routes of antiquity (Heurtley 1923; Schläger, Blackman, and Schaefer 1968; Gauvin and Fossey 1985).

The citadel of Thebes, also known as the Kadmeia, is a pear-shaped, large (800 m long, 500 m wide) and relatively low (max. 224 m) plateau, which is in part the outcome of ancient and modern earthworks. It appears to have been narrower and northwest-southeast oriented in prehistory (Konsola 1981, 68–69, map 6). Access from the west and to some extent the north slope remains arduous to this day and bespeaks the naturally defensive quality of the Theban landscape. The central east, southeast, and south slopes provide easier access to the citadel and connect it to the main routes leading to east and south Boeotia and beyond (Symeonoglou 1985, 12). The Ampheion, Kastellia, Ismenion, and Kolonaki hills, situated within a short distance (100–300 m) from the north, east, and south slopes respectively, were used as burial grounds in prehistory.

The Kadmeia had been explored by early travelers since the Renaissance, though mostly in the 19th century (Paton 1951, 38; Roller 1988). From the later 19th century, Theban topography and ancient art became the object of scholarly study (Decharme 1869; Böhlau 1888; Fabricius 1890; cf. Soteriadis 1900). Excavations were initiated at that time by Eustratios Kalopais and Dimitrios Filios and were later pursued mostly by Antonios Keramopoulos and Nikolaos Pappadakis. In the 1960–1970s Thebes underwent a dramatic urban transformation and witnessed the intensification of

rescue archaeology. The contemporary city dissects the Theban landscape into hundreds of plots, which presents challenges and dilemmas (Aravantinos 1996a; Dakouri-Hild et al. 2003). Nevertheless, the Archaeological Service has brought together an impressive body of evidence substantiating the significance of Thebes throughout its occupational history of five millennia.

THE EARLY BRONZE AGE

The settlement on the Kadmeia seems to have been established in the EBA, whereas earlier habitation is attested in the plains nearby (Faraklas 1969, 176; Tsota in press). Early Helladic remains are reported from at least fifty-two plots to date (for site lists, see Konsola 1981, 81–100; Alram-Stern 2004, vol. 2, 681–90) (figure 52.1). The settlement spread as far north as the Museum hill and Gournia and covered a minimum of 14 ha but seems to have been more concentrated at Ayios Andreas and the south-east slopes. House orientation depended on local terrain and possibly other factors (Konsola 1981, 163; cf. Andrikou 2000a, 183).

Three habitation phases are distinguishable based on a preliminary study of ceramic material (Konsola 1981, 117–26): EH II with group A pottery, including Urfirnis; EH II/III (Lefkandi I) with group B pottery, including Cycladic- and Anatolian-inspired and hybridic types (Psaraki 2004); and EH III with group Γ pottery, including Ayia Marina ware. The end of the Lefkandi I phase is marked by destructive fires (e.g., Demakopoulou and Konsola 1975, 46; Demakopoulou 1976a; Aravantinos 1982a, 1983a). However, the Museum site was unaffected (Aravantinos 2002, 2004b), while one site was conflagrated in later EH III (Andrikou 1998a).

There is no evidence of a settlement enceinte (cf. Symeonoglou 1985, figure 2.1), but two large buildings, the EH II Fortified Building at the Metropolis site and the Lefkandi I apsidal building at the Museum site (figure 52.1; Aravantinos 1986, 2002), are demarcated by sizeable, tapering walls (1.65–1.80 m and 1.50–2.00 m in width, respectively) which had a retaining and probably also a protective function. Both walls have a stone socle with mud-brick elevation (1.50–2 m high) and are associated with stone-paved calderims or courtyards. The Museum wall, which forms an angle around the apsidal building, is also equipped with drains. A massive EBA mud-brick terrace covered the Lefkandi I structures at that site. Such architectural features betray planning and architectural sophistication and represent a substantial investment of labor.

Wattle-and-daub houses constructed by means of wooden posts, clay-plastered branches, and/or reeds are identifiable through rock-cut foundation pits or trenches that occasionally form elliptical plans (Konsola 1981, 104; cf. Aravantinos 2005d). While wattle-and-daub houses are not attested in EH III, stone-built houses (whether apsidal or straight-sided) are attested both in the Lefkandi I and the EH III phases. Stone-built houses are founded on stereo or brought fills and have mud-brick elevations, occasionally clay-plastered inside (Aravantinos 2002). Floors

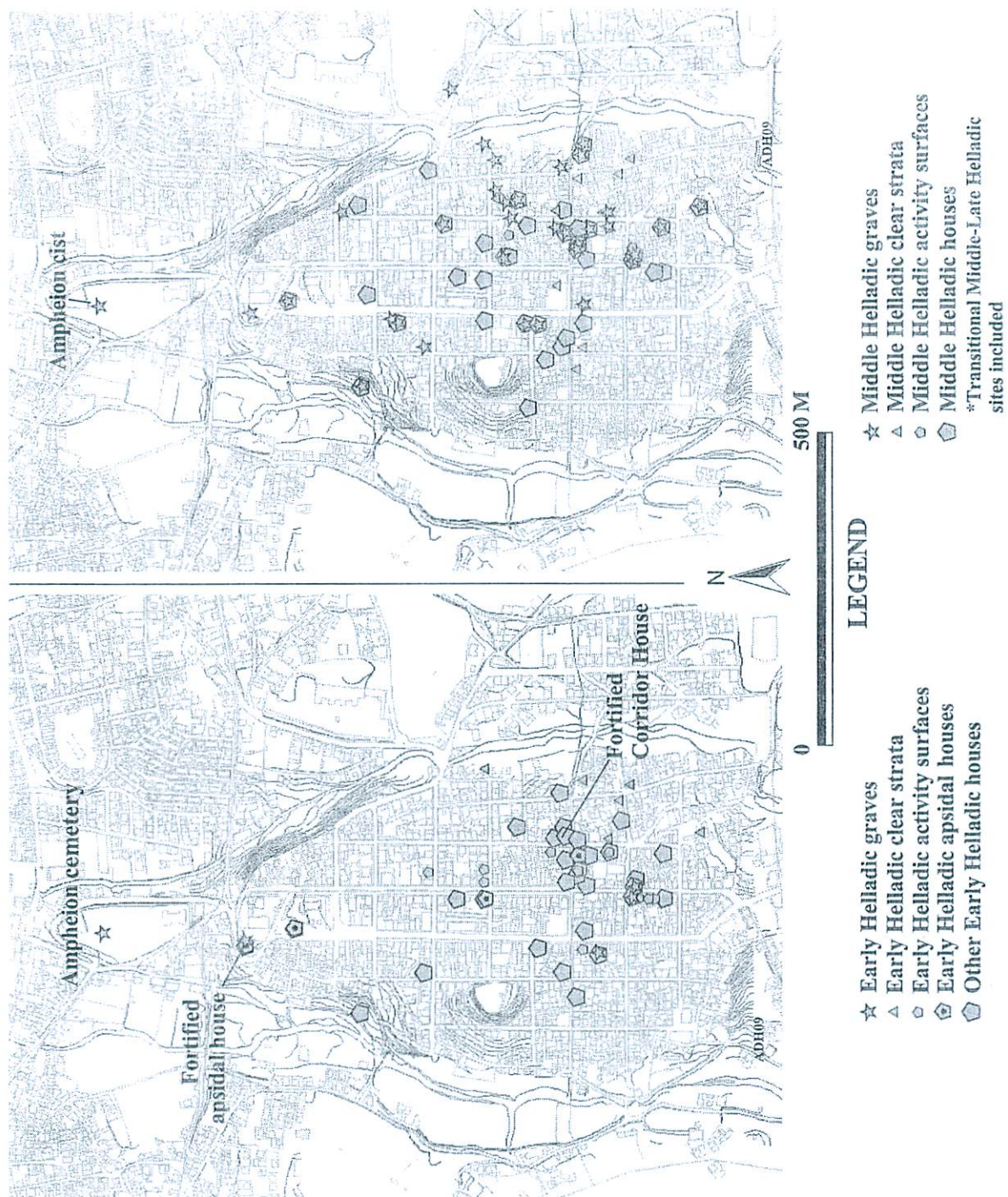


Figure 52.1. Thebes in the EH-MH period, including transitional late MH-earliest LH period (courtesy of the author).

are made of trodden earth or clay or paved with mud-brick slabs (Demakopoulou and Konsola 1975). Door openings have stone thresholds (Touloupa 1964a).

Some apsidal houses have impressive longhouse plans (12–14+ m long, 7–10 m wide). The best surviving example (Aravantinos 2002, 2004a, 2004b) was entered from the north and had three rooms and perhaps a fourth semi-apsidal room or open-air space to the west. The middle room, the main living space, is occasionally furnished with a hearth. Ancillary rooms were used for storage and cooking (Demakopoulou and Konsola 1975; Aravantinos 2002). Apsidal ones sometimes have a central column or pillar (Demakopoulou and Konsola 1975). Domestic features include exterior calderims (Demakopoulou 1978), bothroi, raised platforms (Andrikou 2000a, 2000b), and vessel placements (Aravantinos 2002; Peperaki 2000). The EH II Fortified Building stands out by virtue of its large (18 m long, 7.2 m wide) Corridor House plan. It consists of four axially arranged rooms with off-center doors and a possible upper story and is entered from a long side through a corridor (Aravantinos 1986). In general, tiles are not reported, though are illustrated in one case (Symeonoglou 1966a, figure 13).

In situ grinding stones, charred grain, and organic residues point to food production and storage (Symeonoglou 1966a; Demakopoulou 1976a; Peperaki 2000; Roumpou et al. 2007), whereas terracotta spindle whorls, loomweights, and spools (Symeonoglou 1966a; Aravantinos 1983a; Peperaki 2000) testify to domestic cloth production. Obsidian implements were produced from nuclei (Demakopoulou 1975a, 1976a; Christopoulou 2000; Peperaki 2000). A steatite mold for impressing patterns (animals, ships, insects) on soft metal, found in secondary use in a Late Helladic context (Demakopoulou 1973–1974e), has Troy IV parallels and possibly hints at the local production of sheet metal ornaments. A hoard of carpentry bronze tools (Konsola 1981, 139, figure 9; cf. Aravantinos 2004b) suggests craft specialization, as well as the valuable nature of such tools.

Gold, silver, ivory (Demakopoulou and Konsola 1975; Spyropoulos 1970b; Peperaki 2000; Aravantinos 1982b), and Cycladic-style artifacts (e.g., incised pyxides, marble vessels; cf. Demakopoulou 1976a, 1979a; Aravantinos 1982b) relate to long-distance trade. However, frying pans and a miniature folded-arms figurine of bone (Andrikou 1998b) are probably local imitations that hint at cultural ties with the Cyclades. No marble figurines have been found at Thebes to date. The interpretation of terracotta ‘anchors’ (Demakopoulou 1976a) is uncertain, as these objects could be either cultic (votives, figurines) or utilitarian (weights, hangers).

Early Helladic graves are rarely found (Touloupa 1964b, 1964c; Demakopoulou and Konsola 1975; Aravantinos 2004a), as elsewhere on the mainland. The known examples are cists or pits between or under houses and contained contracted burials with few or no furnishings. A mass grave at the Museum site dating to the end of EH II contained fifteen burials (cf. Vika and Richards in press), some furnished with pottery; the bodies were laid in various overlapping positions within the confines of the apsidal house atop its elevation debris. An EBA mud-brick terrace or tumulus (32 m long, 14 m wide) was built over the apsidal house and the mass burial and was later cut into by MBA cists (Aravantinos 2004a, 2004b; Aravantinos and Psaraki in press a, b).

A similar arrangement may be attested at the Ampheion hill, where remains of rock-cut EBA pits and an EBA superimposing mud-brick platform or tumulus have been found (figure 52.1; Faraklas 1967a; Spyropoulos 1981, 47). A large cist tomb at the site, the so-called tomb of Amphion and Zethos (cf. Loucas and Loucas 1987), seems to have been dug into the mud-brick structure and possibly dates to the MBA. The Ampheion tumulus has been implausibly interpreted as an Egyptianizing step pyramid (Spyropoulos 1981, 52; 2008; cf. Bernal 1988, 18; 2001, 73).

Differences in the quality of architecture, the rarity of special features and boundary walls, the limited distribution of imported commodities or artifacts made of exotic materials, and the hoarding of bronze tools indicate social complexity and differentiation, though not necessarily full-fledged stratification. The Fortified Building demonstrates a level of sophistication that is consistent with the advanced urbanistic features and 'international' outlook of EBA Thebes. Its potential significance as an elite residence and/or redistributive center is hinted at by its architectural parallels (see contributions in Hägg and Konsola 1986), but its function is not elucidated by the finds. In general, sealings have not been found in EBA Thebes, although a stone seal with linear decoration has been reported from the Museum apsidal site (Aravantinos 2002).

THE MIDDLE BRONZE AGE AND THE SHAFT GRAVE PERIOD

Middle Bronze Age finds are reported from eighty plots on the Kadmeia (figure 52.1), which demonstrates the expansion of the settlement to the east and west, reaching 19–20 ha in this era (Dakouri-Hild 2001a). Usage of precipitous areas (e.g., to the south and northwest of Pourois and at the east and west foothills) (e.g., Symeonoglou 1966b; Demakopoulou 1973–1974a, 1978) could suggest that space available for new construction was becoming scarce at the central, south, and southeastern parts of the citadel, where habitation was evidently dense.

Konsola (1981, 152–54) distinguishes three habitation phases based on ceramic material: MH I, associated with Gray Minyan rounded cups and kantharoi with ribbed handles, as well as Black Minyan/Argive and Adriatic incised wares; MH II–IIIA, characterized by Gray Minyan carinated kantharoi and ring-stemmed goblets and simple Matt-painted pottery; and MH IIIB–LH I (Shaft Grave period), typified by Gray Minyan cups and kantharoi with tall handles and 'beak's hawk' rims, fine Matt-painted and Polychrome pottery, and Vapheio cups in various wares. Conflagration strata are reported but are not always datable to a specific phase (Spyropoulos 1969a; Demakopoulou 1973–1974d; Andrikou 1999a). A house at the south Kadmeia was destroyed by fire, possibly preceded by an earthquake, in the advanced Shaft Grave period (Aravantinos 1981b). A megaron-like house burned down in MH IIIB–LH I; an earlier MBA destruction horizon is attested at the same site (Touloupa 1965b).

Both apsidal and straight-sided houses have come to light, sometimes side by side (Demakopoulou and Konsola 1975). The former are less frequent, but both have been dated to the MH II–IIIA and MH IIIB–LH I phases (Konsola 1981, 154). A house at the center of the citadel (Touloupa 1965b; Faraklas 1966) stands out due to its megaroid plan (9.30 m long, 5.5 m wide). It probably dates to the MH IIIB–LH I phase and consists of two axially arranged rooms (cf. Dakouri-Hild 2001a, figure 9). Its orientation and layout appear to have been determined by an earlier MBA building at the site.

In general, houses have deep stone foundations (Symeonoglou 1973, 13), mud-brick elevations, clay-plastered interior walls (Aravantinos 1983b), and trodden-earth or clay floors. Roofing materials such as timber logs are occasionally reported (Faraklas 1968a). Domestic features include bothroi (e.g., Sampson 1980; Spyropoulos 1971a), benches (Symeonoglou 1973, 13), hearths and ovens (Demakopoulou and Konsola 1975), and vessel placements (Aravantinos 2005c). The distribution of domestic/intramural versus burial/extramural assemblages has been regarded as evidence for the existence of a mud-brick enceinte (Symeonoglou 1985, 19–23). However, excavation data contradict a clear-cut distinction between domestic and burial space (Dakouri-Hild 2001a). There is no evidence of an enceinte or other large-scale work, although the expansion of the settlement over the northwest and northeast slopes implies some localized terracing.

Obsidian and chert flakes and nuclei testify to the ongoing production of stone implements within individual households (Demakopoulou and Konsola 1975; Demakopoulou 1978; Aravantinos 1981a). Bone ornaments such as inlays, pendants, and pommels may be local products (Demakopoulou and Konsola 1975; Demakopoulou 1978), though a diamond-shaped decorated inlay, reportedly of ivory (Demakopoulou and Konsola 1975), is a possible import. Plant remains, including grain and vetch, and stone tools such as grindstones and pounders (Demakopoulou and Konsola 1975; Demakopoulou 1976b; Aravantinos 1981b, 2005c) are associated with food preparation and storage. Cylindrical loomweights connected to cloth production are occasionally reported (e.g., Spyropoulos 1971a).

Domestic burials are common and not reserved for infants. Stone-built cists and mud-brick- or clay-lined pits were used for burials of both children and adults. Pithos burials usually contain children, but there are exceptions (Piteros 1983). All three types are found under floors or between houses (e.g., Demakopoulou 1975a) and occasionally form crowded domestic graveyards (Demakopoulou 1978), which could relate to kin land tenure (Dakouri-Hild 2001a). Graves typically contain single interments and were evidently reused (Touloupa 1965a; Demakopoulou and Konsola 1975). Burials are in the contracted position and furnished only with pottery, if at all. Dense and extensive cist clusters along the eastern (Touloupa 1965a; Demakopoulou 1973–1974b; Aravantinos 1999) and northwestern slopes (Aravantinos 2002, 2004a; Aravantinos and Psaraki in press b) highlight a trend toward the segregation of funerary space from the MH III period onward.

