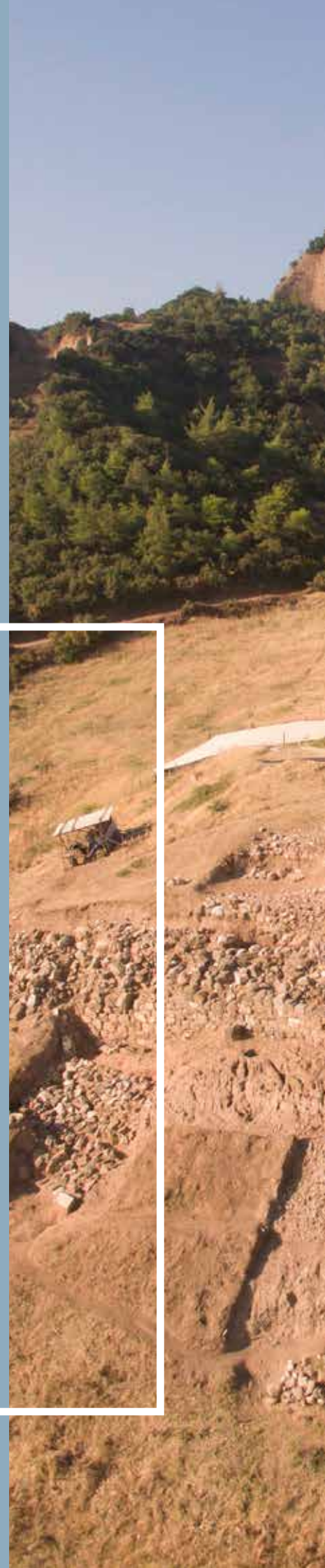


The Lydian Palaces at Sardis in the Light of New Research

Nicholas CAHILL







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Yeni Araştırmalar Işığında Sardis'te Lidya Sarayları

Nicholas CAHILL**

Abstract

The palace of the Lydian kings, and in particular the palace of Croesus, was famous in antiquity, and has been sought by visitors and archaeologists for centuries. Recent excavation in the center of Lydian Sardis allows us to identify a region intermediate between the Acropolis and the lower city as the site of one palatial complex. The steep topography was regularized and expanded through monumental terraces over a period of more than two millennia. Elite architecture and finds give us an impression of the buildings on these terraces in the Lydian period, although systematic salvage and looting have removed most structures. Recent finds include the remains of the Persian sack of Sardis in 547, including human remains and a hoard of Lydian silver coins. A second palatial complex was identified on the Acropolis, perhaps linked to the lower palace through a tunnel. The area of the lower palace has produced a long sequence of monumental occupation, including Early Iron Age and Bronze Age buildings, the earliest occupation remains yet discovered at the city.

Key Words: Lydia, Sardis, Palace of Croesus, Archaeology, Excavation

Özet

Lidya krallarının, özellikle de Kral Kroisos'un sarayı geçmişte çok ünlüydü; dolayısıyla yeri ziyaretçiler ve arkeologlar tarafından yüzyıllar boyunca araştırılmıştır. Lidya Dönemi Sardisi'nin merkezindeki güncel kazılar, Akropol ve aşağı şehir arasında orta kademeli bir bölgeyi saray kompleksinin mevkii olarak tanımlamamızı sağlamıştır. Bu mevkinin sarp yerbetimi iki bin yılı aşkın süre boyunca anıtsal teras yapılarıyla düzenlenmiş ve genişletilmiştir. Lidya Dönemindeki terasların üzerindeki binalar sistemli olarak yerlerinden sökülüp talan edilmiş durumda olsalar bile, geriye kalan seçkin mimari ve küçük buluntular bize bu yapılar hakkında fikir vermektedir. Yeni buluntular Sardis'in Persler tarafından yağmalandığı MÖ 547 yılına aittir ve aralarında insan kalıntıları ile gümüş Lidya sikkelerinden oluşan bir define de bulunmaktadır. Aşağı saraya bir tünelle bağlanmış olması muhtemel ikinci bir saray kompleksi ise Akropolde tanımlanmıştır. Aşağı saray bölgesi, Erken Demir Çağı ve Tunç Çağı yapılarını da içeren uzun soluklu anıtsal iskan tarihini açığa çıkarmıştır ancak bu erken tabakalar aşağı şehirde henüz keşfedilmeyi beklemektedir.

Anahtar Kelimeler: Lidya, Sardis, Kroisos Sarayı, Arkeoloji, Kazı.

Introduction

The Palace of Croesus at Sardis achieved a legendary stature in Greek and Latin literature, and among ancient and more modern travelers. The palace was the setting of famous encounters in the *Histories* of Herodotus, such as Croesus' meeting with the philosopher Solon (1.30) in which the king was told, but does not learn, to count no man blessed before he is dead; and of Croesus'

gift to Alcmaeon of as much gold as he could carry (6.125), thus establishing the fortunes of this famous Athenian aristocratic family. Bacchylides describes the destruction of the palace when Cyrus captured Sardis, and Apollo's miraculous preservation of Croesus from the pyre (Bacchylides 3), a story repeated, with some variations, by Herodotus (1.84ff).

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Literary clues to the location of the palace are relatively few. In his account of Alexander the Great's arrival at Sardis, Arrian (1.17) relates how the conquerer climbed the Acropolis where the Persian garrison was stationed, and was searching for the best place to build a temple of Zeus Olympios on the citadel, when a sudden rainstorm fell on the spot where the palace of the Lydian kings was located. Taking this as a divine sign, Alexander ordered the temple to be built at that spot. Arrian's account does not clearly specify, however, whether the palace was on the Acropolis near Alexander, or simply visible from the Acropolis (Briant, 1993)

Vitruvius (*De Archit.* 2.8.10) cites the palace of Croesus, together with the palaces of Mausolus at Halicarnassus and of the Attalid kings at Tralleis, as an example of the longevity of mudbrick buildings, writing that the Sardians had converted this building to a *gerousia*, a meeting-house or *collegio* for elder citizens. While it is tempting to accept Vitruvius's account at face value and assume, as many scholars have, that the palace was still visible in the Roman period, we cannot take this for granted.

With more wishful thinking than archaeological evidence, early travelers identified the most prominent ancient ruin at Sardis as the palace of Croesus. In his visit of 1750, Robert Wood identified "*the remains of a spacious & splendid fabrick which we fancy to have been a palace, see our plan, there are the walls of 4 or 5 rooms standing & the traces of several more to a vast extent. The walls are built of brick & ornaments of white marble which may be seen from the prodigious quantity of it lying about & some fine granite Pillars.*" (Yegül, 1986: p.3) The description, and drawings by the expedition's draftsman Giovanni Battista Borra, make it clear that this was actually the Roman Bath-Gymnasium complex, but despite corrections by Charles Texier and others, the identification persisted; and this Roman complex was long pointed out to visitors as the famous palace (Greenewalt et al., 2003: p.36-37)¹

When Prof. G.M.A. Hanfmann established the Sardis Expedition in 1958, one of his many goals was to understand the topography of the Lydian city, including the Lydian palace. He writes that he "*had dreams of glory about finding at least the plan of the Palace of Croesus in recognizable shape and we hoped*

to retrieve, if not the gold treasures (which went to Iran) then at least something of the royal archives with correspondence in Lydian, Carian, Greek, and possibly Aramaic..." (Hanfmann, 1977: p.154). Writing in 1975, he suggested that the palace, and temple of Zeus, should be located in the lower city, as one could not expect the elder citizens of Sardis to hike up to a *gerousia* on the Acropolis. He speculated that the palace could have been located on the so-called "Byzantine Fortress" (now sector ByzFort), an unexcavated hill in the center of the Roman city. He further speculated that there could have been both lower and upper palaces, with the upper located on the north slopes of the Acropolis where the expedition had discovered Lydian limestone terrace walls, the only monumental Lydian architecture, other than tombs, known at Sardis at that time. Within a short time, however, he retreated from his proposal of upper and lower palaces, instead suggesting that there was only one palace, on the Acropolis (Hanfmann, 1980: p.104-105; Hanfmann and Mierse, 1983: p. 42-48.)

Throughout his research, however, Prof. Hanfmann was hampered by a fundamental misunderstanding of the topography of the Lydian city. Starting with Herodotus' description of the Ionian revolt when Sardis was under Persian control (5.101), Hanfmann argued that since the Pactolus River flowed through the agora of Sardis in 499 BC, the Lydian city must have been located along the banks of that stream. He therefore focused much of his excavations in that region, and indeed found important Lydian remains at sectors such as Pactolus North, Pactolus Cliff, and "House of Bronzes." (Hanfmann and Mierse, 1983; Ramage and Craddock, 2000; Ramage et al., 2021). He concluded that the city moved from its location along the Pactolus to the northern slopes of the Acropolis in the Hellenistic period, when it was converted to a Greek polis.

