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REPORT ON THE EXCAVATIONS IN THE YEARS 2007 AND 2008 SOUTHEAST OF THE TEMPLE OF POSEIDON AT KALAUREIA

BY

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Abstract

Archaeological material ranging in date from the Early Bronze Age to Late Antiquity was found in 2007 and 2008 in the excavations in Area H to the south and southeast of the Temple of Poseidon. Finds datable to the periods of major change in the Sanctuary—the Late Archaic and the Early Hellenistic—illuminate the character of the change. In the Late Archaic period an attempt to erect a votive column at the site was for some reason given up, and drums of large dimensions were left visible, possibly as a reminder of the failure. The construction of a monumental drain next to the Archaic *peribolos* of the Temple of Poseidon in the early third century BC necessitated large-scale leveling work in the area coinciding in time with the dedication of a Ptolemaic, royal statue. These types of events have a tendency to dominate in the archaeological record at the cost of periods of normalcy. Those periods are represented in the form of pottery, other artifacts and animal remains, which constitute evidence for activities that obviously did not change much over time, such as dedicating objects to the deities present in the Sanctuary and animal sacrifice with ensuing preparation and consumption of food. In this report we attempt to present the archaeological remains in accordance with the type of deposits they originate from. Also included is an appendix on the marine mollusks by Tatiana Theodoropoulou.

INTRODUCTION (*BW*)

In the year 2007 the research program *The Sea, the City and the God* was initiated in the Poseidon Sanctuary at Kalaureia.[1] The program has been planned to last for six years with four seasons of fieldwork within the archaeological site, both within the Sanctuary proper and outside of it. When the program was set up, three aspects were broadly defined. Our first aspect is to attempt to define the physical relationship between the Sanctuary and the *polis* as we understand it at this point in time. Within the archaeological site of Kalaureia, we decided on two possibilities for investigating where the Sanctuary ends and the city begins: in the southwest/south and in the northeast.

[1] We gratefully acknowledge the funding by the Stiftelsen Riksbankens Jubileumsfond and also extend our thanks to the Greek Ministry of Culture for granting us the permit for the fieldwork at Kalaureia. We further thank the 26th Ephorate of Prehistoric and Classical Antiquities, especially Mrs. Evtychia Ligouri, Director of the Ephorate, and Ms. Maria Yannopoulou, responsible archaeologist for our area, for facilitating our work in the Sanctuary of Poseidon and in the Poros Museum. The staff of the Poros Museum, with Nektarios Sarantopoulos as head guard, has to cope with us on an everyday basis, which they do with good cheer. We thank them.

The members of our team in the field were the following: Aris Anagnostopoulos, research fellow in Archaeological Ethnography and Community Archaeology; Marie-Françoise Billot, architectural terracottas; Naja Gerd Werther, trench master; Anna Gustavsson, trench master (2007); Yannis Hamilakis, co-ordinator of the research on Archaeological Ethnography and Community Archaeology; Anne Hooton, illustrator; Lena Klintberg, trench master and research assistant; Anna Lindblom, trench master (2007); Craig Mauzy, photographer; Marie Mauzy, photographer; Dimitra Mylona, research fellow, large mammals and fish; Monica Nilsson, trench master (2008); Maria Ntinou, charcoal; Jari Pakkanen, architecture; Petra Pakkanen, research fellow (2008); Tess Paulsson, archaeologist (2008), Arto Penttinen, co-director; Marko Pitkänen, archaeologist; Anaya Sarpaki, seeds; Emanuel Savini, surveying and digital documentation; Lovisa Strand, trench master; Tatiana Theodoropoulou, trench master, mollusks (2008); Maria Tziotziou, conservator; Jenny Wallensten, research fellow; Berit Wells, director.

In 2007 five trainees from Swedish universities participated (Fanny Kärfve, Anna Oswaldsson, Mats Pehrson, Joakim Szszypinski and Emma Wingren) and in 2008 a field program was conducted in collaboration with the Department of Archaeology and Classical Studies at Stockholm University (Susanne Arwidsson, Ingrid Berg, Thomas Ihre, Sophia Lennartsson and Tess Paulsson). Our workmen came from Troizenia: Giorgos Stamatelos (foreman), Giorgos Chourdakis (2007), Petros Drouggas (2008), Evangelos Galountzis, Christos Karamanis (2008), Maria Karsaliakos (2007), Dimitris Lalis, Alexandros Maliaros, Athanasios Maliaros (2008), Lazaros Skarpinakis (2007), Kostas Stamatelos, Nikos Stamatelos (2007), Panagiotis Stamatelos, Yannis Stamatelos (2008). For continuous news on the program, see http://www.kalaureia.org

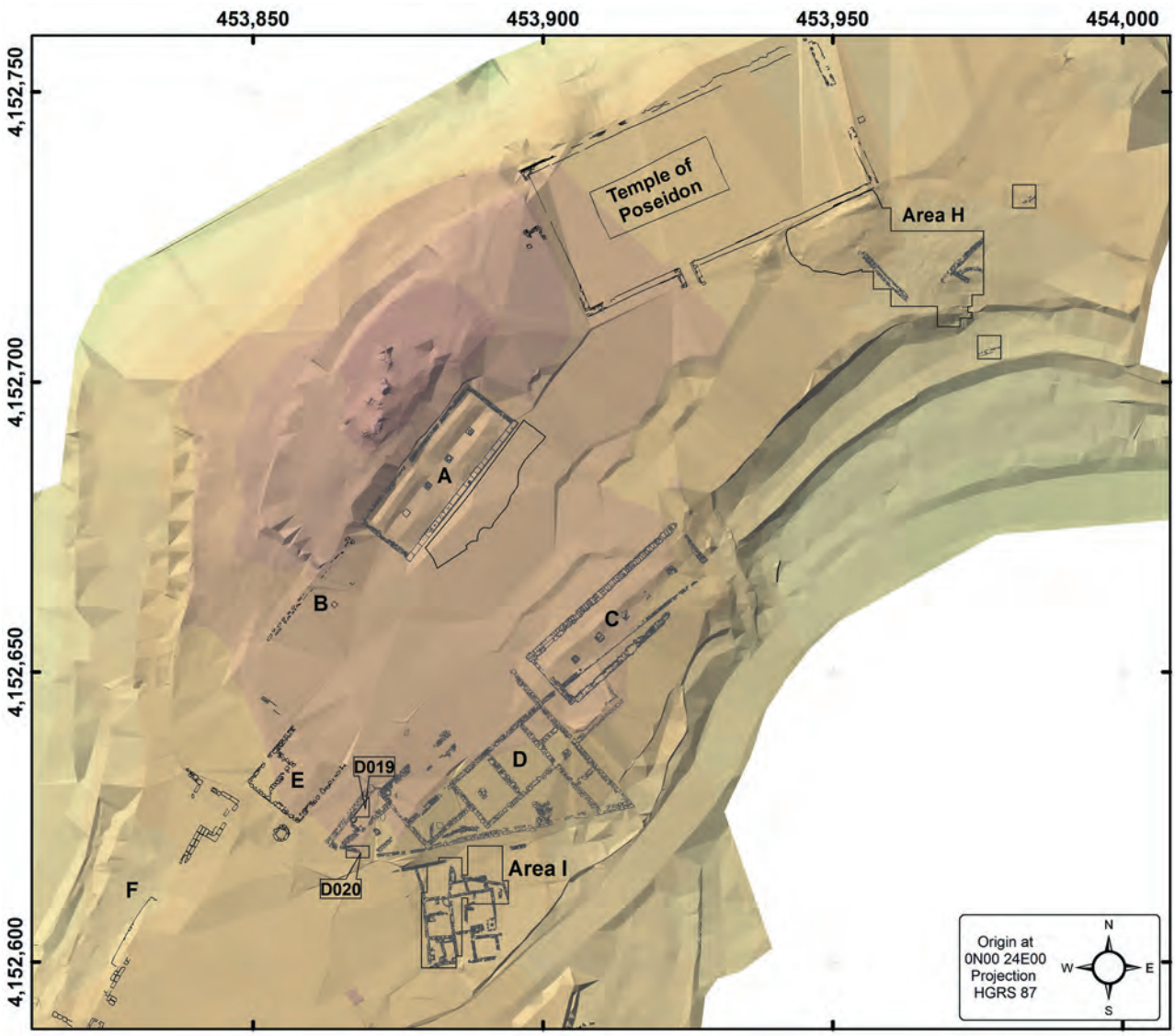

Fig. 1. Plan of the Sanctuary after the excavations of 2008. By E. Savini.

At present we believe with Gabriel Welter that the agora of the *polis* lay to the southwest of the Sanctuary (*Fig. 1*),[2] which was thus reached through Building E (Welter's Torgebäude). To the east, Building D was one part of an extensive building program of the late fourth century BC which also comprised Building C.[3] Bordering the agora in the north, the stoa, Building F, obviously an official building, was constructed at some point in the Hellenistic period. Thus, the agora of the city of Kalaureia should be situated to the southwest and south of Buildings E, D and F. A geophysical survey in 2004 was carried out to guide us in future research, and as a result Area I (*Fig. 2*) was selected as one target for fieldwork in order to carry out our first objective.[4] As a second objective within this first aspect of investigation we wish to target what we understand as the more open area of the ancient agora. Here the said geophysical survey gave indications of a number of small, square structures and a possible road leading up to Building E.

In the northeast, an extensive area, expropriated by the Greek State some years back, was incorporated into the archaeological site in 2006, and a second geophysical survey was carried out, yet again to select targets for future research.[5] A modern field road cuts into the sloping terrain, but it is prob-

[2] Welter 1941, 51.
[3] Wells, Penttinen & Hjohlman 2006–2007.
[4] Papadopoulos *et al.* 2006, esp. 82–87.
[5] Sarris 2006, 32–47.

Fig. 2. View from the south of the excavations in Area I. At the back is seen the southern wall of Building D, which delimits the Sanctuary in this direction. Photograph by B. Wells.

ably here that the boundary of the sacred area is to be found, as the landscape then slopes abruptly towards a ravine running north, at the head of which runs the asphalt road. Moreover, to the south begins another ravine going in a southerly direction, on whose western side is preserved a stretch of the city wall together with a tower.[6] The wall remains are oriented north-south and point towards the southeastern corner of the temple *peribolos*. Investigations were initiated in the area southeast of this corner in 2007 in what is designated Area H; in 2008 the excavation was extended towards the west and north and will continue further towards the north and northeast.

Fig. 3. Modern graffiti on an ancient block lying outside the main entrance to the temple area. The block presumably comes from the Temple itself and was intended for reuse as building material. Photograph by B. Wells.

Part and parcel of this first aspect of the program are the documentation and intensive study of all architectural remains by Jari Pakkanen. One objective is to build three-dimensional models of the separate buildings and, eventually, the whole site. Important here is the collaboration with Marie-Françoise Billot, who is doing a detailed investigation of all the terracotta roofs of the buildings.

Intimately associated with the archaeological research is our second aspect entailing the investigation into local rituals and cults. To this end, in order not to miss the organic remains trapped in the soil that cannot be hand-picked during the fieldwork, we continuously water float soil samples. Only a careful collection of bones, seeds, charcoal and mollusks will add to our knowledge of ritual acts and feasting in the Sanctuary. Responsible for the co-ordination of the studies of organic material found in the Sanctuary is Dimitra Mylona. Questions of ritual and cult are implicated in all our studies, but Petra Pakkanen and Jenny Wallensten will devote themselves to the overarching issues involved.

Our third aspect deals with the Sanctuary and its remains in the memory of the local population today and in the recent past (*Fig. 3*). Before the Sanctuary was expropriated by the Greek State and became an archaeological site in 1978, the

[6] Wells, Penttinen & Billot 2003, 37, fig. 8 in the right-hand lower corner.

Fig. 4. The terrain to the east of the Temple of Poseidon in 2006. In the foreground is seen a heap of hewn blocks partly covered by shrubs. Photograph by B. Wells.

Fig. 5. Plan of the "anomalies" registered in the geophysical survey in 2006 to the east and southeast of the Temple of Poseidon. By A. Sarris and E. Savini.

land not only outside the Sanctuary but also within it was cultivated and a farmstead was situated primarily over the eastern part of Building F. The stables of the farm lay by the western wall of Building D, utilizing it as its eastern wall.[7] Thus people on Poros have vivid memories of what went on in the area a generation or two ago, but in order to extract information on events and interactions with the archaeological site both in earlier times and on other social and political levels we have to consult the archives. Interacting with the local population has always been important to us: this is now being done more systematically, however, based on the ideas and approaches of the emerging field of archaeological ethnography.[8] Responsible for research into this aspect is Yannis Hamilakis, assisted by Aris Anagnostopoulos, who will reside on the island of Poros for a full year, carrying out ethnographic research and community archaeology actions.

The following report focuses on Area H and attempts to give as full an account as is possible at this point in time of the events that led to the formation of the present landscape

[7] Wells *et al*. 2005, 164, fig. 38.

[8] Within the research program the workshop *Archaeological Ethnographies: Charting a Field, Devising Methodologies* was organized on Poros in June of 2008 by Yannis Hamilakis and Aris Anagnostopoulos (see http://porosworkshop.wordpress.com/). The proceedings were published as a special double issue of the journal *Public Archaeology* in 2009.
See also http://www.kalaureiainthepresent.org

Fig. 6. Plan and a photo montage of the excavations in Area H in 2007 and 2008. By E. Savini.

in the northeastern section of the site. Thus not only the excavation as such is presented but also every type of material that has so far undergone study: i.e., besides the pottery and what is conventionally characterized as "finds", also the bones, mollusks and the lamps. In separate articles, although falling under the general aegis of the program, follow a study of the smiting-god figurine found in 2007, the votive column drums and the inscribed statue base found in 2007 and excavated in 2008. Further excavation seasons will enrich the picture, but we deem it appropriate at this point in time to give a full report of the results of the excavations in the area so far.

EXCAVATIONS IN AREA H IN 2007 AND 2008 (*AP, DM, PP, JP, AK, BW*)

The area to the east and southeast of the Temple of Poseidon was incorporated into the archaeological site of Ancient Kalaureia only in 2006 after having been expropriated by the Archaeological Service a number of years earlier. Immediately to the east of the Temple is a plateau, which in the northeast borders a scarp where a dirt road has been cut into the steep hillside. A couple of old excavation dumps outside the main entrance of the Temple and a heap of large, cut blocks to the southeast of it still bear witness to the excavations conducted

Fig. 7. Wall 48 from the southeast. Photograph by B. Wells.

in the temple area in 1894 (*Fig. 4*). Nothing suggests that excavations were ever conducted on the plateau itself, however. To the southeast, the plateau slopes towards a series of east-west-oriented, modern terrace walls, which are now in a dilapidated state, and eventually towards a ravine that in the rainy season fills with water and becomes a stream by the time it reaches the modern settlement of Askeli on the south coast of the island. The devastating impact of heavy rainfall on this slope was last seen in September 2008, when unseasonable, torrential rains hit the island. Along the south wall of the *peribolos* of the Temple some huge mounds indicate that this is where most of the soil excavated from the interior of the same *peribolos* was dumped in 1894.

A geophysical survey was conducted in the area in the spring of 2006 in order to make an assessment of its potential for future excavation.[9] The survey revealed a number of buried structures on the plateau to the east of the Temple. They are visible in areas F4 and F5 in *Fig. 5*. A large, southwest-northeast oriented potential structure immediately to the southeast of the Temple was registered in areas F3 and F9. The excavations in the area, which was designated H in order to continue the series of designations begun by Wide and Kjellberg in 1894, targeted first and foremost this structure.

Excavations in 2007 and 2008 (*Fig. 6*)

The spring campaign of 2007 focused initially on the southern and southwestern part of the potentially large-scale structure revealed in the geophysical survey. One of the walls, which had been shown as a "disturbance" in the geophysical map, soon became visible in the westernmost part of Area H001, and it also became evident from the very beginning that this was not a wall that had ever supported a roofed structure (*Fig. 7*). The wall (Wall 48) had been founded on dirt and consisted of two layers of stones. It appeared double-faced and was built of the hard variety of limestone that is available in the general area of the Sanctuary. The course of the second wall (Wall 49), which became visible in the geophysical survey, could be followed in a southwest-northeast direction in Area H002 in an increasingly thin soil cover. In a separate trench in Area H003, which targeted the northeastern corner of the potential structure, remnants of bedding for the wall were found directly on bedrock underneath a thin layer of eroded surface soil. To the west of the said wall, a thick layer of rubble can be characterized as construction fill, contemporaneous with the wall itself. As the wall has an elaborate face towards the south and southeast but none towards the north and northwest, its function as terrace wall could be confirmed.

The scarce amount of pottery recovered in any kind of association with the two walls was of Hellenistic or earlier date. Yet, because of its bad state of preservation it was not possible to assess an exact date for any of the walls. In the continued excavations in Area H002, block after block of almost sterile soil was removed only to reveal the compact layer of rough limestone rubble that had been brought into the area in conjunction with the construction of Wall 49. Excavation through the same rubble produced a surprise: a layer datable to the late Early Iron Age or to the eighth century BC.

In Area H001, to the southwest of Wall 49, another surprise was the recovery of three huge column drums in a row, close to the wall but actually not underneath it, as was thought previously. Later investigations in the area have shown beyond all doubt that Wall 49 is of Archaic date and probably functioned as both a terrace wall and as a demarcation of the Sanctuary's southeastern border [10] (*Fig. 8*). Thanks to the diameter of the largest one of the drums of more than 1.1 m it was also concluded that they could not have been part of any of the buildings of the Sanctuary, but rather, had belonged to a free-standing votive column, such as the one in front of the Temple of Aphaia on Aigina or the column of the Naxians at Delphi (see article by Jari Pakkanen in this volume).

In the autumn of 2007, one of the old excavation dumps outside the Archaic *peribolos* was removed in preparation for future excavations in the area. The area was designated H004 in the documentation. Finds of architectural members, obviously originating in the Temple, as well as of plentiful fragments of miniature pots and other cult-related artifacts, proved beyond any doubt that the debris in the dump originated in the temple area.

In 2008 the excavations were continued to the south and southeast of the previous excavations in Areas H006 and

[9] Sarris 2006.

[10] The implications of this will be discussed in a forthcoming report on the excavations in the area in 2009.

H007, and to the north in Area H005 (*Fig. 6*). In Area H006 further excavation against the southwestern face of the column drums revealed mason's marks obviously indicating their order of assembly. In a stratigraphically higher level, three joining blocks of a statue base carried a Hellenistic inscription referring to a dedication of a twin statue of Queen Arsinoe Philadelphos and her brother Ptolemaios to Poseidon by the Peloponnesian town of Arsinoe, which is the modern Palaeokastro on the peninsula of Methana (*Fig. 9*, the inscribed blocks are also visible behind the column drums in *Fig. 8*). Many more blocks in the same area, some of which obviously had been cut into smaller pieces, indicate that this may have been one of the places where blocks from the Sanctuary were reworked in order to be transported away and reused in later buildings. Area H006 borders on generations of modern or sub-modern terrace walls in the south. The construction of those certainly disturbed the stratigraphy in the area. Our assumption that retaining walls of ancient date would be found underneath the later constructions was not proved correct.

In the terrace below Area H006, excavations in Area H007 produced remnants of a flimsy terrace wall that had also been indicated in the geophysical survey of 2006 (area F2 in *Fig. 5*). In this area as within the rubble in Area H006, no pottery later than Late Antiquity was found. As all pottery was very worn, it may not, however, constitute any certain proof for the date of construction.

To the west and northwest of Area H002, investigated in 2007, excavation in Area H005 produced an increasing amount of pottery and other finds as it progressed towards the Archaic *peribolos* of the Temple. The continuation of Wall 48, broadly dated to the Hellenistic period in 2007, was also found. Capstones that cover both faces of the wall and a brief investigation into its interior revealed that the wall is not a wall at all but a monumental drain (*Fig. 10*, see also *Figs. 20*, *21* below). In the location where the drain disappears in the northwest, a concentration of heavy rubble was found. The pottery found amongst the rubble was for the most part in pristine condition and closely datable to the early third century BC. Large fragments of

Fig. 8a and 8b. The column drums and the Archaic Wall 49 under excavation in 2008 and after the investigations in 2009. Photographs by B. Wells and J. Pakkanen.

Fig. 9. The inscribed blocks under excavation. Photograph by B. Wells.

Fig. 10. Wall 48 from the northwest. The rubble in the foreground belongs to the Hellenistic *in situ* deposit. Photograph by B. Wells.

roof-tiles were also found in the area. How these finds relate to the drain is at present somewhat unclear. They would either seem to originate in some type of superstructure to it, or in something that was destroyed before the drain was constructed. The latter scenario seems far more likely for reasons cited below. For both alternatives, however, a date in the early third century BC date is significant.

In a separate trench within Area H005, dug against the Archaic *peribolos* of the Temple of Poseidon, the stratigraphy proved completely different, as the area had not been disturbed by construction activities in Hellenistic times. It appears that Archaic deposits of materials in the area were first disturbed by the excavations in 1894. An attempt has been made to divide the discrete deposits in the trench into those made in antiquity and those created in the various stages of the late 19th-century excavation. The finds seem to be either re-deposited from the temple area in antiquity, when the *peribolos* around the Temple of Poseidon was built in Archaic times, or re-deposited once again when an excavation trench was cut along the Archaic *peribolos* wall in 1894. In the bottom of the trench, a stratum that seemed to be a primary deposit produced finds of prehistoric, Early Iron Age and Archaic date.

In the continued excavations in Area H in 2009, an Archaic date for Wall 49 and thus for the construction fill to the north and northwest of it was confirmed.[11] Thus, the potential structure in the area, the presumed existence of which had been based on the interpretation of geophysical data, turned out to be something completely different. It consists of a monumental Archaic wall and an equally monumental Hellenistic drain, which happen to meet at almost a right angle. The question of whether both structures were visible at the same time or not, and what significance this may have for the use of the area in antiquity, will be investigated further.