A larger cist type is introduced at the end of the MBA (Touloupa 1965a; Faraklas 1968b; Demakopoulou 1973–1974b, c). Such graves are sizeable (1.60–2.5 m long,

1–1.50 m wide) but not very deep (0.90–1.10 m) and are built of large slabs. The Ampheion cist (2.20 m long, 1.15 m wide) is comparable and probably reflects the monumentalizing trends of this era (Demakopoulou and Konsola 1981, 23; Faraklas 1998, 203; cf. Rutter 1993, note 64). Three tombs of the late Shaft Grave period (Kassimi-Soutou 1980; Christopoulou 1988) resemble shaft graves proper. They are unusually large (2.15–6.15 m long, 1.50–2.50 m wide) and deep (1.20–1.90 m), of rectangular or trapezoidal shape, and stone-built or rock-hewn. A small rubble mound (Christopoulou 1988) and a belly-handled amphora (Kassimi-Soutou 1980) reportedly functioned as *semata*, though the latter seems unlikely.

The mortuary deposition of exotic artifacts and, arguably, the expression or construction of social status at death by means of such goods culminates in the MH IIIB–LH I phase. Funerary consumption of imported goods was limited. When present, such commodities sharply contrast with the average mortuary assemblage, suggesting pronounced social inequality and stratification. Infants and children were on occasion furnished with exotica (e.g., Touloupa 1965a; Demakopoulou and Konsola 1975; Demakopoulou 1979b), implying inheritance of social status. Elaborate furnishings include jewelry of gold, silver, glass/faience, amethyst, and carnelian (Touloupa 1965a; Spyropoulos 1969a; Demakopoulou and Konsola 1975; Demakopoulou 1979b; Aravantinos 1982a; Christopoulou 1988). A silver cup is also reported (Christopoulou 1988). Gold jewelry found near and inside the Ampheion cist (Faraklas 1967a; Spyropoulos 1981) find parallels in the Mycenae shaft graves (Dickinson 1977, 97–98; but see Konsola 1981, 140) and further hint at the tomb's MBA date. Bronze weapons, including Type II and Type V/Sesklo spearheads (Kassimi-Soutou 1980; Christopoulou 1988; Aravantinos 2001a, pl. 75a) and a Type A sword (Kassimi-Soutou 1980), horse remains, and boar tusk attachments (Christopoulou 1988; Kassimi-Soutou 1980) are also attested in elite funerary assemblages.

THE LATE BRONZE AGE

Late Bronze Age finds are reported from 127 plots to date, representing a 58% increase in attested sites compared to the MBA. Judging from their distribution, the settlement was dense, especially at the center and along the eastern slopes toward the Strophia riverbank. It was also remarkably extensive, covering at least 32.4 ha (i.e., most of the contemporary plateau except parts of the northwest slope and the citadel's southwest corner) (figure 52.2). Late Helladic habitation on the Kadmeia is also evidenced in hitherto uninhabited areas, some of which are precipitous (e.g., the edges of the west [Aravantinos 2001b] and south [Symeonoglou 1966c] slopes).

Theban chronology is inherently problematic because ceramic assemblages remain unpublished, with a few exceptions (Symeonoglou 1973; Spyropoulos and Chadwick 1975; Andrikou et al. 2006), and evidence from hundreds of plots can be

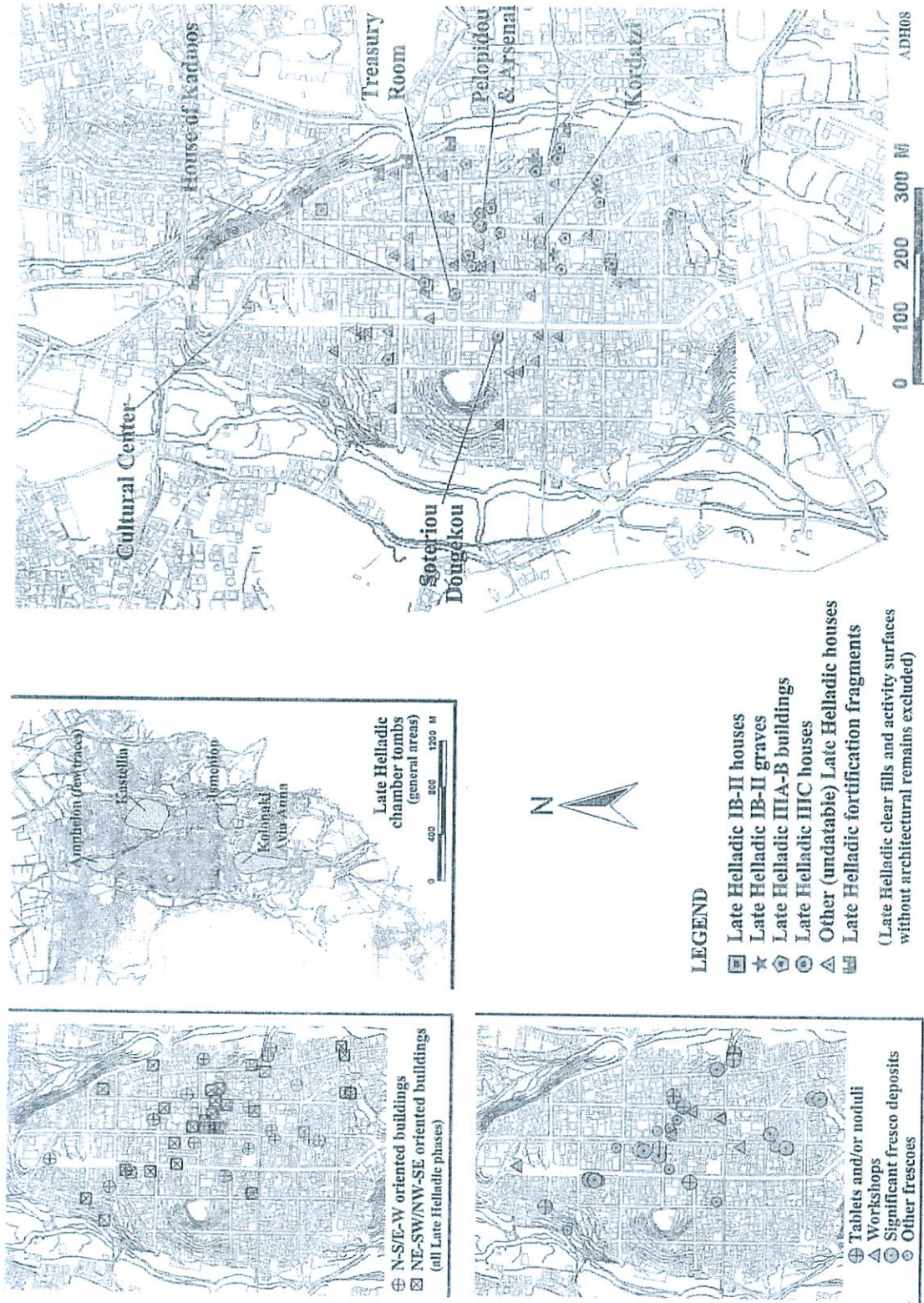


Figure 52.2. Thebes and vicinity in the LH II-LH IIIB period (from left to right and top to bottom, insets show the orientation of excavated LH buildings on the citadel; the location of chamber tomb cemeteries in the vicinity; and the distribution of Linear B documents, workshops, and frescoes on the Kadmeia) (courtesy of the author).

calibrated with difficulty due to the different methodologies and standards employed. Nevertheless, architectural remains that date to LH II (e.g., Demakopoulou 1975b, 1978), LH IIIA2–B1 (e.g., Demakopoulou 1979c; Aravantinos 1982a; Dakouri-Hild 2001b), LH IIIB1 (e.g., Symeonoglou 1973; Piteros 1983; Sampson 1985), late LH IIIB2 possibly on the transition to LH IIIC (e.g., Spyropoulos and Chadwick 1975; Piteros 1983; Aravantinos et al. in preparation; see Vitale 2006 on the late LH IIIB2–early LH IIIC transition), and later LH IIIC (e.g., Spyropoulos 1970c; Spyropoulos and Chadwick 1975, 20) hint at the chronological complexity of LBA habitation on the Kadmeia.

Accordingly, fire horizons in twenty-one plots vary in date (LH IIIA2–B1, LH IIIB1, late LH IIIB2). Destruction by earthquake is reported in at least two datable contexts, in LH IIIB1 (Sampson 1985) and late LH IIIB2 (Spyropoulos 1972b). It is likely that the citadel was fortified after a destruction in late LH IIIA2 or transitional LH IIIA2–B1 (Aravantinos 1988).

The thorny issue of palatial topography (cf. Demakopoulou 1988) is in reality a chronological problem. In the absence of published stratigraphies and pottery, architectural criteria (e.g., alignment) have been utilized to determine the relative date of buildings (Symeonoglou 1973, 1985; Spyropoulos and Chadwick 1975), especially the so-called House of Kadmos/Old Palace and the Treasury Room/New Palace (together referred to as ‘the Kadmeion’) (figure 52.2).

The distinction between an old and a new palace, ultimately deriving from the legends of Kadmos and the Epigonoï and bequeathed to later scholarship by Antonios Keramopoulos (1909, 1930), has proven to be influential in later excavations and research (for discussion, Dakouri-Hild 2001b; Aravantinos 2006). This notion was first challenged when a study of the House of Kadmos stirrup-jars placed the destruction of that building in LH IIIB1 (Raison 1968, 50–59), that is, close to the purported destruction of the Treasury Room (Touloupa 1964a, 1965b; Platon and Touloupa 1964a).

Comprehensive study of the bulk of pottery from the former site (Dakouri-Hild 2001b, in press b, in preparation) supports the notion that it burned during the transitional LH IIIA2–B1 period (Mylonas 1936; Catling et al. 1980). On the other hand, the buildings at the Soteriou-Dougekou plot and Pelopidou street (figure 52.2) were destroyed in late LH IIIB2 possibly on the transition to LH IIIC (Spyropoulos and Chadwick 1975; Andrikou et al. 2006). Buildings that accommodated palatial functions and finds (documents, workshop material) were affected by fire in LH IIIA2–B1, LH IIIB1, and late LH IIIB2 (see earlier).

Determining which building is part of ‘the palace’ and which is not becomes problematic, at least on the basis of architecture. Except for the House of Kadmos, which features half-timbered ashlar masonry, and the Treasury Room, which seemingly belongs to a massive building, architectural remains, even those associated with Linear B documents, weapon hoards, and fine workshop material, are not obviously palatial. Layouts range from tripartite buildings (Touloupa 1965a; Spyropoulos and Chadwick 1975; Sampson 1985) to corridor magazines (Aravantinos 1983b; Piteros 1983) to room clusters (Aravantinos, Godart, and Sacconi 2001). Orientation is not a chronological or palatial criterion but possibly relates to local geomorphology: east-west/north-south

oriented buildings are dispersed throughout the Kadmeia, including its north and south edges, but northeast-southwest/northwest-southeast buildings are concentrated toward the center (figure 52.2, inset). The combined distribution of Linear B deposits (cf. Aravantinos 2007, in press), workshops, treasuries, and pictorial wall-paintings on the Kadmeia reveals a wide network of palatial activities and elite residences dispersed in the settlement (figure 52.2, inset). However, an architecturally integral palace of Peloponnesian type has yet to be found.

Given the spread and density of architectural remains on the Kadmeia, the rarity of houses beyond it (Spyropoulos 1972c), and the funerary nature of the areas immediately to the east, southeast, and south, it seems likely that the main settlement was intramural. Stone-built and rock-cut aqueducts, sometimes containing terracotta pipes (e.g., Keramopoulos 1917, 327–28; Symeonoglou 1966d; Faraklas 1967g) probably transported water to the citadel from the north, but their precise course (cf. Symeonoglou 1985, 50; Knauss 1995, figure 6) is unclear.

In a similar vein, the evidence on the fortification is too patchy to allow a complete reconstruction (cf. Symeonoglou 1985, 14–38), although fortification segments have come to light along the north and east slopes (figure 52.2). The best evidence comes from the southeast slope, where a thick (4.20–5 m) wall founded in a trench has been excavated (Aravantinos 1988). The wall is constructed of roughly dressed limestone blocks set in roughly horizontal courses, with a rubble and soil fill, and showed corners and traces of a square bastion along the 13.50 m of its excavated course. The fortification and a possible second bastion have been traced elsewhere on the east slope (Keramopoulos 1917, 207, 306–307; Symeonoglou 1965; Sampson 1981a; Aravantinos 1988, note 36). Reports of Cyclopean masonry in the Museum area (cf. Keramopoulos 1917, 272; Spyropoulos 1970d; Sampson 1981b) are corroborated by the discovery of a large segment west of the Museum (Aravantinos 2005b), which has offsets and was built in LH IIIA2–B1.

The construction of LH buildings upon or into earlier strata, on brought fills and terraces, leveled stereo, or a combination thereof, seem to have modified the natural landscape of Thebes considerably. Buildings have roughly dressed limestone socles reaching 1.10–1.70 m in width, mud-brick elevations, which are frequently half-timbered, and either flat or pitched/tiled roofs (cf. Demakopoulou 1990). The Kadmeion buildings almost certainly had an upper storey, as—most likely—did numerous other buildings. Floors are usually of trodden earth or clay plaster, though sometimes flagstones (Piteros 1983), lime plaster (Dakouri-Hild 2001b), or mud-brick slabs arranged in a geometric pattern (Aravantinos 1982a, pl. 101b; pers. comm.) are employed. Installations and facilities include shelves and benches (e.g., Spyropoulos and Chadwick 1975, 22), drains and a possible tank (e.g., Faraklas 1966; Symeonoglou 1973, 14), hearths and ovens (Demakopoulou 1975c; Aravantinos et al. in preparation), worktops (Demakopoulou 1973–1974e, 1980), placements for storage vessels (Faraklas 1966, 1968d), and asaminthoi (Platon and Touloupa 1964a; Spyropoulos and Chadwick 1975, 37; Piteros 1983; Andrikou 2000b).

Domestic assemblages include, other than pottery, spindle whorls and loomweights (e.g., Spyropoulos and Chadwick 1975, 38; Demakopoulou 1980),

whetstones, grindstones, knives and chisels (Aravantinos 1981a; Aravantinos et al. in preparation), and traces of food remains (e.g., grain, figs, and olives) (Faraklas 1966; Spyropoulos 1970c; Piteros 1983; cf. Aravantinos et al. in preparation). Mollusks and animal bones are plentiful but are rarely included in publications (contributions in Aravantinos et al. in preparation; Dakouri-Hild in preparation).

Possible evidence of cultic activity is scant and not well understood (cf. Aravantinos 1988, note 48). Notably, cultic paraphernalia (fragments of a large idol and an anthropomorphic vessel) were brought to light in the vicinity of workshops (Demakopoulou 1974; Andrikou 2000b), but their precise context is unclear at present.

Wall-painting fragments have been found in twenty-four plots (figure 52.2, inset), mostly in the north central and southeast Kadmeia (cf. Spyropoulos 1971b; Boulotis 2000). Nine of these, in the Kadmeion area (Reusch 1948, 1953, 1956; Touloupa 1964a, 1965b; Aravantinos 1996b), the east and southeast Kadmeia (Spyropoulos 1969b, 1970e, 1972b; Aravantinos 1982a, 2005e), and the northwest slope (Symeonoglou 1966e; Spyropoulos 1969c) have yielded significant deposits. The northwest slope deposit appears to be a wall-painting dump consisting of burnt and unburnt pieces, which might well originate from the Kadmeion area a short 110–130 m (direct distance) to the southeast. In general, there are fragments with patterns (quirks, curved bands, wavy lines, dots, concentric circles, metopes, spirals and spiral waves, rosettes, tricurved arches, dadoes, possibly figure-eight shields), floral motifs (papyrus, palm tree), possible Nilotic scenes (ducks and other birds), seascapes with dolphins, hunting scenes, animals (dog/goat and feline feet), female processions (life-size at least in two cases), garments, including a man's chiton, and a miniature scene depicting a helmeted, bearded warrior in a window.

The Theban documents (352) are clay noduli and tablets—both the leaf and page type, though usually the former (Aravantinos, Godart, and Sacconi 2001, 2002; Aravantinos et al. 2005). The 56 inscribed noduli, which play a special role in Theban administration (Palaima 2000; cf. Eder 2007), carry seal and signet ring impressions and record mostly livestock collected and redistributed for a major state feast (Killen 1992, 1994; Palaima 2004; cf. Bendall 2007, 56; for a different interpretation, see Aravantinos 1987). They reportedly date to LH IIIB₁ (Piteros, Olivier, and Melena 1990), but a late LH IIIB₂ bowl from the same context (Piteros 1983; cf. Spyropoulos and Chadwick 1975, pl. 61; Andrikou 1999b, 93) and epigraphic connections with LH IIIB₂ documents from the Treasury Room (Aravantinos, Godart, and Sacconi 2007) raise questions. Three inscribed noduli and two tablets were excavated in the Treasury Room in a late LH IIIB₂ context; they deal with leather good collections, livestock, possibly timber, and allocations of an unknown commodity (Aravantinos 1996b, 2001c).

The 16 Soteriou-Dougekou tablets record wool allocations to various entities, including industrial facilities of sanctuaries (Spyropoulos and Chadwick 1975; Nosch 2001–2002, in press; Shelmerdine 1997). Furthermore, 24 tablets recording an overdue commodity (possibly an olive product [Palaima in press] rather than cuirasses as originally proposed) originate from the west side of the so-called Arsenal (Chadwick 1970; Olivier 1971). Additional fragments were found later, in a late LH IIIB₂ context (Aravantinos, Godart, and Sacconi 2002, 13). Two more tablets, one

recording textiles, the other registering large quantities of grain and olives—or assessing land (Killen 1999)—at Thebes, Eutresis, Eleon, and other places, were found to the northeast of the Arsenal (Aravantinos 1994), adding up to a total of 38 tablets from the site.