The discovery and excavation of the Lydian fortification between the 1970s and 2000s, however, proved that the wall encircled much the same area as the Roman fortification, enclosing the north slopes of the Acropolis and not the region around the Pactolus (fig. 1). The sectors excavated by Prof. Hanfmann, therefore, were located outside the Lydian walls, part of the extramural settlement that stretched more than 2 km along the Pactolus.

¹ It is, for instance, labeled on the etching by Thomas Allom of 1838.

We now believe that Sardis during the Persian era was an important satrapal, military, and administrative center of the Achaemenid empire, but not a city per se. The settlement described by Herodotus along the Pactolus was weak and unfortified, while excavation has shown that the area within the Lydian walls had been deliberately emptied out, perhaps as a means of controlling this powerful and rebellious population. When the Hellenistic builders founded public buildings such as the theater and monumental buildings north of the acropolis, it was a return to the earlier, Lydian topography of Sardis, not a new transformation (Cahill, 2019).

This new understanding of the early city therefore raises again the question of the location of the Lydian palace(s). Excavation in the 1980s showed that two natural spurs on the north slopes of the Acropolis had been artificially terraced in the Lydian period: these are sector ByzFort, where Prof. Hanfmann had once suggested that the palace of Croesus was located, and the adjacent hill known as Field 49.² At the time, we believed that these were extramural settlements, perhaps sanctuaries or gardens (fig. 2). Now that we understand that this region was the center of the Lydian city, overlooking and dominating the lower town, we returned to the hypothesis that this was part of the Lydian palace complex; and recent work has shown that Prof. Hanfmann's original intuition was likely correct.

1. Extent and Natural Topography

Two spurs in central Sardis were expanded, regularized, and monumentalized by a series of artificial terraces in the Lydian period and earlier. Together with the broad, gently sloping area rising behind them to the cliffs of the Acropolis, these hills, intermediate between the Acropolis and the lower city, probably represented an elite region of Sardis through most of its history, and the site of a palatial complex in the Lydian period and perhaps earlier. The full extent of the terraced area in the Lydian period is uncertain, but the space encompassed by ByzFort, Field 49, and the sloping ground behind measures about 5.8 ha, or about the size of the palatial terrace complex at Persepolis and almost three times the area of the Tall-i Takht at Pasargadae.

Human intervention over the millennia has completely transformed the natural topography. For instance, Field

49 is now a flat-topped spur some 40 m wide, and it was assumed until recently that its horizontal top was essentially natural, making this an attractive spot to build. Excavation showed, however, that bedrock slopes down at an angle of almost 45°, rising to within 1.5 m of the modern surface on the east, but 15 m deep to the west (below, and fig. 29). The hill achieved its current habitable topography only through massive terracing along the west flank, beginning in the Early Bronze Age and continuing through the Roman period.

2. The Lydian Palace: Terraces

The terrace walls that regularized these hills over more than two millennia are still incompletely understood, but a number of phases seem relatively clear. In the first half of the sixth century, the hills were enclosed by terrace walls of neatly cut limestone ashlar masonry. The best-preserved section is on the eastern flank of ByzFort, where the limestone is preserved to a height of eight courses (figs. 3, 4, 5). As commonly in Lydian masonry, the fine limestone ashlars are only a single course of cladding for a structural terrace wall of heavy schist blocks; this in turn retained a massive rubble packing at least 8 m thick in places and rising to a total height of about 12 m (Ratté, 2011: p.10-11, 102-107; Eren, Forthcoming; Eren, 2022).

The terrace probably did not rise to its full height in a single vertical face, but rather in a series of steps. Intermediate limestone terrace walls were excavated along the eastern flank of ByzFort, and reveal at least two phases of construction (fig. 6). The first phase is aligned with the natural slope of the hill here, while the second is aligned with the front of the hill, bringing the hill into a stricter grid plan (Cahill, 2013: p.147).

The western and northern flanks of the adjacent hill, Field 49, were also enclosed with limestone ashlar terrace walls of the first half of the sixth century (figs. 7, 8). These are preserved to only five courses, and made with more irregular blocks, some reused from earlier structures. However, the terrace walls on Field 49 preserve a longer history. In the Hellenistic and early Roman periods the western terrace was rebuilt on the same or similar lines, using reworked Lydian ashlars to recreate the original appearance.

² Field 49: Greenewalt et al., 1985: p. 64-68; on ByzFort, see below.

These terraces thus transformed the rugged natural landscape into vertical and stepped planes, turning to follow the broad forms of the spurs, but regularizing them where possible into rectangular blocks. The brilliant white limestone surfaces would have been visible from afar, dominating the central part of the city, and contrasting with the undulating orange cliffs of the Acropolis above, long a symbol of Sardis' power. This broad transformation of the natural landscape is a peculiar feature of Lydian urbanism, as noted by Prof. C.H. Greenewalt, jr. (1984: p.17).

2. 1. Buildings on the Terraces, and the Persian Destruction

Like Prof. Hanfmann, we had hopes of finding the palace and some of its contents in excavation on these terraces. In particular, we had hoped to find the remains of the Persian destruction level of 547 BC, which seems to have engulfed most of the Lydian city. This destruction level is often well preserved: Lydian houses contain hundreds of whole vessels, metal artifacts, loomweights, and foodstuffs, while casualties of battle, armor, and weapons found in the vicinity of the fortification provide a remarkable glimpse of life in the last days of the independent Lydian kingdom, when Cyrus defeated Croesus (Greenewalt, 1992; Greenewalt, 1997; Cahill, 2000; Cahill, 2010b).³ We had hopes that this would prove true in the palace quarter as well, but like Prof. Hanfmann, we have been frustrated in this effort. This region of central Sardis was densely inhabited for millennia, subject to erosion and continual spoliation and reuse of earlier building material. The desirable limestone and marble blocks, and the unusually rich contents of the palace, attracted treasure-seekers far more than in the residential sectors of the city. And finally, the density of later occupation makes excavation of early levels particularly difficult and time-consuming.

Nevertheless, a few features and archaeological contexts survive to give some sense of the buildings and the activities here. On ByzFort, part of a finely worked stylobate of marble, limestone, and sandstone blocks with a setting for a column survive later robbing; this is the only Lydian marble architecture found in situ on these hills (figs. 4, 9). This is probably contemporary

with the limestone terrace, dating to the first half of the sixth century BC, and may be the porch of a small building or pavilion. Earlier structures, dating to the first half of the sixth century and earlier, are attested by substantial foundations under the stylobate, by marble blocks, some belonging to a monumental door frame, reused in the stylobate and in the earlier foundation, and by the large collection of fragmentary architectural terracottas and roof-tiles reused in the terrace packing (Ratté, 2011: p.10-11, 102-107).⁴ Among the artifacts from Lydian terrace fills and later levels at ByzFort, and to a lesser extent Field 49, are many chips and a few finished fragments of brightly colored jasper, including red and black, white with red veins, yellow, and other colors, probably detritus from a Lydian atelier on this hill.⁵ Vessels made of such jasper were used in royal and elite tableware in the Achaemenid period, and apparently in the Lydian period as well (Schmidt, 1957: pl. 57, nos. 5-7; pl. 59, no. 3; pl. 62, nos. 5, 9, 11; Simpson, 2005; Özgen et al., 1996: no. 85; Özdemir, 2007)

The situation is somewhat better on Field 49. Lydian structures in the southern trench had been entirely robbed out by Hellenistic and later building, but a small area of mixed destruction debris survived (figs. 10, 11). This was probably back-dirt from a robbing trench from which most of the valuables had been salvaged, but it still contained a jasper weight-shaped seal on a bronze loop, at least one crushed bronze vessel, a decorative bronze plaque, a small bronze lion paw, a fragment of ivory furniture inlay depicting the *potnia theron*, an unusually large amount of fine pottery, a cluster of at least 20 arrowheads melted or fused together, and human bones from at least two individuals (figs. 12, 13, 14).⁶ Such finds are not typical of ancient domestic assemblages, but are closely related to assemblages from Near Eastern palaces in Anatolia and Mesopotamia.

A better-preserved area was excavated in 2021 on the western flank of Field 49 (figs. 15, 16). Here, a section of Lydian terrace or platform wall is preserved, about

³ On the date of the destruction, see most recently van der Spek 2021.

⁴ It is not quite clear whether the stylobate belongs with the limestone terrace phase or an earlier phase; the former seems more probable.

⁵ Greenewalt et al., 1987: p.80, misidentified there as chalcedony.