Site formation and stratigraphy

Even though we plan to continue the excavations in Area H, the information available today enables us to give a broad picture of the depositional events in the area over time. The defining events were obviously the construction of an Archaic terrace wall and that of a monumental drain in the early part of the third century BC. In order to create flat ground for the wall and the drain, large-scale leveling was necessary for both constructions. Other activities that have had an impact on site formation are the continuous re-deposition of waste from the temple area, reworking of blocks which were being transported away from the site possibly from Late Antiquity and onwards, the excavations conducted in 1894, and to some degree agricultural practices as well as the building of terrace walls in the 20th century and earlier. Erosion obviously also played a major role in site formation as witnessed by the recent rainfall.

Before the Archaic terrace wall was constructed the terrain sloped more abruptly towards the south and southeast than it does today. The sloping area must have been in use, however, as a deposit of Early Iron Age material was found underneath the Archaic construction fill, which was obviously brought in, in order to level the area to the north and northwest of the terrace wall. It would seem likely that the wall from then on marked the territory of the Sanctuary as different from that outside the same wall. However, new leveling in the area was necessary a couple of hundreds of years later.

The monumental drain in the area was most likely created in the early part of the third century BC. In order to create

[11] A report on the excavations in Area H in 2009 is forthcoming.

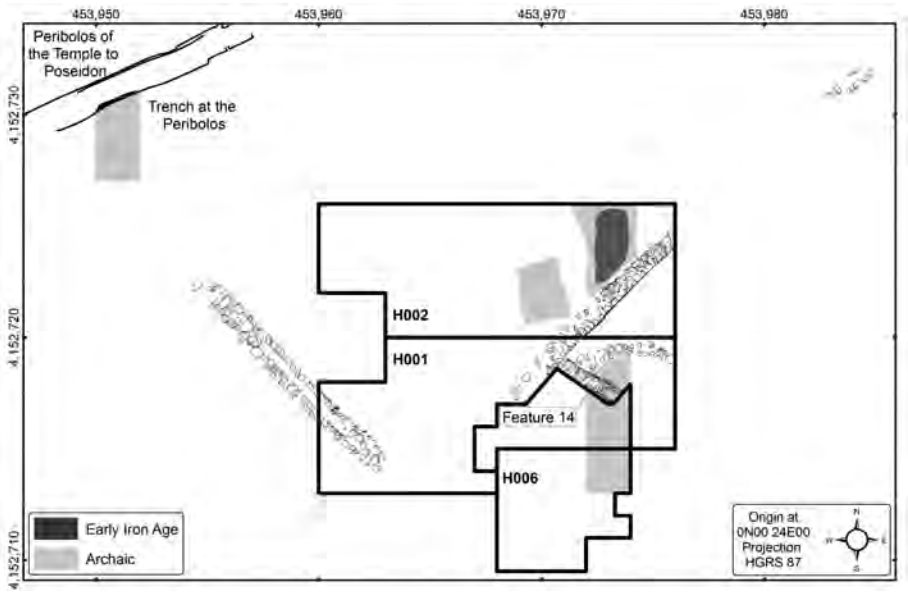

Fig. 11. Map of the Early Iron Age and Archaic deposits in Area H. By E. Savini.

level ground for the new construction, the existing slope next to the *peribolos* of the Temple was dug into, while construction fill consisting of almost sterile soil was brought into the southeastern and eastern parts of the area for the purpose of raising the ground level above the Archaic construction fill.

The Hellenistic accumulations which date the drain are superimposed by a layer of eroded soil and rubble, which produced material ranging in date from prehistoric to Late Antique. The finds from this layer have some significance as they obviously suggest long-term-activities on the high ground, where the Temple of Poseidon and the plateau to the east of it are. Some of them certainly originate in the excavation dump of 1894.

Heaps of stones, many of them cut from worked blocks, in the southernmost part of the excavated area, generated a hypothesis that this was one of the areas where blocks were reworked in order to be transported away and reused in buildings elsewhere. The hypothesis was strengthened by the find of the inscribed blocks in the same area, which has been cited above. We know that this kind of activity took place due to the virtual absence of building blocks in the temple area, for instance, and through a testimony by an English 18th-century traveler, Richard Chandler.[12] However, the reuse of blocks was a common practice from the Late Roman and Early Byzantine times and onwards. The latest pottery found in the area was of Late Antique date, which may not be of any significance as it can have been re-deposited from somewhere else.[13] A flimsy terrace wall, found further down towards the south (Wall 66), and a curving wall found superimposed upon the Archaic column drums (Wall 50) are of undecided date but would seem to belong to this horizon of activities.

As has been stated above, no excavation took place in 1894 in the area now under excavation. Yet, the work done inside and outside of the *peribolos* of the Temple of Poseidon was responsible for re-deposition of materials, sometimes in a pattern that is difficult to reconstruct as in the trench that was dug against the same *peribolos* in 2008. After the 1894 excavations the whole sanctuary area was turned into a farmstead. Plow marks in the surface soils suggest that the open area, currently being excavated, was cultivated at some point in time. As some of the ancient deposits in the area are very close to the present-day surface, lateral movement of finds in these layers as a result of plowing can be assumed. A point in case are the *in situ* Archaic column drums, which have been slightly damaged by the plow. The terrace walls in the very southern part of the excavation area seem to have been built and built on over time. It does not seem likely that all this building took place during the known, post-1894 farmstead period of the site. Thus, agricultural practices even before that time should be taken into account as agents in the site formation process.

The excavation was carried out in artificial blocks, which for the most part were designed according to the north-south-oriented matrix that has been superimposed upon the whole site. The blocks, 156 in all in Area H, have consecutive numbers in each one of the excavated areas (H001, H002, etc.), and vary in size (and sometimes in form) depending on the type of layer they were considered to be part of in the process of the excavation.[14] In the post-excavation analysis of the

[12] Wells, Penttinen & Billot 2003, 32–33.

[13] In the clearance outside of Building A in the fall of 2008, some clearly post-Antique pottery was found among the blocks dumped there. This may indicate that the re-working of building blocks in the Sanctuary went on for many centuries.

[14] Further information on the documentation system in Wells *et al*. 2006–2007, 32–33.

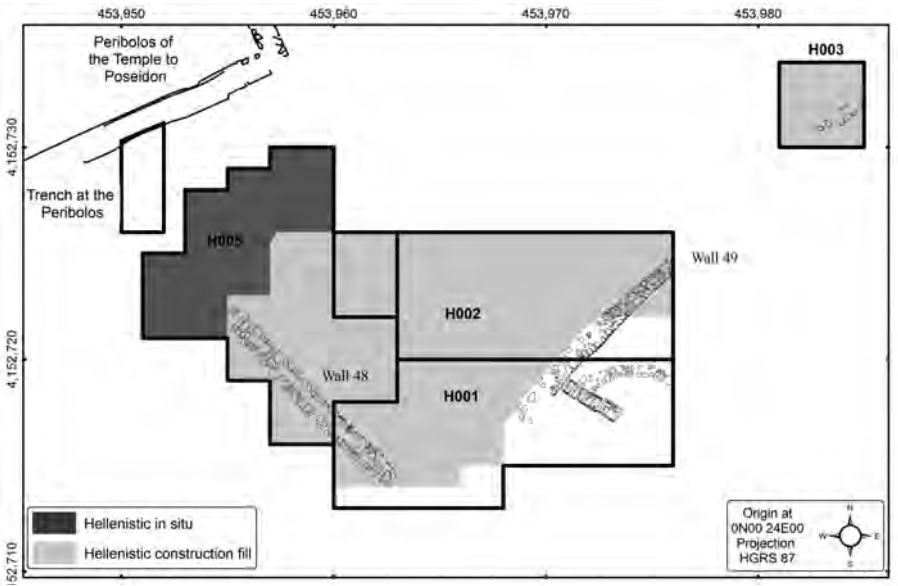

Fig. 12. Map of the Hellenistic deposits in Area H. By E. Savini.

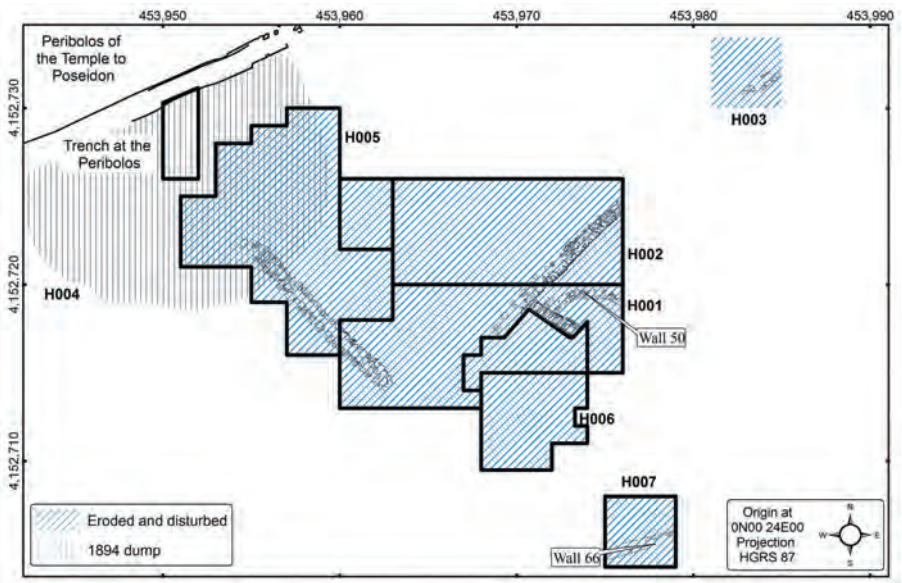

Fig. 13. Map of the eroded and disturbed deposits in Area H. By E. Savini.

documentation and finds, the blocks have been grouped according to their depositional history into what can be called strata or horizons. They form the basis for the presentation and analysis of the finds in this report and are the following:

Early Iron Age deposit (Fig. 11)
H002: Blocks 27, 28 and 29.

Archaic deposits (Fig. 11)
H001: Blocks 35 and 36.
H006: Blocks 18, 20 and 21.

Hellenistic in situ *deposit (Fig. 12)*
H005: Blocks 21, 24, 28, 29, 31, 34, 37, 39, 40, 42, 44, 46, 48 and 49.

Hellenistic construction fill (Fig. 12)
H001: Blocks 2, 3, 4, 18, 24, 25, 26, 29, 30, 34 and 38.
H002: Blocks 2, 5, 6, 8, 13, 14, 15, 17, 18, 19, 21, 22, 23, 24, 25 and 26.
H003: Blocks 3, 4, 7 and 8.
H005: Blocks 3, 5, 10, 11, 12, 14, 18, 22.

Eroded and disturbed deposits (Fig. 13)
H001: Blocks 1, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 19, 20, 21, 22, 23, 27, 28, 31, 32, 33, 37, 39 and 40.
H002: Blocks 1, 4, 7, 9, 10, 11, 12, 16 and 20.
H003: Blocks 1, 2, 5 and 6.
H005: Blocks 1, 7, 8, 12, 13, 16, 17, 19, 20, 23, 25, 27, 30, 33, 35, 36, 41, 43, 45 and 47.
H006: Blocks 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17 and 19.
H007: Blocks 1, 2, 3, 4, 5, 6 and 7.

Excavation dump of 1894 (Fig. 13)
H004: Blocks 1 and 2.
H005: Blocks 2 and 4.

The trench by the Archaic *peribolos* of the Temple (Blocks 2, 4, 6, 9, 15, 26, 32, 38 and 50 in Area H005) is different because no damage was done to the area in conjunction with the construction of the Hellenistic drain. The blocks excavated there are not included in the lists above but will be described under a separate heading below.

The numbers of the individual blocks and their exact locations will only be cited and illustrated in cases where such information is judged to be of relevance for the argument. They as well as the find numbers (KEP numbers) given in the catalogue and all other documentation will eventually be made available in an on-line database, which we hope will generate new research in the future. In case the finds included in this report have received Poros Museum Inventory numbers (MPo), those will be cited as well.[15]

Methods in processing the finds

The pottery from the individual blocks was broadly divided into categories: fine ware, plain ware and cooking ware; the amount of pottery in each category was counted block by block. By fine ware we mean decorated or fine pottery, primarily intended for serving, whereas the plain ware category contains vessels intended for storage and transport, such as amphoras, water jugs and lekanes. In the cooking ware category are identifiable cooking vessels as well as fragments from handmade coarse ware vessels of any date, which we assume had the same function. This categorization is very broad, of course, but has proved helpful in the past in assigning functions to excavated areas. Also taken into account was the state of preservation of the pottery in the individual blocks, and for instance the occurrence of sherds from miniature vessels in relation to the amount of sherds from normal-sized vessels in areas where this could be of significance. It needs to be noted, however, that the pottery has not been studied in its own right, but rather as an indicator of what kind of activities have taken place in the excavated area over time. From the contexts that were judged to be primary deposits most diagnostic sherds are published in the catalogues below, whereas only examples of the types of materials that are present in the large horizons of construction fill or in the eroded and disturbed layers have been included.

The bones were mostly collected by hand. A fraction of them has been retrieved from 11 soil samples, which were water floated. The recording and analysis of the assemblage follows the standard methodology for the site,[16] with some adaptations. Due to the extreme fragmentation of the assemblage, the anatomical and taxonomic identification of the bones has proven very difficult. Certain new categories have therefore been devised in order to make use of as much information as possible about the assemblage. The bones that are usually considered as non-identifiable have been recorded in detail. The parameters recorded are the animal size from which the fragments originate and the type of bone they belong to.

Two animal sizes are recorded, large and medium. The "large" category includes the cattle and potentially the equids and the red deer. Neither of the last two mentioned has so far been identified in the area. The "medium" category refers to animals such as sheep, goats, pigs and dogs. Although both pig and dog are certainly represented in our assemblage, it is sheep and goat that predominate by far. Therefore, we can safely assume that most of the bones falling in the "medium sized" category are from ovicaprids. The sheep and goats are treated mostly as one taxon, because only in the case of a handful of bones could the identification be more precise (they all belonged to sheep).

Sea-shells were retrieved both through hand collection and from soil samples. One fifth of the shell material was recovered thanks to the latter method (108 shells). Shells retrieved from soil samples usually complete the information given by hand-collected material but rarely increase the Minimum Numbers of Individuals (MNI): only one out of 108 shell fragments may be assigned to a mollusc individual, in contrast to the hand-collected material, of which 35% derive from whole or sub-whole individuals. On the other hand, shells retrieved through water flotation can give important information on fragmentation rates and fracturing patterns. The shells were studied in the Po-

[15] KEP numbers refer to individual items as opposed to the MusID numbers cited in earlier reports, which refer to bags in which units of pottery or individual items of any material are kept in the Poros Museum. The system with KEP numbers has been created for the needs of the data base and will be extended retroactively to include all published material from the Sanctuary of Poseidon. Museum Inventory numbers or MPo-numbers are conventionally given to objects of terracotta, metal or any other material as well as to more or less whole clay vessels.

[16] Mylona in Wells, Penttinen & Mylona forthcoming.

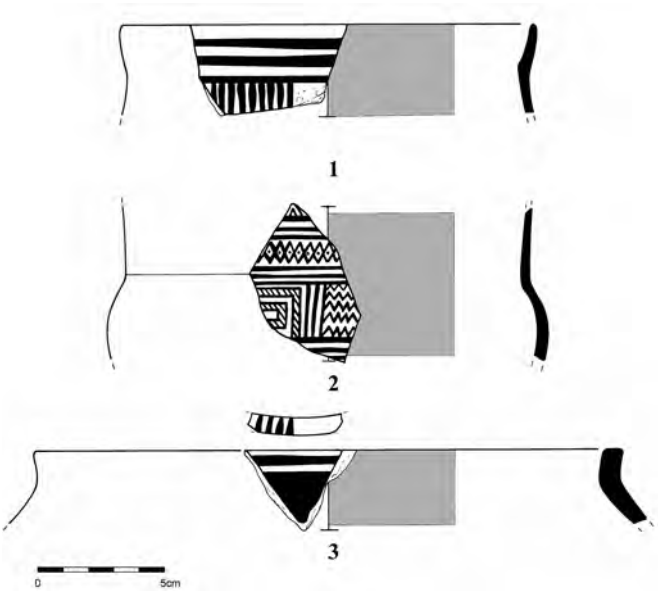

Fig. 14. Pottery from the Early Iron Age deposit in Area H002, cat. nos. **1**–**3**. Drawings by A. Hooton.

ros Museum, and identified using several identification guides.[17] They were counted in Number of Identifiable Specimens (NISP) and recorded in a database. Secondary analysis included estimation of MNI, statistical analysis, as well as an estimation of environmental and human parameters.[18]

The lamps presented below have been studied by Arja Karivieri and the Geometric bronze pin (no. **56**) by Berit Wells. Dimitra Mylona is responsible for the study and analysis of the animal bones and Tatiana Theodoropoulou for the seashells (see also the Appendix). Jari Pakkanen looked into the architectural remains in the area, and Petra Pakkanen contributed towards setting the archaeological remains into the framework of Greek religion in the concluding section of this report. The analysis of pottery and other artifacts as well as that of site formation and stratigraphy is by Arto Penttinen.

AN EARLY IRON AGE DEPOSIT (*FIG. 11*)

Excavation through a thick layer of rubble in the eastern part of Area H002, which is now considered as Archaic construction fill, revealed a deposit of material which could be dated to the late Early Iron Age or to the eighth century BC. Three different types of deposits could be distinguished. The topmost one, in Block 28, was of light olive brown, loose soil (2.5Y 5/4) and contained some pebbles, fist-sized stones and a fair amount of artifacts, 69 fragments of plain ware and 52 fine ware fragments. Block 27, underneath 28, was of compact clayish soil, light olive brown (2.5Y 5/6) in color. Three plain ware and two fine ware sherds were found. In the lowermost Block 29 only one plain ware fragment was found. The deposit was of extremely hard packed, yellowish brown (10YR 5/4) and stony soil directly on bedrock at masl 186.67 in the northern part of the block and at 186.49 in the south. Minuscule fragments of charcoal and animal bones were found in all deposits. All pottery seemed to be of late Early Iron Age, or late eighth century BC date. The three fragments catalogued below are all from Block 28 (*Fig. 14*).

1. (KEP 833). Skyphos. Fragment of almost vertical lip. H. 3.5; D. 16.5; Th. 0.3.
Reddish yellow (7.5YR 7/6), soft fabric with no visible inclusions. Interior monochrome. Uneven, horizontal bands on the exterior of lip; groups of vertical bars on upper body.

2. (KEP 834). Kantharos. Fragment of vertical, high rim. H. 6.1; D. of body est. 17.0; Th. 0.2–0.3.
Reddish yellow (5YR 6/6) fabric. Interior monochrome; on exterior of lip a chain of dotted lozenges between groups of horizontal bands; on upper body framed metopes with alternating meanders and horizontal zigzags.

3. (KEP 835). Krater. Fragment of vertical lip. H. 3.0; D. 23.4; Th. 0.9–1.2.
Reddish yellow (7.5YR 8/6), soft fabric. Interior monochrome; a single reserved band on the exterior of lip.

Of the three vessels, catalogued above, the first two come from drinking vessels. No. **1** is a skyphos, Late Geometric judging by the flaring, high rim and the clay-ground decoration,[19] whereas no. **2** is more likely from a kantharos, although skyphoi and kantharoi are difficult to tell apart on the basis of rim profiles alone. The rich decoration consisting of a dotted lozenge chain, hatched meander and multiple zigzags has a distinctively Argive flair. Also the fabric would possibly single out this fragment as Argive as opposed to the other two, which seem of local or regional origin. Large numbers of kraters of the type represented by no. **3** were found in the Southern Argolid Survey, and were generally dated to the Late Geometric period. The rather austere decoration of the Kalaureia krater, consisting of a single reserved band above the junction between shoulder and lip, and slashes of paint across the lip does not necessarily contradict a date late in the period.[20]

The animal remains from the Early Iron Age deposit are few. They consist of some eggshell fragments and various non-identifiable elements of medium-sized mammals, 68 fragments in all. Among them are two teeth fragments and

[17] D'Angelo & Garguillo 1978; Delamotte & Vardala-Theodorou 1994; Fischer, Bauchot & Schneider 1987.
[18] Reitz & Wing 1999.
[19] Langdon 1995, 66. See *CGA*, pl. 54, C.240, for the decoration.
[20] Langdon 1995, 65.

three long-bone fragments. The rest are too small to be anatomically identified with any accuracy. The bones are extremely fragmented (0–1 cm: 63, 1–2 cm: 3, 2–5 cm: 2) and a fraction of them (9 or 13.1%), are burned black and white. The presence of heavily burned, tiny bone fragments appears to be an inherent feature of the Early Iron Age deposits at the Sanctuary, as it has been observed elsewhere on the site.[21] No particular distribution pattern of the animal remains is evident.