The bulk of the Theban corpus (236 tablets) derives from the Pelopidou street excavation, west of the Arsenal. These documents deal mostly with festive allocations of food, as well as wool allocations, livestock, food and leather acquisitions, and inventories. The interpretation of these documents, especially the divine nature of certain recipients, has been the subject of intense debate. They appear to be connected with religious banqueting and related activities, but do not seem to record cultic activities *per se* (e.g., offerings) (see contributions in Deger-Jalkotzy and Panagl 2006; cf. Bendall 2007, 63). The context is late LH IIIB₂, which places some doubt on the dating of the main Arsenal deposit in LH IIIA₂ or LH IIIB₁ (Touloupa 1965a). An isolated tablet fragment from a clear LH IIIB₂ context at the northwest slope of the citadel (Aravantinos 2001b; 2002, 15) suggests a wide spread of administrative activity (figure 52.2, inset).

In contrast to these documents, the painted inscriptions (seventy) on the House of Kadmos transport stirrup-jars are the product of Cretan palatial administration. They illuminate the economic geography and administrative practices of (mostly west) Crete in LH IIIB, as well as maritime trade between Crete and the mainland. The provenance of these vessels has been ardently disputed, mostly on the basis of scientific methodology (Catling and Millett 1965, 1969; Catling and Jones 1977; contra McArthur and McArthur 1974; Wilson 1976; McArthur 1978). It now seems clear that the majority were imported from west and, in part, central Crete (Catling et al. 1980; Day and Haskell 1995; Mommsen et al. 2002). Although most stirrup-jars were not made in Thebes, a group of Boeotian pseudo-transport stirrup-jars (Day and Haskell 1995) and other pottery from the House of Kadmos may well have been made at the pottery workshop of that site. Chemical analyses of a large sample of transport and pseudo-transport stirrup-jars, drinking vessels, and waste material from the kiln are expected to clarify ceramic production and consumption in the palatial ambit (Dakouri-Hild et al. in preparation).

At least five workshops operated on the LH IIIA–B Kadmeia (cf. Dakouri-Hild 2005) (figure 52.2, inset). The Kordatzi workshop (LH IIIB₁) produced elaborate artifacts of various stones (lapis lazuli, steatite, quartz, agate), mother of pearl, and gold and included a small furnace. A nearby deposit of exquisite but burnt and shattered ivory artifacts (Symeonoglou 1973, 44–62) is not directly linked to the workshop. The Loukou (LH IIIB₁?; Sampson 1980, 1985) and Tzortzi workshops (LH IIIA₂–B₁; Demakopoulou 1979c, 1988) seemingly specialized in ivory and possibly gold working. A group of stone weights was found in the former workshop (Aravantinos 1995; Aravantinos and Alberti 2006). The Koropouli workshop (LH IIIB₁; Demakopoulou 1973–1974e, 1974) produced stone (quartz, agate) and metal jewelry, possibly also ivory and bone ornaments. The Cultural Center site on the northwest slope has yielded evidence of ivory-artifact production and boar-tusk harvesting (LH IIIB₂; Andrikou 2000b; Snyder and Andrikou 2001). Chemical analyses indirectly illumi-

nate the Theban production of glass (Nikita and Henderson 2006, in press); a mold for making glass jewelry has been reported (Piteros 1983), and glass artifacts have been found in several workshops, (as well as domestic spaces), but at the moment it is unclear where the production of such ornaments took place.

Mistaken or worn artifacts, roughouts, by-products, and raw material, evidently deriving from workshops elsewhere on the Kadmeia, have been found in a hoarding/storage context (Dakouri-Hild 2006, in press a). Among other artifacts in storage at palatial sites are fine ivory throne legs, furniture parts and equestrian ornaments/equipment (Platon and Touloupa 1964b; Aravantinos 1999, 2000; Papadaki in preparation), bronze weapons, and corslet parts (Touloupa 1964d, 1965a; Andrikou 2007), jewelry in various precious and semi-precious materials (Touloupa 1964a, 1965b), and orientalia (Aravantinos 2001c, 2005a, 2006), including the famous cache of lapis lazuli cylinder seals (Old Babylonian, Syrian-Mitannian, Kassitic; cf. Platon and Touloupa 1964a; Porada 1981). Several of the latter show traces of alteration, which probably took place in Cyprus before Theban artisans had a chance to rework them (Cline 1994, 154–60). Lapis lazuli cylinder seals were evidently reworked at Thebes to make inlays (Symeonoglou 1973, 67) and beads (Porada 1981, 4).

The latest attested prehistoric burial on the Kadmeia (LH IIIA1) is that of a child (Aravantinos 2005b). The main LBA cemeteries, which consist of chamber tombs, are situated in hills near the citadel (figure 52.2, inset). The shift from intramural to extramural graves occurred in LH IIA, if not earlier (cf. Keramopoulos 1910, 231); citadel and chamber tomb cemeteries must have coexisted for some time. Mikro and Megalo Kastelli to the east accommodated at least forty-two tombs used in LH IIB–LH IIIB (Keramopoulos 1917, 108–11; and numerous reports, Deltion 1967–1973). Ten graves (LH II–LH IIIB) have been brought to light at the Ismenion hill to the south (Keramopoulos 1917, 80–97; Faraklas 1967c, d), whereas thirty-nine graves spanning LH IIA–LH IIIC have been excavated at Kolonaki/Ayia Anna to the south (Keramopoulos 1917, 126–205, with references to earlier excavations; Faraklas 1967d, 1968c). Damaged chamber tombs have also been identified at Ampheion (Faraklas 1967b). Graves of other types are reported at Myloi, Moschopodi, and Agioi Theodoroi to the east and northeast (Keramopoulos 1910; 1917, 100; Symeonoglou 1985, 260, 263), possibly west of the Kadmeia (Keramopoulos 1910), and at Potniai (Papadaki 2000). An ongoing mapping project aims at clarifying the topography of the cemeteries, especially the location of tombs excavated in the late 19th and early 20th centuries (Aravantinos and Fappas in press); some additional study of excavated assemblages has taken place (Tzavella-Evjen and Stultz 1997).

The chamber tombs show various plans and roof types (e.g., vaulted, flat, or pitched) and have benches, drains, and floor pits. They vary significantly in size (1.32–23 m², with 3–18 m long dromoi). Two tombs stand out for their unusually large dimensions (40–80 m², dromoi 18–25 m in length; Faraklas 1967f; Spyropoulos 1972a). One of these tombs had wall-paintings (funerary procession, rocky landscape, and decorative designs), suggesting the high status of the owner(s), though traces of simpler wall-paintings have been found in other Theban graves as well (cf. Keramopoulos 1917, 159; Faraklas 1967e; Spyropoulos 1973). Although many

tombs were looted in antiquity, surviving furnishings are plentiful and opulent (e.g., fine pottery, stone jewelry and vases, amber and ivory artifacts, bronze weapons, vessels and tools, gold jewelry, glass and faience artifacts, aegyptiaca [cf. Cline 1994, 172, 189, 206–207] and fragments of terracotta asaminthoi or larnakes [Keramopoulos 1917, 92; Faraklas 1967e; Spyropoulos 1972a]).

In sum, archaeological research at Thebes over the last century has been very fruitful despite the limitations posed by the configuration of excavations. Comprehensive study of Theban material has taken off in the last twenty years and continues to address publication needs. Anthropological, zooarchaeological, and archaeometric studies, which represent some of the innovative approaches in current research, are especially welcome as they reintroduce the human and environmental dimensions of assemblages into archaeological interpretation.

BIBLIOGRAPHY

- Alram-Stern, Eva. 2004. *Die Ägäische Frühzeit. 2. Serie Forschungsbericht 1975–2002. 2. Band, Teil 1, 2 Die Frühbronzezeit in Griechenland mit Ausnahme von Kreta*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Andrikou, Eleni. 1998a. “Οικόπεδο Δημ. Λάμπρου.” *Αρχαιολογικό Δελτίο* 48 B: 173–76.
- . 1998b. “An EH figurine from Thebes, Boeotia.” *BSA* 93: 103–106.
- . 1999a. “Οικόπεδο Πουλιοπούλου.” *Αρχαιολογικό Δελτίο* 49 B: 276–77.
- . 1999b. “The Pottery from the Destruction Layer of the Linear B Archive in Pelopidou Street, Thebes,” appendix in Vassilis Aravantinos, “Mycenaean Texts and Contexts at Thebes: The Discovery of New Linear B Archives on the Kadmeia.” In *Florent Studia Mycenaea: Akten des X Internationalen Mykenologischen Colloquiums in Salzburg (vom 1–5 Mai 1995)*, ed. Sigrid Deger-Jalkotzy, Stefan Hiller, and Oswald Panagl, 45–102. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- . 2000a. “Νέα στοιχεία για την κατοίκηση στη Θήβα την Πρώιμη Εποχή του Χαλκού: αφιδωτό κτήριο στο οικόπεδο του δημοτικού συνεδριακού κέντρου Θηβαίων.” In *I Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 4–8 Σεπτεμβρίου 1996)*, ed. Vassilis Aravantinos, 173–91. Vol. Γ:α. Athens: Society of Boeotian Studies.
- . 2000b. “Συμβολή οδών Λ. Μπέλλου και Ι. Θρεψιάδου.” *Αρχαιολογικό Δελτίο* 50 B: 290–94.
- . 2007. “New Evidence on Mycenaean Bronze Corselets from Thebes in Boeotia and the Bronze Age Sequence of Corselets in Greece and Europe.” In *BABS*, 401–409.
- , Vassilis Aravantinos, Louis Godart, Anna Sacconi, and Joanita Vroom. 2006. *Thèbes fouilles de la Cadmée II.2. Les tablettes en Linéaire B de la Odos Pelopidou. Le contexte archéologique. La céramique de la Odos Pelopidou et la chronologie du Linéaire B*. Rome: Istituti Editoriali e Poligrafici Internazionali.
- Aravantinos, Vassilis. 1981a. “Οδός Αμφίονος 25 και Οιδίποδος (οικόπεδο Δημ. Μπλάνα).” *Αρχαιολογικό Δελτίο* 36 B: 189.
- . 1981b. “Οδός Δίρκης 23 (οικόπεδο Κων. Γκέλη).” *Αρχαιολογικό Δελτίο* 36 B: 188–89.
- . 1982a. “Οδός Δίρκης και Ευριδίκης (οικόπεδο αφών Στάικου).” *Αρχαιολογικό Δελτίο* 37 B: 165.

- . 1982b. “Οδός Πελοπίδου 26 και Οιδίποδος (οικόπεδο Μητρόπολης Θηβών, πρώην Αφών Ξύδη).” *Αρχαιολογικό Δελτίο* 37 B: 165–67.
- . 1983a. “Οδός Πελοπίδου 27 (οικόπεδο Σταμ. Παυλογιαννόπουλου και Ι. Γκοβεδάρου).” *Αρχαιολογικό Δελτίο* 38 B: 131.
- . 1983b. “Οδός Οιδίποδος και πάροδος Π. Οικονόμου (οικόπεδο Ε. και Μ. Χριστοδούλου).” *Αρχαιολογικό Δελτίο* 38 B: 129–30.
- . 1986. “The Fortified Building at Thebes.” In *Early Helladic Architecture*, 57–63.
- . 1987. “The Mycenaean Inscribed Sealings from Thebes: Preliminary Notes.” In *Tractata Mycenaea: Proceedings of the Eighth International Colloquium on Mycenaean Studies (Held in Ohrid, 15–20 September 1985)*, ed. Petar Hr. Plevski and Ljiljana Crepajac, 13–27. Skopje: Macedonian Academy of Sciences and Arts.
- . 1988. “Η μυκηναϊκή οχύρωση της Καδμείας: προκαταρκτική ανακοίνωση.” In *Α’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 10–14 Σεπτεμβρίου 1986)*, ed. Alexandros Bekiaris, 113–36. Vol. A:α. Athens: Society of Boeotian Studies.
- . 1994. “‘Οπλοθήκη’ (οικόπεδο Δ. Παυλογιαννόπουλου, οδός Πελοπίδου 28).” *Αρχαιολογικό Δελτίο* 49 B: 274–76.
- . 1995. “Μυκηναϊκά σταθμά από την Θήβα: συμβολή στη μελέτη του μυκηναϊκού μετρικού συστήματος.” In *Β’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Λειβαδιά, 6–10 Σεπτεμβρίου 1992)*, ed. Alexandra Christopoulou, 7–137. Vol. B:α. Athens: Society of Boeotian Studies.
- . 1996a. “Problemi di conservazione e valorizzazione dei siti archeologici della Beozia.” In *I siti archeologici: Un problema di musealizzazione all’aperto*, ed. Bruna Amendolea, Rosanna Cazzella and Laura Indrio, 397–98. Rome: Multigrafica.
- . 1996b. “Καδμείο-Δωμάτιο του Θησαυρού.” *Αρχαιολογικό Δελτίο* 51 B: 262–64.
- . 1999. “Οπλοθήκη (οικόπεδο Δ. Παυλογιαννόπουλου, οδός Πελοπίδου 28).” *Αρχαιολογικό Δελτίο* 49 B: 274–76.
- . 2000. “Νέα μυκηναϊκά ελεφαντουργήματα από την Καδμεία (Θήβα).” In *Γ’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 4–8 Σεπτεμβρίου 1996)*, ed. Vassilis Aravantinos, 31–120. Vol. Γ:α. Athens: Society of Boeotian Studies.
- . 2001a. “Οικόπεδο Αρχαιολογικού Μουσείου Θηβών.” *Αρχαιολογικό Δελτίο* 51 B: 259–61.
- . 2001b. “Οδός Αγίων Αποστόλων και Κάδμου-έργα ΔΕΥΑΘ.” *Αρχαιολογικό Δελτίο* 51 B: 266–67.
- . 2001c. “Contenu, contexte et fonction du ‘trésor’ du palais mycénien de Thèbes (Béotie): une approche économique et administrative.” *Ktéma* 26: 87–99.
- . 2002. “Οικόπεδο Αρχαιολογικού Μουσείου Θηβών.” *Αρχαιολογικό Δελτίο* 52 B: 353–59.
- . 2004a. “Οικόπεδο Αρχαιολογικού Μουσείου.” *Αρχαιολογικό Δελτίο* 53 B: 323–27.
- . 2004b. “New evidence about the EH II period in Thebes: a new architectural complex and a group burial within the Kadmeia.” In *Die Ägäische Frühzeit. 2. Serie Forschungsbericht 1975–2002. 2. Band Teil 2 Die Frühbronzezeit in Griechenland mit Ausnahme von Kreta*, ed. Eva Alram-Stern, 1255–67. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- . 2005a. “To Have and to Hoard: A Gold Disc from the Palace of Thebes.” In *Autochthon*, 252–58.
- . 2005b. “Οικόπεδο επέκτασης Αρχαιολογικού Μουσείου.” *Αρχαιολογικό Δελτίο* 54 B: 311–13.
- . 2005c. “Οδός Ζεγγίνη 3, ‘Οπλοθήκη.’” *Αρχαιολογικό Δελτίο* 54 B: 313–16.
- . 2005d. “Οδός Οιδίποδος και Πελοπίδου (οικόπεδο Κυλάφη).” *Αρχαιολογικό Δελτίο* 54 B: 316.

- . 2005e. “Οικόπεδο Ε. Σπουρλή.” *Αρχαιολογικό Δελτίο* 54 B: 317–18.
- . 2006. “Le cas de Thèbes (Béotie): Mythe, idéologie, et recherche au début du XXe siècle.” In *Mythos: La préhistoire égéenne du XIXe au XXe siècle après J.-C. Actes de la Table Ronde d’Athènes (novembre 2002)*, ed. Pascal Darcque, Michael Fotiadis, and Olga Polychronopoulou, 165–74. BCH Supplément 46. Athens: L’École française d’Athènes.
- . 2007. “Le iscrizioni in Lineare B rinvenute a Tebe in Beozia. Osservazioni storico-topografiche sulle scoperte.” *Pasiphae* 1: 9–21.
- . In press. “The Find Places and the Contexts of the Linear B Texts from Thebes.” In *Proceedings of the XII Colloquium on Mycenaean Studies, Austin, May 7th–13th, 2000*.
- , and Maria E. Alberti. 2006. “The Balance Weights from the Kadmeia, Thebes.” In *Weights in Context: Bronze Age Weighing Systems of the Eastern Mediterranean. Chronology, Typology, Material, and Archaeological Contexts*, ed. Maria E. Alberti, Enrico Ascalone, and Luca Peyronel, 293–313. Rome: Istituto Italiano di Numismatica.
- Aravantinos, Vassilis, Maurizio del Freo, Louis Godart, and Anna Sacconi. 2005. *Thèbes fouilles de la Cadmée IV. Les textes de Thèbes (1–433). Translittération et tableaux des scribes*. Rome: Istituti Editoriali e Poligrafici Internazionali.
- Aravantinos, Vassilis, and Yiannis Fappas. In press. “Τα μυκηναϊκά νεκροταφεία της Θήβας: σχέδιο προκαταρκτικής μελέτης.” *Ρέθυμνα 27 (Επιστημονική Επετηρίδα του Τμήματος Ιστορίας και Αρχαιολογίας του Πανεπιστημίου Κρήτης, Τιμητικός τόμος στον Καθηγητή Νικόλα Φαράκλα)*.
- Aravantinos, Vassilis, Louis Godart, and Anna Sacconi. 2001. *Thèbes fouilles de la Cadmée I. Les tablettes en Linéaire B de la Odos Pelopidou. Édition et commentaire*. Rome: Istituti Editoriali e Poligrafici Internazionali.
- . 2002. *Thèbes fouilles de la Cadmée III. Corpus des documents d’archives en Linéaire B de Thèbes (1–433)*. Rome: Istituti Editoriali e Poligrafici Internazionali.
- . 2007. “La tavoletta TH Uq 434.” *Pasiphae* 1: 23–33.
- , Lilian Karali, Anaya Sarpaki, and Athina Papadaki. In preparation. *Thèbes fouilles de la Cadmée II.1. Les tablettes en Linéaire B de la Odos Pelopidou. Le contexte archéologique*. Rome: Istituti Editoriali e Poligrafici Internazionali.
- Aravantinos, Vassilis, and Kiki Psaraki. In press a. “Tumuli over Dwellings: The Transformation of Domestic Space to Community Monument at EH II Thebes.” In *Ancestral Landscapes: Burial Mounds in the Copper and Bronze Ages (Udine, May 15–18, 2008)*, ed. Sylvie Müller Celka and Elisabetta Borgna. Travaux de la Maison de l’Orient. Lyon: Maison de l’Orient et de la Méditerranée/CNRS.
- . In press b. “Μεσοελλαδικά νεκροταφεία των Θηβών: γενική επισκόπηση και παρατηρήσεις στο φως των νέων ερευνών και ευρημάτων.” In *Mesohelladika*.
- Bendall, Lisa M. 2007. *Economics of Religion in the Mycenaean World: Resources Dedicated to Religion in the Mycenaean Palace Economy*. Oxford University School of Archaeology Monographs 67. Oxford: Oxford University School of Archaeology.
- Bernal, Martin. 1988. *Black Athena: The Afroasiatic Roots of Classical Civilization*. Vol. 1, *The Fabrication of Ancient Greece, 1785–1985*. New Brunswick: Rutgers University Press.
- . 2001. *Black Athena Writes Back: Martin Bernal Responds to His Critics*. Durham: Duke University Press.
- Böhlau, Johannes. 1888. “Boötischen Vasen.” *JdI* 3: 325–64.
- Boulotis, Christos. 2000. “Η τέχνη των τοιχογραφιών στην μυκηναϊκή Βοιωτία.” In *Γ’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 4–8 Σεπτεμβρίου 1996)*, ed. Vassilis Aravantinos, 1095–1149. Vol. Γ:α. Athens: Society of Boeotian Studies.
- Buck, Robert J. 1979. *A History of Boeotia*. Edmonton: University of Alberta Press.