⁶ Seal S11.014:12991; bronze vessel M13.021:13752; plaque M13.013:13670; lion paw M13.012:13654; ivory inlay BI12.004:13117; arrowheads M13.015:13746. See Dusinger, 2017. In general, Cahill, 2013; Cahill, 2014; Cahill, 2015. The mudbrick wall found nearby and originally thought to be Lydian (Cahill, 2015: p.420) has now been shown to date to the Bronze Age; see below.

five meters thick and aligned with the terrace walls in a trench further south. A two-phase Hellenistic platform or terrace wall built of Lydian marble and limestone spolia was built on this earlier wall. Among the spolia reused in the Hellenistic wall are a series of marble blocks, finely worked with a flat chisel, similar in workmanship to the stylobate on ByzFort and also to a block reused in the Lydian terrace wall in the southern trench. Three faceted blocks are perhaps wall base moldings.⁷ Other stray finds from this hill include two blocks worked with flat chisel on joining surfaces, but with their exposed faces polished to a buttery smooth finish. These suggest that while the sixth-century terrace walls were made of limestone, some at least of the buildings on top of the terraces were made of marble.

Within the Hellenistic platform, Lydian walls and floor levels have been almost completely robbed out, leaving only robber's trenches and a few stones. In front of the Hellenistic platform, however, one course of a Lydian terrace wall was preserved above ancient ground level; its foundation, 3 courses of large boulders, suggests it could have stood many meters high. At the corner, the terrace wall is built of finely carved limestone ashlar with drafted margins, similar to the masonry of ByzFort and the Lydian terrace walls on the Acropolis. Further south, though, the construction changes to less finely dressed sandstone.⁸

Directly in front of the Lydian terrace wall, and perhaps explaining the change in construction, is a poorly preserved mudbrick structure, perhaps a small platform of some kind. At the front of the structure were two settings for wooden posts associated with burned iron hardware, perhaps supporting a covering for this platform.

Another, more roughly built wall of schist boulders seems to have created a passage about 3 meters wide north of the terrace wall. Like the limestone wall, this was completely robbed out within the Hellenistic platform. We may therefore have an entrance here at the edge of the terrace, with a relatively narrow passage leading to buildings on top of the hill. The significance of a circular pit in the center of this passage is unclear.

7 Similar limestone examples in Ratté, 2011: cat. A1-A3.

8 The area was uncovered only in the last days of excavation in 2021, and at the time of writing this article, the material has been processed in only the most preliminary fashion; we will present further information as it becomes available.

It contained Hellenistic pottery and roof tiles, showing that it was dug in the Hellenistic period, but its vertical sides and location centered within the passageway suggest that it may be the impression of a Lydian feature here, robbed out in the Hellenistic period.

The earth floor in the passage and in front of the terrace wall was covered with a relatively thin layer of burned mudbrick debris, and preserved a number of artifacts in close to a primary context. The nature of the debris and artifacts, including weapons, human bones, and local pottery of the first half of the sixth century BC (fig. 17), suggests that this burned level should be associated with the Persian capture of Sardis in 547 BC.⁹ Unlike other sectors at Sardis where a thick layer of destruction debris protected the assemblages, however, there was relatively little debris on the floor here, and many artifacts have probably been lost through exposure and looting.

Around this pit in the passageway was a scatter of 24 bronze arrowheads on the earth floor, and more arrowheads were found in the fills above the floor and in excavations of 2017. Most of these are of the bilobate type, and join more than 100 arrowheads of different types found on this hill in documenting the military destruction of this area.¹⁰

To the south of the arrowheads, a scatter of human bones, including fragments of skull, teeth, parts of one arm and hand, and a vertebra, are likely the remains of a casualty of battle (fig. 18). Many bones were burned, and all were very fragmentary, probably as a result of erosion and scavenging by animals after the destruction.

Near the fragmentary bones of the arm was an iron knife, probably belonging to the casualty. In a pocket of loose earth among the bones was a tight cluster of nine silver coins (fig. 19). While these await cleaning, a lion and bull is distinguishable on some coins, and a tentative identification suggests that they are all croeseids: two silver staters, four 12th staters, and three

9 Stemmed dish P21.019:15576. Relatively little pottery was found on the floor; the other fragments are compatible with a mid-sixth century date.

10 A similar scatter of arrowheads, but with a wider variety of types and materials, was found in the gate passage in MMS/N: Greenewalt, 1997. Both bilobate and trilobate types are found on Field 49, but often in relatively distinct contexts. For instance, the arrowheads from the disturbed destruction debris mentioned above, including the large clump of arrowheads, are all of the bilobate type, while those in a fifth-century pit are mostly of the trilobate type.

24th staters.¹¹ This is only the second hoard of Lydian coins found in archaeological excavations at Sardis, and its archaeological value is greatly enhanced by its discovery in this closely datable and historic context.¹²

Nearby was a fragment of bronze, measuring about 16 x 18 cm and composed of three or more sheets which have been cast or hammered. One sheet is decorated with feathers including longer flight feathers and shorter covert feathers (fig. 20). Two other sheets are riveted together; between the functional rivets are raised circles which seem to be decorative rather than functional. The topmost sheet preserves a scalloped edge. The edge of the sheet with feathers is original, but all other edges are torn or broken, and the artifact seems to be a fragment of a large-scale bronze sculpture, perhaps of a figure such as a griffin or sphinx, and perhaps associated with this entrance to the palace.¹³

As elsewhere in central Sardis, there were almost no occupation remains of the Persian era on this hill. The only coherent deposit belonging to the Achaemenid era was a pit in the central trench of Field 49, which contained ceramics of “Late Lydian” types, animal bones, 24 trilobate and three bilobate arrowheads, a variety of ivory inlays and other small ivory artifacts, and a small coin of Teos, probably of the first half of the fifth century BC (Matzke, 2000). This pit may have been dug to salvage building material and valuables from the remains of the palace such as the ivories. There are no walls or other buildings of the Persian era, and residual ceramics of this period are much rarer than Lydian residuals.

The next major building phase on this hill was apparently in the Hellenistic period, when elite structures seem to have followed the general lines of the earlier Lydian remains. Among the earliest preserved

structures is the monumental marble and limestone platform standing directly on the Lydian terrace wall (fig. 11).¹⁴ This turns to the east just as the Lydian terrace does, suggesting that it may have re-created the Lydian building in some fashion. Pottery from its foundation trench dates to the mid-third century BC, but this is not the first monumental structure here, as the foundation trench wall also contained a dense packing of large roof tiles, probably of early Hellenistic date.¹⁵ One or two massive but enigmatic foundations, also built of earlier spolia, probably also belong with this phase.¹⁶ Although these earlier Hellenistic phases are not fully understood, they are clearly monumental, and inherit not only the location but also the materials and aspects of the plan of the earlier Lydian palace; these may well reflect the use of this hill as a Hellenistic palace of the Seleucids, who made Sardis its western capital (Kosmin, 2019).

2.2. An Upper Palace on the Acropolis

Prof. Hanfmann located the palace of Croesus on the Acropolis, where a series of finely worked limestone and sandstone ashlar terrace walls probably once supported elite buildings (figs. 21, 22) (Ratté, 2011: p. 99-102, with previous bibliography)¹⁷. The upper terrace walls in sector AcN are not defensive, since an external staircase once provided access to the terrace top; rather, they organized this steep terrain in a series of rising terraces, similar to those of ByzFort and Field 49. Buildings on top of these terrace walls do not survive, but a few Lydian artifacts from nearby, such as the fine bronze horse trapping in the shape of a boar, reinforce the identification of the area as an elite quarter (Waldbaum, 1983: no. 88; Cahill, 2010a: no. 48). It seems now that Prof. Hanfmann’s original conjecture, that there were two palatial complexes, an upper and a lower, was correct.

11 Inventory nos. 2021.0029-2021.0037. The uncleaned weights of 10.79-10.93 g (two staters), ca. 0.88-0.90 g (four 12th staters), and 0.43-0.45 g (three 24th staters), is consistent with the metrology of Lydian croeseids and fractions: see Nimchuk 2000. For croeseid coins found in this destruction layer elsewhere in the city, including a gold 12th stater and silver 12th and 24th staters, see Cahill and Kroll, 2005. These represent accidental losses rather than a hoard. Two electrum third-staters and one silver croeseid stater from the Acropolis were perhaps dedications at a sanctuary: Cahill et al., 2020.

12 The other hoard, consisting of 30 gold staters, was found in 1922: Shear, 1922: p.396-400; IGCH 1162, now in the İstanbul Archaeological Museum and the Metropolitan Museum of Art, New York.