Discussion

Even though the excavated Early Iron Age deposit is a very small one, some conclusions seem possible to draw. The deposit consists of three distinct layers. The topmost (Block 28) has the characteristics of a destruction layer with rubble and rather well preserved sherds, whereas the compact middle layer (Block 27) looks like a ground level and the lowest (Block 29) like a fill underneath a ground level or a floor. Thanks to the relative thickness of the deposits, *c*. 35 cm combined, and the homogeneous character of the finds from them, it would seem safe to assume that the area to the east of the Temple was settled during the eighth century BC. The fair amount of Early Iron Age pottery found in the eroded layers in Area H as a whole (see below) certainly points in the same direction. Due to the very small size of the excavated trench it is not possible to conclude whether the excavation was made into an open area near a settlement, into an open area within a building, or into a building with a dirt floor. In any of the cases this is only the second instance in which stratified Early Iron Age material has been found at Kalaureia, despite the fact that pottery from the period abounds in most parts of the site.[22]

ARCHAIC DEPOSITS (*FIG. 11*)

Primarily deposited material, datable to the Archaic period, was found in the trench dug against the *peribolos* wall of the Temple of Poseidon (see below), and in Areas H001 and H006 to the south of the Archaic Wall 49. The most spectacular finds from the last-mentioned area are undoubtedly the three column drums of large dimensions, which were found placed in a row in an almost right angle to the terrace wall (see *Fig. 8* and a separate article by Jari Pakkanen in this volume).[23] It seems certain that the drums lie *in situ* as they were found imbedded in a deposit that produced pottery datable to the late sixth or early fifth century and nothing later. The more than 60-cm-deep layer was excavated in Area H001, Block 35. It was of loose, light yellowish brown (2.5Y 6/4) soil and contained some pebbles and fist-sized stones. It was also relatively rich in pottery. All in all 164 plain ware fragments, 22 fragments of cooking ware and 62 of fine ware were recovered, most of them in or near the bottom of the block at 186.3 masl. A well-preserved bronze ring was also found. At this point the excavation was halted in order not to risk the stability of the column drums. Judging from the diameter of the drums, bedrock would have been found at a depth of no more than 5 cm from the bottom of the block.

Among the blocks excavated to the south of the column drums in Area H006, three are considered Archaic, although somewhat disturbed by later activities. Block 18 was of medium compacted, dark yellowish brown (10YR 3/4), stony soil. Twenty-four fragments of plain ware, five fragments of cooking ware, and three of fine ware were found, almost all of them datable to the Archaic period. However, as one of the fine ware fragments, no. **11**, is definitively of a later date, and as a small fragment of a limestone *regula* preserving a single *gutta* was also found in the block,[24] the deposit was certainly disturbed in later times. Block 20, underneath a smaller part of 18, was of similar soil but contained almost no stones and much less pottery. Only 21 fragments of plain ware, two fragments of cooking ware, and eight fine ware fragments were found. In the bottom of the block the soil turned red, which is an indication of bedrock being near. A probe into the reddish brown (5YR 4/4) soil was designated Block 21, and produced six plain ware fragments and seven fragments of fine ware besides some minuscule fragments of bone and charcoal. Bedrock was found at a depth of 185.6 masl, which is 60–65 cm below the level of the calculated bedrock underneath the column drums. The pottery, catalogued below (*Fig. 15*), is for the most part from H001, Block 35.

H001, Block 35

4. (KEP 836). Lekane/Deep bowl. Fragment of everted rim. H. 3.2; D. 20.0; Th. 0.9.
Pink (5YR 7/4), coarse fabric with thick, reddish yellow (5YR 6/8) slip. Unpainted.

5. (KEP 837). Cup. Fragment of thickened lip. H. 1.8; D. 14.0; Th. 0.2.
Pink (5YR 8/4) fabric. Fading, brownish red paint.

6. (KEP 838). Cup. Fragment of everted rim and carinated upper body. H. 2.6; D. 17.0; Th. 0.3.
Reddish yellow (5YR 7/6) fabric. Shiny, brownish black paint.

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[21] Mylona in Wells, Penttinen & Mylona forthcoming.
[22] See discussion in Wells, Penttinen & Hjohlman 2006–2007, 68–71, and Wells forthcoming.
[23] Further investigations in the area in 2009 have shown that Wall 49 is contemporaneous or near-contemporaneous with the deposition of the column drums.
[24] The fragment almost certainly originates in the Temple of Poseidon and is currently under study by Jari Pakkanen.

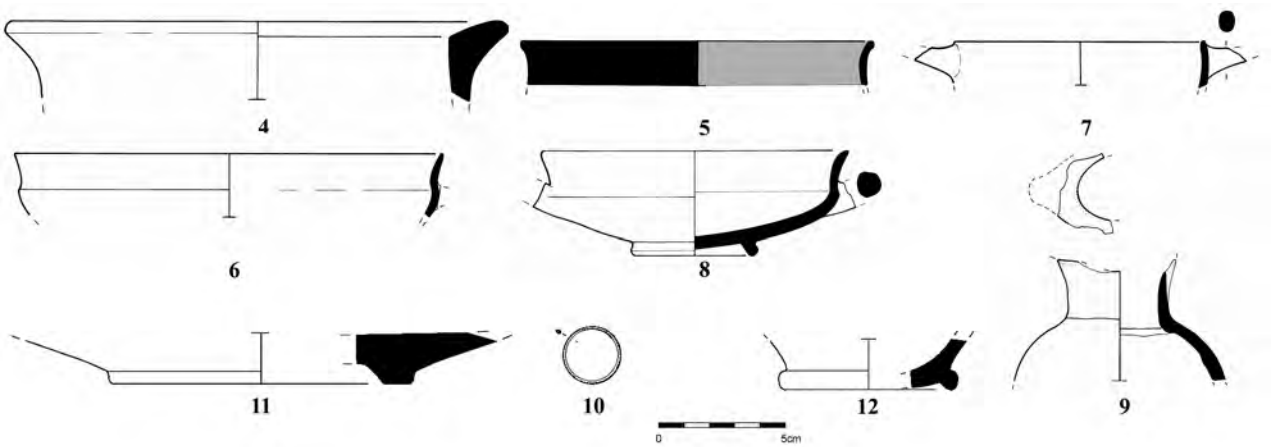

Fig. 15. Pottery and a bronze ring from the Archaic deposits in Areas H001 and H006, cat. nos. **4**–**12**. Drawings by A. Hooton.

7. (KEP 839). Skyphos/Kotyle. Fragment of contracted lip with handle stump. H. 2.0; D. 10.0; Th. 0.3.
Light red (2.5YR 6/8), fine fabric. Fading, brownish black paint.

8. (KEP 840). Cup. Complete profile with low ring base, carinated body with handle stump and flaring lip. H. 4.1; D. of rim 12.0; Th. 0.4–0.7.
Reddish yellow (5YR 6/8) fabric. Reserved band around foot; on underside of floor concentric circle with dot in the middle.

9. (KEP 841). Jug. Fragment of neck and convex upper body. H. 5.0; D. of neck est. 4.0; Th. 0.7.
Light red (2.5YR 6/8), calcareous fabric. Unpainted.

10. (KEP 842, MPo 1453). Ring. Complete. Max. D. 2.3; Th. 0.2. Round in section. Copper alloy.

H006, Block 18

11. (KEP 843). Dish. Fragment of low ring foot. H. 1.9; D. 12.0; Th. 0.9.
Yellow (10YR 8/6) fabric, slipped light red (2.5YR 6/8).

H006, Block 20

12. (KEP 844). Skyphos. Fragment of torus base. H. 2.0; D. 7.0; Th. 0.5.
Reddish yellow (5YR 7/6), soft fabric. Black paint except on underside of floor.

The number of fairly diagnostic sherds, found in Block 35 to the north of the column drums, is not great, although it needs to be mentioned that the fabrics of a majority of the less diagnostic sherds tallied well with the fabrics of those described above. A datable fragment is obviously no. **8**, which preserves the complete profile of a vessel. Whether it is a stemless cup of the Rheneia class or a cup-skyphos is difficult to tell because of the bad preservation of the handle.[25] Judging from the dimensions it is more likely a Rheneia cup and datable to the very early part of the fifth century BC. No. **7**, which preserves the rim from a skyphos, can be placed in the same chronological horizon, as the largest diameter of the vessel is obviously to be found at its rim. The fine, light red fabric may indicate an Attic origin. No. **6** is another fragment from a cup. It is impossible to tell whether it is from a stemmed cup or from a stemless one. The fabric is quite similar to that of no. **8**. Nos. **1** and **7** are undecorated and thus difficult to find parallels for. The shapes do not contradict a Late Archaic date, however. A large number of bronze rings, such as no. **10**, have been found in the Archaic layers at the Sanctuary of Artemis and Apollo at Kalapodi. The question is whether they were dedicated as personal belongings or for their metal value.[26]

Less material and more fragmented was found in the blocks to the south of the column drums in Area H006. Almost all undiagnostic fine ware fragments looked Archaic, whereas the two diagnostic ones are of later dates and indicate disturbances in the deposits. No. **11** is the base of a large Eastern Sigillata A dish that can be broadly dated to the second part of the second century or to the first century BC,[27] and no. **12** is a torus base from a skyphos, possibly datable to the later part of the fifth century BC.[28]

The animal remains from the Archaic deposits in Areas H001 and H006 are relatively few. Their taxonomic distribu-

[25] For the Rheneia cups, see *Agora* XII, 100–101 and fig. 5. See also the cup-skyphos no. 572 in *idem*.
[26] *Kalapodi* I, 172.
[27] It certainly belongs to one of the dishes in Hayes' Hellenistic series (*EAA*), however. For further parallels, see Kenrick 1985, 223–224, figs. 40–44.
[28] *Agora* XII, 85.

Table 1. Archaic depositions: taxonomic representation.

	Cattle	Sheep/ goats	Sheep	Medium size mammals	Large size mammals	Fish	Small mammals
Tibia			1				
Metatarsal		2					
Mand. teeth		1					
Long bones indet.				33	1		
Ribs				1			
Max. teeth	2						
Teeth indet.				11	4		
Various				49	2		
Irrelevant						1	2
Total	2	3	1	104	7	1	2

Table 2. Archaic depositions: non-identifiable bones—size groups.

	H001, Block 35	H006, Blocks 18, 20, 21
0–1 cm	45	–
1–2 cm	13	19
2–5 cm	30	4
5–10 cm	–	–
Total	88	23

tion is shown in *Table 1*.[29] Among the identifiable bones the ovicaprids predominate. Only one bone among them could be identified with any certainty and it belongs to a sheep. Cattle is represented by two bones. The same pattern is evident among the non-identifiable bone fragments. Bones from medium-sized mammals far outnumber those from large-sized ones. The assemblage also includes one fish bone and two small mammal bones.

Two groups of bones could be discerned in the assemblage. One originates from the vicinity of the column drums (H001, Block 35) and the other from Area H006 (Blocks 18, 20, 21). The preservation profile of the bones in each case is quite distinct. In the area of the column drums, many of the bones are fairly large (*Table 2*)[30] and the burning is considerable (40 out of 85 fragments). Burning is absent from the other group. Furthermore, bone erosion in the column drums area is heavier than elsewhere in the Archaic deposits.

Discussion

The Archaic deposits can obviously be seen as two different areas of activity or as areas where material had been deposited at different times and apparently under different circumstances. The deposit to the north of the drums is a deep one, and has the characteristics of a fill due to the loose soil and the occurrence of field stones. Given the difference in the level of bedrock between the area where the drums were found and Block 21 in Area H002 a short distance to the north, where the Early Iron Age deposit was found, it seems likely that they were placed on a bedrock outcropping or a bedrock shelf, which was perhaps created for the purpose. The homogeneous date of the pottery found in the fill indicates that it was deposited simultaneously with the drums. The concentration of burned bones in the fill may be of significance in relation to the events that led to the deposition of the column drums. The deposits that have been considered Archaic in Area H006 to the south of the column drums are of a more elusive character. The more fragmented state of preservation of both pottery and animal remains suggests that they accumulated over time perhaps as a result of waste disposal. It is also clear that the area was disturbed both in Late Hellenistic times and later.

HELLENISTIC *IN SITU* DEPOSIT (*FIG. 12*)

In the excavations in Areas H002 and H005, the layer interpreted as construction fill for the Hellenistic drain (see below) was generally found superimposed by a horizon of erosion material, which had obviously washed downhill from the temple area over time. In a number of blocks in the northwestern part of Area H005 the layer underneath the erosion stratum was of a different character. More rubble was found (see *Fig. 10*), and in between the stones, also pottery and other artifacts, in a much more pristine condition than what had been the case in the blocks towards the south and southeast. Occasional concentrations of charcoal were also found. Significantly, many frag-

[29] For explanation of tables, see 'Methods in the processing of finds' above.

[30] The high number of very small bones in this group has been produced by a water-floated soil sample. Such samples were not taken in Area H006.

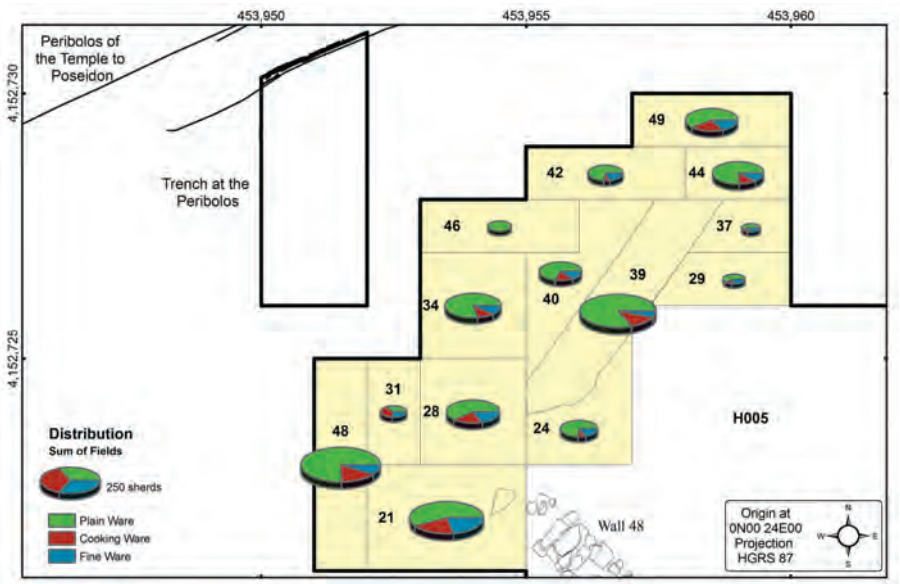

Fig. 16. Map of the distribution of pottery in the Hellenistic *in situ* deposit in Area H005 by block. By E. Savini.

ments of roof-tiles were found in this area, and they were uniform as if originating from a single roof.

The layer was excavated from roughly 188.10 masl downwards and was approximately 20 cm deep. The soil in between the stones was dark and loose varying in color from dark grayish brown (10YR 4/2) to dark yellowish brown (10YR 4/4). A special case is Block 39, which almost stood out as a feature thanks to its more compact soil, mixed up with stone chips and pebbles. As there is no difference in the date of the material, a possible interpretation is that Block 39 was a ditch or a trench that was filled in with waste at the same time as the materials in the other blocks were deposited. It is somewhat puzzling, however, that the block is situated almost at a right angle to "Wall 48", which has now turned out to be a monumental drain (see *Fig. 16*), and almost exactly where the geophysical survey had indicated the northern wall of a potential structure of monumental proportions as an anomaly. It seems possible that the block actually is the shown anomaly with its much more compact character than in the surrounding deposits.

The distribution of the 2,392 sherds recovered from the deposit is shown in *Fig. 16*. The densest material was obviously found in the northeastern part of the area in Blocks 39, 44 and 49, even though abundant material was also recovered from Blocks 21 and 48 in the southwestern part of the excavated area. The distribution map of the pottery shows that plain ware is the dominating category in all blocks. Many of the plain ware fragments seemed to belong to individual large-sized vessels, such as amphoras, hydrias and lekanes, even though only a very limited amount of actually joining sherds could be identified. Fragments from cooking vessels, especially from lopades, also abounded in a majority of the excavated blocks, whereas fine ware pottery was generally scarce. In the northernmost part of the area, especially in Block 49, Archaic pottery was found mixed with Hellenistic, possibly thanks to the potential proximity of intact, Archaic deposits. Such deposits were excavated in the trench at the Archaic *peribolos* at a short distance to the west (see the section on the Trench at the *peribolos*).

Two lamps, one of them a miniature, were found basically complete as was a conical loom-weight. A well-preserved bronze nail (no. **40**) is catalogued below. Corroded fragments of iron nails were also found in a number of blocks but are not included in the catalogue here. Fragments of plaster, some with bright, red color still adhering to them, were collected from Blocks 28, 31, 34 and 49. The pottery and other artifacts catalogued below are of a domestic character (*Figs. 17–19*).

13. (KEP 845, Block 49). Aryballos. Fragment of lip, neck and handle. H. 2.1; D. of lip 3.4.
White (10YR 8/2), Corinthian fabric. Paint not preserved.

14. (KEP 846, Block 49). Aryballos. Fragment of neck and upper body. H. 2.9; D. of body 6.6; D. of neck 1.2; Th. 0.4.
White (10YR 8/1), Corinthian fabric. Abraded, brownish paint.
Linear decoration with tongues on shoulder and horizontal bands around body.

15. (KEP 847, Block 49). Kantharos. Pedestal base. H. 3.6; D. 6.2; Th. 0.7.
Reddish yellow (5YR 6/6), well fired fabric. Mottled reddish brown paint, fading on the exterior.

16. (KEP 848, Block 21). Kantharos. Pedestal base. H. 3.2; D. 4.0; Th. 0.3.
Reddish yellow (5YR 6/6), soft fabric. Thick, black paint all over.

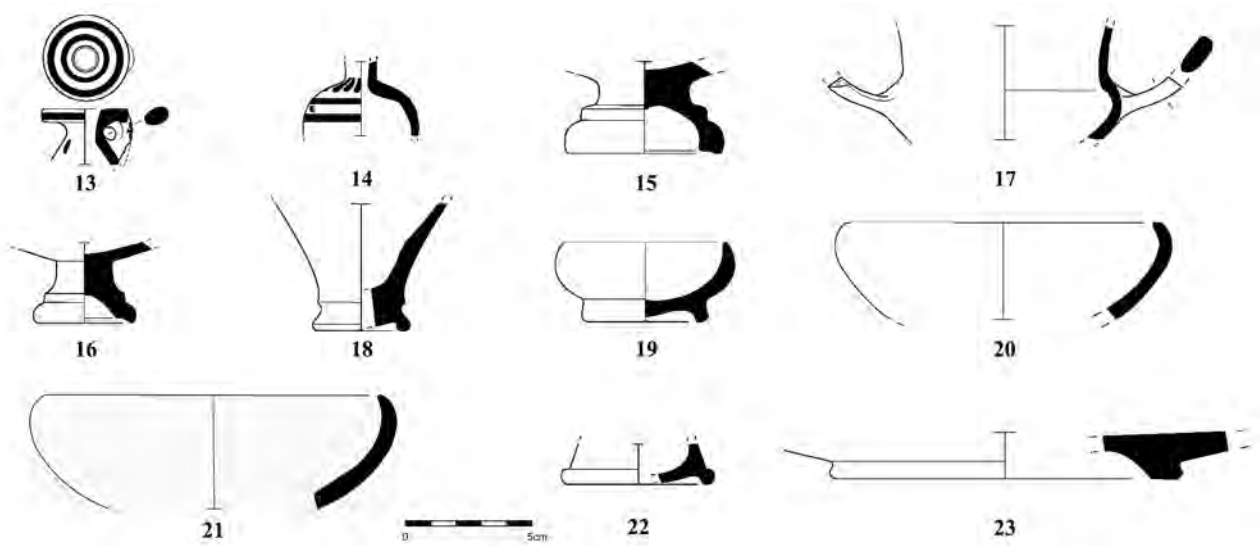

Fig. 17. Fine ware pottery from the Hellenistic *in situ* deposit in Area H005, cat. nos. **13**–**23**. Drawings by A. Hooton.

17. (KEP 849, Block 31). Kantharos. Fragment of upper body and handle. H. 4.4; D. of upper body approx. 8.0.
Reddish yellow (7.5YR 7/6), well fired, micaceous fabric. Shiny, black paint on exterior, fading off from the interior.

18. (KEP 850, Block 44). Skyphos. Fragment of torus base and tapering lower wall. H. 5.0; D. 3.6; Th. 0.3–0.6.
Reddish yellow (5YR 6/6), soft fabric. Black paint all over.

19. (KEP 851, Block 28). Salt-cellar. Complete profile. H. 3.1; D. of rim 6.6; D. of base 4.8; Th. 0.5.
Reddish yellow (7.5YR 7/6), well-fired fabric.
Black paint all over, fading (?) on the exterior.

20. (KEP 852, Block 42). Bowl. Fragment of incurving rim. H. 3.8; D. 12.0; Th. 0.5.
Reddish yellow (5YR 6/8), soft fabric. Reddish paint all over.

21. (KEP 853, Block 48). Bowl. Fragment of incurving rim. H. 4.5; D. 13.0; Th. 0.6.
Reddish yellow (5YR 7/6), soft fabric. Black paint all over, flaking off the exterior.

22. (KEP 854, Block 28). Closed shape. Fragment of low torus base. H. 1.6; D. 5.9; Th. 0.4.
Pink (5YR 7/4) fabric.

23. (KEP 855, Block 24). Dish. Fragment of base. H. 1.8; D. 14.0; Th. 0.8.
Pink (7.5YR 8/4) fabric, slipped red (10R 5/8).

24. (KEP 856, Block 39). Bowl. Fragment of molded lip. H. 3.0; D. 9.8; Th. 03.
Reddish yellow (5YR 6/6) fabric with thick, yellow (10YR 7/6) slip.

25. (KEP 857, Block 48). Bowl. Fragment of out-turned rim. H. 4.4; D. 24.0; Th. 0.7.
Reddish yellow (5YR 6/6), calcareous fabric, slipped very pale brown (10YR 8/4).

26. (KEP 858, Block 49). Bowl. Fragment of raised base and tapering lower wall. H. 8.7; D. 10.8; Th. 0.4–0.6.
Reddish yellow (5YR 6/6), calcareous fabric with thick, very pale brown (10YR 8/4) slip.

27. (KEP 859, Block 48). Bowl. Fragment of out-turned lip and upper body. H. 3.9; D. 10.0; Th. 0.4.
Same fabric as in no. **24**.