- Catling, Hector W., John F. Cherry, Richard E. Jones, and John T. Killen. 1980. "The Linear B-Inscribed Stirrup-jars and West Crete." *BSA* 75: 51-113.
- Catling, Hector W., and Richard E. Jones. 1977. "A Re-investigation of the Provenance of the Inscribed Stirrup-jars Found at Thebes." *Archaeometry* 19(2): 137-46.
- Catling, Hector W., and Anne Millett. 1965. "A Study of the Inscribed Stirrup-jars from Thebes." *Archaeometry* 8: 3-51.
- . 1969. "Theban Stirrup-jars: Questions and Answers." *Archaeometry* 11: 3-20.
- Chadwick, John. 1970. "Linear B Tablets from Thebes." *Μινος* 10: 115-37.
- Christodoulou, Georgios. 1969. *Η Γεωλογική Δομή τής Περιοχής Θηβων-Παραλίμνης*. Athens: Institute of Geology and Mineral Exploration.
- Christopoulou, Alexandra. 1988. "Δύο πρόιμοι μυκηναϊκοί τάφοι στη Θήβα." In *B' Διεθνές Συνέδριο Βοιωτικών Μελετών (Λειβαδιά, 6-10 Σεπτεμβρίου 1992)*, ed. Alexandra Christopoulou. Vol. B:α. Athens: Society of Boeotian Studies (abstract).
- . 2000. "Ένα πρωτοελλαδικό σπίτι στην Καδμεία." In *Γ' Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 4-8 Σεπτεμβρίου 1996)*, ed. Vassilis Aravantinos, 192-202. Vol. Γ:α. Athens: Society of Boeotian Studies.
- Cline, Eric H. 1994. *SWDS*.
- Dakouri-Hild, Anastasia. 2001a. "Plotting Fragments: A Preliminary Assessment of the Middle Helladic Settlement in Boeotian Thebes." In *Urbanism*, 103-118.
- . 2001b. "The House of Kadmos in Mycenaean Thebes reconsidered: architecture, chronology and context." *BSA* 96: 81-122.
- . 2005. "Breaking the Mould? Production and Economy in the Theban State." In *Autochthon*, 207-24.
- . 2006. "Something Old, Something New: Current Research on the 'Old 'Kadmeion' of Thebes." *BICS* 48: 173-86.
- . In press a. "Εργαστηριακό υλικό από την Οικία του Κάδμου: μια νέα ματιά." In *A Century of Archaeological Work at Thebes (1900-2000): Pioneers and Ongoing Research (Centenary Conference, Thebes, 16-17 November 2002)*, ed. Vassilis Aravantinos and Elena Kountouri. Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- . In press b. "Η 'Οικία του Κάδμου': η μέχρι τώρα (2003) έρευνα πάνω στην αρχιτεκτονική και την χρονολόγηση." In *Δ' Διεθνές Συνέδριο Βοιωτικών Μελετών (Λιβαδιά 9-13 Σεπτεμβρίου 2000)*, ed. Vassilis Aravantinos. Athens: Society of Boeotian Studies.
- . In preparation. *The House of Kadmos at Thebes, Greece: The Excavations of Antonios D. Keramopoulos (1906-1929)*. Vol. 1, *Architecture, Stratigraphy, and Finds*. Biblioteca di Pasiphae, Collana di Filologia e Antichità Egea 8. Rome: Istituti Editoriali e Poligrafici Internazionali.
- , Eleni Andrikou, Vassilis Aravantinos, and Elena Kountouri. 2003. "A GIS in Boeotian Thebes: Taking Measures for Heritage Management, Archaeological Research, and Public Outreach." In *METRON*, 49-56.
- Dakouri-Hild, Anastasia, Maury Morgenstein, Malia Johnson, and Vassilis Aravantinos. In preparation. "Portable-XRF Analyses of Late Bronze Age Pottery from the House of Kadmos, Thebes."
- Day, Peter M., and Halford W. Haskell. 1995. "Transport Stirrup-jars from Thebes as Evidence of Trade in Late Bronze Age Greece." In *Trade and Production in Premonetary Greece: Acquisition and Distribution of Raw Materials and Finished Products. Proceedings of the 6th International Workshop, Athens 1996*, ed. Carole Gillis, Christina Risberg, and Birgitta Sjöberg, 87-107. *SIMA-PB* 154. Jonsered, Sweden: Åström.
- Decharme, Paul. 1869. *De Thebanis Artificibus*. Paris: privately published.

- Deger-Jalkotzy, Sigrid, and Oswald Panagl, eds. 2006. *Die neuen Linear B-Texte aus Theben: Ihr Aufschlusswert für die mykenische Sprache und Kultur. Akten des internationalen Forschungskolloquiums an der Österreichischen Akademie der Wissenschaften (5.–6. Dezember 2002)*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Demakopoulou, Katie. 1973–1974a. “Οδός Δαγλαρίδου 14.” *Αρχαιολογικόν Δελτίον* 29 B: 439.
- . 1973–1974b. “Οδός Πελοπίδου 28.” *Αρχαιολογικόν Δελτίον* 29 B: 441.
- . 1973–1974c. “Οδός Κάδμου 58.” *Αρχαιολογικόν Δελτίον* 29 B: 439–40.
- . 1973–1974d. “Οδός Τσεβᾶ καί Βουρδουμπᾶ.” *Αρχαιολογικόν Δελτίον* 29 B: 437–38.
- . 1973–1974e. “Οδός Πινδάρου 29.” *Αρχαιολογικόν Δελτίον* 29 B: 430–33.
- . 1974. “Μυκηναϊκόν ἀνακτορικόν ἐργαστήριον εἰς Θήβας.” *Αρχαιολογικά Ἀνάλεκτα ἐξ Ἀθηνῶν* 7: 162–73.
- . 1975a. “Οδός Ἐπαμεινώνδα 58 (οικόπεδο Π. Μελετίου).” *Αρχαιολογικόν Δελτίον* 30 B: 128–31.
- . 1975b. “Οδός Τσεβᾶ 24 (οικόπεδο Σπουρλῆ).” *Αρχαιολογικόν Δελτίον* 30 B: 128–31.
- . 1975c. “Οδός Πελοπίδου 25 (οικόπεδο Δημ. Στέφα).” *Αρχαιολογικόν Δελτίον* 30 B: 131–33.
- . 1976a. “Οικόπεδο Στ. και Ν. Μανίσαλη.” *Αρχαιολογικόν Δελτίον* 31 B: 121–25.
- . 1976b. “Οικόπεδο Π. Ζουλάμογλου.” *Αρχαιολογικόν Δελτίον* 31 B: 125–26.
- . 1978. “Οικόπεδο Σωτ. Κοροπούλη.” *Αρχαιολογικό Δελτίο* 33 B: 108–12.
- . 1979a. “Οδός Αντιγόνης 14 (οικόπεδο Α. Λούκου).” *Αρχαιολογικόν Δελτίο* 34 B: 163–65.
- . 1979b. “Οδός Πελοπίδου 5 (οικόπεδο Λ. Παυλογιαννόπουλου).” *Αρχαιολογικόν Δελτίο* 34 B: 165.
- . 1979c. “Οδός Πινδάρου 60 (οικόπεδο ἀδελφῶν Τζώρτζη).” *Αρχαιολογικό Δελτίο* 34 B: 168.
- . 1980. “Οδός Ζεγγίνη 3.” *Αρχαιολογικό Δελτίο* 35 B: 215–17.
- . 1988. “Το μυκηναϊκό ἀνάκτορο της Θήβας: προβλήματα χρονολόγησης και ταύτισης.” In *Α' Διεθνές Συνέδριο Βοιωτικῶν Μελετῶν (Θήβα, 10–14 Σεπτεμβρίου 1986)*, ed. Alexandros Bekiaris, 75–85. Vol. A:α. Athens: Society of Boeotian Studies.
- . 1990. “Palatial and Domestic Architecture in Mycenaean Thebes.” In *L'habitat égéen préhistorique*, 308–17.
- , and Dora Konsola. 1975. “Λείψανα πρωτοελλαδικού, μεσοελλαδικού και υστεροελλαδικού οικισμού στη Θήβα.” *Αρχαιολογικόν Δελτίον* 30 A: 44–89.
- . 1981. *Αρχαιολογικό Μουσείο της Θήβας*. Athens: Ταμείο Αρχαιολογικῶν Πόρων και Απαλλοτριώσεων.
- Dickinson, Oliver T. P. K. 1977. *The Origins of Mycenaean Civilisation*. SIMA 49. Gothenburg: Åström.
- Eder, Birgitta. 2007. “The Power of Seals: Palaces, Peripheries, and Territorial Control in the Mycenaean World.” In *BABS*, 35–45.
- Fabricius, Ernst. 1890. *Theben: Eine Untersuchung über die Topographie und Geschichte der Hauptstadt Böeotiens*. Freiburg: Akademie Antrittsprogramm.
- Faraklas, Nikolaos. 1966. “Καδμείον. Οικόπεδον Α. καί Σ. Τζώρτζη (Πινδάρου καί Αντιγόνης).” *Αρχαιολογικόν Δελτίον* 21 B: 177–80.
- . 1967a. “Ερευνα τοῦ τύμβου τοῦ Ἄμφειου.” *Αρχαιολογικόν Δελτίον* 22 B: 229–30.
- . 1967b. “Μυκηναϊκοί τάφοι κατά τόν λόφον τοῦ Ἄμφειου.” *Αρχαιολογικόν Δελτίον* 22 B: 229.
- . 1967c. “Μυκηναϊκός τάφος λόφου Ἰσημνίου.” *Αρχαιολογικόν Δελτίον* 22 B: 227.
- . 1967d. “Ναός Ἰσημνίου.” *Αρχαιολογικόν Δελτίον* 22 B: 232–33.
- . 1967e. “Ναός Ταξιαρχῶν.” *Αρχαιολογικόν Δελτίον* 22 B: 227.

- . 1967f. “Μυκηναϊκοί τάφοι εἰς λόφον Μεγάλο Καστέλλι.” *Ἀρχαιολογικόν Δελτίον* 22 B: 227–28.
- . 1967g. “Οἰκόπεδον ἀδελφῶν Νικολιδάκη.” *Ἀρχαιολογικόν Δελτίον* 22 B: 239.
- . 1968a. “Οἰκόπεδον Π. Λεοντάρη.” *Ἀρχαιολογικόν Δελτίον* 23 B: 208–10.
- . 1968b. “Ἀνασκαφή οἰκοπέδου Ἰ. Παναγιωτοπούλου.” *Ἀρχαιολογικόν Δελτίον* 23 B: 211.
- . 1968c. “Οἰκόπεδον Ἀλεξ. Μαυλάση.” *Ἀρχαιολογικόν Δελτίον* 23 B: 219–20.
- . 1968d. “Θήβαι: ἀνασκαφή οἰκοπέδου Λιακοπούλου-Κύρτση.” *Ἀρχαιολογικά Ἀνάλεκτα ἐξ Ἀθηνῶν* 1 (3): 241–43.
- . 1969. “Πυρί Θηβῶν.” *Ἀρχαιολογικόν Δελτίον* 24 B: 175–77.
- . 1998. *Θηβαϊκά*. Ἀρχαιολογική Ἐφημερίς 135. Athens: Archaeological Society of Athens.
- Fossey, John M. 1988. *Topography and Population of Ancient Boeotia*. Vols. 1–2. Chicago: Ares.
- Gauvin, Ginette, and John M. Fossey 1985. “Livadhostra: Un relève topographique des fortifications de l’ancienne Kreusis.” In *La Beotie antique: Actes du Colloque international (Lyon, Saint-Etienne, 16–20 mai 1983)*, ed. Paul Roesch and Gilbert Argoud, 77–86. Paris: CNRS.
- Hägg, Robin, and Dora Konsola, eds. 1986. *Early Helladic Architecture*.
- Heurtley, William A. 1923. “Notes on the Harbours of S. Boeotia and Sea Trade between Boeotia and Corinth in Prehistoric Times.” *BSA* 26: 38–45.
- Kassimi-Soutou, Maria. 1980. “Μεσοελλαδικός τάφος πολεμιστή από τη Θήβα.” *Ἀρχαιολογικό Δελτίο* 35 A: 88–101.
- Keramopoulos, Antonios. 1909. “Ἡ Οικία τοῦ Κάδμου.” *Ἀρχαιολογική Ἐφημερίς*: 57–122.
- . 1910. “Μυκηναϊκοί τάφοι ἐν Αἰγίνῃ καί ἐν Θήβαις.” *Ἀρχαιολογική Ἐφημερίς*: 209–43.
- . 1917. *Θηβαϊκά*. Ἀρχαιολογικόν Δελτίον 3. Athens: Estia.
- . 1930. “Αἱ βιομηχανία καί τό ἐμπόριον τοῦ Κάδμου.” *Ἀρχαιολογική Ἐφημερίς*: 29–58.
- Killen, John T. 1992. “Observations on the Thebes Sealings.” In *Μυκηναϊκά: Actes du IXe Colloque International sur les textes myceniens et egeens organisé par le Centre de l’Antiquité grecque et romaine de la Fondation hellénique des recherches scientifiques et l’École française d’Athènes (Athènes, 2–6 Octobre 1990)*, ed. Jean-Pierre Olivier, 365–80. BCH Suppl. 25. Athens: L’École française d’Athènes.
- . 1994. “Thebes Sealings, Knossos Tablets, and Mycenaean State Banquets.” *BICS* 39: 67–84.
- . 1999. “Some Observations on the New Thebes Tablets.” *BICS* 43: 217–19.
- Knauss, Jost. 1995. “Technical and Historical Aspects of the Unfinished Ancient Drainage Tunnel at the Outmost Northeast Corner of the Kopais Basin.” In *Β’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Λειβαδιά, 6–10 Σεπτεμβρίου 1992)*, ed. Alexandra Christopoulou, 83–95. Vol. B:α. Athens: Society of Boeotian Studies.
- Konsola, Dora. 1981. *Προμυκηναϊκή Θήβα. Χωροταξική και Οικιστική Διάρθρωση*. Athens: privately published.
- . 1986. “Stages of Urban Transformation.” In *Early Helladic Architecture*, 9–19.
- Loucas, Ioannis, and Eveline Loucas. 1987. “La tombe des jumeaux divins Amphion et Zethos et la fertilité de la terre béotienne.” In *Thanatos*, 95–106.
- McArthur, Jennifer K., and John T. McArthur. 1974. “The Theban Stirrup-jars and East Crete: Further Considerations.” *Minos* 15: 68–80.
- McArthur, John T. 1978. “Inconsistencies in the Composition and Provenance Studies of the Inscribed Stirrup-jars Found at Thebes.” *Archaeometry* 20(2): 177–82.
- Mommsen, Hans, Eleni Andrikou, Vassilis Aravantinos, and Joseph Maran. 2002. “Neutron Activation Analysis of Bronze Age Pottery from Boeotia including Ten Linear B Inscribed Stirrup-jars of Thebes.” In *Archaeometry 98: Proceedings of the 31st*