13 One might compare the winged figures near the gates to the Palatial Complex and the Cappadocia Gate at Kerkenes Dağı: Draycott et al., 2008; Summers, 2021: p.55-75; Summers Forthcoming.

14 Described as a limestone wall in Berlin, 2019: p.59-61.

15 Berlin 2019, 59-61, and fig. 2.6; Cahill 2019, 31-35.

16 The masonry is similar to blocks reused in the Hellenistic phase of the Artemis Temple and other buildings in the sanctuary of Artemis; Cahill and Greenewalt 2016, 497. Those blocks, however, cannot be independently dated, except to say that they predate the construction of the north wall of the temple, completed probably by the third or fourth quarter of the third century BC. It is possible that the spolia belong to a late Achaemenid or early Hellenistic phase which is otherwise archaeologically unattested.

17 The site may have been discovered and partly excavated by the Butler expedition in 1922.

A possible connection between the upper and lower palace areas was also identified by Prof. Hanfmann. A tunnel cut into the Acropolis cliff leads from the head of the wadi between Field 49 and ByzFort up to a chamber cut into the conglomerate below the Lydian terrace walls on the Acropolis (Hanfmann, 1963: p.35-37; Hanfmann, 1965: p.8-10). The tunnel continues down, but difficulty and risk prevented full excavation, and it remains enigmatic. Byzantine pottery and coins from the fills of the tunnel show that it was open and used at that time, but it may have been created in the Lydian period to link the two palatial complexes.

2.3. Earlier Lydian Remains on Field 49 and ByzFort

The sixth-century Lydian limestone terraces on ByzFort and Field 49 are not the earliest monumental terraces on these two hills, however. One of the most important results of recent work on this hill has been to demonstrate the long and early history of building here in central Sardis. Historical sources, primarily Herodotus, lead us to believe that Sardis rose to power quickly in the seventh century with the accession of Gyges and the foundation of the Mermnad dynasty (Mellink, 1992: 643ff; Payne and Wintjes, 2016; Högemann and Oettinger, 2018). Archaeology, however, reveals a long sequence of occupation and monumental architecture here predating the Mermnads.

The limestone terrace wall was built directly upon or in front of an earlier Lydian terrace wall made of large boulders. On the west flank, the limestone wall was built directly on the stub of the earlier wall (figs. 7, 8), while on the north, the earlier terrace wall was located near the crest of the hill, and the later wall was further down the slope. On the north flank of Field 49, this boulder wall is 3 m thick and at least 47 m long (fig. 23). At the moment, sealed strata that would date the construction of this boulder wall are scant. The evidence points to at least one major rebuilding of the terrace in the sixth century BC, but the initial construction of this enclosure may well date to the eighth century BC, long before Gyges and the Mermnads (Greenewalt et al., 1985: p.64-68; Eren, Forthcoming).¹⁸

Earlier terrace walls have not yet been uncovered, but may be inferred from structures preserved on the hilltop. At least two such monumental buildings predating this eighth-century terrace wall survive. Their similar, distinctive forms and structures suggest that they are broadly contemporary, and represent an important occupation phase of this region in the Early Iron Age.

One building, at the tip of Field 49, measures about 5.25 m square, with mudbrick walls 0.8 m thick. A framework of substantial wooden posts spaced about a meter apart was set into the walls, with a larger post in the center of the room (figs. 10, 24). The massive construction and closely-spaced posts suggest that this is the footing, perhaps partly subterranean, of a building with a tall superstructure. Part of another, probably contemporaneous building on the same alignment was cut into the northern slope of the hill nearby, and there were likely other buildings in the central trench, documented by dumps of mudbrick, charcoal and Early Iron Age pottery. Ceramics from the destruction level of the northern building were scant, but suggest a date in the period identified as Lydian IV at other excavation sectors such as HoB and PC. A series of C14 dates suggests that the building was constructed in the second half of the ninth century BC, and destroyed in the first half of the eighth century (fig. 25).¹⁹ Much of the hill, therefore, was probably settled with monumental, coordinated structures in the Early Iron Age. Occupation at Sardis in this period seems to have extended as far as the Pactolus River, and south towards the sanctuary of Artemis; but no architecture is known from these areas (Ramage et al., 2021: p.31-35, 53-55, 117-119, 147-163). This hill, therefore, gives us our first monumental architecture of the Early Iron Age, suggesting that this was already a high-status area long before the Mermnads.

A similar building, or rather the basement of a larger structure, was excavated on the tip of ByzFort at a position equivalent to the building on Field 49 (figs. 4, 26). Like its counterpart, this room is square, about 3.6 m x 3.6 m, but deeply cut into the bedrock, accounting for its survival. Like the equivalent room at the tip of Field 49, this had postholes in the corners and centers of the walls, and another in the center of the space, suggesting a substantial superstructure. Part

¹⁸ The wall was discovered in 1981.

¹⁹ Analysis by Turhan Doğan, Yer ve Deniz Bilimleri Enstitüsü, TÜBİTAK Marmara Araştırma Merkezi.

of this mudbrick superstructure had collapsed into the basement. Over the mudbrick wall was a thick layer of burned destruction debris, including many restorable or partly restorable vessels, including dozens of brightly painted stemmed dishes, many more grayware stemmed dishes for a total service of almost 100, large black-on-red and bichrome jars, and other shapes (fig. 27). Beneath the collapsed mudbrick wall were further vessels, plainer and probably the original contents of the basement, while the upper stratum belonged with the occupation stories above. The building was originally thought to date to the seventh century BC, but the pottery compares more closely to the few fine ceramics of Lydian IV levels at HoB and PC than to those of any later period, and a destruction date in the early eighth century seems more likely (Greenewalt et al., 1993: p.28-31; Greenewalt et al., 1994: p.24-27; Cahill, Forthcoming; Eren, Forthcoming).²⁰

These buildings suggest that in the Early Iron Age, this was already an elite region of Sardis, probably already a palatial quarter. No terrace walls are known from this phase, but the Early Iron Age Sardians were perhaps still using terrace walls from a still earlier era.

3. Bronze Age Sardis

Strabo (13.6) claims that Sardis was not founded until after the Trojan War, and until recently, the earliest known archaeological remains dated to the Late Bronze Age, generally agreeing with Strabo's account (Ramage et al., 2021: p.37-51). Kaymakçı, the important Bronze Age site on the shores of the Gygaean Lake, offered a candidate for the regional capital of the Seha River Land and a potential focal point of occupation before Sardis was settled (Roosevelt et al. 2018; Roosevelt and Luke, 2017). Recent discoveries of Bronze Age strata on Field 49, however, have prompted a re-evaluation of Sardis and the Lydians during this period.²¹

Small, deep sondages on the western slope of the hill revealed that the area was raised with at least 5 m of artificial fill (figs. 28, 29). The sloping lenses of almost sterile sand and gravel are almost identical to the Lydian terrace fills of the sixth century BC, and almost certainly represent a similar project to raise the

level of the natural hill. The fill rests on bedrock, 14 m below modern ground surface, which slopes so steeply here that the hill would have not been habitable without terracing. Although no terrace wall has been found, the nature of the fill makes it quite certain that this represents an artificial landscaping operation similar to the later terracing operations of the Lydian period.

No structures survive in the small sondages in the central trench, but about a meter of stratified occupation deposits rests on the terrace fill, preserving a number of restorable vessels of Bronze Age types (fig. 30). In the southern trench, however, a small stretch of mudbrick wall survives between deep Hellenistic foundations (fig. 11, B). Ceramics and a series of C14 dates from the terrace fill, occupation strata, and destruction debris around the mudbrick wall suggest a date for the creation of the terrace in the late third millennium BC, and subsequent occupation through the 17th or 16th c BC.

The finds and stratigraphy of these levels will be published in more detail elsewhere, but a few general observations are pertinent. These are the earliest stratified remains yet found at the city site of Sardis, pushing back the history of the site by almost a millennium. Moreover, the deep terrace fill suggests that already in this early era, these hills were being transformed and monumentalized. The Early Bronze Age terrace walls that retained these fills are probably buried under dozens of meters of later occupation remains. But already in the Early Bronze Age, Sardians were transforming the landscape through great terraces, in a manner very similar to later Lydian approaches to urban development.

Conclusion

The Mermnad kings thus inherited a region whose landscape had already been transformed by Bronze Age and Early Iron Age monumental terraces and buildings, some dating back more than a millennium. It is too early in the course of excavation to say whether this area could already be characterized as palatial, but the Early Iron Age ceramic assemblage from ByzFort, and a more general argument of continuity of function, suggest that this is a fruitful hypothesis.

Later Lydian kings developed these ancient hills with white limestone terrace walls, following or expanding the lines of earlier constructions. The buildings atop

²⁰ We are preparing a more detailed presentation of this assemblage.