28. (KEP 860, Block 49). Lekane. Fragment of widely protruding lip and tapering upper body. H. 7.9; D. more than 40.0; Th. 1.3.
Reddish yellow (7.5YR 7/6), slightly overfired, calcareous fabric, slipped very pale brown (10YR 6/3). Almost same fabric as in nos. **24** and **27**.

29. (KEP 861, Block 39). Amphora. Two non-joining fragments of out-turned rim. H. 4.5; D. 16.0; Th. 0.9.
Reddish yellow (5YR 6/6), soft fabric. No paint preserved.

30. (KEP 862, Block 49). Cooking vessel. Fragment of raised base. H. 1.6; D. 8.4; Th. 0.3.
Red (2.5YR 5/6), coarse and micaceous fabric.

31. (KEP 863, Block 21). Lopas. Fragment of flanged rim. H. 3.9; D. 18.0; Th. 0.35.
Yellowish red (5YR 5/6), coarse fabric with mica and lime. Traces of burning on exterior.

32. (KEP 864, Block 39). Lopas. Fragment of flanged rim and part of handle. H. 3.6; H. of handle max. 4.3; D. 22.0; Th. of wall 0.5.
Reddish yellow (5YR 6/8), coarse fabric with mica and lime.

33. (KEP 865, Block 39). Lopas. Fragment of flanged rim and part of handle. H. 4.6; D. 22.6; Th. of wall 0.5.
Red (2.5YR 5/6), coarse and micaceous fabric.

34. (KEP 866, Block 39). Lopas. Fragment of flanged rim and part of handle. H. 4.5; D. 23.0; Th. max. 0.9.
Reddish yellow (5YR 6/6), coarse and micaceous fabric.

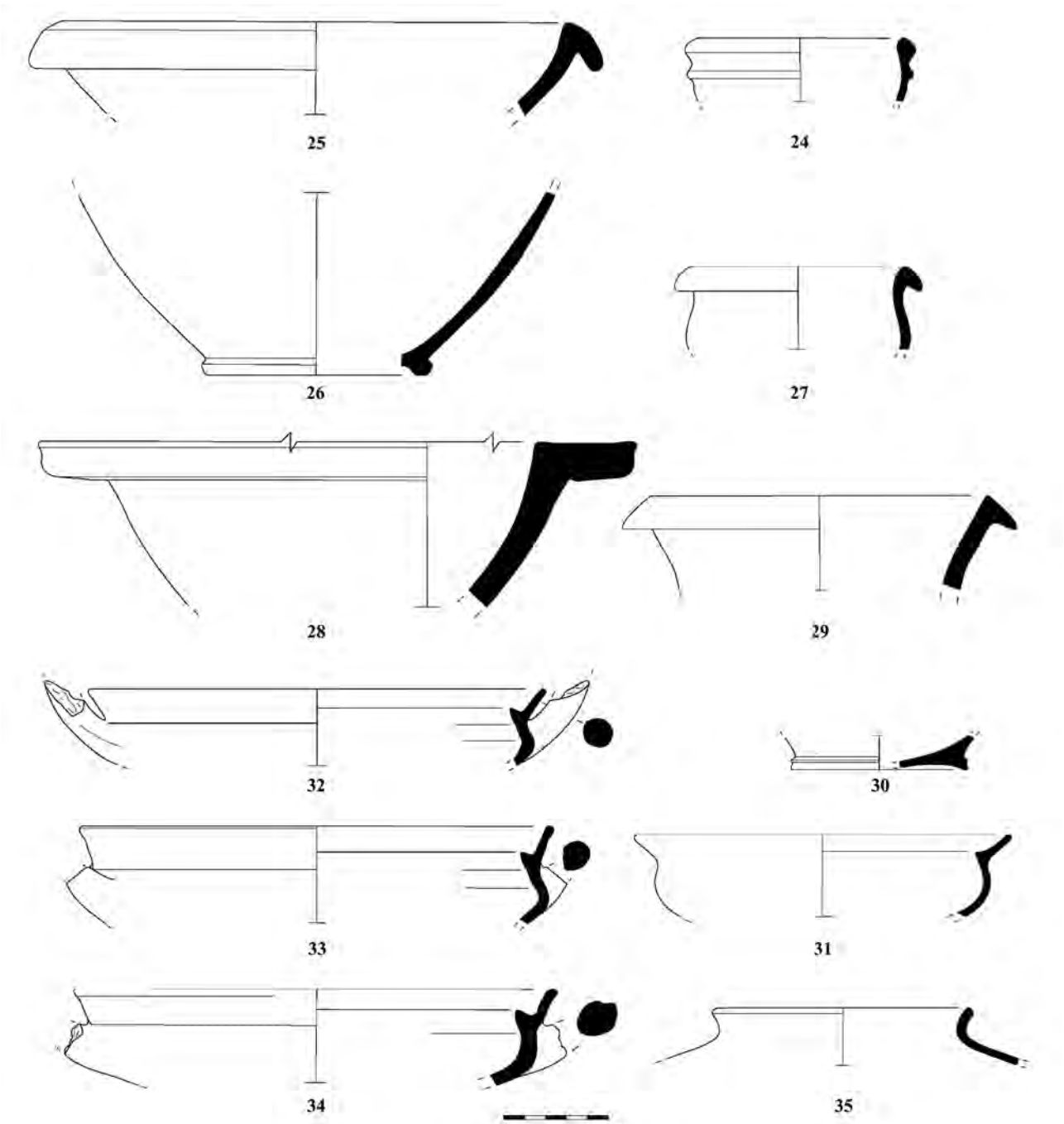

Fig. 18. Plain ware and cooking ware from the Hellenistic *in situ* deposit in Area H005, cat. nos. **24**–**35**. Drawings by A. Hooton.

35. (KEP 867, Block 39). Chytra. Fragment of rim and shoulder.
H. 2.8; D. 12.0; Th. 0.4.
Red (2.5YR 5/8), calcareous fabric.

36. (KEP 868, MPo 1511, Block 39). Miniature lamp. L. 5.9; W. 2.5; H. 1.9; D. of wick-hole 1.9.
Misfired, light yellowish brown (10YR 6/4) fabric. Traces of very dark gray (10YR 3/1), thin wash/glaze inside and out.
Curved sides, large filling hole and flat base, side and rim merging, elongated nozzle with large wick hole that encroaches upon the rim; flat base that is slightly concave underneath. Short nozzle with large wick hole is placed at a lower level than the upper rim of the bowl.

37. (KEP 869, MPo 1569, Block 49). Lamp. Two joining fragments, tip of nozzle and handle missing, otherwise complete. L. 8.2; H. 4.2; D. 5.9; D. of disk 3.8; D. of base 3.9.

Fig. 19. Various artifacts from the Hellenistic *in situ* deposit in Area H005, cat. nos. **37**–**40**. Drawings by A. Hooton, photographs by C. Mauzy.

Light reddish brown (2.5YR 4/6) fabric. Glaze, which tends to peel off, inside and out, except for the bottom of the base: reddish black (10R 2.5/1) to weak red (10R 4/3) and reddish brown (2.5YR 4/4).

The sides have an almost uniform globular shape in section. The rim is set off from the sides with a prominent groove. As Broneer has remarked, the color in this kind of groove was scratched away after the whole body had been glazed.[31] The lamp has a long nozzle with flat top and the missing wick hole was small. The rim is curved inwards. The high, raised base is concave underneath (H. 0.6), and rises to a high conical interior bottom.

38. (KEP 870, MPo 1507, Block 49). Loom-weight. Complete.
H. 7.0; D. max. 5.3.
Reddish yellow (5YR 7/8) fabric, slipped yellow (10YR 7/6).
Conical with one piercing; the weight hangs obliquely.

39. (KEP 871, MPo 1580, Block 49). Mold-made figurine. Fragment of head and neck. H. 4.1; W. 2.3.
Very pale brown (10YR 8/4), soft fabric. Surface somewhat abraded.

40. (KEP 872, MPo 1565, Block 49). Nail. Head and upper part of shank preserved. H. 2.65; D. of head 1.75; D. of shank 0.65.

Excepting some Archaic survivors, the assemblage above has a certain likeness to the assemblage excavated in Menon's cistern in the southwestern part of the Athenian Agora, which is now dated to the 270s or to the 260s BC.[32] Among the fine ware, the skyphos base (no. **8**) certainly belongs to this period, as it represents the ultimate stage of the shape's development.[33] The three kantharoi, nos. **15**, **16** and **17**, are also typical of the drinking vessels in circulation at the time. No. **16** preserves the high stem of a pedestal base, somewhat concave in profile, whereas no. **15** is from a larger vessel with the same type of base but with a much lower stem. No. **17**, a large body fragment which preserves a handle can equally well be from a cup-kantharos.[34] The salt-cellar fragment, no. **19**, preserves the complete profile. As it lacks a groove in the resting surface, it should also be dated to around 300 BC or later.[35] The two bowls with incurving rims or Echinus bowls, nos. **20** and **21**, are of the type, defined by Susan Rotroff as "deep" if judged from their approximate height. Such bowls were also in vogue in the early decades of the third century BC, and possibly used for serving individual portions of food.[36]

The plain ware fragments, nos. **24**–**29**, are of principal interest, as all except the amphora, no. **29**, are of similar reddish brown, somewhat calcareous fabric, and with the surface covered with thick, yellow slip. The vessels, some of which are fairly large, seem suitable for various domestic uses, such as storing and preparing of food. As a point of comparison, the plain ware vessels from the so-called Dining deposit, found outside the southwestern corner of Building D and dated to the early part of the second century BC, were for the most part also of a uniform fabric, although of a less good quality than the ones under discussion here.[37] It seems obvious that this type of vessel generally had a common source, even though the sources or at least the quality of the manufacture seem to vary from time to time. The same cannot be said of the cooking ware fragments, nos. **30**–**35**, which are of slightly different fabrics. All, except possibly the chytra, no. **35**, seem rather small. Similar lopades as nos. **31**–**34** were found in Menon's cistern.[38] Bases from cooking vessels seldom survive in the archaeological record as they are of thinner fabrics than the upper parts of the vessels. The base, no. **30**, is certainly of cooking fabric but is peculiar as it is raised. The bottoms of cooking vessels are supposed to be either rounded or flat depending on the cooking devise in use.

The basically complete lamp, no. **37**, is Attic and of

[31] *Isthmia* III, 15.
[32] Miller 1974; *Agora* XXIX, 162–163, pls. 76–77, and figs. 63–64.
[33] *Agora*, XXIX, 94, pl. 14, and fig. 12, nos. 150–154.
[34] On kantharoi in the early third century BC, see *Agora* XXIX, 83–94, pls. 1–13, and figs. 4–11.
[35] Discussion on the shape in *Agora* XXIX, 167. See also pl. 79 and fig. 65.
[36] *Agora* XXIX, 161.
[37] Wells *et al*. 2005, 74.
[38] Miller 1974, 245, fig. 6, nos. 53 and 54.

Table 3. Hellenistic *in situ* deposition: taxonomic representation.

	Cattle	Pig	Sheep/ goats	Sheep	Dog	Medium size mammals	Large size mammals
Scapula			1				
Humerus			1		1		
Radius			1				
Metacarpal	4						
Tibia			2				
Metatarsal			2				
Phalanx I	1						
Long bones indet.						18	18
Mandible			1				
Mand. teeth			15	1			
Max. teeth	4	1	5				
Teeth indet.						2	
Ribs		4				3	
Various						13	
Irrelevant							
Total	9	5	28	1	1	36	18

Broneer Type VII B.[39] An Athenian parallel has been dated to 340–310 BC.[40] The conical loom-weight, no. **38**, which is beveled from the base is of a type that was certainly in use during the same period.[41] The fragment of a figurine, no. **39**, can be either from a male or a female figurine. The elongated neck and full lips certainly suggest a Hellenistic date.

To the surviving Archaic artifacts in this context belong the two aryballoi, nos. **13** and **14**, and the miniature lamp, no. **36**. It is possible to speculate that they originated in a stratum that is a primary Archaic deposit immediately to the north of the excavated trench, as such deposits were found in the trench dug against the Archaic *peribolos* of the Temple of Poseidon nearby. The aryballos, no. **14**, can be dated to around 600 BC, and no. **13** is presumably of similar date.[42] The miniature lamp, no. **36** (cf. *Fig. 39* below), is of Broneer Type IV B and most likely a local product.[43] The shape is similar to no. **97** below, but smaller. A date in the late sixth or early fifth century BC seems likely. The only artifact in this context that is necessarily later that the early third century BC is no. **23**, which preserves the base of a large Eastern Sigillata A dish, datable to the late second or early first century BC. The exact shape of the dish is difficult to determine as only a fragment of the base is preserved.[44]

The Hellenistic *in situ* deposit discussed here also appears to be rich in animal remains. Cattle, pigs, ovicaprids and a dog have been identified (*Table 3*). Ovicaprids and medium-sized mammals predominate the assemblage, but cattle (and large-sized mammal) bones are also numerous. The presence of the dog is interesting, even though the single dog bone does not permit any further discussion. Ovicaprids and cattle are represented by various anatomical elements. No particular preference is evident. Preservation is poor but fragmentation is not as severe as in almost all other contexts in Area H (*Table 4*). Tiny, burned bone fragments (black/white) are present in the deposit but were found scattered all over the area.

Discussion

It seems possible to argue from the presence of roof-tiles and painted fragments of plaster in the above described assemblage that it originates in a building that was either destroyed when the Hellenistic drain was built in the area, or somehow connected to it. No obvious building blocks were found within the rubble, but such blocks can have been reused in other buildings. As the pottery is of a homogeneous date, the building also seems short-lived. Given the fact that the assemblage was excavated from the immediate vicinity of the Temple of Poseidon, its domestic character would seem surprising at first sight. Similar material has been found among household refuse elsewhere, as in Menon's cistern in the Athenian Agora. However, the handling of food, especially in the contexts of animal sacrifice, is certainly one of the recurring activities in Greek sanctuaries. The major part of the sacrificial meat was obviously boiled more often than grilled, and then divided between the participants at the sacrifice. The portions for the officials and possibly local notables may have been grilled and consumed elsewhere.[45] The rather normal size of the cooking vessels found in the context does not suggest

[39] *Isthmia* III, 15–16, pls. 3, 16, nos. 113 and 116.
[40] *Agora* IV, no. 272 of Type 25A.
[41] *Corinth* XII, 149 and fig. 23 (Types IX–X).
[42] *Necrocorinthia*, 291, fig. 128, no. 644. See also *Kalapodi* I, 243, Taf. 53, no. 46.
[43] *Isthmia* III, pls. 2, 15, no. 59; Karivieri 2008, fig. 85, no. 320.
[44] See n. 24 above.
[45] See discussion in Ekroth 2008, 273–276 and references.

Table 4. Hellenistic *in situ* deposition: non-identifiable bones—size groups.

Fragment size	0–1 cm	1–2 cm	2–5 cm	5–10 cm
Number of bones	13	15	23	3

communal cooking, however. The possibility that this is where the portions for the officials and notables at the sacrifices were prepared and consumed is contradicted by the fact that no particular parts of animals are over-represented or entirely lacking in the bone material. Yet another possibility, and perhaps the most attractive one, would seem to be that we are dealing with the remains of a subsidiary structure where some of the functionaries of the Sanctuary resided.

THE HELLENISTIC DRAIN AND ITS CONSTRUCTION FILL (*FIG. 12*)

Two of the walls of the rectangular structure indicated in the geophysical survey, which was conducted to the east and southeast of the Temple in 2006 (see *Fig. 5*), have so far been recovered in Area H. The southeast-northwest oriented Wall 48 was first found in Area H001 in 2007, and its continuation towards the northwest in Area H005 in 2008. As has been stated above, the wall turned out to be a monumental drain, built in Hellenistic times and not a wall that is part of some larger structure. The southernmost part of the drain is rather badly preserved, consisting only of one crumbling layer of unworked limestone blocks. Towards the northwest, the drain has a second layer of stones, which consists of flat slabs placed across the two rows of stones underneath as cap-stones. In the northwest the drain disappears into a layer of scattered rubble, which has been judged to belong to the deposit of Hellenistic material that has been described above (*Figs. 7, 8, 10*).

The drain (Wall 48) has been uncovered to a total length of nearly 11 m, and it very probably continues southeast into the unexcavated area (*Fig. 20*). The side-walls of the drain are built of relatively flat, roughly worked stones: most of them are *c.* 0.30 × 0.30 m, but the largest ones are up to 0.50 × 0.50 m, and the total height of two courses of stones is *c.* 0.20 m. The interior sides of the stone rows clearly mark out a channel between them: a short section of the channel was excavated in 2009 (*Fig. 20*). The channel itself was dug into the soil and its side walls were protected with plaster (*Fig. 21*). These layers had for the most collapsed into the bottom of the channel, but a trace of them was also visible higher up just below the row of stones. The channel was covered by large cap-stones which are still preserved *in situ* for nearly 3 m at the northwest end of the drain and for nearly 2 m in the southeast. The largest cap-stone is *c.* 0.85 × 0.60 m and the smallest *c.* 0.55 × 0.30 m, and they have a maximum height of *c.* 0.15 m. The total width of the drain is 1.10–1.25 m, and the width of the channel is *c.* 0.32–0.34 m; the channel height from the bottom to the cap-stones is *c.* 0.55 m. The height difference at the northwest and southeast ends can be measured as *c.* 0.28 m over 9.0 m, so the inclination at the top of the preserved side wall stones is *c.* 2 degrees.

Wall 49, oriented southwest-northeast, was excavated in Areas H001 and H002 in 2007. In the southwest, where it was presumed to meet with Wall 48 (the drain), only a compact layer of rubble was found. In excavations into the same layer in 2008 (in Area H006), it became clear that the rubble had been deposited in Late Antiquity or later. Towards the northeast, Wall 49 was in a better state of preservation, and disappeared in the eastern baulk of Area H002. In Area H003, excavated further towards the northeast where the geophysical survey had indicated another wall meeting Wall 49 at right angles, potential bedding for such a corner was found underneath a thin soil cover on bedrock.

The walls described above are thus not parts of a larger construction in the area to the southeast of the Temple of Poseidon as had been suggested by the findings of the geophysical survey conducted in 2006 but an Archaic terrace wall and a Hellenistic drain that happen to meet at right angle. In order to create level ground for the drain, an existing slope next to the Archaic *peribolos* of the Temple of Poseidon was dug into, with the earth then spread as to level the area towards the south and southeast. More construction fill of a loose, sandy soil was obviously brought in, in order to further raise the ground level. It seems that this fill was not stable, as both the drain and Wall 49 have collapsed in the area where they should meet, and their remains were found on a lower level than the continuations of both constructions towards the northwest and northeast. If we presume that the creation of level ground was the purpose of the construction, then that level ground should have been 188.00 masl, as this is the level on which the best preserved part of the drain is found in the northwest. What has been considered as bedding for Wall 49 in the northeast, in Area H003, was found exactly on the same level. In the southwest, Wall 48 (the drain) is at 187.80 masl and Wall 49 at 187.55 masl (*Fig. 22*).

Finds from the construction fill for the drain were relatively few (*Figs. 23–24*). Many of the blocks in the northern and middle parts of the fill were completely devoid of finds, whereas more pottery was found in the loose fill in the southwest and against the northern face of Wall 49. In many cases it was difficult to distinguish the construction fill from the erosion layer that was found superimposed upon it, as the fill had also eroded. Along the southernmost parts of the drain, the same soft soil was excavated both on top of the wall and below it. This is characteristic of deposits that have been called "flood deposits" elsewhere. In such deposits, lateral movement of anything that is lighter than the soft soil is caused by running water, and the deposits have a "washed" character as a result.

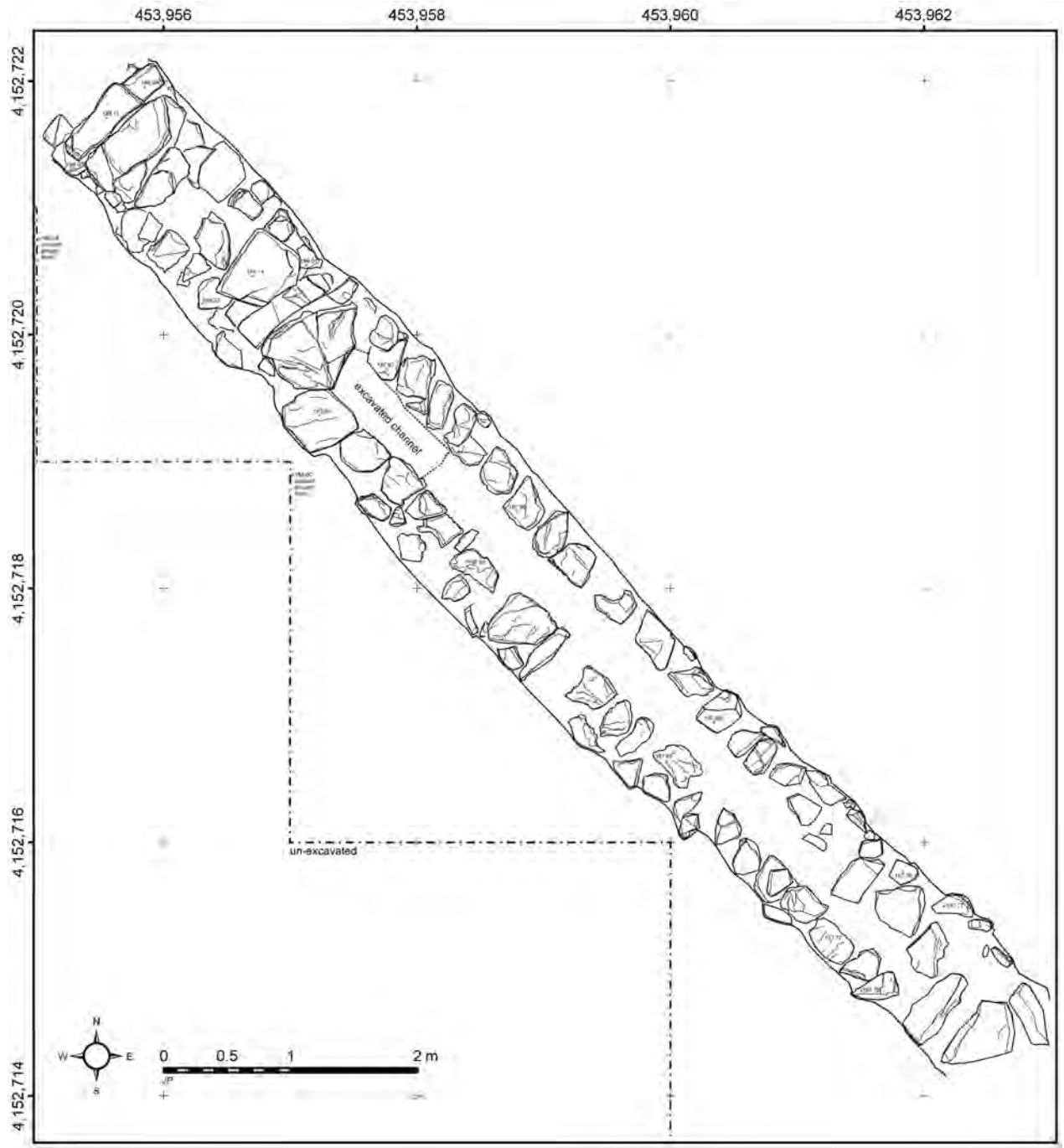

Fig. 20. Plan of the Hellenistic drain (Wall 48) in scale 1:50. By. J. Pakkanen.