- Symposium (Budapest, April 26–May 3, 1998)*, ed. Erzsebet Jerem and Katalin T. Biró, 607–12. BAR-IS 1043. Oxford: Archaeopress.
- Mylonas, Georgios. 1936. “Ο ἐνεπίγραφος ἀμφορεύς τῆς Ἐλευσίνος καί ἡ ἑλλαδική γραφή.” *Αρχαιολογική Ἐφημερίς*: 61–100.
- Nikita, Kalliopi, and Julian Henderson. 2006. “Glass Analyses from Mycenaean Thebes and Elateia: Compositional Evidence for a Mycenaean Glass Industry.” *Journal of Glass Studies* 48: 71–120.
- . In press. “Τεχνολογία και παραγωγή υαλωδών υλικών στη μυκηναϊκή Θήβα.” In *Ε’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 16–19 Σεπτεμβρίου 2005)*, ed. Vassilis Aravantinos. Athens: Society of Boeotian Studies.
- Nosch, Marie-Louise. 2001–2002. “The Textile Industry at Thebes in the Light of the Textile Industries at Pylos and Knossos.” *Studia Minora Facultatis Philosophicae Universitatis Brunensis* 6–7: 179–91.
- . In press. “The Textile Industry at Thebes, according to the Linear B Tablets.” In *Δ’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Λιβαδειά 9–13 Σεπτεμβρίου 2000)*, ed. Vassilis Aravantinos. Athens: Society of Boeotian Studies.
- Olivier, Jean-Pierre. 1971. “Notes épigraphiques sur les tablettes en Linéaire B de la série Ug de Thèbes.” *Αρχαιολογικά Ανάλεκτα ἐξ Ἀθηνῶν* 4(2): 269–72.
- Palaima, Thomas G. 2000. “The Palaeography of Mycenaean Inscribed Sealings from Thebes and Pylos and Their Place within the Mycenaean Administrative System and Their Links with the Extra-palatial Sphere.” In *Minoisch-mykenische Glyptik*, 219–37.
- . 2004. “Sacrificial Feasting in the Linear B Documents.” In *The Mycenaean Feast*, ed. James C. Wright, 97–126. *Hesperia* 73(2). Princeton: American School of Classical Studies at Athens.
- . In press. “The Significance of the Discovery of Linear B Tablets at Thebes: The Pioneering Years.” In *A Century of Archaeological Work at Thebes (1900–2000): Pioneers and Ongoing Research (Centenary Conference, Thebes, 16–17 November 2002)*, ed. Vassilis Aravantinos and Elena Kountouri, Athens: Ταμείο Αρχαιολογικών Πόρων και Απαλλοτριώσεων.
- Papadaki, Athina. 2000. “Τοπογραφικά και αρχαιολογικά Αρχαίων Ποτνιών (Τάχι, Θηβών).” In *Γ’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 4–8 Σεπτεμβρίου 1996)*, ed. Vassilis Aravantinos, 357–69. Vol. Γ:α. Athens: Society of Boeotian Studies.
- . In preparation. *Das Elfenbein in mykenischen Theben*. PhD diss., University of Heidelberg.
- Paton, James M. 1951. *Mediaeval and Renaissance Visitors to Greek Lands*. Princeton: American School of Classical Studies at Athens.
- Peperaki, Olia. 2000. “Καθημερινές δραστηριότητες στην πρωτοελλαδική Θήβα. Νέα στοιχεία από την ανασκαφή του οικοπέδου κληρονόμων Απ. Νερούτσου.” In *Γ’ Διεθνές Συνέδριο Βοιωτικών Μελετών (Θήβα, 4–8 Σεπτεμβρίου 1996)*, ed. Vassilis Aravantinos, 203–18. Vol. Γ:α. Athens: Society of Boeotian Studies.
- Piteros, Christos. 1983. “Οδός Οιδίποδος 1 (οικόπεδο Δ. Λιάγκα).” *Αρχαιολογικό Δελτίο* 38 B: 131–34.
- , Jean-Pierre Olivier, and Jose L. Melena. 1990. “Les inscriptions en Linéaire B des nodules de Thèbes (1982): La fouille, les documents, les possibilités d’interprétation.” *BCH* 114: 103–84.
- Platon, Nikolaos, and Evi Touloupa. 1964a. “Oriental Seals from the Palace of Cadmus: Unique Discoveries in Boeotian Thebes.” *Illustrated London News* (November 28): 859–61.
- . 1964b. “Ivories and Linear-B from Thebes.” *Illustrated London News* (December 5): 896–97.

- Porada, Edith. 1981. "The Cylinder Seals Found at Thebes in Boeotia, with Contributions on the Inscriptions from Hans G. Güterbock and John A. Brinkman." *Archiv für Orientforschung* 28(1): 1–78.
- Psaraki, Kiki. 2004. "A New EH Pottery Assemblage from Thebes." In *Die Ägäische Frühzeit. 2. Serie Forschungsbericht 1975–2002. 2. Band Teil 2, Die Frühbronzezeit in Griechenland mit Ausnahme von Kreta*, ed. Eva Alram-Stern, 1259–66. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Raison, Jacques. 1968. *Les vases à inscriptions peintes de l'âge mycénien et leur contexte archéologique*. Incunabula Graeca 19. Rome: Istituto per gli Studi Micenei ed Egeo-Anatolici.
- Reusch, Helga. 1948. "Der Frauenfries von Theben." *AA* 63–64: 240–53.
- . 1953. "Ein Schildfresco aus Theben." *AA* 69: 16–25.
- . 1956. *Die zeichnerische Rekonstruktion des Frauenfrieses im boötischen Theben*. Berlin: Akademie Verlag.
- Roller, Duane W. 1988. *Early Travellers in Eastern Boeotia*. Amsterdam: Gieben.
- Roumpou, Maria, Kiki Psaraki, Vassilis Aravantinos, and Carl Heron. 2007. "Early Bronze Age Cooking Vessels from Thebes: Organic Residue Analysis and Archaeological Implications." In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*, ed. Christopher Mee and Josette Renard, 158–73. Oxford: Oxbow.
- Rutter, Jeremy B. 1993. "Review of Aegean Prehistory II: The Prepalatial Bronze Age of the Southern and Central Greek Mainland." *AJA* 97(4): 745–97.
- Sampson, Adamantios. 1980. "Οδός Πελοπίδου (οικόπεδο Μ. Λούκου)." *Αρχαιολογικό Δελτίο* 35 B: 218–20.
- . 1981a. "Πάροδος οδού Ιοκάστης (Ο.Τ. 156) (οικόπεδο αδελφών Αντ. και Δημοσθ. Ματάλα)." *Αρχαιολογικό Δελτίο* 36 B: 190–91.
- . 1981b. "Πλατεία Αγίου Ιωάννη (οικόπεδο Βουδικλάρη-Κυριακού)." *Αρχαιολογικό Δελτίο* 36 B: 192–93.
- . 1985. "La destruction d'un atelier palatial mycénien à Thèbes." *BCH* 109: 21–29.
- Schläger, Helmut, David Blackman, and Jörg Schaefer. 1968. "Der Hafen von Anthedon mit Beiträgen zur Topographie und Geschichte der Stadt." *AA* 83: 21–102.
- Shelmerdine, Cynthia W. 1997. "Workshops and Record Keeping in the Mycenaean World." In *TEXNH*, 387–98.
- Snyder, Lynn M., and Eleni Andrikou. 2001. "Raw Material for a Helmet? Evidence for Boar's Tusk Harvesting in a Late Helladic Context, Thebes." *AJA* 105(2): 304 (abstract).
- Soteriadis, Georgios. 1900. "Περί της τοπογραφίας τῶν ἀρχαίων Θηβῶν." *Φιλολογικός Σύλλογος Παρνασσός, Ἐπετηρίς* 4: 140–70.
- Spyropoulos, Theodoros. 1969a. "Οικόπεδον Π. Λεοντάρη." *Αρχαιολογικόν Δελτίον* 24 B: 183.
- . 1969b. "Οικόπεδον Κωνστ. Δούρου." *Αρχαιολογικόν Δελτίον* 24 B: 180.
- . 1969c. "Οικόπεδον ἀδελφῶν Δαγδελένη." *Αρχαιολογικόν Δελτίον* 24 B: 180–82.
- . 1970a. "Οικόπεδον Στάκου." *Αρχαιολογικόν Δελτίον* 25 B: 213–14.
- . 1970b. "Οικόπεδον Βρυζάκη." *Αρχαιολογικόν Δελτίον* 25 B: 216–17.
- . 1970c. "Οικόπεδον ἀδελφῶν Σταυρῆ." *Αρχαιολογικόν Δελτίον* 25 B: 214–15.
- . 1970d. "Οικόπεδον Νικ. Θαλασσινού." *Αρχαιολογικόν Δελτίον* 25 B: 217–18.
- . 1970e. "Οικόπεδον Ε. Φίλου." *Αρχαιολογικόν Δελτίον* 25 B: 220.
- . 1971a. "Οικόπεδον Χαραλάμπους Βρυζάκη." *Αρχαιολογικόν Δελτίον* 26 B: 202.
- . 1971b. "Μυκηναϊκά τοιχογραφήματα ἐκ Θηβῶν." *Αρχαιολογικόν Δελτίον* 26 A: 104–19.
- . 1972a. "Μεγάλο Καστέλλι." *Αρχαιολογικόν Δελτίον* 27 B: 309–12.
- . 1972b. "Οικόπεδον Κωνστ. Γκίκα." *Αρχαιολογικόν Δελτίον* 27 B: 307.

- . 1972c. "Ὀδός 19, Νέαι Θῆβαι (οἰκόπεδον Τριπερίνα)." *Ἀρχαιολογικόν Δελτίον* 27 B: 319–21.
- . 1973. "Μεγάλο Καστέλλι." *Ἀρχαιολογικόν Δελτίον* 28 B: 252–58.
- . 1981. *Ἀμφεῖον. Ἐρευνα καὶ Μελέτη τοῦ Μνημείου τοῦ Ἀμφεῖου Θηβῶν*. Sparta: privately published.
- . 2008. "Amphieion at Boeotian Thebes: Burial Practices and Ritual Performances in Early Helladic Greece." In *Ancestral Landscapes: Burial Mounds in the Copper and Bronze Ages (Udine, May 15–18, 2008)* (abstract).
- , and John Chadwick. 1975. *Thebes Tablets II*. Minos Suppl. 4. Salamanca: Ediciones Universidad de Salamanca.
- Symeonoglou, Sarantis. 1965. "Οἰκόπεδον Μάλαθούνη." *Ἀρχαιολογικόν Δελτίον* 20 B: 237.
- . 1966a. "Οἰκόπεδον Σταμ. Σταμάτη." *Ἀρχαιολογικόν Δελτίον* 21 B: 189–91.
- . 1966b. "Οἰκόπεδον Σταυροπούλου." *Ἀρχαιολογικόν Δελτίον* 21 B: 192–93.
- . 1966c. "Οἰκόπεδον Κτιστάκη." *Ἀρχαιολογικόν Δελτίον* 21 B: 187–88.
- . 1966d. "Οἰκόπεδον Αναστ. Θεοδώρου." *Ἀρχαιολογικόν Δελτίον* 21 B: 188–89.
- . 1966e. "Οἰκόπεδον Γιαννοπούλου-Δημητρακοπούλου." *Ἀρχαιολογικόν Δελτίον* 21 B: 183–87.
- . 1973. *Kadmeia I: Mycenaean Finds from Thebes, Greece. Excavation at 14 Oedipus St. SIMA 35*. Gothenburg: Åström.
- . 1985. *The Topography of Thebes from the Bronze Age to Modern Times*. Princeton: Princeton University Press.
- Touloupa, Evi. 1964a. "Οἰκόπεδον Α. καὶ Σ. Τζώρτζη." *Ἀρχαιολογικόν Δελτίον* 19 B: 194–95.
- . 1964b. "Οἰκόπεδον Π. Θεοδώρου." *Ἀρχαιολογικόν Δελτίον* 19 B: 192.
- . 1964c. "Οἰκόπεδον Ι. καὶ Κ. Τζώρτζη." *Ἀρχαιολογικόν Δελτίον* 19 B: 192–94.
- . 1964d. "Ἀνασκαφή οἰκοπέδου Δημ. Παυλογιαννόπουλου." *Ἀρχαιολογικόν Δελτίον* 19 B: 197.
- . 1965a. "Καδμεῖον. Οἰκόπεδον Δημ. Παυλογιαννόπουλου (Πελοπίδου 28)." *Ἀρχαιολογικόν Δελτίον* 20 B: 233–35.
- . 1965b. "Καδμεῖον. Οἰκόπεδον Α. καὶ Σ. Τζώρτζη." *Ἀρχαιολογικόν Δελτίον* 20 B: 230–32.
- Tsota, Evi. In press. "Ἡ απεικόνιση τῆς ἀνθρώπινης μορφῆς στὴ Νεολιθικὴ Βοιωτία. Νέα στοιχεῖα ἀπὸ τὴν ἀνασκαφὴ τῆς Ἀνισόπεδης Διάβασης Ο.Σ.Ε." In *Ε' Διεθνὲς Συνέδριο Βοιωτικῶν Μελετῶν (Θήβα, 16–19 Σεπτεμβρίου 2005)*, ed. Vassilis Aravantinos. Athens: Society of Boeotian Studies.
- Tzavella-Evjén, Hara, and Janet Stultz. 1997. "Reexamination of the Mycenaean Cemeteries in Thebes: Taphonomic Observations and Pottery Classification." *AJA* 101(2): 348–49.
- Vika, Ephrosinī, and Mike Richards. In press. "Θηβαίων γεύσεις: ἡ διατροφή στὴν Ἀρχαία Θήβα ἀπὸ τὴν προϊστορικὴ στὴν κλασικὴ ἐποχὴ μέσα ἀπὸ τὴν ἀνάλυση σταθερῶν ἰσοτόπων ^{13}C καὶ ^{15}N στὸ σκελετικὸ υλικὸ Ὀπισθεν Μουσείου καὶ ΟΣΕ." In *Ε' Διεθνὲς Συνέδριο Βοιωτικῶν Μελετῶν (Θήβα, 16–19 Σεπτεμβρίου 2005)*, ed. Vassilis Aravantinos. Athens: Society of Boeotian Studies.
- Vitale, S. 2006. "The LH IIIB–LH IIIC Transition on the Mycenaean Mainland: Ceramic Phases and Terminology." *AJA* 75(2): 177–204.
- Wilson, Andrew L. 1976. "The Provenance of the Inscribed Stirrup-jars Found at Thebes." *Archaeometry* 18(1): 51–58.

CHAPTER 53

THORIKOS

ROBERT LAFFINEUR

THORIKOS is located in the southeastern part of Attica, some three kilometers north of the modern town of Lavrio, to the east of the Laurion ridge with its metalliferous resources, and facing the island of Makronisos. The site is known in historical times as the place where Demeter landed while searching for her daughter, a sacred place that has probably been recalled by the construction of a doric temple in the nearby Adami plain.

Excavations were conducted in Thorikos in the late 1880s and early 1890s by the Ephor Valerios Staïs and have been carried out since 1963 by a Belgian mission (now the Belgian Archaeological School in Greece, which is currently working on the site). The most significant remains are the late classical theater, with the unique oblong shape of its *cavea*, and the 4th-century industrial quarter with ore washeries in the lower parts of the city, as well as cemeteries of the Geometric period and important ruins of Mycenaean date on the acropolis—the Velatouri hill. Human occupation and activity are directly connected with the availability of argentiferous lead ore, which turned into an economic and strategic richness especially at the beginning of the Mycenaean period.

The exploitation of Laurion argentiferous lead ore is attested as early as the Early Helladic period in Mine no. 3 in the Theater sector, in which late Early Helladic II pottery has been discovered (Spitaels 1984, 166–70). Traces of stone hammers from the same period have been recognized (Waelkens 1990), but no evidence of transformation of the ore has been recorded at the site at such an early date. The real beginnings of an elaborate metallurgy are documented in the Early Helladic period only in neighboring sites of Attica: cupellation, the method for separating lead and silver from the local argentiferous lead ore, has been practiced as early as the 3rd millennium, as indicated by finds of litharge, the residue of the process of cupellation, at Koropi, close to the new Athens airport, in an Early Helladic II context and in an Early Helladic house at Provatsa on the western coast of Makronisos, just

opposite Thorikos (Spitaels 1984, 171). This has to be related to the results of analyses of Cycladic lead and silver, which emphasize that the two materials frequently originate from the Laurion (Gale, Stos-Gale, and Davis 1984).

At Thorikos, the earliest find of litharge so far has been made in sector I 53 (squares c5–e5 and d6) on the Velatouri, where a long sequence could be revealed between the Final Neolithic and the Archaic period. Fragments of litharge were found on a soil that the excavator has dated to the end of the 16th century (Servais 1967, 22–24; Gale and Stos-Gale 1982, 99–100). Though a relatively late testimony in comparison with the earlier-mentioned evidence from other parts of Attica, this find has great importance since it is very close in time to the period of the first main monumental development at Thorikos in the early Mycenaean phase (the construction of the oblong tomb and the tholos), if not strictly contemporary with it. It suggests that metallurgical activities, implying specific technological processes and providing specific materials, could have given an impetus to local development and that those prerequisite conditions of development were indeed present at the very beginning of the Late Bronze Age.

The architectural remains of the Mycenaean period that have been uncovered at Thorikos so far belong chiefly to funerary architecture. They are presented in chronological order here, and I stress their constructional features and define their connections with other parts of the Mycenaean mainland.

The earliest assemblage is tomb V, located immediately to the south of the oblong tomb, on the saddle between the two hills of the Velatouri (Servais and Servais-Soyez 1984, 61–66). This is a cist grave encircled by a rectangular construction of 7.80 by 5.80 m, a sort of *megaron* with partition wall and protruding *antae*, which has been covered by a tumulus supported by a circular retaining wall with a diameter of about 17.50 m. A low rectangular platform, probably connected with some kind of funerary cult, leans against the external face of the retaining wall in its northern section. The precise date of the monument is not easy to establish. The architectural structure and features, however, point to parallels such as the two earliest tumuli in Vrana-Marathon, tumuli I and II, dated respectively to the Middle Helladic and (early) Late Helladic I periods and showing a similarly built rectangular chamber in the center. The early date seems to be confirmed by the few original offerings that escaped the looters of Tomb V: in addition to Gray Minyan, Mattpainted, and bichrome mattpainted sherds, two fragments of marble jugs and the upper part of an *askos* found in a layer between the *antae* of the *megaron*, the former with parallels in Middle Minoan III and Late Minoan IA, the latter with a good parallel in grave Ypsilon in Grave circle B at Mycenae. Tomb V is in any case earlier than Tomb IV, the earth from the tumulus of which has slipped above the low rectangular platform.