²¹ These results will be fully published elsewhere, but a short summary is appropriate here (Bruce, Dedeoğlu Konakçı, Pavúk and Cahill, forthcoming)

these terraces have not yet been found intact, but the surviving fragments are among the very few examples of Lydian marble architecture so far discovered at Sardis, and with their brightly decorated terracotta revetments and roofs, and their assemblages of elite artifacts, mark them as qualitatively different from domestic structures, giving us a sense of the palace.

The elite Early Iron Age and Bronze Age terraces and buildings in central Sardis date to periods understood by Herodotus and other later historians as the Heraklid dynasty and earlier, known to the Greeks through the fantastic stories of mythological kings and queens such as Arachne, Omphale, Kamblys, Meles, and Moxos.²² These stories and events were well known by later Sardians, however, who looked back with pride on their own prehistory and even recorded early Lydian history in a “Lydian Chronicle” found in the sanctuary of the Roman Imperial Cult immediately below the palatial areas of ByzFort and Field 49 (Petzl, 2019: nos. 577, 578; Thonemann, 2020). This interest in their own prehistory also extended to the material culture of earlier eras, not simply as precious objects and spolia for reuse, but antiquities for collection and perhaps study. A Bronze Age stone mace head of green and black serpentine was found in late Roman fill which buried the temple of the Imperial Cult (fig. 31) (Rojas, 2019: p.2-3). Was this elite object, perhaps two millennia old, simply detritus washed from Bronze Age levels on the hills above, or was it perhaps retrieved and curated in the intervening millennia? Was it once wielded by a Bronze Age ancestor of Croesus? Without examples from better contexts, we cannot decide. But ancient ground-stone implements are found in some numbers in Lydian occupation layers, where they were clearly part of contemporary assemblages (Cahill, 2012, 214 and fig. 13).

Already in the Lydian period and for the rest of Sardis’ long history, the inhabitants of the city valued both their early history and even their ancient artifacts. The Hellenistic and Roman heirs to these long traditions must have showed visitors the famous sites of the past, such as the Palace of Croesus. But when Vitruvius describes the Palace of Croesus as an example of a long-lived mudbrick building, what structure of Roman Sardis was he referring to? The archaeological evidence suggests that the Lydian palace had been systematically plundered during the Persian and Hellenistic periods,

and there is no sign that any remains stood into the early Roman period. Was Vitruvius describing some yet-undiscovered Lydian structure that survived the intense looting and later construction? Or was he describing some unrelated ancient ruin which was taken as the spot where the famous kings had reigned, as nineteenth-century visitors identified the Roman Bath-Gymnasium complex as the Palace of Croesus?

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Appendix

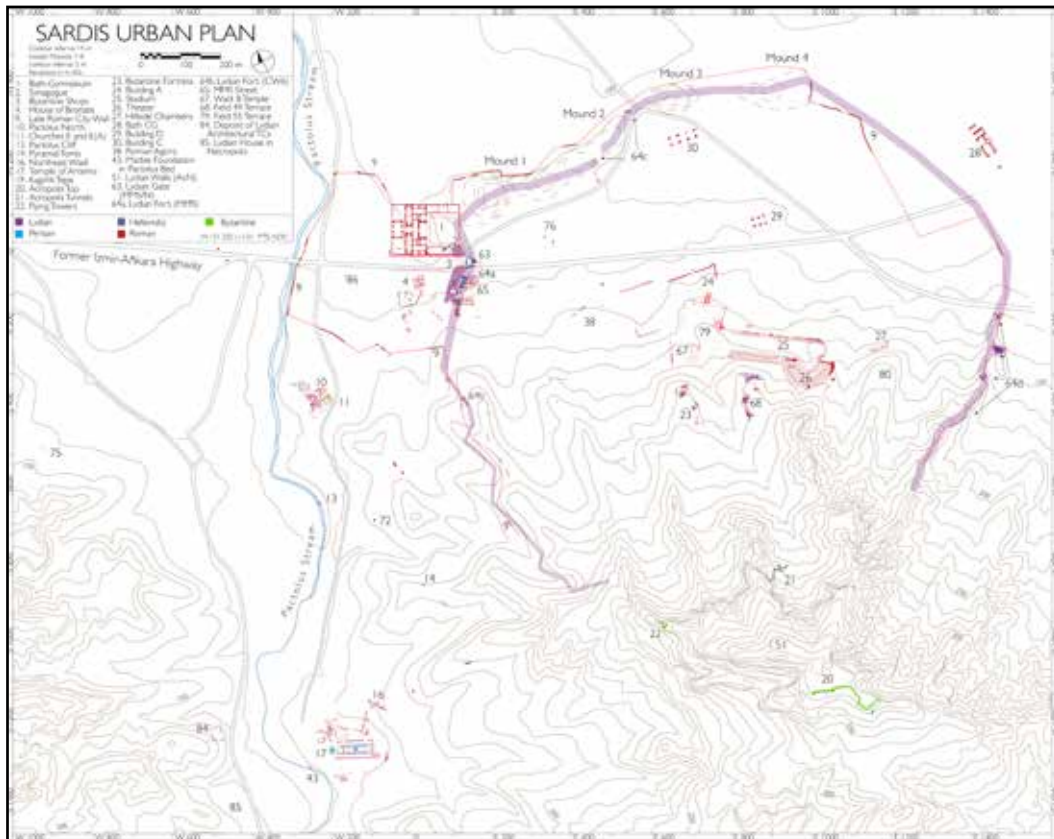


Figure 1: Plan of Sardis.

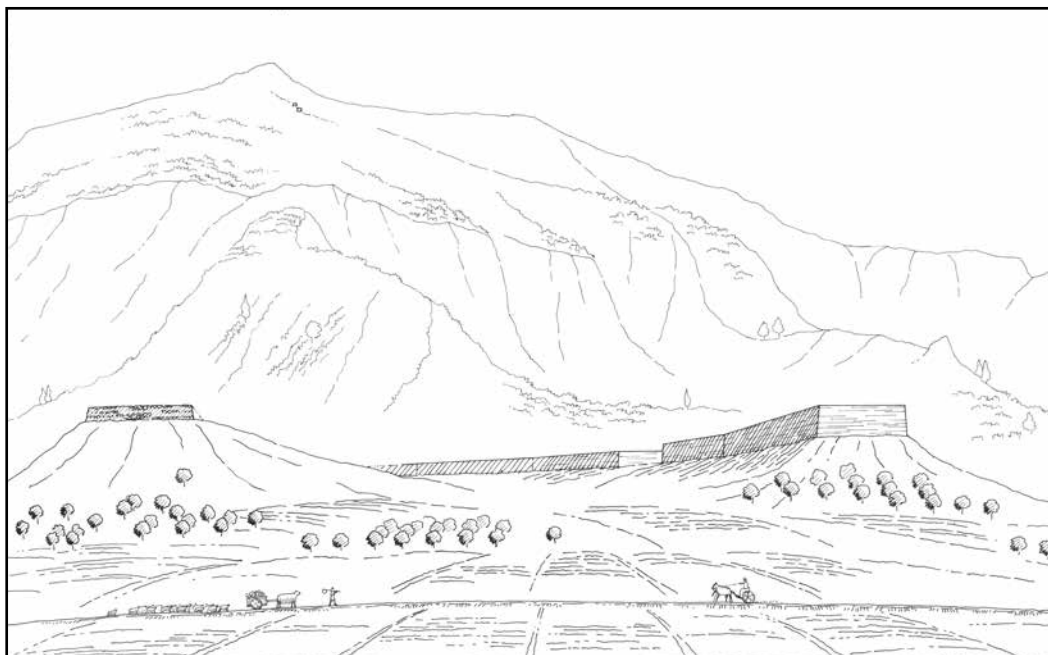


Figure 2: Reconstruction of terraces on ByzFort and Field 49, drawn before it was recognized that this was the center of Lydian Sardis. The landscape around should be shown as densely occupied.



Figure 3: ByzFort, view of northeast corner (1985).



Figure 4: Plan of Lydian features on the tip of ByzFort.