Much of the pottery found in the fill is of pre-Hellenistic date as can be expected, as parts of the fill were obviously leveled out from an existing slope in the northwest. Finds of later date in the fill may be the result of erosion. An almost complete Late Bronze Age figurine of the so-called Reshef type was found in Block 25 in the easternmost part of Area H002. It is described and analyzed in a separate article by Berit Wells in this volume. A bronze pin of Late Geometric date was found in Block 6 in Area H001, deposited against the northern face of Wall 49. The block itself has been considered

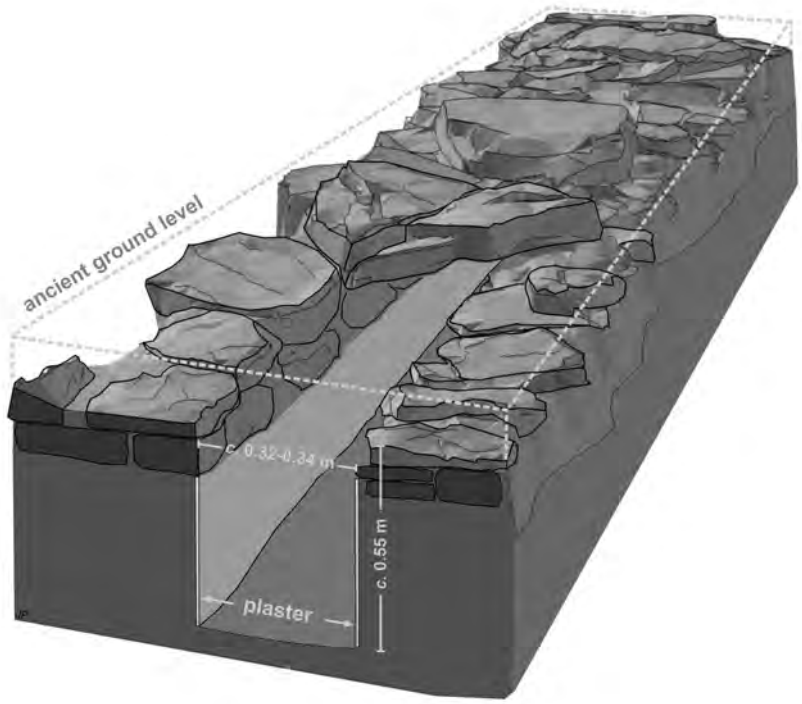

Fig 21. Perspective reconstruction of a section of the Hellenistic drain. By J. Pakkanen.

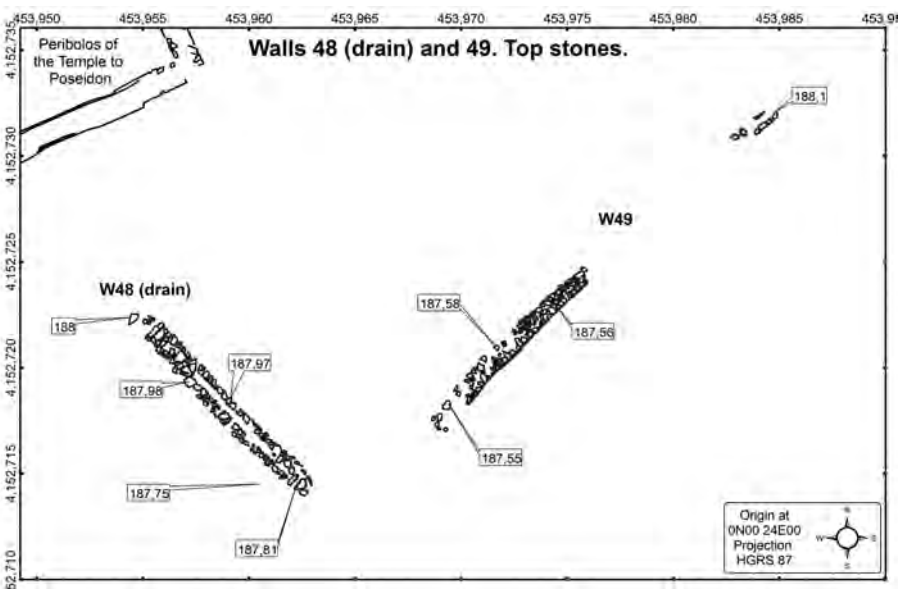

Fig. 22. Walls 48 (the drain) and 49 in Area H. By E. Savini.

as disturbed, but as the pin was found in the bottom of the block in a somewhat more compact layer of soil, it is included in this section of the report. Also found in the fill were two fish-net sinkers of lead (*Fig. 26*), which are not included in the catalogue below. Many more of them were found in the Later Hellenistic and Early Roman contexts in Area I in 2007 and 2008, and they are currently being analyzed.

41. (KEP 873, H001, Block 4). Aryballos. Fragment of raised base and convex lower body. H. 2.4; D. of base 3.8; Th. of wall 0.2–0.5. White (10YR 8/1) fabric. Traces of black paint on exterior.

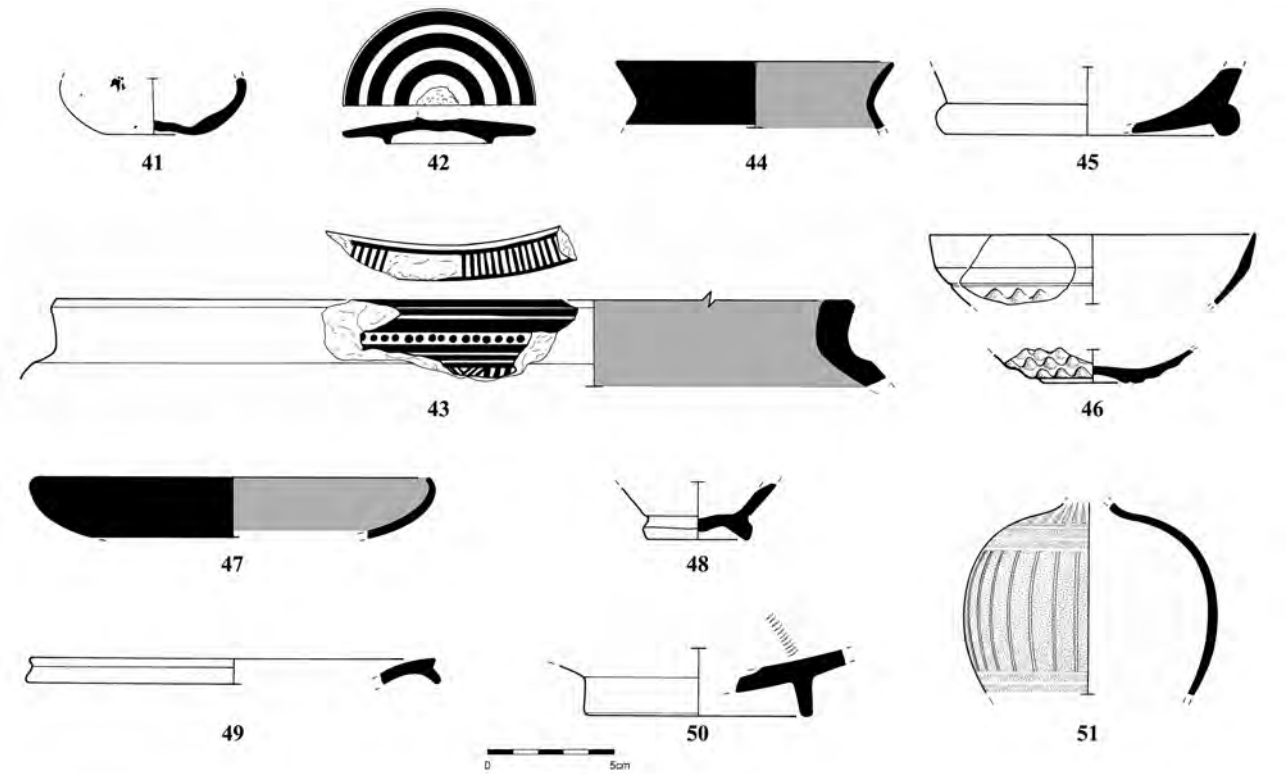

Fig. 23. Pottery from the Hellenistic construction fill, cat. nos. **41**–**51**. Drawings by A. Hooton.

42. (KEP 874, H001, Block 4). Pyxis. Complete profile of lid. H. 1.2; D. 7.2; Th. 0.2–0.4.
Reddish yellow (7.5YR 6/6) fabric with no visible inclusions. Reddish brown paint. Concentric bands on exterior.

43. (KEP 875, H001, Block 24). Krater. Fragment of thickened, vertical lip. H. 3.0; D. 43.0; Th. of wall 1.0.
Pink (5YR 7/4), fine fabric. Black paint, groups of bands across lip; reserved bands and a horizontal row of dots on exterior.

44. (KEP 876, H002, Block 13). Kantharos. Fragment of flaring rim. H. 2.5; D. 11.0; Th. of wall 0.3.
Reddish yellow (5YR 7/6), soft fabric. Streaky black paint.

45. (KEP 877, H002, Block 9). Skyphos. Fragment of low torus base. H. 2.6; D. 11.4; Th. of wall 1.0.
Yellowish red (5YR 5/6), fine fabric. Black paint, red on underside of floor.

46. (KEP 878, 879, H001, Block 2). Non-joining, very worn fragments of raised base and flaring rim of a relief bowl. H. of base 1.5; H. of rim 3.0; D. of base 3.7; D. of rim 13.0; Th. of wall 0.2.
Reddish yellow (5YR 6/8), soft fabric. Pine-cone pattern on lower body.

47. (KEP 880, H002, Block 13). Bowl. Fragment of incurving rim. H. 2.5; D. 16.0; Th. of wall 0.2–0.3.
Light red (2.5YR 6/8), soft fabric. Fading black paint.

48. (KEP 881, H003, Block 4). Juglet? Raised base with cone. H. 2.2; D. 4.2; Th. of wall 0.5.
Light red (2.5YR 6/6), somewhat calcareous fabric. Exterior slipped pink (7.5YR 7/4).

49. (KEP 882, H001, Block 3). Plate. Fragment of molded rim. H. 1.0; D. 16.0; Th. of wall 0.5.
Reddish yellow (7.5YR 7/6) fabric. Fading black paint, red band on exterior.

50. (KEP 883, H001, Block 3). Plate. Fragment of high ring base. H. 2.8; D. 9.0; Th. 0.7.
Reddish yellow (5YR 7/6) fabric. Black paint, rouletting on interior floor.

51. (KEP 884, 885, H001, Blocks 2 and 3). Filter jug? Joining and non-joining fragments of body. H. max. 8.0; D. of body max. 10.0; Th. 0.2–0.4.
Very pale brown (10YR 8/3) fabric. Brownish paint. Tongues on shoulder, horizontal and vertical ridges on body.

52. (KEP 886, MPo 1510, H005, Block 37). Miniature lamp. Handle missing, otherwise complete. L. 4.8; W. 3.2; H. 1.5; D. of wick-hole 1.9.
Worn, dull glaze inside and out: dark reddish gray (5YR 4/2). Clay: soft, reddish yellow (7.5YR 6/6).
Curved sides, large filling-hole and flat base, side and rim merging, elongated nozzle with large wick-hole; flat base not clearly set off from side.

53. (KEP 887, MPo 1479, H002, Block 4). Figurine? Foot. H. max. 4.0; L. max. 5.2.
Red (2.5YR 5/8), coarse fabric, slipped very pale brown (10YR 8/4).

54. (KEP 888, MPo 1483, H004, Block 4). Bovine figurine preserving parts of hind legs. Max. H. 4.3; Th. 1.6.
Very pale brown (10YR 8/3) fabric. No paint preserved.

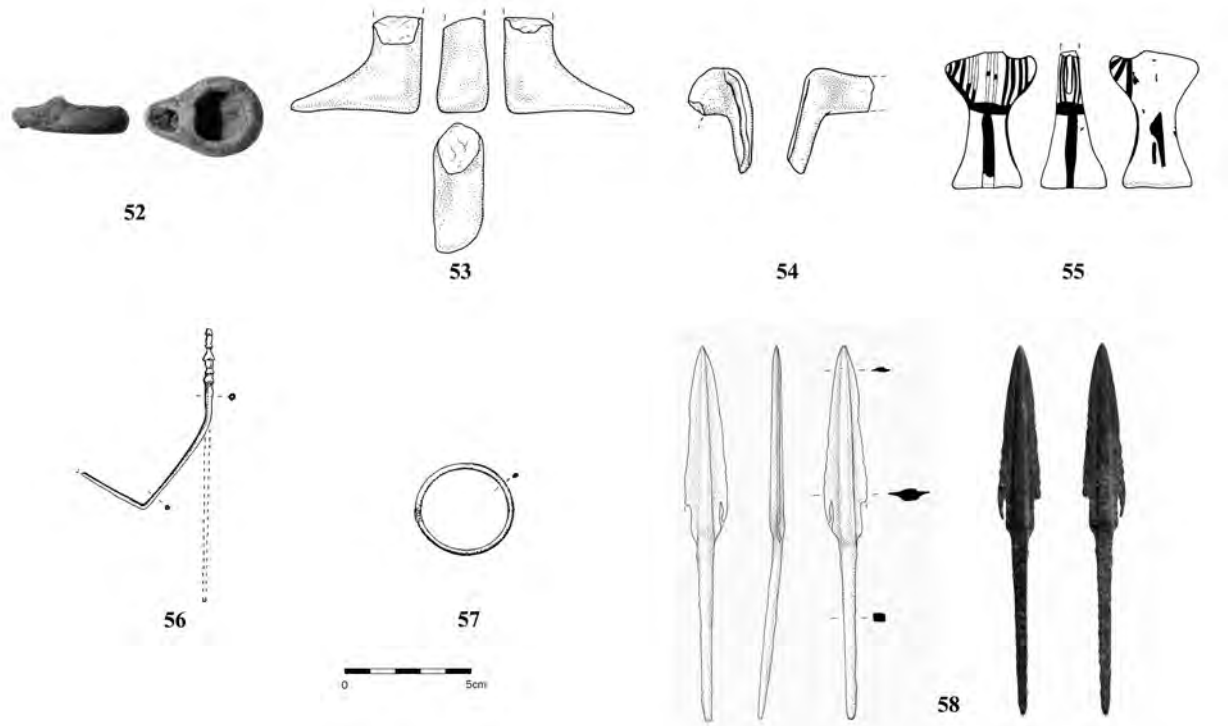

Fig. 24. Various artifacts from the Hellenistic construction fill, cat. nos. **52**–**58**. Drawings by A. Hooton, photographs by C. Mauzy.

55. (KEP 889, MPo 1482). Female figurine of Psi type. Mended, head missing. Max. H. 5.4; Th. 1.0.
Very pale brown (10YR 8/3) fabric. Vertical stripes on body.

56. (KEP 890, MPo 1457, H001, Block 6). Pin. Bent. Tip broken off as is probably also the very top part. Preserved L. 10.8; Th. at thinnest point of shank 0.15 and below decorated top part 0.3. Copper alloy.

57. (KEP 891, MPo 1459, H002, Block 2). Ring. Complete with round section. Max. D. 3.9; Th. 0.2. Copper alloy.

58. (KEP 892, MPo 1562, H005, Block 18) Barbed arrow-head. Nearly complete. L. 14.9; W. 1.7; Th. 0.35–0.6. Copper alloy.

As suggested above, many of the finds from the construction fill certainly originate from the slope to the south of the Temple: this slope was obviously cut into when constructing the Hellenistic drain. To those belongs no. **41**, which preserves the raised base of a globular aryballos of a seventh-century BC type. Better preserved specimens were found in the Hellenistic context in the northernmost part of Area H005, and many more were found in the excavations in 1894, most likely in the area of the Temple itself.[46] No. **42**, a lid from a pyxis, decorated with broad, concentric bands at even distances, probably belongs to the same period, whereas no. **43** is earlier, as it is a rim fragment from a very large Late Geometric krater. Close parallels have been found in the Southern Argolid, where Susan Langdon refers to further parallels at Argive sites, such as Argos, Dendra and Mycenae.[47] No. **44** is yet another indication of the Sanctuary's close ties with the Argolid, but this time during the sixth century BC, as it is a rim from a typically Argive kantharos. Those abound at major Argive sites such as the Argive Heraion.[48]

Pottery datable to the fifth century BC is generally rare at Kalaureia for reasons unknown to us as yet. No. **45**, a torus base from a large skyphos or a krater, would seem to belong to the later part of that century, however. With no. **47** we move to around 300 BC, as it preserves the larger part of the profile from an Echinus bowl of the shallow, Hellenistic type, which was produced from the very late fourth century

[46] Nos. **13** and **14** above. A number of the aryballoi found in 1894 were never published but survived, and are now kept in the Poros Museum.
[47] Langdon 1995, 63–66 and figs. 56–57. The decoration seems similar to her no. 1098, which is dated to LG I, whereas the shape of the rim is more similar to LG II kraters as no. 1114.
[48] Blegen 1939, 425 and fig. 12, no. 1225; Caskey & Amandry 1952, 196 and pl. 53, no. 199. For similar fragments, found to the west of Building D at Kalaureia, see Wells *et al*. 2005, 148–150 and fig. 23, nos. 32–33; Wells, Penttinen & Hjohlman 2006–2007, 74 and fig. 41, no. 66.

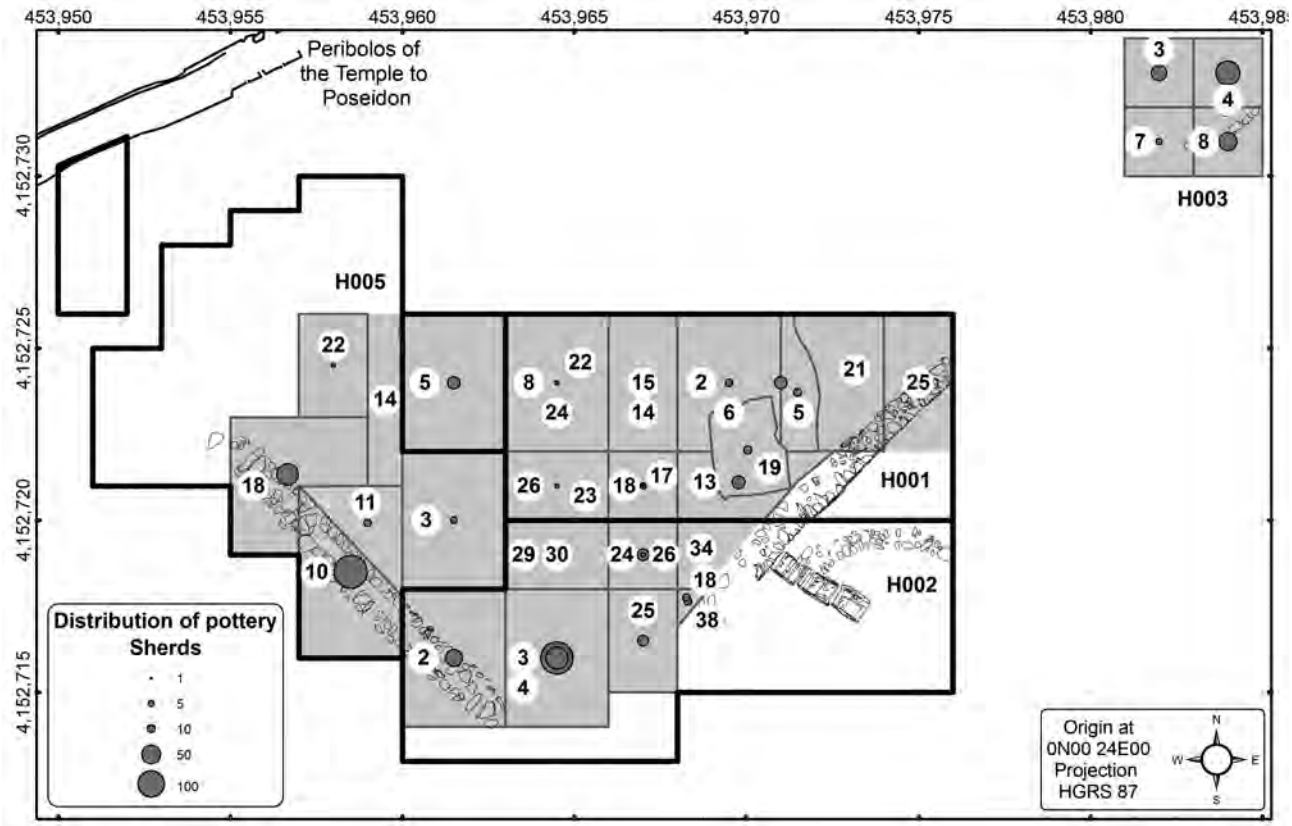

Fig. 25. The distribution of pottery in the Hellenistic construction fill by block. By E. Savini.