Tomb IV is next in the chronological sequence. It was discovered by A. Milchhöfer in 1887 and excavated by V. Staïs in 1888 and 1893. This is the famous “oblong” tomb—not the oval or ellipsoidal tomb as it has often been called and not a tholos either since the term implies a circular shape (Servais and Servais-Soyez 1984, 16–46). The unique plan of the chamber, a rectangle with two semicircular extensions at the short sides, and the unique structure of its vault, similar to a tent with two half-conical extensions, are intriguing and without any parallels in the

Aegean—the only comparable structures are the megalithic *navetas* of the Balearic Islands, but they are geographically quite separate, their chronology is not definitely established, and though similar in general shape, they show differences as well, usually only one apsidal short side and a two-storied structure.

The tomb at Thorikos should be seen instead as an experiment by an individual architect in a period when tholos architecture had not yet achieved its canonical form and structure; this makes the importance of the monument at Thorikos even greater. The experimental character is further emphasized by the apparent correction that has been made to the original symmetrical plan of the dromos, especially the narrowing of its western face and the deviation of its axis to the east of the tomb's general axis. Another unique feature is the presence on the floor of the chamber of five long limestone blocks of rectangular section that were apparently used to form the crest line of the vault on a length of about 6 m, answering that surprising characteristic of the oblong tomb, namely the linear apex of its roof as opposed to the usual pointed apex of true tholos tombs. But the main features of the somewhat later circular tholos (Tomb III) are already present, namely the circular peribolos wall, which functions both as a retaining wall of the tumulus and as a symbolic enclosure of the tomb and is the only partially effective relieving triangle that does not drive through the whole masonry and was consequently not visible from either the dromos or the chamber. The latter adds to the tomb's experimental character.

Though the tomb had been looted in antiquity (through a hole cut in one of the lintel slabs), a sufficient number of offerings were recovered during excavation to allow a rather precise date for its construction (Servais and Servais-Soyez 1984, 46–57). These offerings include a gold sheet ornament in the shape of a butterfly, similar to examples from shaft grave III at Mycenae, two papyrus-shaped gold beads that have counterparts in shaft grave III at Mycenae, two circular gold sheets with a griffin in repoussé, a gold sheet with three rows of repoussé spirals of a variety known from Mycenae, a small gold spoon that has counterparts in the early Mycenaean period in Messenia and Laconia, and a gold rod of octagonal section, whose narrow central part is very similar to specimens from shaft grave IV at Mycenae. The ceramic material consists of sherds from the end of Late Helladic I that are probably, like the gold ornaments mentioned earlier, contemporary with the tomb's construction (just before 1500). However, quantities of Minyan and matt-painted sherds have also been found in different parts of the tomb and represent a late persistence of Middle Helladic types known from several Peloponnesian sites in Late Helladic I. The fragments of a palace-style jar of Late Helladic IIA date with zigzags and small double-ax designs are likely related to a later burial, together with fragments of four other jars of similar type with motifs of crocuses, sacral ivies, nautiloi, and foliate bands.

Tomb III, the circular tomb, the only true tholos, is next (figure 53.1). Though not one of the largest in the series, with 9.25 m for the diameter of the chamber, it offers several interesting characteristics (Gasche and Servais 1971, 17–76). The most obvious is the fact that the axis of its dromos is not perpendicular to the contour lines as usual but parallel to them. The reason for this is not clear, but it likely is related to the specific topographic conditions, especially the rather small space available and its steep lie (on the eastern slope of the acropolis).



Figure 53.1. Dromos and stomion of tholos tomb III from the north (photograph by Robert Laffineur).

An additional feature is the presence of an incomplete relieving triangle that is not entirely functional since it does not go right through the masonry above the lintels—so that Staïs was unable to reveal it. The original interpretation of the late Jean Servais is that this feature, which has been observed in Tomb IV as well, is a sign of ancient date. His suggestion that the tholos tomb of Aegisthus at Mycenae could have had the same feature has proved to be correct, thanks to a recent investigation in the masonry above the lintel of the Mycenae tomb. Significant also is the presence of a circular peribolos wall encircling the tomb and closing the dromos at its entrance—another similarity with tomb IV.

A final feature should be stressed: From a certain height in the elevation, the courses of the masonry of the chamber begin to slope inward, and this movement increases in the upper parts in such a proportion that it shows a rather high value for the last preserved course. Though the cover of the chamber is incompletely preserved, it is tempting to consider this feature as an indication that the cover was possibly approaching the structure of a true vault. This would confirm the experimental character of funerary architecture at Thorikos, which was mentioned earlier for the oblong tomb, as well as, on a more general level, the experimental character of Mycenaean funerary architecture.

This can be further emphasized, for instance, by the original relieving system of superposed horizontal slabs in the tholos tomb at Menidi in Attica and in the tholos tomb at Kopanaki in Messenia. The side faces of the stomion of the latter

show an oblique profile that could be restored, if completed above the level of the last preserved courses, as an example of a corbel vault of triangular section, making the use of lintels and of a relieving triangle unnecessary. A similar feature occurs in the tholos tomb at Tourliditsa in Messenia (on this aspect of tholos tombs see Pelon 1976, 312–19).

Whatever the degree of certainty we have for the possible existence of a true vault, it remains that the sloping courses of masonry have parallels in Tholos tombs A and B at Kakovatos in Triphylia, as well as in the tholos tomb in the necropolis of the Argive Heraeum. Such relations with the Argolid and Messenia are worth remembering when it comes to an appreciation of the position of Thorikos within Mycenaean Greece. The sloping courses were able to be observed because Tholos tomb III at Thorikos is the monument for which we have the best and most certain knowledge of the structure of the masonry of the chamber, thanks to precise sections that the Belgian team was able to record, the only such precise sections to date (figure 53.2).

These have made it possible to recently apply finite element analysis to the masonry of the chamber. Modelizing different possible sections for the vault has resulted in an important observation: The presence of reinforcements of the chamber wall by thickening the masonry at the level of the lintels considerably reduces the traction stresses and consequently the risks of “opening” of the vault and thereby contributes to better stability (Cremasco and Laffineur 1999). That those reinforcements have been built exactly at the level where the stresses concentrate gives clear evidence of the empirical approach to stability problems by Mycenaean engineers. This is, of course, an obvious additional sign of the experimental character of Mycenaean funerary architecture and of funerary architecture at Thorikos in particular.

The similarities with the Tomb of Aegisthus at Mycenae mentioned earlier provide significant evidence for the date of tomb III, as proposed by Servais: “between the Aegisthus tomb as a *terminus post quem* and the second group of Wace as a *terminus ante quem*” (i.e. shortly after 1500) (Gasche and Servais 1971, 74). This date is confirmed by the few grave goods that were able to be preserved, some of them rather precisely datable to Late Helladic IIA: a palace-style jar, a small belly jar, and a squat alabastron, as well as a gold ornament in the shape of a figure-eight shield, very similar to a specimen excavated in the tholos tomb close to the Palace of Nestor at Ano Englianos in Messenia in a Late Helladic IIA context.

A similar date should be given to a fragment of ivory pyxis with running spirals and shell, which has a good parallel in tholos tomb 2 at Routsis in Messenia, about 1500 BC. All of these offerings are attributable to different burials deposited in the three shafts cut into the floor and in the two built sarcophagi leaning against the chamber wall. Though these burials were probably deposited during a rather short period of time, as indicated by a second alabastron of Late Helladic IIB date, it is impossible to individualize them because the original assemblages in the tomb had been disturbed by looters and because only a part of the original offerings were found. The later material should be attributed to a later burial of Late Helladic IIIA₂/IIIB date that could not be located but contained a deep conical bowl and four terracotta Psi figurines.

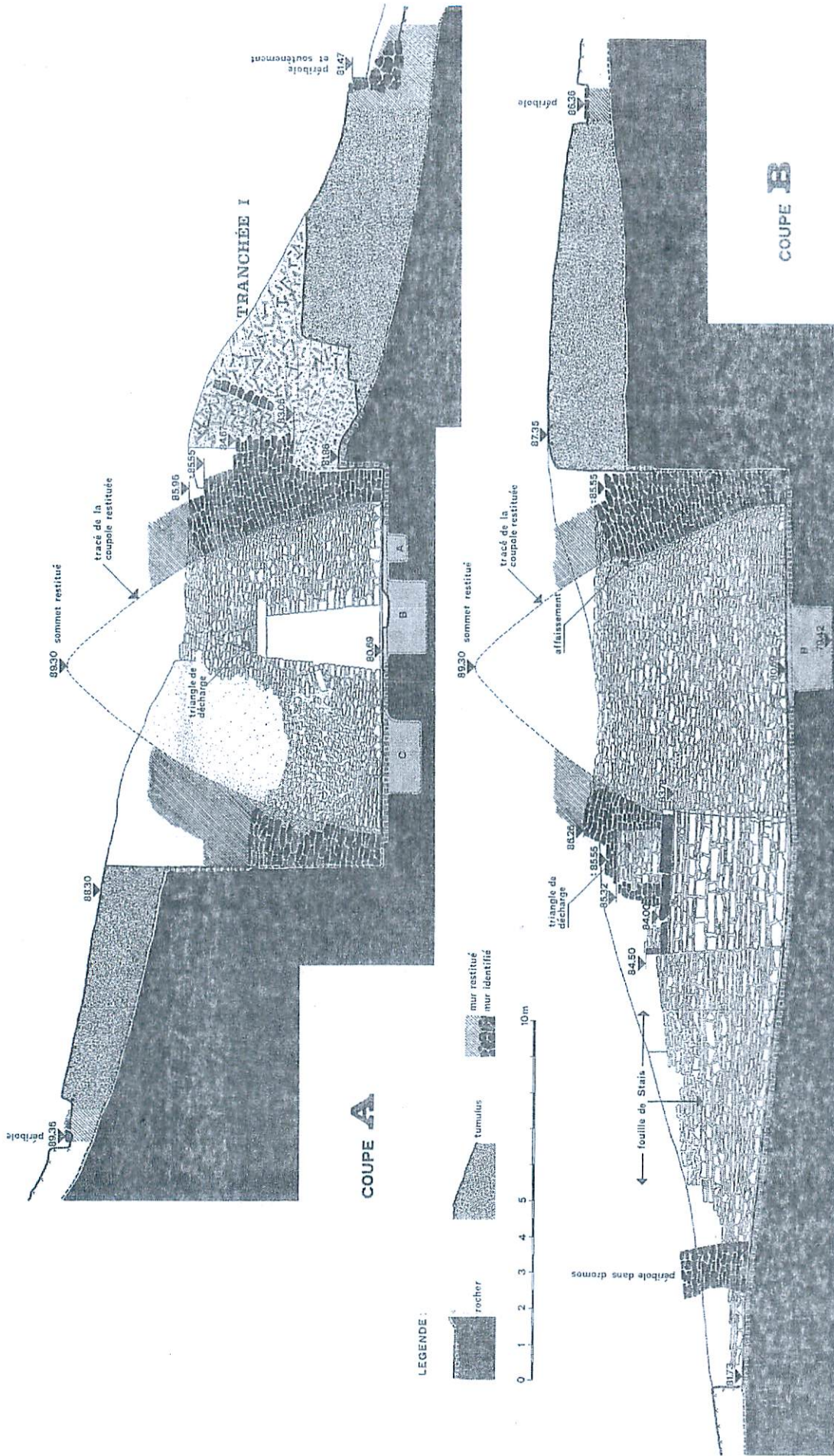


Figure 53.2. Sections of tholos tomb III (after *Thorikos V* 1968, 17-102. Drawing by H. Gasche. Copyright Belgian Archaeological School at Athens).

The last two tombs to mention, numbers I and II, belong to the class of "built chamber tombs," which are relatively rare. They are located to the east and to the west of Tomb IV, respectively.

Tomb I is of oblong shape and has a short dromos that gives access to the western part (Servais 1968, 29–41). In addition to clear evidence of a heroic cult of rather long duration in historical times, between the 7th century and the first half of the 4th (Devillers 1988), it has yielded a squat alabastron of Late Helladic IIA date, as well as stone beads and gold jewelry, including a small double ax and three rings, offerings that most probably belong to one of the original burials in the tomb.

Tomb II is L-shaped, like the "gamma tombs" at Eleusis, with a short dromos at its southern end and a partition wall closing the rectangular chamber itself (Servais 1968, 41–46). On the floor, human bones were found, together with a kylix, a find that "can be considered as the latest from the acropolis," according to Paule Spitaels (Spitaels 1982, 90), who dates it to Late Helladic IIIB/IIIC₁, but which Mountjoy has placed more recently in Late Helladic IIIA₂/IIIB (Mountjoy 1999, 489). This single find, in addition, might belong to a later burial, and the construction of the tomb, according to the comparable evidence from Eleusis, could well be dated to an earlier phase, possibly to Late Helladic IIIA.

A last discovery should be mentioned here, the so-called bothros of uncertain date, found close to the southwestern part of the circular retaining wall of the tumulus of tomb V. It was excavated by Staïs, who considered it as a cult place, but it could well be a tomb instead since its oblong plan is reminiscent of tomb I. It is therefore often designated as the third oval tomb on the acropolis (Hope Simpson and Dickinson 1979, 209; Mountjoy 1999, 489). In addition to the original find of black glaze sherds and Archaic terracotta figurines that could testify to a later cult similar to the heroic cult attested in tomb I, the Belgian mission has revealed Middle Helladic sherds in the lower levels, which might indicate an early construction.

With the exception of tomb II, the architectural remains of Mycenaean date at Thorikos concentrate on the Prepalatial period. Isolated finds, however, indicate that the acropolis was occupied during the palatial phases as well. The excavation of square I 53 j5 has yielded a sequence rather similar to the one in the neighboring sector, I 53 c5–e5 and d6, mentioned earlier, with a Middle Helladic child burial, a fragmentary stemmed goblet of Late Helladic IIIA date, and sub-Geometric walls, as well as some proto-Attic and proto-Corinthian sherds.

The Palatial period is also illustrated by nine vases in the Musées d'art et d'histoire in Geneva, which were purchased in Athens in 1906 by G. Nicole as coming from Thorikos (Servais 1969). The vases are of Late Helladic IIIA₂ and Late Helladic IIIB₁ date and show close similarities with ceramic material excavated from Attic sites. The only exception is a shallow cup that belongs most probably to Late Helladic IIB, has parallels in Prosymna, and could be an import from the Argolid.

Occupation in Late Helladic IIIA and IIIB is confirmed by Hope Simpson, who "noted fine LH IIIA and LH IIIB pottery on the surface of the acropolis hill on a visit in 1956" (Hope Simpson 1965, 104).

Occupation is finally attested at the very end of the palatial period and during Postpalatial times by finds from mine no. 3 in the theater sector. This unstratified material, which Mountjoy has published, belongs to two distinct groups that are respectively attributable to the transitional phase Late Helladic IIIB₂/Late Helladic IIIC Early and to advanced Late Helladic IIIC Middle (Mountjoy 1995). The first group exhibits affinities with Attica and the eastern Peloponnese, including Corinthia, the Argolid, and Laconia. The second group duplicates shapes and decoration already known from Athens and Perati.

The provenance is not insignificant since it indicates that the exploitation of the local metal ore continued in Postpalatial times. As Mountjoy notes:

An enormous number of tripod cooking pots [67 fragments] suggests water may have been heated, the unusually large number of dippers [48 fragments], normally not common in settlement deposits, may have been used to ladle the water into the equally large number of pouring vessels present. The boiling water may have been poured onto the surface of the rock followed by cold water in order to crack it, so the ores could be extracted. (Mountjoy 1995, 224)

Exploitation at such a late date is worth stressing in connection with the lead and silver objects from the necropolis at Perati, which have proved to be made of Laurion ore. Moreover, the similarities between pottery from mine no. 3 and ceramic material from Perati give evidence of the probable origin of the people who were engaged in this late exploitation at Thorikos.

The chronological sequence on the Velatouri hill finally appears rather complete, though with significant differences in the quantity and quality of material recovered. An additional difference concerns architectural remains. These are limited to the early Mycenaean period, which is, in the state of our present knowledge, obviously the richest phase at Thorikos. All of the remains that have been mentioned for that phase belong to the funerary sphere and to the monumental class, but Staïs has excavated remains of settlement on top of the Velatouri hill, with two succeeding phases and material that belongs to the end of Middle Helladic and to the beginning of Late Helladic.

The importance of the top of the acropolis was confirmed in 1976 by the chance discovery, in square H 53, just below the geodesic post, of sherds of a bichrome, matt-painted jar (similar to the finds by Staïs) of a fragment of a Late Minoan I cup in "rippling ware" and of sherds of a stirrup jar of Late Minoan IB date with a double ax on the bottom surface. These finds are especially interesting since they provide the first indications to date of relations between Thorikos and Minoan Crete. This appears extremely significant when it comes to defining the site's place and role in the general framework of mainland Greece in the Late Bronze Age and its evolution within the second half of the second millennium.

Whereas the external relations at the end of Mycenaean palatial times and during the Postpalatial period seem to be limited mainly to the neighboring site of Perati, as has just been pointed out, affinities and connections prove far more numerous, varied, and remote in early Mycenaean times. Most of these connections are with

the Argolid, especially Mycenae, and the southwestern Peloponnese, Messenia and Triphylia and concern both the offerings—the *askos* from the *megaron* of tomb V, the jewelry from tomb IV, the gold ornament in the shape of a figure-eight shield, and the ivory pyxis with running spirals from tomb III—and some significant architectural features, including the partially efficient relieving triangle of tombs IV and III and the sloping courses of the masonry of the chamber in tomb III.