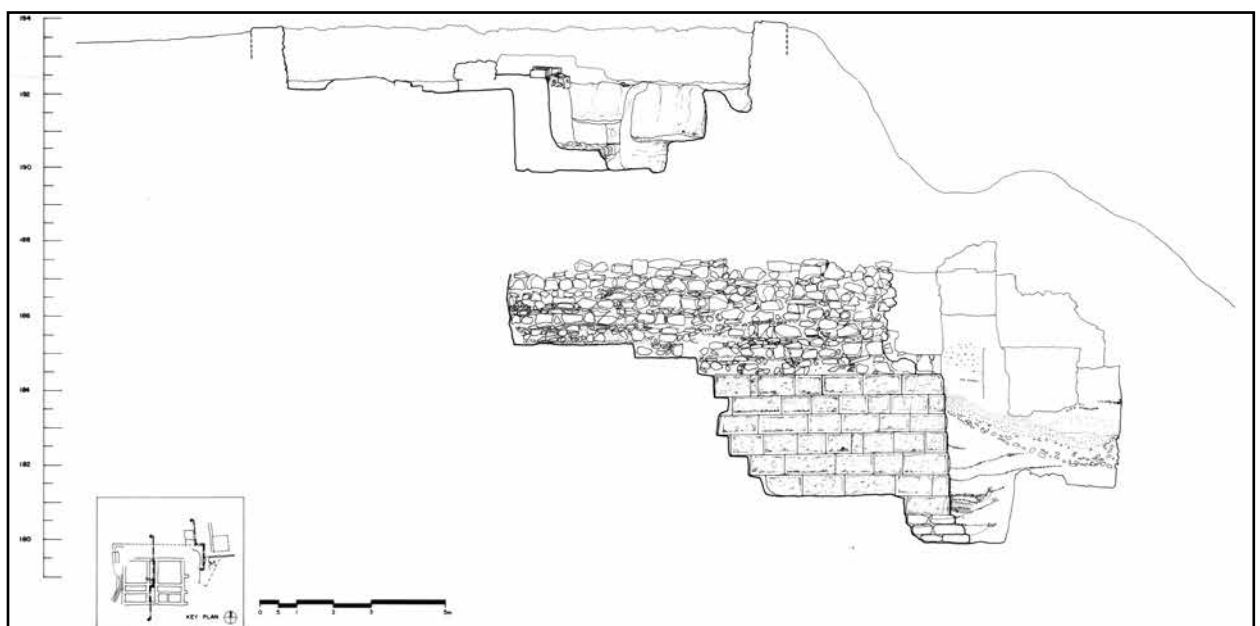


Figure 5: Elevation of eastern flank of ByzFort terrace, showing limestone terrace wall, boulder packing, and stylobate and "basement" on summit.



Figure 6: ByzFort, upper terrace walls, with archaeologist Güzin Eren (2011).



Figure 7: Field 49, western terrace wall showing upper limestone section and lower boulder wall, with archaeologist Will Bruce.

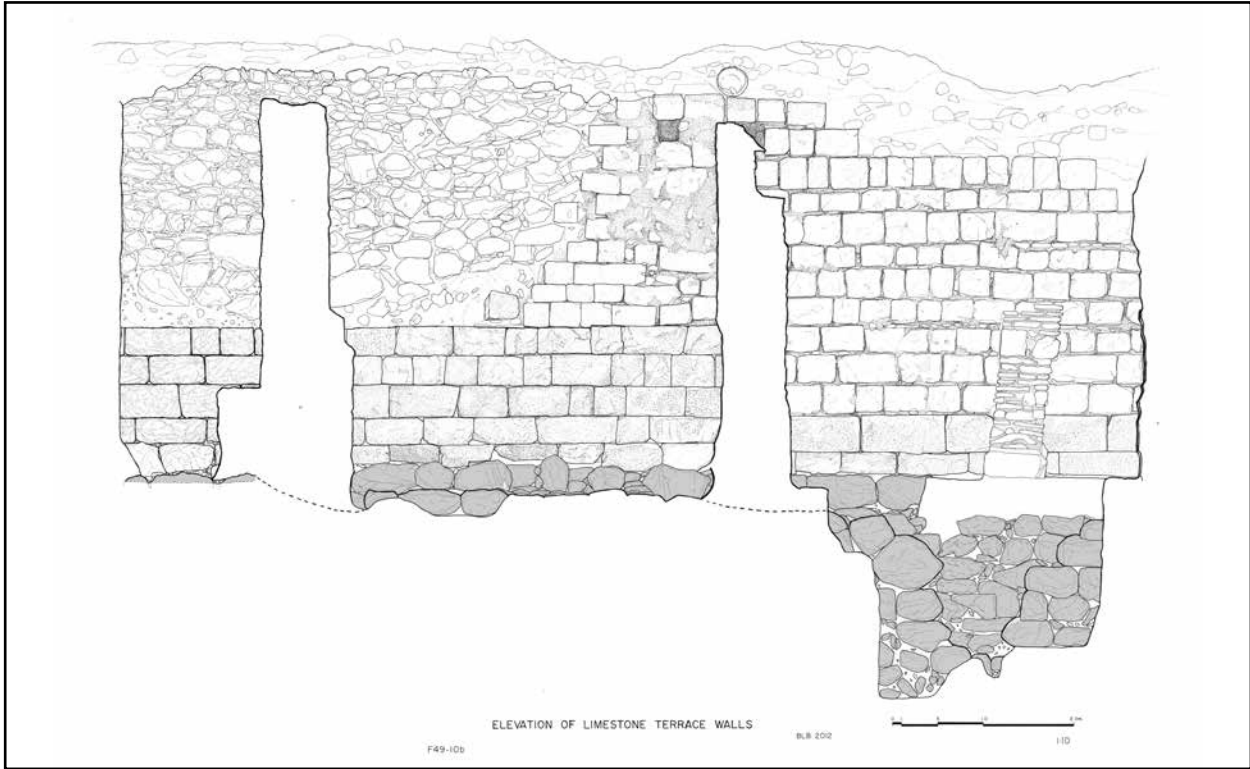


Figure 8: Elevation drawing of western terrace wall of Field 49.



Figure 9: Lydian stylobate on the summit of ByzFort.

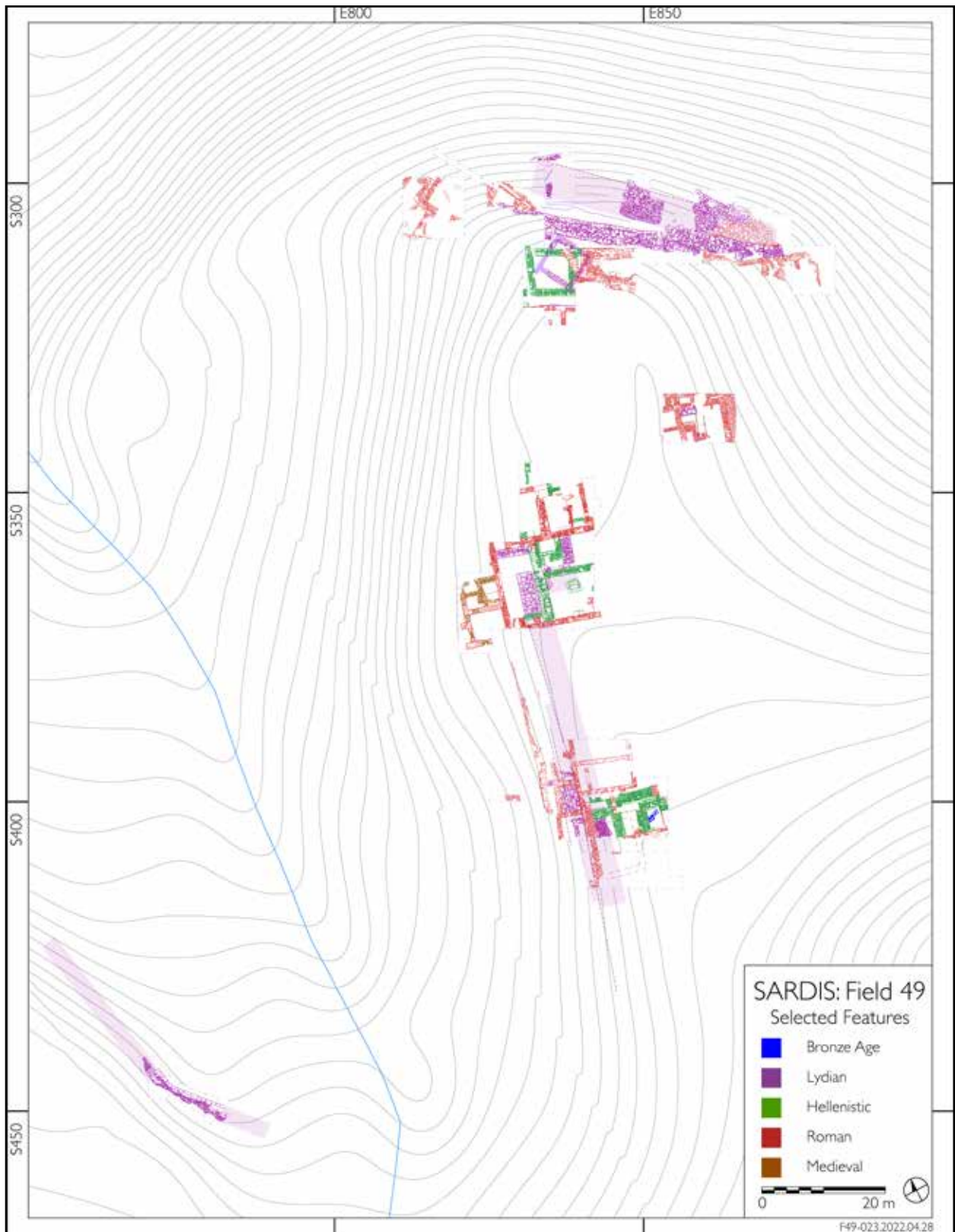


Figure 10: Field 49, plan of selected features.