BC and onwards.[49] No. **46** comprises two fragments from a very worn, mold-made relief bowl, which may or may not be from the same vessel. The decoration seems to have the pine-cone pattern, in which case the bowl can be placed within the early decades of the shape's development in the late part of the third century BC. The rim shape is more reminiscent of bowls common on Delos or in the general Aegean area than of anything in Athens.[50] The two plate fragments, nos. **49** and **50**, are possibly from the same period or later, as is the base from a small jug no. **48**. Many fragments from the rather mysterious, mold-made no. **51** were found in Blocks 2 and 3 in Area H001. A filter jug from the Athenian Agora has similar decoration, and has been dated to the early part of the first century BC.[51]

The miniature lamp, no. **52**, is of Broneer Type IV B, and most likely a local product. The shape is similar to no. **36** but smaller. The probable date is the late sixth or early fifth century BC.[52] No. **53** preserves a foot from a doll or a figurine. Parallels are difficult to come by. The two Mycenaean figurines, nos. **54** and **55**, belong to the standard repertoire, and are perhaps most likely to be dated in LH IIIB.

The pin, no. **56**, is corroded and its separate members are hard to make out. The conical bead close to the top is in all likelihood an atrophied disc, above which are a number of beads; below the disc are two or three bulbs above the shank, which is square in section at the top and round further down. Regardless of the number of beads, the pin seems to be Kilian-Dirlmeier's Geometric pin Type XIII, and more specifically, her variant A.[53] She lists the provenience for most pins of Type XIIIA as the sanctuaries to Athena Alea at Tegea and Artemis Orthia at Sparta and it is obvious that the type is a central Peloponnesian one. However, one example has turned up in the Sanctuary of Apollo Maleatas at Epidauros and a couple more at the Argive Heraion. These latter pins are the closest in shape to the Kalaureia pin. Clearly the market for the type was mainly the central and eastern Peloponnese.[54] Perhaps a few itinerant

[49] *Agora* XXIX, 162 and fig. 62.
[50] Courby 1924, pl. XII; *Delos* XXXI, pl. 111. On the pine-cone pattern in general, see *Agora* XXII, 15–17.
[51] *Agora* XXIX, fig. 73, no. 1191.
[52] *Isthmia* III, pls. 2 and 15, no. 59; Karivieri 2006–2007, fig. 85, no. 320, and nos. **36** and **97** in this report.
[53] Kilian-Dirlmeier 1984, 135–139 and pls. 53–54.
[54] For the Apollo Maleatas pin, see Lambrinoudakis 1980, 46 and pl. 3c; for the Argive Heraion example Waldstein 1905, 214 and pl. 79, esp. no. 334. Strøm 1995, 80, firmly places the production of pins of this type in the central Peloponnese. The type is completely absent in central Greece; none has for instance been found at Kalapodi, which has yielded a great number of pins, see *Kalapodi* II, 88–111.

Table 5. Hellenistic construction fill: taxonomic representation.

	Medium size mammals	Large size mammals
Long bones indet.	4	4
Teeth indet.	3	
Various	6	1
Total	13	5

bronze smiths manufactured the pins for the visitors to the said sanctuaries. The type is broadly dated to Late Geometric.

The diameter of no. **57** is too big for a finger ring. One may speculate that it was donated to the Sanctuary for its metal value.[55] The barbed arrow-head, no. **58**, is certainly a votive. Similar arrow-heads have been found in many sanctuaries, although ours seems unusually large.[56]

The Hellenistic construction fill is very poor in animal remains (*Table 5*). No identifiable bones were recovered, and burning is rare. Only two black-burned bone fragments were found. Among the non-identifiable bone fragments a majority is of relatively large size (0–1 cm: 0; 1–2 cm: 3; 2–5 cm: 14; 5–10 cm: 1) and heavily eroded. Both features in the assemblage lead to the assumption that the animal remains in the construction fill have suffered from adverse depositional conditions, such as high soil acidity,[57] which results in the survival of only the largest elements. Such a scenario corresponds to the nature of the deposit.

Discussion

As has become clear, the pottery and other artifacts catalogued and described above are hardly of much value for the dating of the Hellenistic drain, as many of them are of earlier dates and originate probably in the temple area. They are of interest, of course, as they give indications of what went on in the temple area, and for instance of what kind of objects were given as gifts to Poseidon. Much later material seems to have found its way into the construction fill through erosion. Thankfully, more significant material for the chronology of the drain was found in the Hellenistic deposit in the northern part of Area H005 (see above).

ERODED AND DISTURBED DEPOSITS (*FIG. 13*)

As becomes obvious from *Fig. 27* (map of pottery density), varying amounts of pottery were found in the deposits characterized either as eroded or disturbed. The density of pottery seems highest in the area to the south of Wall 49 and the Archaic column drums. Other areas where much pottery was found are generally the northwestern part of the excavated area within H005, and the separate trenches excavated in Area H003 in the northeast and H007 in the south east of the excavated area.

Fig. 26. A fish-net sinker found in Area H001. Photograph by B. Wells.

In Areas H003 and H007 the deposits have the character of typical surface deposits, in which pottery breaks into small fragments as it is exposed or moved around due to cultivation. In the northwestern part of the excavated area the relatively high density of pottery is obviously due to the proximity of the large 1894 excavation dump that was removed from the area in the fall of 2007. Some blocks in the area most likely belong to the dump as in the trench dug at the Archaic *peribolos* of the Temple. In other blocks, much of the pottery that was recovered had obviously eroded from the same dump.

In the area to the south of Wall 49 and the column drums, much of the pottery was found in pockets within the rubble that was the predominant feature in the area. Wall 50, a *c*. 40 cm wide curving wall, was found superimposed upon the Archaic column drums in the same area. Nothing much can be made of this particular wall, as it has been badly damaged by the plow. The latest pottery found in the general area was of Late Antique date, but it is impossible to make an assessment of this date's significance for the wall, as the sherds were generally worn. Wall 66, obviously a terrace-wall, found in Area H007 is difficult to date for the same reasons. The latest pottery, found against the foundation of the wall, was Late Antique, but again in a very bad state of preservation.

Three blocks carrying an inscription that refers to a dedication of a twin statue of Queen Arsinoe Philadelphos of Egypt and her brother Ptolemaios to Poseidon by the Peloponnesian town of Arsinoe, which is the modern Palaeokastro in the peninsula of Methana, were found within the above de-

[55] See *Kalapodi* II, 177 and references.

[56] Olympia: *OlForsch* XXIX, Taf. 1; Kalapodi: *Kalapodi* II, Taf. 94, nos. 362 and 363, dated to Hellenistic times. I thank the anonymous referee of this report for the suggestion that the point may have been used in a catapult.

[57] Lyman 1994, 422.

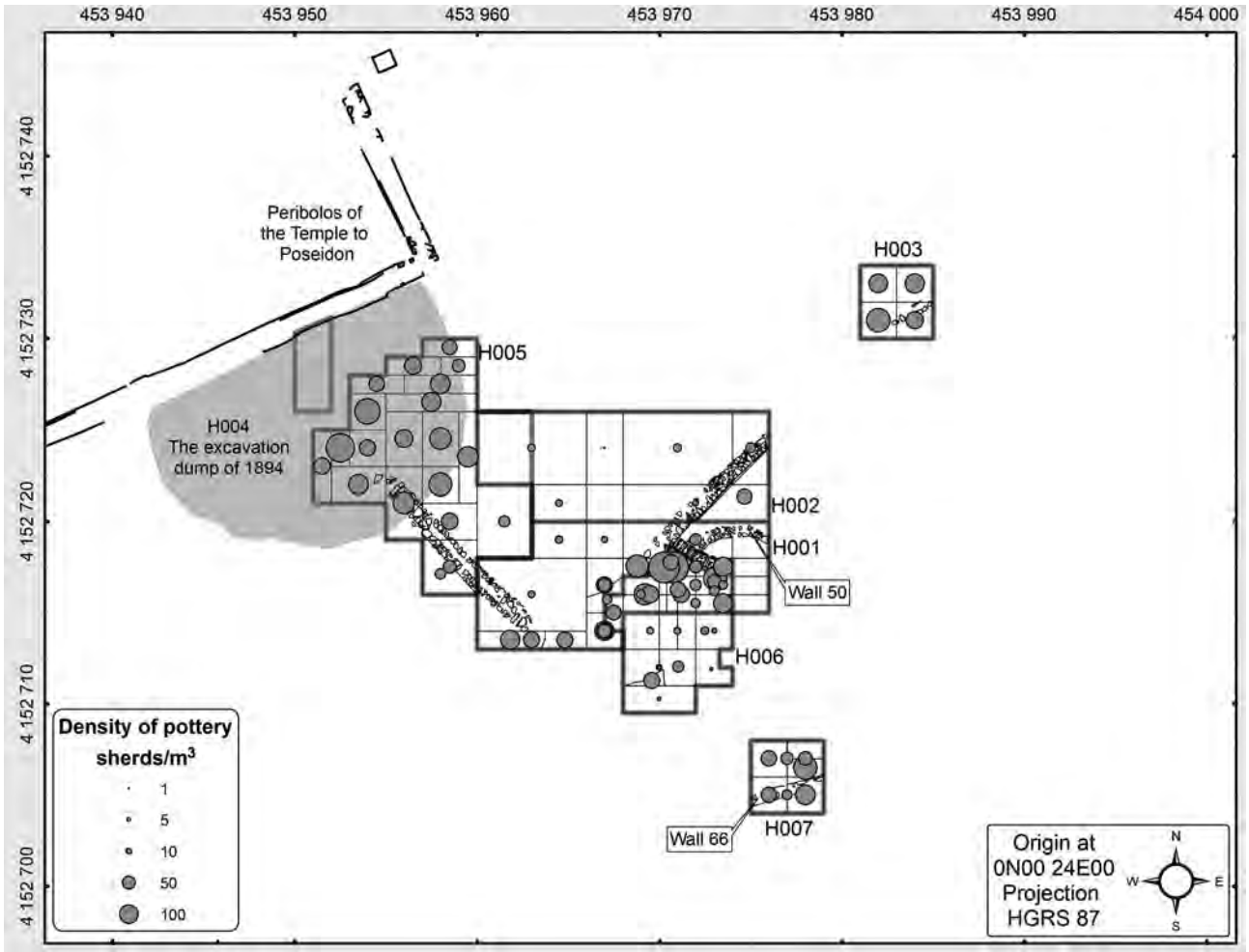

Fig. 27. The density of pottery in the eroded and disturbed deposits by block. By E. Savini.

scribed rubble in Area H006 (*Fig. 28*). The statue base and the inscription are treated in a separate article by Jenny Wallensten and Jari Pakkanen in this volume. The pottery and other artifacts (*Figs. 29–31*) catalogued below are organized chronologically rather than by context, as their chronology in this case is more significant than their exact find contexts. We can assume that all of them reflect activities in the temple area or its immediate vicinity over time.

Prehistoric:

59. (KEP 893, H001, Block 23). Carinated vessel. Fragment of convex body. H. 4.8; D. of body est. 22.0; Th. of wall 0.2–0.4.
Pink (7.5YR 7/4), coarse fabric with gold mica. Exterior black burnished.

60. (KEP 894, H005, Block 20). Deep bowl. Fragment of rim. H. 2.4; D. 17.0; Th. 0.4.
Yellow (10YR 8/6) fabric. Brownish paint.
Exterior lip and interior monochrome.

61. (KEP 895, H005, Block 20). Goblet. Fragment of conical base. H. 3.8; D. max. 7.0.
Reddish yellow (7.5YR 7/6) fabric. Abraded, black paint on the exterior.

Early Iron Age:

62. (KEP 896, H005, Block 19). Krater. Fragment of vertical rim. H. 3.6; D. 40.0; Th. 1.0.
Reddish yellow (5YR 7/6) fabric with red mudstone flakes; thick, pinkish yellow (7.5YR 8/4) slip.
Dark paint. Vertical bands and a horizontal row of dots on the exterior, interior monochrome; slashes of paint across the lip.

63. (KEP 897, H005, Block 20). Krater. Fragment of vertical lip. H. 4.0; D. 33.0; Th. 0.9.
Reddish yellow (7.5YR 8/6) fabric. Brownish paint all over.

Fig. 28. Ongoing excavation in Area H006. Photograph by E. Savini.

Archaic to Classical:

64. (KEP 898, MPo 1476, H001, Block 7). Aryballos. Complete base and body. H. 4.6; D. of base 2.0; D. of body 4.6; Th. of wall 0.3.
Reddish yellow (7.5YR 6/6), fine fabric. Fading black to red paint.
Ovulets on shoulder, reserved bands on body.

65. (KEP 899, Block 30). Aryballos. Fragment of flat base and tapering lower body. H. 2.8; D. 1.8; Th. 0.4.
White (10YR 8/2) fabric. Brownish black paint.
Rays on lower body. Painted circle on underside of floor.

66. (KEP 900, H005, Block 20). Aryballos. Fragment preserving shoulder and handle. H. 4.3; D. max. 4.6; Th. 0.3.
Very pale brown (10YR 8/3) fabric. Dark paint.
Horizontal rows of dots on shoulder, thin bands on body.

67. (KEP 901, H006, Block 7). Miniature kotyle. Fragment of rim, upper body and handle. H. 1.65; D. 3.5; Th. 0.3.
White (10YR 8/1) fabric. Abraded, black paint.
Slashes of paint across the lip, lower body possibly monochrome.

68. (KEP 902, H006, Block 7). Kotyle? Fragment of raised base. H. 1.45; D. 2.9; Th. 0.3.
White (10YR 8/2) fabric. Reddish paint.
Thin reserved bands on lower body.

69. (KEP 903, H005, Block 15). Kotyle. Fragment of splaying base. H. 1.5; D. 2.8; Th. 0.2.
Very pale brown (10YR 8/3) fabric with yellowish slip. Reddish paint.
Rays on lower body, reserved circle on underside of floor.

70. (KEP 904, H005, Block 20). Kotyle. Fragment of contracting rim and handle. H. 25; D. 9.0; Th. 0.3.
Very pale brown (10YR 8/4) fabric. Fading black paint all over.

71. (KEP 905, H007, Block 7). Skyphos/Kotyle. Fragment of contracting rim. H. 2.4; D. 12.0; Th. of wall 0.3.
Reddish yellow (5YR 6/6), soft fabric. Matt, reddish brown paint.

72. (KEP 906, H001, Block 7). Cup. Fragment of splaying base. H. 2.6; D. 9.0; Th. 0.3–0.5.
Reddish yellow (7.5YR 7/6), soft fabric. Matt, black paint except on underside of foot.

73. (KEP 907, H005, Block 20). Miniature lamp. Two joining fragments, part of base and side preserved. L. 3.9; H. 1.5; est. D. of base 4.5.
Light yellowish brown (10YR 6/4) fabric. Traces of dull glaze on top and underneath the rim: dark gray (5YR 4/1).
Curved sides, large filling hole and flat base; side and rim merging, flat base that is slightly concave underneath.

Classical to Hellenistic:

74. (KEP 908, H005, Block 19). Kantharos. Fragment of molded rim. H. 3.5; D. 10.0; Th. 0.3.
Reddish yellow (7.5YR 6/6), well fired fabric. Fading, black paint all over.

Late Roman to Late Antique:

75. (KEP 909, H001, Block 6). Bowl. Worn fragment of folded rim. H. 2.3; D. 22.0; Th. of wall 0.4.
Reddish yellow (5YR 6/6), soft fabric. No paint remains.

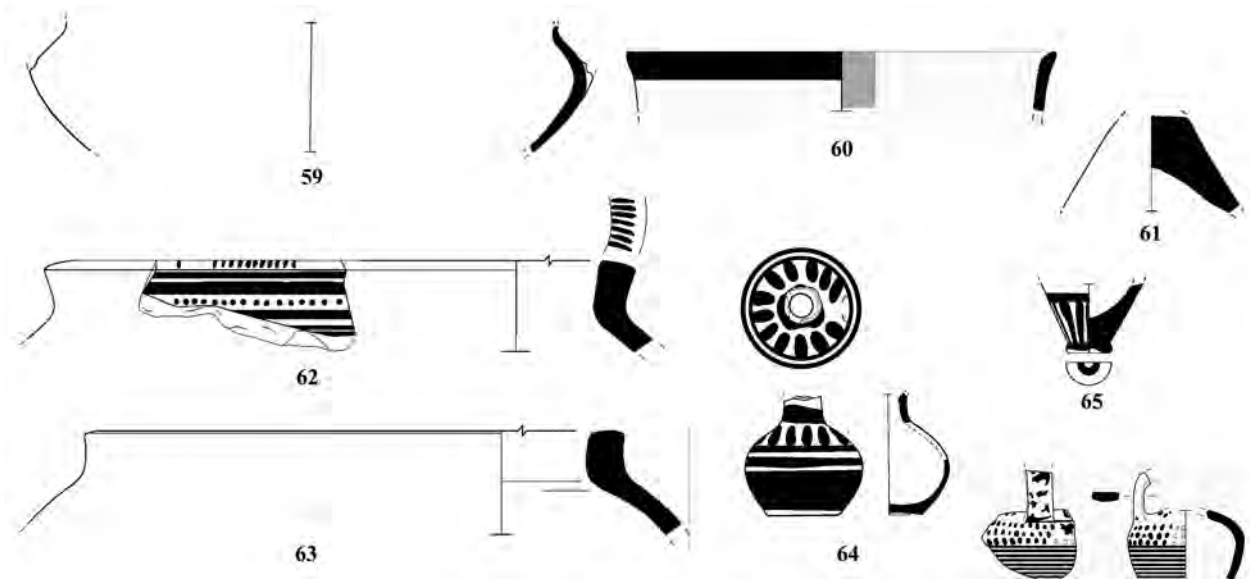

Fig. 29. Fine ware pottery from the eroded and disturbed deposits in Area H, cat. nos. **59**–**72**. Drawings by A. Hooton.

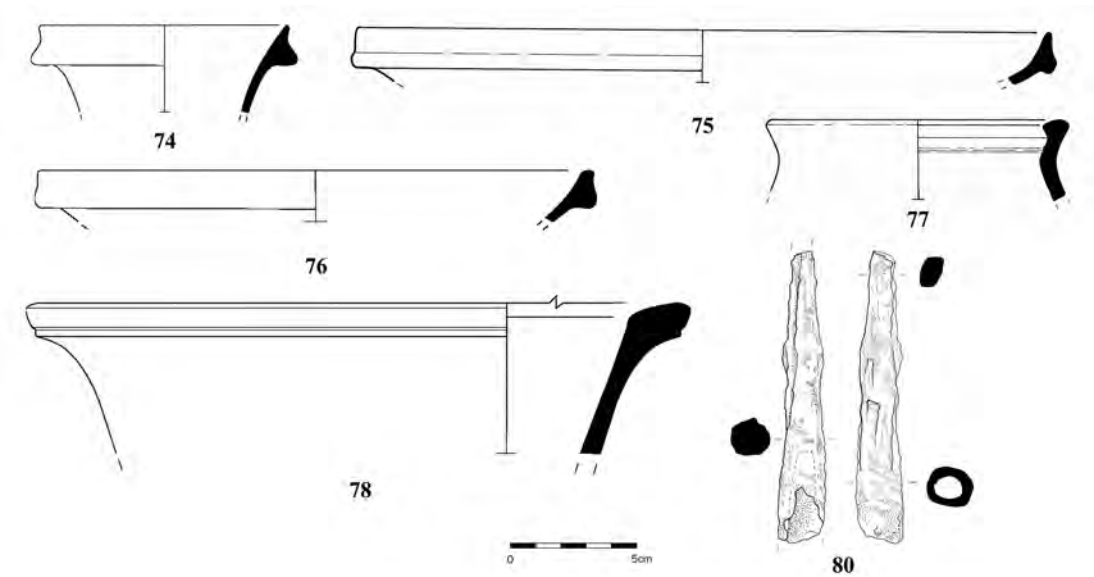

Fig. 30. Pottery and an iron sheath from the eroded and disturbed deposits in Area H, cat. nos. **74**–**78**, **80**. Drawings by A. Hooton.

76. (KEP 910, H006, Block 13). Bowl. Fragment of folded rim.
H. 2.1; D. 22.0; Th. 0.4.
Light red (2.5YR 6/6), soft fabric. No paint remains.

77. (KEP 911, H001, Block 16). Jug? Fragment of thickened lip.
H. 3.6; D. 11.0; Th. of wall 0.4.
Light red (2.5YR 6/6) fabric. Light brown (7.5YR 6/4) slip on exterior.
Roman?

78. (KEP 912, H005, Block 19). Bowl. Fragment of protruding rim.
H. 6.0; D. 38.0; Th. 0.7.
Coarse, red (2.5YR 4/8) fabric with mica and lime; surface reddish yellow (5YR 5/6).