Such a difference in the range and extent of external relations is certainly due to a degree to the basically different general conditions prevailing all over mainland Greece in the two periods (i.e. claim to power, competition, and expansion in a period of formation on the one hand, and isolation and withdrawal after the destruction of palatial centers on the other). However, more specific factors must have played a decisive additional role in particular areas, and Thorikos seems to be one in which such specific conditions played an important role due to its strategic metal resources.

BIBLIOGRAPHY

- Cremasco, Veronica, and Laffineur, Robert. 1999. "The Engineering of Mycenaean Tholoi: The Circular Tomb at Thorikos Revisited." In *Meletemata*, 139–48.
- Devillers, Michèle. 1988. *An Archaic and Classical Votive Deposit from a Mycenaean Tomb at Thorikos. Miscellanea Graeca* 8. Ghent: Belgian Archaeological School in Greece.
- Gale, Noël H., and Stos-Gale, Zofia A. 1982. "Thorikos, Perati, and Bronze Age Silver Production in the Laurion-Attica." *Studies in South Attica I, Miscellanea Graeca* 5: 97–103. Ghent: Belgian Archaeological School in Greece.
- , and Davis, Jack L. 1984. "The Provenance of Lead Used at Ayia Irini, Keos." *Hesperia* 53: 389–406.
- Gasche, Hermann, and Servais, Jean. 1971. "Les fouilles sur le haut du Vélattouri." *Thorikos V* 1968: 17–102. Brussels: Belgian Archaeological School in Greece.
- Hope Simpson, Richard. 1965. *A Gazetteer and Atlas of Mycenaean Sites*. London: Institute of Classical Studies.
- , and Oliver T. P. K. Dickinson. 1979. *A Gazetteer of Aegean Civilisation in the Bronze Age*. Vol. 1, *The Mainland and Islands*. Gothenburg: Åström.
- Mountjoy, Penelope A. 1995. "Thorikos Mine no. 3: The Mycenaean Pottery." *BSA* 90: 195–228.
- . 1999. *Regional Mycenaean Decorated Pottery*. Rahden: Leidorf.
- Pelon, Olivier. 1976. *Tholoi, tumuli, et cercles funéraires: Recherches sur les monuments funéraires de plan circulaire dans l'Égée de l'Âge du Bronze (IIIe et IIe millénaires av. J.-C.)*. Athens: L'École française d'Athènes.
- Servais, Jean. 1967. "Les fouilles sur le haut du Vélattouri." *Thorikos III* 1965: 9–30. Brussels: Belgian Archaeological School in Greece.
- . 1968. "Le secteur mycénien sur le haut du Vélattouri." *Thorikos I* 1963: 27–46. Brussels: Belgian Archaeological School in Greece.
- . 1969. "Vases mycéniens de Thorikos au Musée de Genève." *Thorikos IV* 1966/1967: 53–69. Brussels: Belgian Archaeological School in Greece.

- , and Servais-Soyez, Brigitte. 1984. "La tholos 'oblongue' (Tombe IV) et le tumulus (Tombe V) sur le Vélattouri." *Thorikos VIII 1972/1976*: 15–71. Brussels: Belgian Archaeological School in Greece.
- Spitaels, Paule. 1982. "An Unstratified Late Mycenaean Deposit from Thorikos (Mine Gallery no. 3) Attica." *Studies in South Attica I, Miscellanea Graeca* 5: 83–96. Ghent: Belgian Archaeological School in Greece.
- . 1984. "The Early Helladic Period in Mine no. 3 (Theatre Sector)." *Thorikos VIII 1972/1976*: 151–74. Brussels: Belgian Archaeological School in Greece.
- Waelkens, Marc. 1990. "Tool Marks and Mining Techniques in Mine no. 3." *Thorikos IX 1977/1982*: 115–43. Brussels: Belgian Archaeological School in Greece.

CHAPTER 54

TIRYNS

JOSEPH MARAN

THE strongly fortified acropolis of Mycenaean Tiryns lies about 1.8 km from the present coast of the Bay of Nauplion, where it perches on a narrow, rocky outcrop that reaches a height of up to 28 m above sea level. The hill slopes from south to north, a topographic feature used during the Mycenaean period to create a division into an Upper Citadel, a Middle Citadel, and a Lower Citadel by demarcating the limits of the different parts of the hill with strong, supporting walls. The acropolis of Tiryns was surrounded by an extensive settlement, the Lower Town, whose size during the different phases of occupation is still difficult to determine.

Of all of the Mycenaean palatial centers, Tiryns is the one closest to the sea. This fact, together with the strong archaeological indications for its participation in long-distance exchange (Cline 1994, 54; 2007, 191–95; Maran 2004b; 2008, 50–60), underlines the site's importance as a major Mediterranean harbor during the Bronze Age. Geoarchaeological research by Eberhard Zangger (1993, 77–82; 1994) points to significant changes of the distance from the site to the coast during the Holocene. While in the third millennium BC the coastline was only a few hundred meters from the foot of the acropolis hill, in Mycenaean times the shoreline had moved outward due to massive sedimentation as a consequence of soil erosion, reaching a position approximately half as far as the current modern coast.

HISTORY OF EXCAVATIONS

Nowadays, the appearance of Tiryns is characterized by the Mycenaean fortification wall, which reaches a width of up to seven meters and consists of Cyclopean masonry that has remained visible since antiquity. Because of its impressive appearance, the

identification of the site as ancient Tiryns was never disputed, which is why the site very early on attracted the attention of travelers and archaeologists. Tiryns was visited in antiquity by the traveler Pausanias, who admiringly compared its walls to the pyramids of Egypt, and in 1831 the Greek scholar and diplomat Alexandros Rizos-Rangavis and the German philologist Friedrich Thiersch undertook a one-day excavation on the Upper Citadel and claimed to have discovered the palace (Papadimitriou 2001, 6–13).

Heinrich Schliemann conducted a short campaign of soundings at the site in 1876 and then began a systematic excavation of Tiryns in 1884 and 1885 together with Wilhelm Dörpfeld, during which time the remains of the last Mycenaean palace on the Upper Citadel were largely uncovered. Their work was continued between 1905 and 1929 under the direction of Dörpfeld and later Georg Karo and Kurt Müller, who extended the focus of excavations to the area of the Lower Town.

In the late 1950s, restoration works under the direction of Nikolaos Verdelis revealed the underground cisterns in the Lower Citadel and thereby initiated the resumption of fieldwork by the German Archaeological Institute. These excavations extended the focus to areas that had been neglected until then, namely the Lower Citadel and the Lower Town. Of particular importance were the large-scale excavations between 1976 and 1983, directed by Klaus Kilian in the Lower Citadel, which contributed to the clarification of the long-term usage and structure of this part of the site. In addition, in 1984 and 1985 Kilian investigated the area of the Megara on the Upper Citadel and provided new insights into the architectural history of the central part of the Mycenaean palace. Since 1997, ongoing excavations by the German Archaeological Institute under the direction of Joseph Maran and in close cooperation with Alkestis Papadimitriou from the Greek Archaeological Service have focused on different areas of the Citadel, as well as the Lower Town.

EARLY HELLADIC PERIOD

Over the millennia, the hill of Tiryns and its immediate surroundings were repeatedly chosen as locations for settlements. The earliest signs of occupation dating to the Middle Neolithic (ca. 5900–5400 BC) have been mostly obliterated by later building activities (Kilian 1983, 323–26, 331; Alram-Stern 1996, 238). On the other end of the chronological scale, very little is also known about Byzantine Tiryns, but this is mostly due to the dismantling of post-Mycenaean structures on the Citadel by the early excavators. In the long record of human occupation, there are three periods in particular during which Tiryns seems to have had an outstanding significance: during the later part of the Early Helladic II phase (ca. 2500–2200 BC) and during the Mycenaean Palatial (ca. 1400–1200 BC) and Postpalatial periods (ca. 1200–1050 BC).

During the later part of Early Helladic II, the so-called Period of the Corridor Houses, Tiryns must have already been of considerable size since not only on the Upper and Lower Citadel but also in most excavations in the Lower Town that were deep enough to reach such levels, substantial architectural remains dating to that time have been uncovered. The most important structure of the later Early Helladic II in Tiryns is the monumental circular building on the Upper Citadel, which had a diameter of approximately 28 m and a façade that featured jutting, bastion-like projections (Müller 1930, 80–88; Kilian 1986; Maran 1998, 197–99; Marzloff 2004, 79–86).

In the third millennium BC Aegean, no other buildings even remotely resembling the Circular Building of Tiryns are known, and widely differing proposals on its function have been made, including interpretations as a residence, sanctuary, or even a granary (Maran 1998, 197–98 with earlier literature). Strikingly, in certain respects the Circular Building resembles the much later central buildings of the Mycenaean palace. Not only did its construction constitute a radical break with the former patterns of Early Helladic architectural use of the Upper Citadel, but it was also built on exactly the same plot where roughly a thousand years later the Great and the Little Megaron were built. Moreover, like Mycenaean Tiryns, the monumental structure on the Upper Citadel was contrasted by a densely organized Early Helladic settlement in the Lower Citadel (Kilian 1981a, 186–89; 1983, 327).

In positioning the main building of the settlement exactly on the highest topographical point of the hill, the builders of the Early Helladic Circular Building ensured its visibility from both sea and land (Marzloff 2004, 84). It is likely to have functioned as an imposing and fortified structure that served in times of peace as a landmark and symbol of political power and in times of war as a refuge, functions reminiscent of strong towers of medieval castles (Maran 1998, 198). However, toward the end of the Early Helladic II phase, the Circular Building and the contemporary settlement in the Lower Citadel were destroyed in an intense conflagration. This destruction marks a setback so severe that it took until the Mycenaean period for monumental architecture to reappear in the Argolid (Maran 1998, 299–301).

LATE HELLADIC PERIOD: PALATIAL ORIGINS

How Tiryns became one of the most important palatial centers of the Mycenaean period is still difficult to determine. While in the Lower Town architectural structures dating to the Middle Helladic period (2000–1700/1600 BC) are attested, there are surprisingly few signs of a contemporary occupation on the Citadel. The architectural sequence in the area of the Great Megaron on the Upper Citadel is of potential relevance here. Claims of the existence of a Middle Helladic “*maison de chef*” with associated fragments of painted plaster beneath the Throne Room of the Great Megaron (Kilian 1987a, 121; 1988b, 134) have been cast into doubt by a reexamination

of the evidence pointing to a date of the building perhaps as late as Late Helladic I (Stülpnagel 1999, 17–25, 233; Maran 2001b, 23–25) and suggesting that the painted plaster derived from later disturbances and that no extraordinary finds were associated with the walls of this building.

While it seems that the tradition of imposing buildings on the plot of the Great Megaron cannot be traced back to Late Helladic I, let alone the Middle Helladic, the first Mycenaean architecture with features exceeding the quality of normal settlement architecture in the area of the Upper Citadel dates to Late Helladic II or IIIA₁ at the latest. Excavations in the porch of the Great Megaron have uncovered remains of a building complex that did not bear any resemblance to the later palatial megara and seems to have extended over two shallow terraces linked by a flight of stairs (Maran 2001b, 25–29; figure 1; pl. 3). Connected to this building complex is probably a thick layer with a great deal of LH II pottery, as well as fresco fragments found in excavations in the adjacent eastern wing of the palace (Müller 1930, 78; Touchais 1985, 777–79; figure 32; Maran 2001b, 24, 28).

At some date during the 14th century BC (Late Helladic IIIA), the decision must have been made to impose a totally different palatial concept centering on megaron buildings. In order to create the unified space needed to construct the first Great Megaron, the entire upper terrace of the Late Helladic II/IIIA₁ building complex had to be razed and leveled (Maran 2001b, 28), a fact that emphasizes the radicality of the architectural change (Kilian 1987c, 33–36; Maran 2001b, 28–29). The first Great Megaron anticipated in its measurements and ground plan the basic features of its successor but was situated a few meters to the south in comparison to the latter (Kilian 1987b, 204–207, figure 1; 1988c, 1–9, Beilage 1; Maran 2001b, 25). The LH IIIA Great Megaron was subdivided into a porch, a vestibule, and a main room that had a central hearth surrounded by columns and perhaps also a place for a throne on the inner side of the east wall. The plastered walls of the building were painted, but very little is preserved of this decoration. Under the Little Megaron, walls of an LH IIIA predecessor building came to light, so the concept of juxtaposing two megara of different size, so typical for Late Palatial Tiryns, seems to have existed since the Early Palatial period. It is unknown whether these Early Palatial megara already had courts in front of them.

At about the same time of the construction of the first megara, the Upper Citadel was encircled with a Cyclopean wall that did not yet include the Lower Citadel (Müller 1930, 55–57, pl. 4; Kilian 1988b, 134–35). How the latter was fortified during LH IIIA remains uncertain, but slightly later, in LH IIIB₁, a strong fortification wall consisting of rubble stones is present in the Lower Citadel (Kilian 1988a, 139, figure 28). Besides the megara on the Upper Citadel and several houses in the Lower Citadel, little is known about how the citadel was used in LH IIIA because buildings of that date are usually concealed by superimposed later architecture. In the southern and western parts of the Lower Town, on the other hand, large building complexes dating to that time have been excavated, one of them furnished with a mosaic of dark and light pebbles (Podzuweit and Salzmänn 1977; Gercke and Hiesel 1971, 3–7, Beilage 2–3).

LATE HELLADIC PERIOD: FINAL PALATIAL ACME—LH IIIB₂

In the last fifty years of the Mycenaean Palatial period, during the LH IIIB₂ phase, a building program of unprecedented scale was carried out in and around Tiryns (Kilian 1985, 74; 1988b, 134; Maran 2004a, 261–63). During that time, the palace discovered by Schliemann and Dörpfeld was built with the Great Megaron at its center (figure 54.1), characterized by the previously mentioned tripartite subdivision and furnished with a place for a throne, as well as a huge, central round hearth surrounded by four columns in its main room (Dörpfeld in Schliemann 1886, 230–60; Müller 1930, 139–46). The Porch of the building opened into a Great Court with a colonnade and a round hypaethral altar placed along the extension of the central axis of the Great Megaron. The Little Megaron in the neighboring eastern wing of the palace consisted of a porch and a main room and resembles a miniature version of the Great Megaron, insofar as it is roughly half of the latter's size and had not only a court but also a central hearth, as well as a place for a throne (Dörpfeld in Schliemann 1886, 268–75; Müller 1930, 157–66). The political meaning of this specific architectural layout with two megaron buildings of different size, which in this clarity is noted only in Tiryns, is disputed (Dörpfeld in Schliemann 1886, 214–18; Müller 1930, 171, 198; Kilian 1987c, 32; Maran 2006b, 84–85).

The walls and stucco floors of the megara and other palatial buildings were adorned by frescos, but the original position of the wall paintings is difficult to specify since almost all of them were found in secondary deposition in debris layers along the western slope of the Upper Citadel, where they had been dumped during clearing works after the palace's final destruction (Rodenwaldt 1912, 66–165 [frescoes of the "late palace"]; Maran 2001a, 115–16). The centrality of the Great Megaron of Tiryns manifests itself not only in its size and position but also in the fact that the most important ascent of the citadel, starting at the main entrance, was designed in such a way as to exemplify an attempt to prescribe—by architectural and esthetic means—the movement of visitors and to draw them into the depth of the citadel until they reached the Great Megaron (Müller 1930, 193–96; Wright 1994, 51–60; Küpper 1996, 111–18; Maran 2006b, 81–83; pls. 12–13).

In this last magnificent palatial building program, most of the architectural highlights that still distinguish Tiryns today were created. These include the Cyclopean fortification of the Lower Citadel, the strongly fortified West Staircase, and all of the passages and chambers within the Cyclopean wall showing the characteristic corbel vault, e.g., the North Gate and the North Passage (a newly discovered postern gate in the north of the Lower Citadel), the two stairs leading to underground cisterns in the Lower Citadel, and the East and South galleries in the Upper Citadel (Müller 1930, 57–61, 65–66, Kilian 1988b, 134; Maran 2004a, 261–275). The settlement in the Lower Citadel was redesigned by creating new terraces that run parallel to the inner side of the fortification and by constructing large building complexes on top of

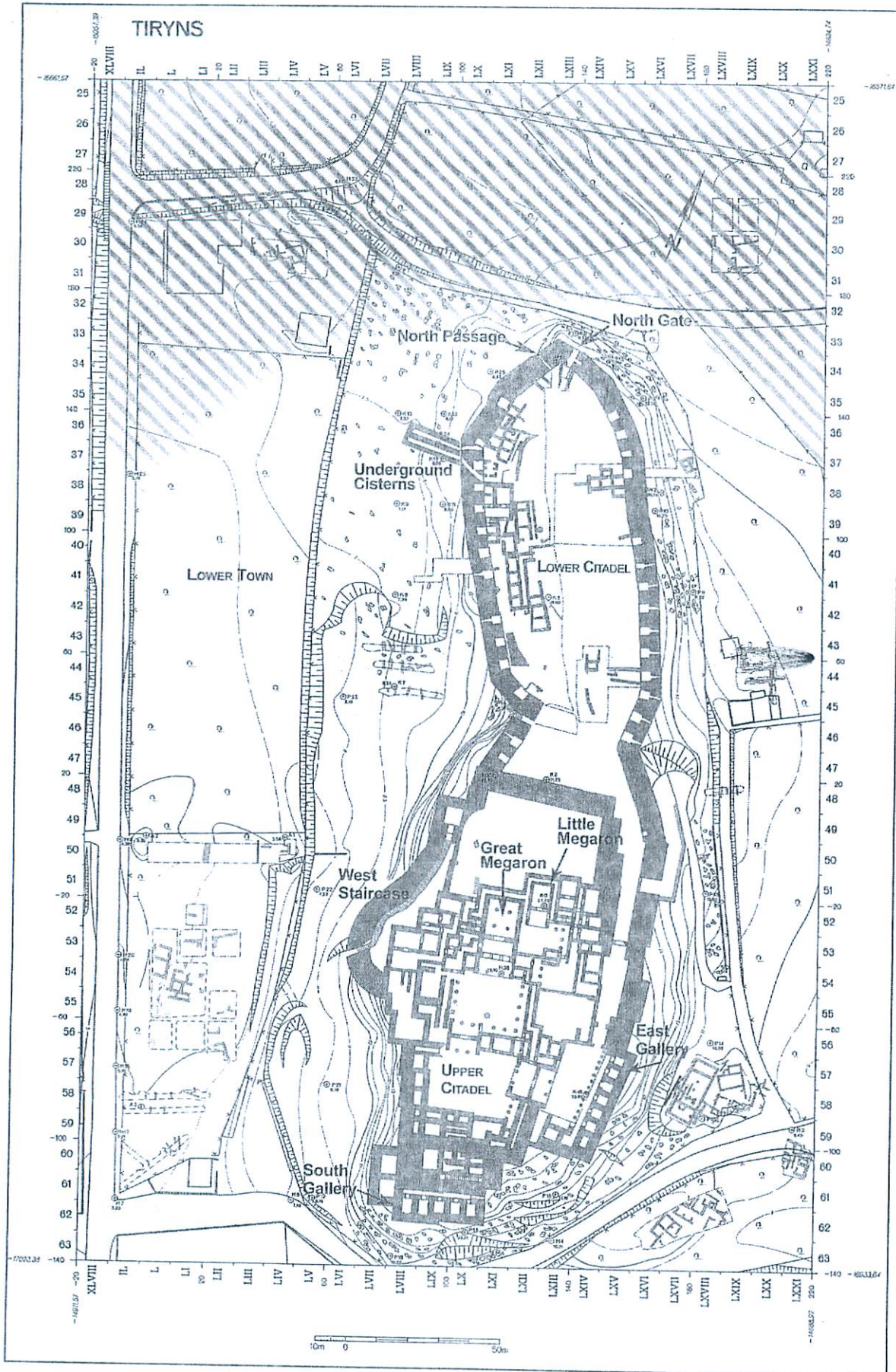


Figure 54.1. Plan of Late Palatial Tiryns with estimated distribution of stream deposits (hatched) to the north of the Acropolis (graphics by Dipl.-Arch. M. Kostoula).

them, which served for administrative activities, storage, and skilled crafting closely linked to the palace (Kilian 1988b, 134).