Figure 11: Field 49, view of southern trench. A: area of Persian destruction debris. B: Bronze Age mudbrick wall. All other visible features are Hellenistic or Roman.



Figure 12: Lydian sealstone from disturbed destruction debris, southern trench.



Figure 13: Clump of bronze from arrowheads.

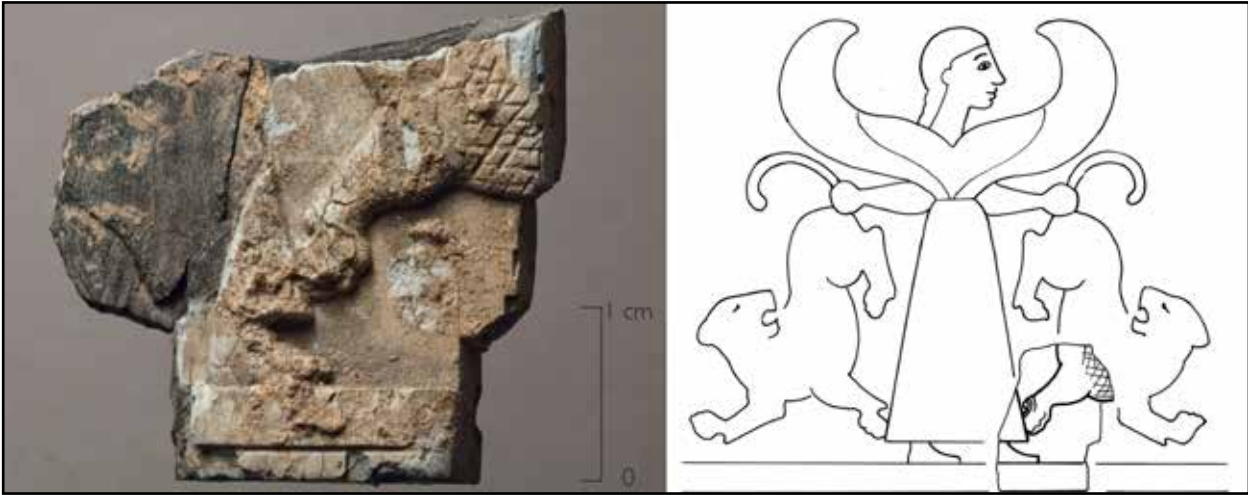


Figure 14: Ivory furniture inlay showing Potnia Theron holding lions?



Figure 15: Central trench of Field 49 showing Hellenistic and Lydian terrace or platform walls.



Figure 16: Plan of central trench of Field 49.



Figure 17: Lydian stemmed dish fragment, from Persian destruction debris.



Figure 18: Human skeletal remains (humerus, part of radius and ulna) from destruction debris, with iron knife and hoard of Lydian coins.



Figure 19: Lydian coin hoard, before cleaning.



Figure 20: Bronze sheets, perhaps part of a large-scale bronze sculpture of a winged creature.

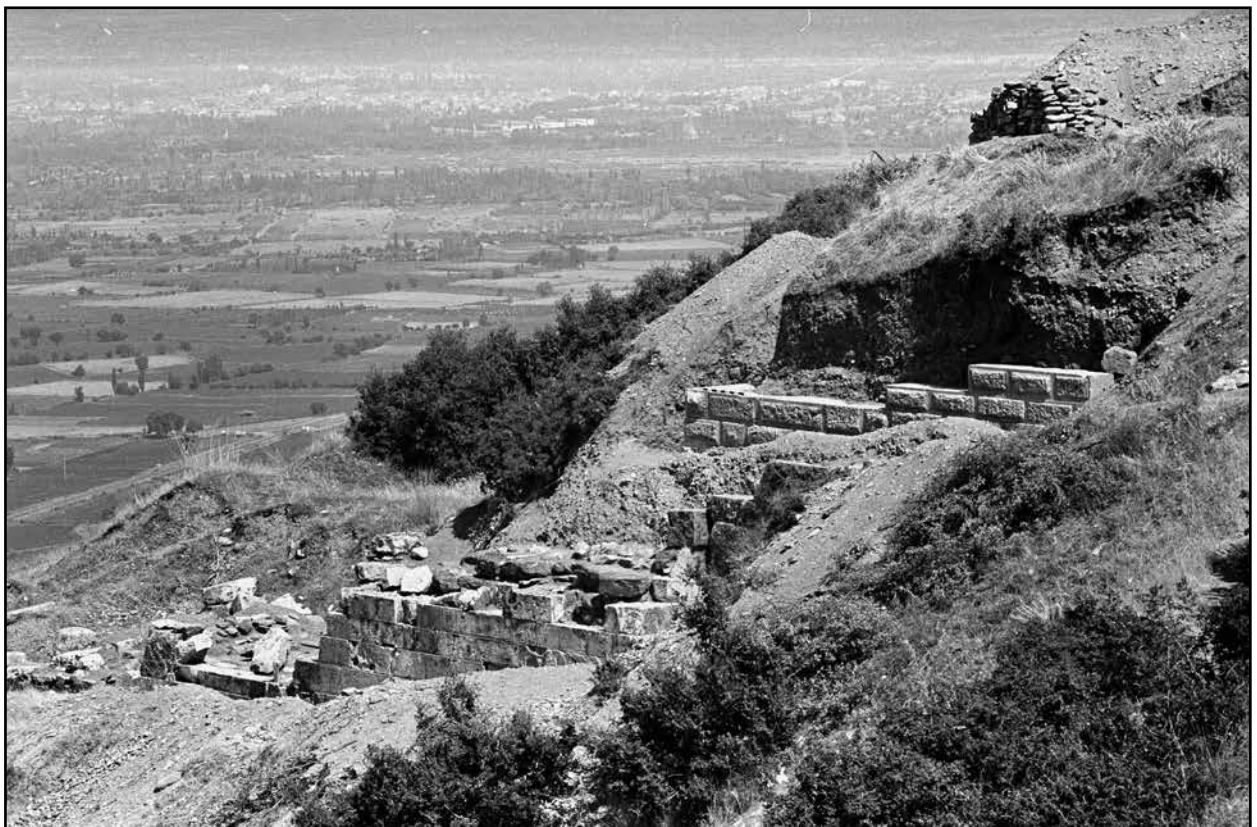


Figure 21: View of terrace walls on the Acropolis, (sector AcN), 1971.