Metal finds:

79. (KEP 913, MPo 1563, H005, Block 23). Ring. Complete with a pendant. D. 2.4; Th. 0.2; Th. of pendant 0.4. Silver.

80. (KEP 914, MPo 1564, H005, Block 25). Hollowed sheath with tapering sides. L. 11.3; W. 1.2–1.8. Iron.

A fair amount of Late Bronze Age sherds were found in the eroded and disturbed deposits, especially in Area H005 in the northwestern part of the excavated area. Most of them were easily identifiable, small fragments of kylix stems or worn bases, such as no. **61**. More diagnostic is no. **60**, which pre-

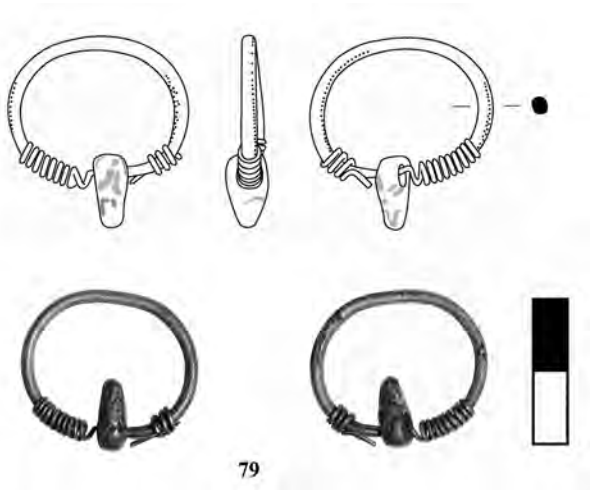

Fig. 31. A silver ring found in Area H005, cat. no. **79**. Drawing by A. Hooton, photograph by C. Mauzy.

serves the rim of a deep bowl. It can be either an LH IIIC medium band bowl (FS 284) or, if decorated on mid-body, a Group A bowl, datable to LH IIIC Middle (FS 285). A number of bowls of the latter type were found in the trench excavated west of the *peribolos* of the Temple of Poseidon in 1997.[58] No. **59**, a large, convex wall fragment would seem to come from a drinking vessel with strap handles. It is certainly prehistoric, but parallels are hard to come by. Plenty of gold mica suggests Aeginetan origin, however. It does not seem to be a coincidence that the other significant pre-Mycenaean fragments found in Area H, which belong to an Early Helladic vessel from the trench at the *peribolos* (no. **96** below), also seem to originate on that island.

The Early Iron Age is again represented by two rim fragments from over-sized kraters, nos. **62** and **63**. Both have collar rims, flattened on top, as do many similar kraters found in Southern Argolid.[59] The Kalaureia kraters seem larger in diameter, which may be significant, given that this is a sanctuary site. No. **63** is monochrome black and thus of uncertain date, whereas the cream slip of no. **62**, decorated with a row of dots at the junction of rim and shoulder, and with horizontal bands as well as slashes of paint across the lip, may single it out as an import, perhaps from the Cyclades.

Among the three Corinthian aryballoi catalogued in this section, no. **66** with its flat top is undoubtedly the earliest, and Protocorinthian rather than Corinthian. Chronologically it belongs more to the Early Iron Age horizon, as it is probably of similar date to the kraters above. The lower body is not preserved, but one would guess that it is decorated with bands instead of rays, as is no. **65**. The latest is obviously the somewhat manneristic no. **64**. Drinking vessels or miniatures of such vessels are otherwise predominant in the Archaic assemblage. No. **67** is certainly a miniature kotyle of common type, whereas the rayed base of no. **69** and the banded no. **68** could belong to miniatures or to small-sized kotylai intended to be used as real drinking vessels. All seem datable to the later part of the sixth or to the early fifth century BC.[60] The same date would seem viable for the Corinthian, monochrome kotyle, no. **70**, and for nos. **71** and **72**, which seem to be local or regional imitations of Attic drinking vessels of the period. The miniature lamp, no. **73**, is similar to no. **36** above, and no. **97** below and datable to around 500 BC.

Yet another drinking vessel, but of a middle or late fourth century BC date is no. **74**, a rim fragment from a Classical kantharos with a molded rim.[61] The most frequent Late Antique finds in the deposits under discussion here were small fragments from amphoras of the so-called LRA 2-type, which are immediately recognizable from their wheel-ridged decoration and datable to the fifth to seventh centuries AD. Such fragments were found in almost every block, but none are catalogued here, as similar fragments have been published from elsewhere in the sanctuary.[62] Also typical, although not equally frequent, were rim fragments from plates or bowls of the so-called Phocaean Red Slip ware, which was previously called Late Roman C ware.[63] Two of those, nos. **75** and **76**, are catalogued here but many more were found. The two plain ware fragments, nos. **77** and **78**, are not immediately identifiable, but their shapes and fabrics are reminiscent of those current in Late Antiquity.

No. **79** is a rare piece of surviving silver jewelry. The technique, in which the ends of the stout wire forming the hoop have been thinned out and wrapped around it, is paralleled in a Roman bracelet found in Pompeii.[64] The corroded iron object, no. **80**, is most likely a socket for a spear, and thus yet another weapon votive from our sanctuary. It is difficult to classify as it is badly corroded.[65]

Excavation into the eroded and disturbed deposits produced a relatively small amount of bones, mostly non-identifiable fragments of small size (*Tables 6–7*). Among the identifiable bones, pig and cattle are represented by one and two bones respectively and the ovicaprids with a higher number (over 10). Only one fragment could be identified as to species and belongs to a sheep.

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[58] Mountjoy 1986, 150–151, figs. 189 and 191; Wells, Penttinen & Billot 2003, 43–45. I thank Lena Klintberg for comments on this vessel.
[59] Langdon 1995, 65.
[60] *Kalapodi* I, 228–229, and Taf. 57.
[61] See *Agora* XII, 118–119.
[62] See for instance Wells, Penttinen & Hjohlman 2006–2007, 103 and fig. 74, no. 237.
[63] Discussion on this particular ware by J. Papadopoulos in *Torone* I, 531–534.
[64] Higgins 1980, 181 and pl. 62c.
[65] See Snodgrass 1964, 116–139.

Table 6. Eroded and disturbed depositions: taxonomic representation.

	Cattle	Pig	Sheep/goats	Sheep	Medium size mammals	Large size mammals
Radius			1			
Metacarpal			1			
Pelvis			1			
Tibia			1			
Astragalus			1			
Phalanx III	1					
Long bones indet.					18	4
Horncore				1		
Mand. teeth	1	1	4			
Max. teeth			2			
Teeth indet.					8	
Ribs					2	
Various					26	3
Total	2	1	11	1	54	7

The preservation of bones in these deposits is generally bad, and the surviving bones appear extremely eroded. A number of them show traces of burning, however. Almost all the burned bones (18 out of 22) originate in a single context, H005, Block 36. The bones, all of a very small size (0–1 cm), are calcined, i.e., burned white, after exposure to very high temperatures. This feature echoes the scatters of calcined, minuscule bone fragments that have been recorded in Early Iron Age and Archaic contexts elsewhere in the Sanctuary,[66] and those recovered from the trench adjacent to the Archaic *peribolos* of the Temple (see below). The heavily burned bones might be the remains of sacrificial processes that took place within the same *peribolos*.

THE EXCAVATION DUMP OF 1894 (*FIG. 13*)

The terrain to the south of the Archaic *peribolos* of the Temple of Poseidon has several low mounds, which partly obscure the view of the *peribolos*. The suspicion that these stemmed from the excavations conducted in the temple area in 1894 was confirmed in excavations in Area H002 in 2007, as the topmost layer consisted of loose soil and produced obviously re-deposited finds, such as worn fragments of miniature pots and roof-tiles. Prior to continued excavations in the area, the dump, defined as Area H004, was removed partly during a campaign in the fall of 2007, partly in the spring of 2008. The soil in the dump was for the most part loose and dark brown (10YR 3/3). Ashes were found in patches all through the dump. A large number of cut blocks, obviously fallen from the *peribolos* wall, were recovered, as was a block from a statue base with a molding similar to that in the inscribed blocks, recovered in a disturbed context in Area H006 (see above). Among finds, fragments of Late Archaic or Early Classical roof-tiles were prominent. A fragment of an antefix is paralleled by a published surface find,[67] and another, decorated with a palmette, is of a type that has been documented from the excavations in 1894.[68] Interestingly enough, yet another, similar fragment was found in the fill of the Archaic cistern, excavated in Area D004 in 2004 and 2005. The fill has been dated to Early Roman times.[69] Other architectural members, which obviously originate from the Temple of Poseidon, are under study by Jari Pakkanen. A sample of pottery and other artifacts is catalogued below (*Fig. 32*).

81. (KEP 915). Aryballos. Fragment of base and tapering lower body. H. 42; D. 2.0; Th. 0.2–0.5.
Very pale brown (10YR 8/3) fabric. Reddish brown paint.
Reserved bands on lower body.

82. (KEP 916). Phiale. Complete profile. H. 1.6; D. 9.2; Th. 02–0.4.
Very pale brown (10YR 7/3), well fired fabric.

83. (KEP 917, MPo 1571). Bovine figurine. Torso and parts of front and hind legs preserved. L. max. 6.4; H. max. 3.6; W. max. 3.0.
Reddish yellow (7.5YR 7/6) fabric with smooth surface.

84. (KEP 918, MPo 1572). Votive wreath. Approx. one third of the diameter preserved. W. max. 7.7; Th. 0.9.
Reddish yellow (7.5YR 7/8) fabric.

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[66] Mylona in Wells, Penttinen & Mylona forthcoming.
[67] Badie & Billot 2003, fig. 8, pl. IX 3 a–c (MPo 369). I thank Marie-Françoise Billot for comments on the roof-tiles found in H004.
[68] Wide & Kjellberg 1895, 272–273 and fig. 5.
[69] Wells *et al*. 2006–2007, 93–94.

Table 7. Eroded and disturbed depositions: non-identifiable bones—size groups.

	H001	H005	H006	H007	Total
0–1 cm	–	18	–	–	18
1–2 cm	2	10	7	1	20
2–5 cm	2	11	2	–	15
5–10 cm	2	1	3	1	7
Total	6	41	12	2	61

85. (KEP 919, MPo 1484). Biconical loom-weight with two piercings. Top broken. H. 4.2; Th. 2.7.
Brown (7.5YR 5/4), coarse and calcareous fabric.

The two pots, nos. **81** and **82**, are of types that have been documented previously in the Sanctuary. The banded, tapering base of a Protocorinthian or Early Corinthian aryballos no. **81** is possibly similar to nos. **65** and **66** above. Phialai, similar to no. **82**, have been found in the Archaic contexts in and around Building D.[70] The bovine figurine no. **83**, one of the very few found in the Sanctuary so far, seems Classical or later if judged from style. Another votive object is no. **84**, a fragment from a terracotta wreath. Similar wreaths have been found in a number of sites in the Argolid.[71] The loom-weight, no. **85**, is of a type that abounds in Building D.[72]

Area H004 was very poor in animal remains. The few bones (6) recovered there are from medium-sized mammals. Two of them have been identified as belonging to pig.

THE TRENCH AT THE *PERIBOLOS* OF THE TEMPLE

Within Area H005 a separate trench was dug against the Archaic *peribolos* wall of the Temple of Poseidon (*Fig. 33*). The blocks in the trench were included in the consecutive numbering of blocks in the wider area, as the original plan was to ultimately consolidate the two areas. It turned out, however, that the stratigraphy in the trench was not to any large degree influenced by the construction of the Hellenistic drain, which, as we have seen, was the main depositional event in the remaining H005. It was therefore decided to study and analyze the finds from the trench separately from those in the wider Area H005. At the end of the campaign, the trench was backfilled in order to stabilize the *peribolos* wall, which had been exposed down to its foundation on bedrock.

The excavation was started from 188.50 masl, and as expected the topmost two blocks, 2 and 4, consisted of remnants of the excavation dump, which had been removed from the area in 2007 (*Fig. 32*, a box diagram of the excavated blocks). The loose soil in this deposit was dark grayish brown (10YR 4/2) and contained some medium-sized rubble. Underneath this layer, Block 6, next to the *peribolos*, was a 5-cm deep, compact deposit of much lighter (10YR 6/4, light yellowish brown) soil. Underneath Block 6, Block 9 was another deposit that was found only next to the wall. It was somewhat darker (10YR 5/4), *c*. 20 thick and contained small and fist-sized stones.

To the south of Blocks 6 and 9, Block 15 was a 40-cm deep deposit, the surface of which was covered by rubble in which some of the stones measured up to 25 cm in diameter. The larger stones were found in the northern part of the block, which is closest to the *peribolos*. In between the stones and underneath them, the soil was dark grayish brown (10YR 4/2) and contained a large amount of pottery and animal bones. In the southernmost part of the block, the deposit had been cut into obviously in conjunction with the construction of the Hellenistic drain.

Block 26, excavated underneath Block 9 next to the *peribolos* wall of the Temple, consisted of light (10YR 5/4), yellowish brown soil in a compact, 8 cm deep deposit on bedrock. Some stones protruding from the foundation of the *peribolos* wall may be remnants of a collapsed drain of an earlier date than the one (Wall 48) which has been discussed above (*Fig. 33*). Block 32 to the south was of somewhat looser soil and contained small to fist-sized stones. It was of a dark color (10YR 5/4, yellowish brown), and somewhat disturbed as the southernmost part of Block 15. Excavation was continued in the middle part of the trench in Blocks 38 and 50 till bedrock was reached at 187.60 masl. The soil in both blocks was medium-compacted and yellowish brown (10YR 5/4) in color.

Depositional history (*Fig. 34*)

With the exception of the topmost Blocks 2 and 4, the pottery found in the trench was of Archaic or in some cases earlier date. Only in Block 15 could some sherds be dated to the fifth and possibly fourth century BC. The presence of extremely fragmented miniature pots was heavy in all blocks, but especially so in Blocks 26 and 32. Larger sherds were found in the topmost blocks, in Block 15, in the bottom of Block 32, and increasingly in Blocks 38 and 50. Evidence of burning in the form of charcoal was found in all blocks, whereas the condition of the animal bones varied from block to block but also within individual blocks.

[70] Wells *et al*. 2006–2007, nos. 103 and 109.
[71] The Argive Heraion: see Blegen 1939, 423 and fig. 11; Mycenae: Cook 1953, 64 and pl. 23; Asine: Penttinen 1996, 156 and fig. 13, no. 4.
[72] See for instance nos. 117–118 in Wells, Penttinen & Billot 2003, fig. 43.

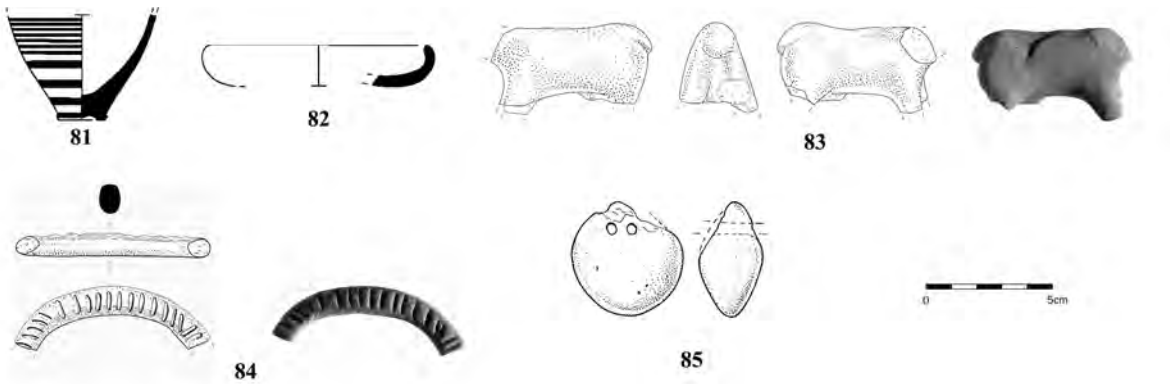

Fig. 32. Pottery and other artifacts from the excavation dump of 1894, cat. nos. **81**–**85**. Drawings by A. Hooton, photograph by C. Mauzy.

It can be safely assumed that most of the material deposited in the trench either originate inside the *peribolos* of the Temple of Poseidon or can be related to activities there in one way or another. The following reconstruction of the depositional events in the area is based on the assumption that excavations in the area in 1894 were conducted outside the *peribolos* wall before the work started inside of it. If so, the rubble found in the topmost part of Block 15 would seem to originate in the trench dug outside the wall, whereas Blocks 6 and 9 would be fill in the same trench, deposited in 1894 perhaps simultaneously with the deposit of materials from the interior of the *peribolos* in the large excavation dump that was removed from the area previously. The distribution pattern of the stones in Block 15 with the largest stones being closest to the *peribolos* points in that direction. However, as the deposit in the southernmost part of the block was disturbed when the Hellenistic drain was built in the early third century BC, the lower part of the block must have been the ground level at this time.

Further down, Block 26 obviously contains fill in the foundation trench for the Archaic *peribolos* wall of the Temple, cut into the deposits in Blocks 15 and 32. The top of Block 32 can therefore be interpreted as the ground level around 500 BC. The extreme fragmentation of the finds from the block certainly points in this direction. Larger sherds were found further down, some of which actually joined with sherds found in Blocks 38 and 50. The increasing presence of prehistoric material in the later block indicates that these are original deposits, which predate the building of the *peribolos*. In the following, finds from the trench will be discussed block by block.

Blocks 2 and 4

As stated above, the two topmost blocks are obviously remnants of the large excavation dump, which was removed from the area in the autumn of 2007. The pot-sherds were few, all in all nine from Block 2, and 34 from the larger Block 4. They seem to range in date from Prehistoric to Roman.

Fig. 33. The trench at the *peribolos* from the south. The Archaic *peribolos* wall of the Temple of Poseidon is visible in the background. Photograph by B. Wells.

The same deposits were very poor in animal remains. Only one small mammal bone was collected, which is probably modern, and two unidentified long bone fragments of medium-sized mammals, both calcined.

Blocks 6 and 9

Despite a slight difference in the soil composition both blocks are considered as fill in the trench dug along the *peribolos* wall

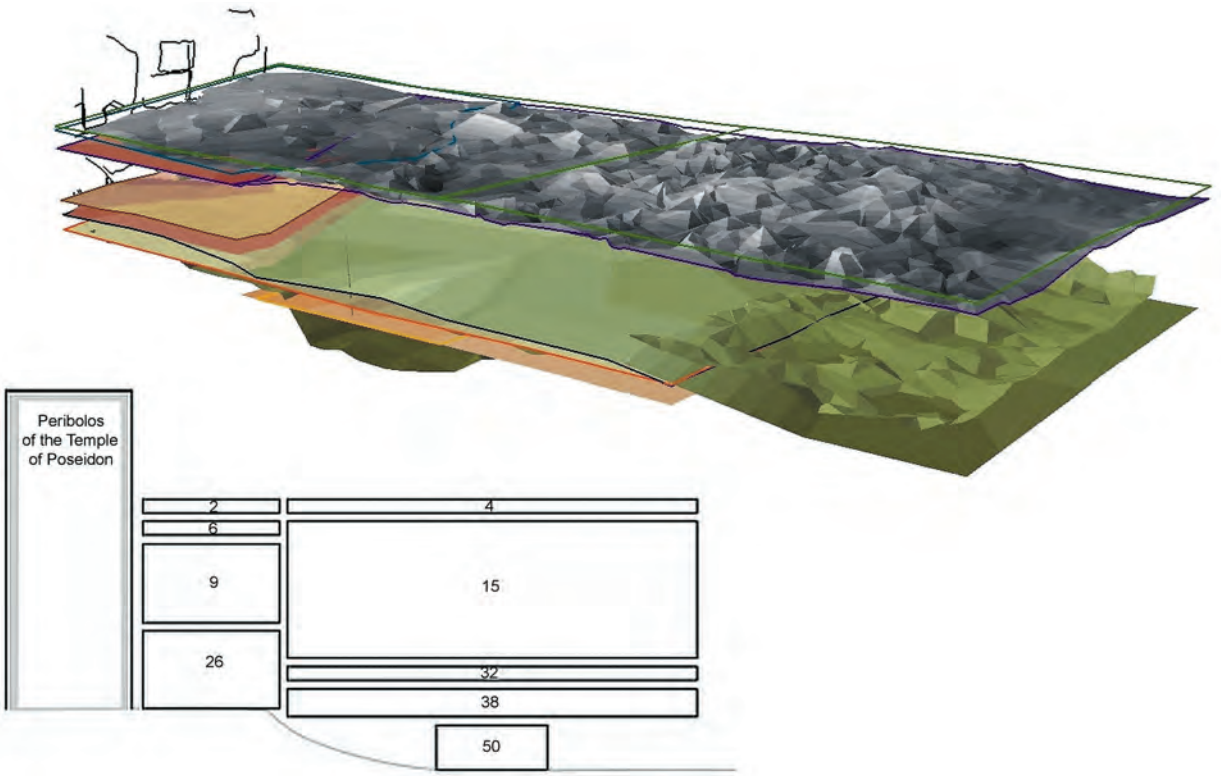

Fig. 34. Three-dimensional representation and a diagram (not to scale) of the blocks in the trench at the *peribolos* by E. Savini and J. Pakkanen.

of the Temple in 1894. The finds from the fill would thus seem to originate inside the *peribolos*. In Block 6, 12 fragments of plain ware pottery, eight fragments of cooking pots and 10 fine ware fragments were recovered, whereas Block 9 produced 69 fragments of plain ware, 69 of cooking ware and 36 fine ware fragments. Most of the sherds originated in normal-sized vessels, and many of them measured up to five cm in length. Representative sherds are catalogued below (*Fig. 35*).

86. (KEP 920, Block 9). Cup. Complete profile with the base missing. H. 5.1; D. of rim 9.0; Th. 0.4.
Pink (5YR 7/4) fabric with no visible inclusions. Fading black paint inside out.