Of all of the measures in architecture and engineering realized in these final decades of the palace, the construction of the dam of Kofini and the redirection of a stream that had previously passed through the Lower Town of Tiryns are undoubtedly the most spectacular (Balcer 1974; Slenczka 1975; Zangger 1994, 204–207; Knauss 1995). Zangger has argued that these drastic steps may have been taken as a reaction to a catastrophic flash flood, perhaps triggered by the earthquake at the very end of the Palatial period (Zangger 1992, 82–85; 1993, 80, 82; 1994, 198–212).

However, it can be shown that the construction of the dam and the redirection of the stream must antedate the final destruction of the palace and that periodic flooding events that extended over a longer span of the 13th century BC and affected only a relatively narrow zone to the north of the acropolis are much more likely to account for the alluvial deposits in that area than a single catastrophic flash flood (Maran 2004a, 277–83, forthcoming; Maran and Papadimitriou 2006, 102–104, 127–29). Therefore, the rarity of LH IIIB2 buildings in the Lower Town in comparison to such of earlier phases of the Palatial period cannot be attributed to an extensive covering by alluvial deposits (*pace* Zangger 1994) and in all likelihood reflects a pattern of abandonment of at least certain quarters of the Lower Town.

Moreover, recent excavation results in the Lower Citadel allow the differentiation of two major phases of construction within the LH IIIB2 building program and suggest that the decision to carry out the costly measure of constructing the dam and redirecting the stream may not have been a spontaneous reaction to a natural disaster but part of a well-considered structural decision initiated by political actors of the Final Palatial period (Maran 2008, 84–90, forthcoming). To the earlier phase of the building program belong measures that point to defensive planning in politically instable times and comprise features like the Cyclopean wall, with its chambers furnished with embrasures for archers, the underground cisterns, and the newly discovered narrow postern gate (North Passage) at the northern tip of the Lower Citadel (Maran 2004a, 265–67, figures 1, 5–6; 2008, 41–49, 84–91; forthcoming; P. Marzolf in Maran 2008, 97–109).

However, shortly after the defensive architectural measures had been taken, some of them were undone and replaced by new concepts, which suggests instead a consolidation of the political situation. During this later phase of the building program, most of the chambers within the Cyclopean wall were probably walled up, while the postern gate was closed and replaced by the newly constructed and much wider North Gate, thus also suggesting a deviation from the former defensive logic. The creation of the North Gate indicates an upgrading of an approach to the citadel from the north, and in this context the building of the dam and the redirection of the stream may be seen as measures that created the precondition for developing the northern Lower Town and for allowing an unhindered access to the citadel (Maran 2008, 89, forthcoming).

If these large public works were indeed part of a visionary, Final Palatial master plan to reorganize the relation between Citadel and Lower Town, then this plan

to the north of the acropolis a concerted and systematic development can be demonstrated on the basis of a simultaneous start of building activities in spatially separated areas and of a similar orientation and structure of Postpalatial architecture in these areas (Kilian 1978, 449–55; Maran 2006a, 126; Maran and Papadimitriou 2006). The early start of extensive construction works within the 12th century BC in this specific area formerly affected by the stream points to the possibility that the inhabitants of Postpalatial Tiryns were aware of the aforementioned Final Palatial master plan and followed some of its objectives (Maran 2008, 89–90, forthcoming). The special significance of the Lower Town in Postpalatial times is reflected not only by its large size but also by the quality of some of the architecture. Thus, with a large building with a central row of columns (Megaron W) and a building subdivided by multiple rows of columns in the Southeastern and Northeastern Lower Town, respectively, we already know two structures outside the walls of the acropolis that stand out in size and ground plan from the rest of the contemporary architecture (Gercke and Hiesel 1971, 11–15; Gercke, Gercke, and Hiesel 1975, 8–10; Maran 2006a, 126; Maran and Papadimitriou 2006, 105–109, figures 5–6).

The driving force behind the remarkable development in 12th-century-BC Tiryns may have been the families of a new elite, who, after being freed from the constraints of palatial rule, claimed areas in the surroundings of the citadel for themselves and articulated their self-confidence by the construction of new and in some cases impressive living quarters. These families were decisive for the revival of architectural symbols of imperial power, as well as for the attempts to legitimize the claim by the possession and conspicuous use of old and new symbols of authority (Maran 2006a).

At the end of the LH IIIC phase, a process of shrinkage of the settlement in the Lower Citadel sets in, which leads within a few decades to a nearly total abandonment of the citadel (Mühlenbruch 2007, 247). For the Early Iron Age, a much more dispersed settlement structure can be inferred on the basis of groups of cist graves that have been found in many areas of the Lower Town, but very little is known about the accompanying houses (Papadimitriou 1998). The inhumation of the dead close to the houses constitutes in itself a marked break with long-standing practices since during Mycenaean times burial in chamber tombs in the nearby hill of Prophet Ilias formed the prevalent funerary practice (Rudolph 1973). The abandonment of the worlds of the living and the dead is a stark reminder that the history of Mycenaean Tiryns had come to an end.

BIBLIOGRAPHY

- Albers, Gabriele. 1994. *Spätmykenische Stadtheiligtümer: Systematische Analyse und vergleichende Auswertung der archäologischen Befunde*. BAR-IS 596. Oxford: Tempus Reparatum.

- Aram-Stern, Eva. 1996. *Die ägäische Frühzeit*. Vol. 1, *Das Neolithikum in Griechenland mit Ausnahme von Kreta und Zypern*. Vienna: Verlag der Österreichischen Akademie der Wissenschaften.
- Balcer, Jack M. 1974. "The Mycenaean Dam at Tiryns." *AJA* 78: 141–49.
- Cline, Eric H. 1994. *SWDS*.
- . 2007. "Rethinking Mycenaean International Trade with Egypt and the Near East." In *RMP II*, 190–200.
- Demakopoulou, Katie, Nikoletta Divari-Valakou, Paul Åström, and Gisela Walberg. 2000–2001. "Work in Midea 1997–1999: Excavation, Conservation, Restoration." *Opuscula Atheneinsia* 25–26: 35–52.
- Gercke, Peter, Wendula Gercke, and Gerhard Hiesel. 1975. "Tiryns-Stadt 1971: Graben H." In *Tiryns VIII*, 7–36. Mainz: von Zabern.
- Gercke, Peter, and Gerhard Hiesel. 1971. "Grabungen in der Unterstadt von Tiryns." In *Tiryns V*, 1–19. Mainz: von Zabern.
- Kilian, Klaus. 1978. "Ausgrabungen in Tiryns 1976." *Archäologischer Anzeiger*: 449–98.
- . 1980. "Zum Ende der mykenischen Epoche in der Argolis." *Jahrbuch des Römisch-Germanischen Zentralmuseum Mainz* 27: 166–95.
- . 1981a. "Ausgrabungen in Tiryns 1978, 1979." *Archäologischer Anzeiger*: 149–258.
- . 1981b. "Zeugnisse mykenischer Kultausübung in Tiryns." In *Sanctuaries and Cults*, 49–58.
- . 1983. "Ausgrabungen in Tiryns 1981. Bericht zu den Grabungen." *AA* 1983: 277–328.
- . 1985. "La caduta dei palazzi Micenei continentali: Aspetti archeologici." In *Le origini dei Greci: Dori e mondo Egeo*, ed. Domenico Musti, 73–95. Rome-Bari: Editori Laterza.
- . 1986. "The Circular Building at Tiryns." In *Early Helladic Architecture*, 65–71.
- . 1987a. "Ältere mykenische Residenzen." In *Kolloquium zur ägäischen Vorgeschichte, Mannheim 20.–22.2.1986*, 120–24. Schriften des Deutschen Archäologen-Verbandes 9. Mannheim: Deutscher Archäologen-Verband and Archäologisches Seminar Universität Mannheim.
- . 1987b. "L'architecture des résidences mycéniennes: Origine et extension d'une structure du pouvoir politique pendant l'âge du bronze récent." In *Le système palatial en Orient, en Grèce et à Rome: Actes du Colloque de Strasbourg 1985*, ed. Edmond Lévy, 203–17. Strasbourg: Centre de recherche sur le Proche-Orient et la Grèce antiques.
- . 1987c. "Zur Funktion der mykenischen Residenzen auf dem griechischen Festland." In *Function of the Minoan Palaces*, 21–38.
- . 1988a. "Ausgrabungen in Tiryns 1982/83. Bericht zu den Grabungen." *AA* 1988: 105–51.
- . 1988b. "Mycenaean Up to Date: Trends and Changes in Recent Research." In *Problems in Greek Prehistory*, 115–52.
- . 1988c. "Die 'Thronfolge' in Tiryns." *Athenische Mitteilungen* 103: 1–9.
- . 1992. "Mykenische Heiligtümer der Peloponnes." In *Kotinos: Festschrift für Erika Simon*, ed. Heide Froning, Tonio Hölscher, and Harald Mielsch, 10–25. Mainz: von Zabern.
- . 1996. "Earthquakes and Archaeological Context at 13th Century BC Tiryns." In *Archaeoseismology*, ed. Stathis Stiros and Richard E. Jones, 63–68. Fitch Laboratory Occasional Papers 7. Athens: British School at Athens.
- Knauss, Jost. 1995. "Die Flußumleitung von Tiryns." *Athenische Mitteilungen* 11: 43–81.
- Küpper, Michael. 1996. *Mykenische Architektur: Material, Bearbeitungstechnik, Konstruktion, und Erscheinungsbild*. Internationale Archäologie 25. Espelkamp: Leidorf.
- Maran, Joseph. 1998. *Kulturwandel auf dem griechischen Festland und den Kykladen im späten 3. Jahrtausend v. Chr. Studien zu den kulturellen Verhältnissen in Südosteuropa*

- und dem zentralen sowie östlichen Mittelmeerraum in der späten Kupfer- und frühen Bronzezeit. *Universitätsforschungen zur prähistorischen Archäologie*, vol. 53. Bonn: Habelt.
- . 2000. "Das Megaron im Megaron: Zur Datierung und Funktion des Antenbaus im mykenischen Palast von Tiryns." *Archäologischer Anzeiger*: 1–16.
- . 2001a. "Political and Religious Aspects of Architectural Change on the Upper Citadel of Tiryns: The Case of Building T." In *Potnia*, 113–22.
- . 2001b. "Zur Frage des Vorgängers des ersten Doppelpalastes von Tiryns." In *IÖAKH: Festschrift für Jörg Schäfer zum 75. Geburtstag am 25. April 2001*, ed. Stephanie Böhm and Klaus-Valtin von Eickstedt, 23–29. Würzburg: Ergon.
- . 2004a. "Architektonische Innovation im spätmykenischen Tiryns: Lokale Bauprogramme und fremde Kultureinflüsse." In *Althellenische Technologie und Technik. Tagung Ohlstadt 21.–23.3.2003*, ed. Apostolos Kyriatsoulis, 261–86. Weilheim: Verein zur Förderung der Aufarbeitung der hellenischen Geschichte.
- . 2004b. "The Spreading of Objects and Ideas in the Late Bronze Age Eastern Mediterranean: Two Case Examples from the Argolid of the 13th and 12th Centuries B.C." *BASOR* 336: 11–30.
- . 2006a. "Coming to Terms with the Past: Ideology and Power in Late Helladic IIIC." In *Ancient Greece: From the Mycenaean Palaces to the Age of Homer*, ed. Sigrid Deger-Jalkotzy and Irene S. Lemos, 123–50. Edinburgh Leventis Studies 3. Edinburgh: Edinburgh University Press.
- . 2006b. "Mycenaean Citadels as Performative Space." In *Constructing Power: Architecture, Ideology, and Social Practice*, ed. Joseph Maran, Carsten Juwig, Hermann Schwengel, and Ulrich Thaler, 75–91. Hamburg: LIT.
- . 2008. "Forschungen in der Unterburg von Tiryns 2000–2003." *Archäologischer Anzeiger*: 35–111.
- . Forthcoming. "The Crisis Years? Reflections on Signs of Instability in the Last Decades of the Mycenaean Palaces." In *Reasons for Change: Birth, Decline and Collapse of Societies between the End of the Fourth and the Beginning of the First Millennium B.C.*, ed. Andrea Cardarelli, Alberto Cazzella, Marcella Frangipane, and Renato Peroni. *Scienze dell'antichità* 15.
- , and Alkestis Papadimitriou. 2006. "Forschungen im Stadtgebiet von Tiryns 1999–2002." *Archäologischer Anzeiger*: 97–169.
- Marzollf, Peter. 2004. "Das zweifache Rätsel Tiryns." In *Macht der Architektur: Architektur der Macht*, ed. Ernst-Ludwig Schwandner and Klaus Rheidt, 79–91. *Diskussionen zur archäologischen Bauforschung*, no. 8. Mainz: von Zabern.
- Mühlenbruch, Tobias. 2002. *Mykenische Architektur: Studien zur Siedlungsentwicklung nach dem Untergang der Paläste in der Argolis und Korinthia*. MA thesis, University of Heidelberg.
- . 2007. "The Post-palatial Settlement in the Lower Citadel of Tiryns." In *LH IIIC Middle*, 243–51.
- Müller, Kurt. 1930. *Tiryns III: Die Architektur der Burg und des Palastes*. Augsburg: Filser.
- Papadimitriou, Alkestis. 1998. "L'évolution de l'habitat post-mycénien à Tirynthe: Les données archéologiques et leur interprétation historique (in Greek)." In *Argos et l'Argolide: Topographie et Urbanisme. Actes de la Table Ronde internationale, Athènes-Argos 28/4–1/5/1990*, ed. Anne Pariente and Gilles Touchais, 117–30. Paris: Bocard.
- . 2001. *Tiryns: A Guide to Its History and Archaeology*. Athens: Hesperos.
- Podzuweit, Christian, and Dieter Salzmänn. 1977. "Ein mykenischer Kieselmosaikfußboden aus Tiryns." *Archäologischer Anzeiger*: 123–37.

- Rodenwaldt, Gerhart. 1912. *Tiryns II: Die Fresken des Palastes*. Athens: Eleutheroudakis and Barth.
- Rudolph, Wolf. 1973. "Die Nekropole am Prophitis Elias bei Tiryns." In *Tiryns VI*, 23–126. Mainz: von Zabern.
- Schliemann, Heinrich. 1886. *Tiryns: Der prähistorische Palast der Könige von Tiryns*. Leipzig: Brockhaus.
- Sienczka, Eberhard. 1975. "Damm und Kanal bei Kofini." In *Führer durch Tiryns*, ed. Ulf Jantzen, 70–71. Athens: German Archaeological Institute.
- Stülpnagel, Hendrikje. 1999. *Mykenische Keramik der Oberburg von Tiryns: Material der Ausgrabungen 1984, 1985 im Bereich des großen und kleinen Megarons*. PhD diss., University of Freiburg.
- Touchais, Gilles. 1985. "Chronique des fouilles en 1984." *BCH* 109: 759–862.
- Wright, James C. 1994. "The Spatial Configuration of Belief: The Archaeology of Mycenaean Religion." In *Placing the Gods: Sanctuaries and Sacred Space in Ancient Greece*, ed. Susan E. Alcock and Robin Osborne, 37–78. Oxford: Clarendon.
- Zangger, Eberhard. 1992. *The Flood from Heaven: Deciphering the Atlantis Legend*. London: Sidgwick and Jackson.
- . 1993. *The Geoarchaeology of the Argolid*. Argolis 2. Berlin: Mann.
- . 1994. "Landscape Changes around Tiryns during the Bronze Age." *AJA* 98: 189–212.