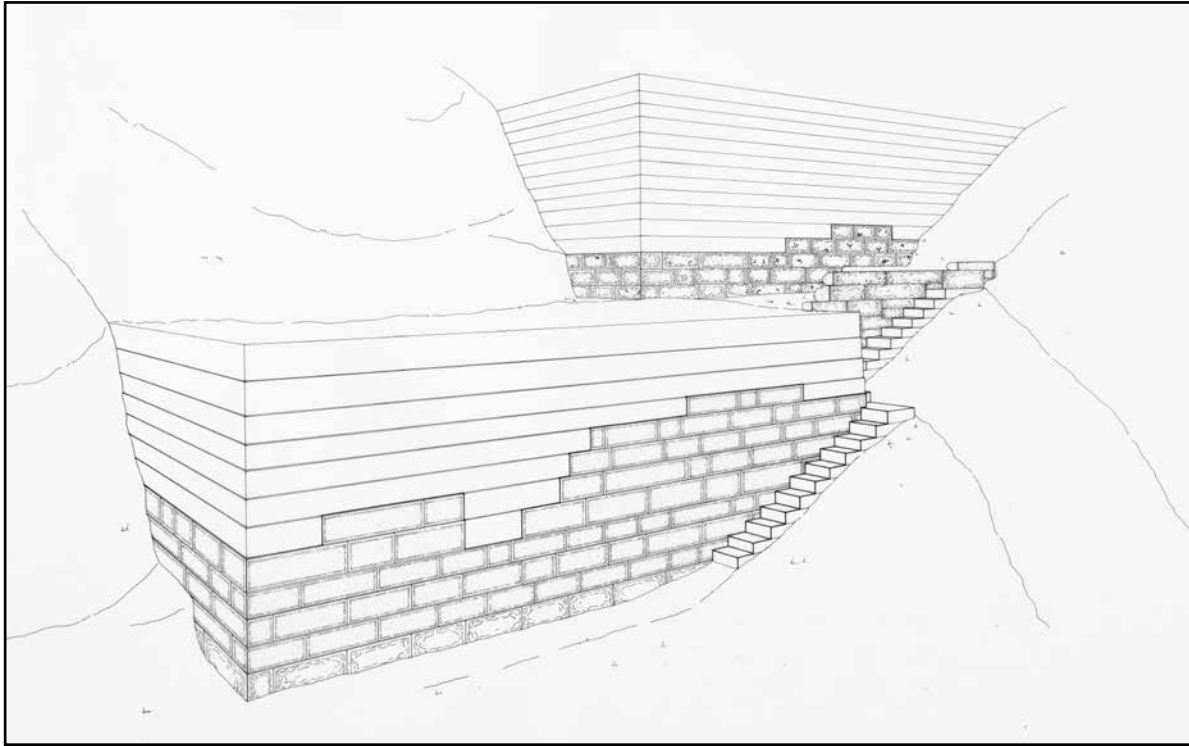


Figure 22: Reconstruction of terrace walls on the Acropolis.



Figure 23: Boulder terrace wall on the north flank of Field



Figure 24: Field 49, Early Iron Age mudbrick building, with Güzin Eren.

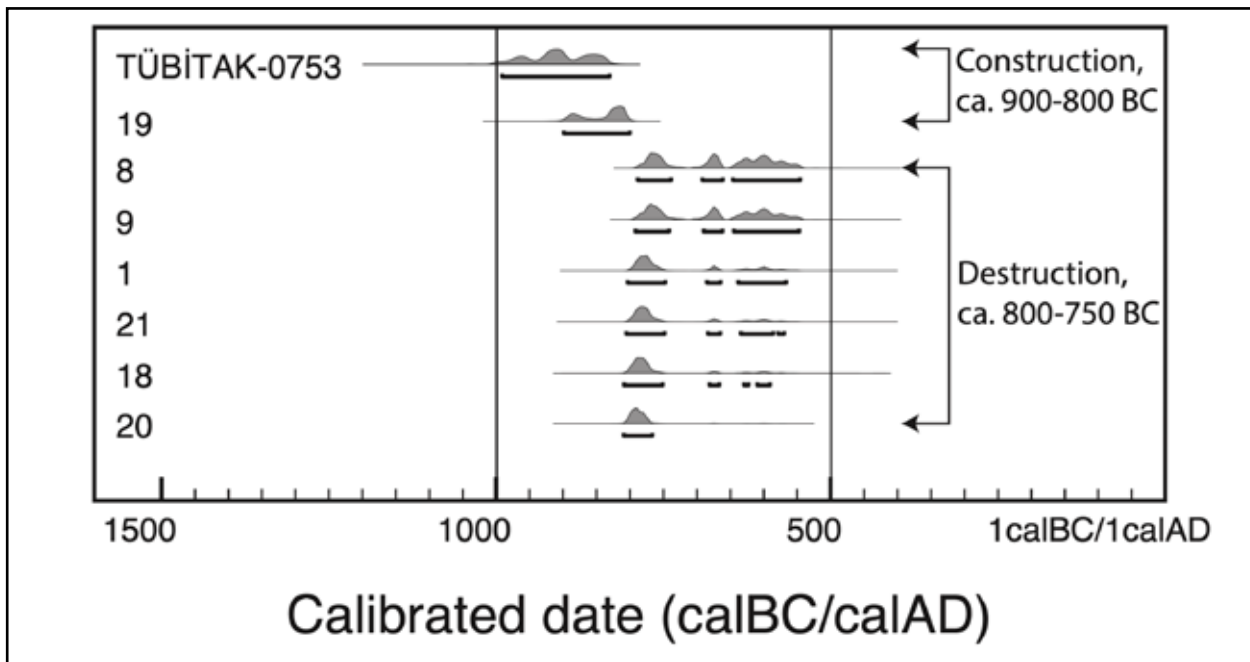


Figure 25: Carbon-14 dates for Early Iron Age mudbrick building on Field 49.



Figure 26: View of Early Iron Age "basement" on ByzFort (1991).



Figure 27: Selection of pottery from the “basement” on ByzFort.



Figure 28: Deep sondage in the Field 49 central trench, showing Bronze Age terrace fill and occupation deposits, with Will Bruce.

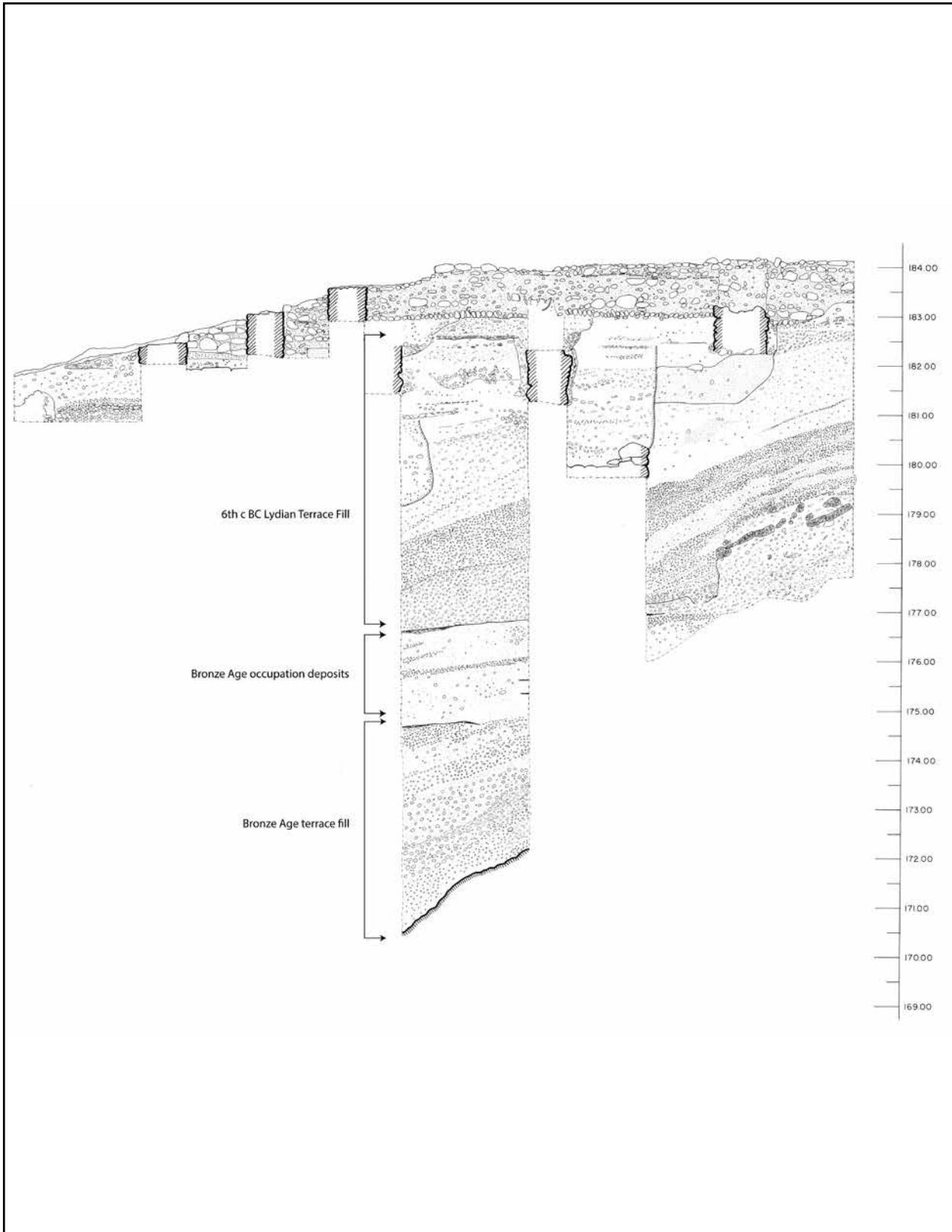


Figure 29: North scarp of central trench in Field 49, showing Lydian and Bronze Age terrace fills and Bronze Age occupation deposits.



Figure 30: Selected restorable vessels from Bronze Age occupation deposits on Field 49.



Figure 31: Bronze Age serpentine mace head, found in Roman strata below ByzFort and Field 49, held by Prof. Crawford H. Greenewalt, jr.