87. (KEP 921, Block 9). Miniature krater. Fragment of slightly raised base. H. 1.2; D. 2.45; Th. 0.2.
Light gray (10YR 7/2) fabric. Traces of black paint.

88. (KEP 922, Block 9). Cup. Fragment of concave rim and carinated upper wall. H. 2.8; D. 14.0; Th. 0.3.
Reddish yellow (5YR 7/6), fine fabric. Mottled red to brown paint.

89. (KEP 923, Block 9). Miniature jug. Fragment of handle and spout. H. 2.5; D. of neck 1.3–1.6; Th. 0.2.
Pink (7.5YR 8/4), fine fabric. Traces of brownish paint on exterior.

The pottery found in Blocks 6 and 9 seems Archaic or earlier. The earliest find is undoubtedly no. **86**, which preserves an almost complete profile of a monochrome, Geometric cup of a late date, judging from the rim profile. No. **88** is possibly Attic due to its fabric and would seem to come from a Droop-cup or some related shape because of the concavity of the rim profile. It can certainly be dated to the late part of the sixth century BC.[73] Nos. **87** and **89** are miniatures, the latter being uncommon at the site, as it is a miniature of a closed shape.

The taxonomic variety in the animal bone assemblage is rather limited. Cattle, pig and ovicaprids are the only animals present (*Table 8*). The bones that have been assigned to the category of medium- and large-sized mammals obviously belong to these three taxa. The assemblage is very fragmented (*Table 9*). Sheep and goat seem to be represented by a wider variety of anatomical elements from the head and the limbs. The trunk is definitely underrepresented. Burning is minimal: only 6 of the 217 bone fragments are burned black and one more is calcined.

Block 15

The block is considered an ancient deposit and is thought to have been the ground level in the area when the Hellenistic

[73] *Agora* XII, 91–92, fig. 4 and pl. 19.

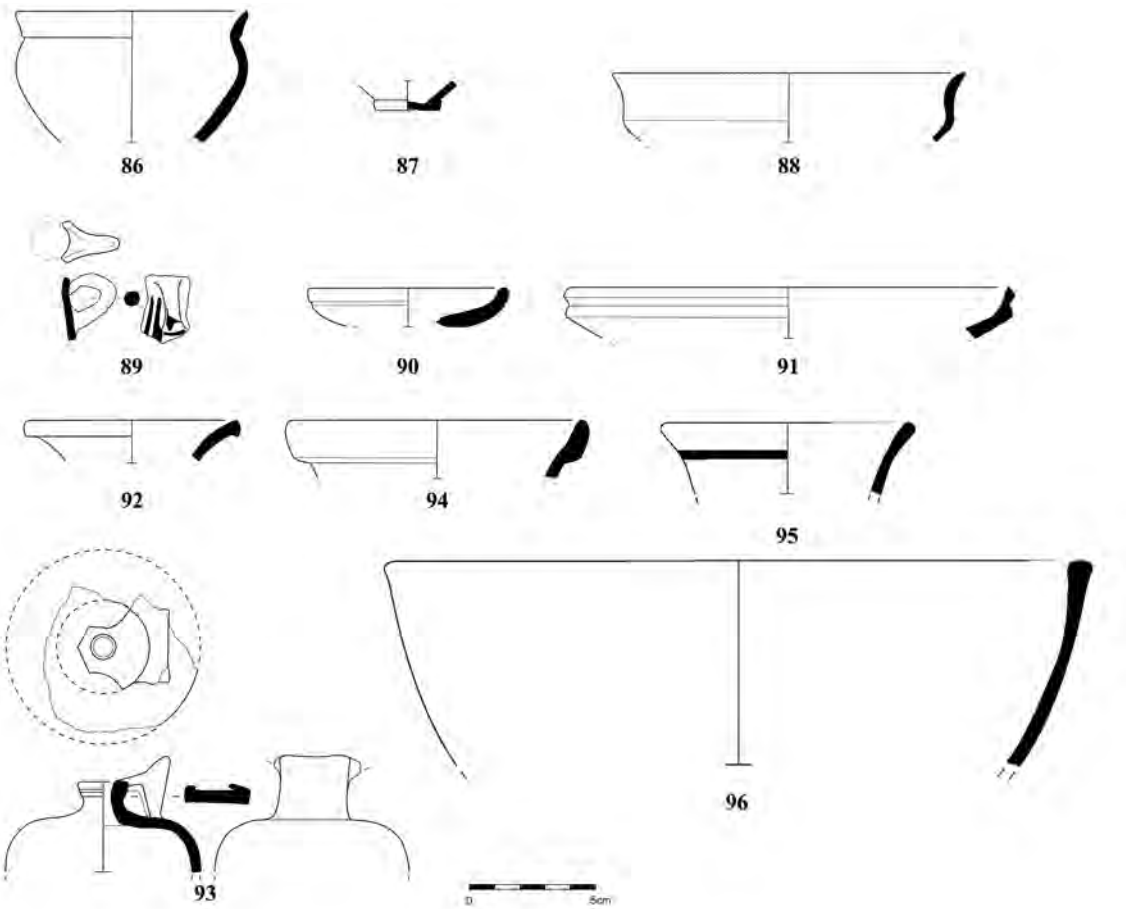

Fig. 35. Pottery from the trench at the *peribolos*, cat. nos. **86–96**. Drawings by A. Hooton.

drain was built to the south it, although its surface was disturbed in the 1894 excavations. It was rich in pottery: 419 fragments of plain ware pots, 112 cooking ware fragments, and 570 fine ware fragments were recovered all in all. In the fine ware category 208 fragments or 36.5% come from miniature vessels. A majority of the fragments are very small, less than 1 cm, and thus impossible to date. Some of the larger fragments seem datable to the fifth and possibly to the fourth century BC. However, only two more or less diagnostic sherds were recovered (*Fig. 35*).

90. (KEP 924). Phiale. Complete profile. H. 1.5; D. 8.0; Th. 0.4.
Pink (7.5YR 7/4), soft fabric. Traces of black paint on exterior, brown on the interior.

91. (KEP 925). Cup. Fragment of rim and carinated upper body.
H. 2.0; D. 18.0; Th. 0.4.
Light yellowish brown (10YR 6/4), micaceous fabric. No paint preserved.

The phiale, no. **90**, belongs to the standard repertoire of the Sanctuary, although no closer dating is possible. No. **91** would seem to come from a shallow cup or some other drinking vessel of the same type. The fabric as well as the rim profile are uncommon, which may qualify the vessel as an import.

The deposit was rich in animal remains. Among the 1100 bone fragments only 68 could be taxonomically identified with some accuracy (i.e. cattle, pig, sheep/goat). The rest of the fragments are too small to permit any identification beyond the simplest attribution of the animal's size. It appears that even though cattle and pigs are present the majority of the assemblage consists of bones from sheep and/or goat (*Table 10*). There are also a few remains of fish and a small mammal. The extreme fragmentation of the assemblage is evident in *Table 11*. 90, 57% of the non-identifiable bones (519) are smaller than 2 cm in length and among those most are smaller than 1 cm in length. Burning is quite conspicuous in this assemblage. Although calcined and charred bones are few (eight and seven respectively) a group of almost 400 fragments are burned grey/brown, which means that they were exposed to temperatures lower than the bones that have turned white or

Table 8. Blocks 6 and 9: taxonomic representation.

	Cattle	Pig	Sheep/ goats	Medium size mammals	Large size mammals
Metacarpal			1		
Pelvis			1		
Femur				1	
Metacarpal			2		
Long bones indet.				40	12
Mand. teeth	1		3		
Max. teeth	1	1	7		
Teeth indet.				15	1
Ribs				7	
Various				113	
Total	2	1	14	187	13

Table 9. Blocks 6 and 9: non-identifiable bones—size groups.

Fragment size	0–1 cm	1–2 cm	2–5 cm	5–10 cm
Number of bones	131	36	20	–

black.[74] All these bones originate from two contexts in Block 15. In one case (bag with MusID 2956) about 80% (348) of the bones within the sample are lightly burned to various degrees. In another (MusID 2955), the lightly burned bones are also present but in smaller numbers (30, or 8.3%). It is noteworthy that no other bone bag from Block 15 contained any lightly burned bones. If we accept the hypothesis that the 1894 excavation was conducted into deposits that originated from the temple area, the concentration of burned bones might represent a single episode of refuse removal from the inside of the *peribolos* for material different from the rest. Several of the bones in this assemblage bear cut marks. They are all found in two bone bags from Block 15 (MusID 2953, 2954). More specifically we have chop marks on four long bone fragments of large mammals: on the pelvis of cattle and on the proximal metatarsal, the proximal scapula and on the distal dorsal side of a metacarpal of an ovicaprid (*Figs. 36–37*). The aim was obviously to cut up the carcass in small pieces.

Block 26

The block has been interpreted as fill in the foundation trench for the Archaic *peribolos*, and thus deposited soon after the wall had been built, around 500 BC. In the recovered ceramic material, attention is drawn to an extremely large amount of miniature pottery. All in all 239 fine ware fragments were recovered from the deposit, and 183, or 76.5% of those could be derived from miniature vessels of different types. Besides the fine ware, 79 fragments of plain ware were found, and 25 fragments from cooking vessels, of which two were from miniatures. Among the fragments from normal-sized fine ware were five fragments from a jug or a flask with a yet unknown date (*Fig. 35*).

92. (KEP 926). Kalathos. Fragment of flaring, thickened lip. H. 1.7; D. 8.6; Th. 0.2.
Light brown (7.5YR 4/4), soft and worn fabric. Traces of black paint inside out.

93. (KEP 927). Jug. Fragment of shoulder, lip and raised handle. H. 4.7; D. of body max. 7.7; D. of lip 2.7; Th. 0.3.
Yellowish brown (10YR 5/6) fabric. Thick, black paint on exterior.

No. **92** is a flaring rim of a monochrome kalathos, yet another shape well at home in a context in the vicinity of a temple. Similar kalathoi have been attested earlier at Kalaureia,[75] and they are paralleled at other sites, such as Mycenae.[76] No. **92**, which preserves the lip and shoulder of a jug or a flask with a raised handle attached to the shoulder, is mysterious. Both the shape and the fabric seem alien, which possibly qualifies the vessel as an import.

Block 26 was rich in animal remains. Among the 987 bone fragments, 64 could be taxonomically identified with some accuracy. The assemblage is very similar to the previous one both in terms of taxonomic representation (*Table 12*) and fragmentation (*Table 13*). One difference is that fish and small mammals are missing. Another, perhaps significant difference is that in this assemblage we have several unerupted molars of new-born pigs. Burned bones are not as common (one calcined, 36 burned black and white, 18 burned brown) but most had been burned at high temperatures. Three of the bones in this assemblage bear cut marks. One is a proximal scapula and the other two are ribs, all from medium-sized mammals. The marks have probably been caused by chopping, aiming at cutting meat into small pieces.

Blocks 32, 38 and 50

The lowermost blocks in the trench are interpreted as original Archaic deposits. The top of Block 32 was likely the ground level when the *peribolos* was built around 500 BC. The extremely fragmented state of finds certainly is an indication of this. Further down in Block 32 and in Blocks 38 and 50 the deposits look more primary. Fragmented miniature pottery is present in all blocks but in decreasing numbers. In Block 32, 49% of 208 fine ware fragments are from miniatures. In Block 38, 31.8% of 85 fragments are from miniatures, and in Block 50 the share is 36.6% out of 71 fragments. Besides fine ware, 93 fragments of plain ware and 35 fragments of cooking ware were found in Block 32. Block 38 produced 84 fragments of plain ware and 75 of cooking ware, and Block 50, 74 plain ware

[74] For the relationship between temperature and color in burned bones see Shipman, Foster & Schooninger 1984.
[75] Wells, Penttinen & Billot 2003, 60 and fig. 36, no. 4; Wells *et al.* 2006–2007, 74 and fig. 42, no. 88.
[76] Cook 1953, 47 and fig. 21, B27.

Table 10. Block 15: taxonomic representation.

	Cattle	Pig	Sheep/ goats	Medium size mammals	Large size mammals	Fish	Small mammals
Humerus			3				
Radius			3				
Metacarpal			1				
Pelvis	1		1				
Tibia			2				
Ulna			1				
Metacarpal		1	3				
Metapodial indet.			1				
Phalanx II		1					
Phalanx III	1						
Long bones indet.				97	18		
Mandibular hinge			1				
Mand. teeth	2	11	21				
Max. teeth	2	1	11				
Teeth indet.				106	4		
Ribs				2			
Vertebrae					1		
Various				786	15	2	1
Total	6	14	48	991	38	2	1

Fig. 37. Cattle pelvis with chop marks from Block 15. Photograph by D. Mylona.

Fig 36. Large mammalian long bones with chop marks from Block 15. Photograph by D. Mylona.

Table 11. Block 15: non-identifiable bones—size groups.

Fragment size	0–1 cm	1–2 cm	2–5 cm	5–10 cm
Number of bones	325	194	39	15

fragments and 26 fragments of cooking ware. The increasing amount of sherds classified as cooking ware is due to the fact that there is an increasing presence of prehistoric material here. The coarse fabrics of prehistoric pottery are very similar to those of later cooking wares. Individual, undiagnostic fragments are therefore not easily dated (*Fig. 35*).

94. (KEP 928, Block 32). Cooking vessel. Fragment of flaring, thickened lip. H. 2.4; D. 12.0; Th. 0.3.
Very dark gray (5YR 4/1) fabric with mica and lime.

95. (KEP 929, Block 38). Kalathos? Fragment of flaring rim. H. 2.8; D. 10.0; Th. 0.4.
Reddish yellow (7.5YR 6/6) fabric with dark slip (possibly secondarily burned).
Painted band below lip.

96. (KEP 930, Block 38). Bowl? Three joining fragments of upper wall and thickened lip. H. 8.1; D. 28.0; Th. 0.45.
Coarse, reddish yellow (7.5YR 7/6) fabric with plentiful gold mica. On surface fading, reddish brown (2.5YR 4/4) burnish.

97. (KEP 931, MPo 1570, Block 50). Miniature lamp. Two joining pieces. Handle missing, otherwise complete.
L. 5.6; W. 4; H. 1.6; D. of wick-hole 2.3.
Soft, reddish yellow (5YR 6/6) fabric. Remains of thin, red (2.5YR 5/8) wash on nozzle, rim, inside the nozzle and in the bowl.
Curved sides, large filling-hole and flat base; side and rim merging, elongated nozzle with large wick-hole; slightly concave base, not clearly set off from side. Traces of soot around the wick-hole.

Table 12. Block 26: taxonomic representation.

	Cattle	Pig	Sheep/ goats	Medium size mammals	Large size mammals
Humerus			1		
Radius			2		
Pelvis					
Tibia			2		
Ulna			1		
Metapodial indet.	2		1		
Phalanx II			1		
Long bones indet.				147	8
Mandibular hinge			1		
Mandible		1			
Maxilla		1			
Mand. teeth	3	5	13		
Max. teeth	2	10	18	52	
Teeth indet.					3
Ribs				6	1
Vertebrae					
Various				414	1
Total	7	17	40	629	13

Table 13. Block 26: non-identifiable bones—size groups.

Fragment size	0–1 cm	1–2 cm	2–5 cm	5–10 cm
Number of bones	249	343	50	–

Much of the pottery from Blocks 32, 38 and 50 consisted of small fragments of miniature vessels of the same types as in the previous blocks. As the deposits seem to pre-date the *peribolos*, this would seem to indicate that miniatures were used in the area long before the Temple and its *peribolos* were built.[77] Among the sherds from normal-sized vessels, many were from hand-made pots, such as no. **94**. Although not closely identifiable, it is certainly a cooking pot of a pre-Classical date. The most diagnostic, prehistoric item is undoubtedly no. **96** (*Fig. 38*), which preserves three joining sherds from a large bowl with a thickened rim. The profile and the fabric qualify it as Aeginetan EH I.[78] The lone fine ware fragment no. **95** may come from a possibly Argive kalathos.[79]

The lamp no. **97** (*Fig. 39*) is of Broneer Type IV B,[80] and most likely a local product, datable to around 500 BC.[81] It has a slightly bent ridge from the side, and there is a series of rough concentric loops on the bottom, which according to Broneer appear when the lamp is cut from the wheel,[82] and there are wheel marks on the underside of the bottom. The traces of soot around the wick-hole indicate that the lamp, despite being a miniature, was used at least once.

The deposits in Blocks 32, 38 and 50 were also rich in animal remains. Among the 1726 bones and fragments that were recovered from these strata, 100 are identifiable. The rest are too fragmented to permit any identification beyond the animal size they belong to. Among the identifiable bones, cattle, pig, sheep and/or goat, dog and fish are represented. Ovicaprids dominate the assemblage. Remains of pigs are few and they consist of teeth. The largest mammal attested in Area H, cattle, is present but by only a few remains, mostly teeth. Interestingly, the dog is attested by a long bone (humerus) and some teeth (*Table 14*). Fragmentation of this assemblage is great. The vast majority of the bone fragments are 1–2 cm in length, very few are as large as 5 cm and none larger than that (*Table 15*). Burning is also attested in this assemblage and we observe two categories of burned bones: the ones that are black/white in color (70 bones) are found in all bone bags, showing a relatively even distribution (*Fig. 40*). There is a group (146 of 181 light brown bones) of lightly burned brown bones (*Fig. 41*), similar to the ones discussed earlier in the context of Block 15, which were found concentrated in one spot (Block 38, MusID 2986). Cut marks are also present in this assemblage. They are similar to the ones discussed earlier.

Discussion

The deposits in the trench at the *peribolos* have an unusually high number of finds unlike any other deposit within Area H, even in trenches close to the one by the *peribolos*. The de-

[77] The use of miniatures in Greek sanctuaries seems most common in the period between the mid-sixth and mid-fifth century BC: see *Kalapodi* I, 228–229. Cf. Hammond 1998.
[78] Pers. comm. Michael Lindblom.
[79] For kalathoi decorated with horizontal bands, see Waldstein 1905, 124–125 and figs. 45–48.
[80] *Isthmia* III, pls. 2, 15, no. 59.
[81] Karivieri 2008, fig. 85, no. 320, see especially the profile.
[82] *Isthmia* III, 27.

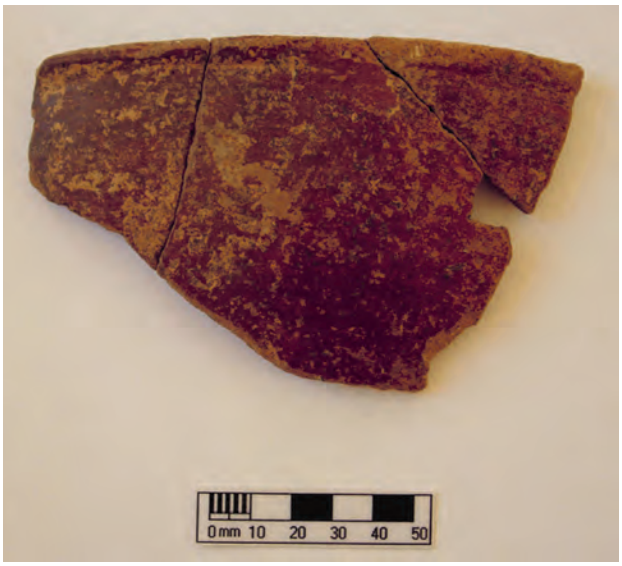

Fig. 38. Three joining rim fragments from an EH I bowl with thickened rim, cat. no. **96**. Photograph by B. Wells.

tailed examination of the finds, grouped according to the stratigraphical units described above, show certain important characteristics.

The find assemblages appear quite uniform throughout the various blocks excavated in the trench. There is no distinct differentiation between the lowermost deposits, which are considered primary and the disturbed deposits above them. It appears that they all came from the same place, perhaps an accumulation of densely deposited animal remains and miniature pottery, into which the foundation trench for the *peribolos* wall was cut around 500 BC. Some of the material was certainly re-deposited at this point of time. In 1894 an excavation trench was cut through the same deposit and the material from there was possibly re-deposited once again in the same area.

The animal remains from the trench are extremely fragmented. Comparing the fragmentation pattern of the primarily deposited Archaic material (*Table 15*) and the rest (*Tables 9*, *11*, *13*) it becomes obvious that the fragmentation is not the result of the 1894 excavation and the resulting redeposition of the bones, but actually one of the original features of the assemblage. It is apparently related to the use of the animals in or near the Temple's *peribolos* and the refuse disposal practices followed in the Archaic period. The restricted taxonomic variety also appears to be related to the initial use of the animals in this area. An interesting characteristic of this assemblage is the anatomical representation of the bones. The extreme fragmentation makes the accurate identification of the bones problematic. However, if we arrange them in broad categories, such as cranial bones, bones from the extremities and trunk bones (*Table 16*), we are able to observe a marked under-representation of certain body parts. Vertebrae and ribs, the bones that represent the trunk of the carcass, are conspicuously absent. So are the cranial bones with the exception of the jaws. This is another characteristic that is perhaps related to the initial processes that produced the bone assemblage.

The presence and characteristics of the cut marks indicate, that the people eating the meat wanted to divide the animals into small pieces. The extant cut marks are not many, but this might be due to the fragmentation of the assemblage, something that may have disguised the cut marks. As a result, the extent of this practice cannot be calculated.

The burning of the bones presents an interesting differentiation. Here we observe the scattered presence of the calcined and heavily burned bones, which are white, black, white/black/gray in color. This type of burned bones has been observed not only in the various deposits of the *peribolos* trench or of the Area H, but also in several spots around the Sanctuary, especially in EIA and Archaic deposits.[83] The difference between the material from the *peribolos* trench and from elsewhere lies in the size of the fragments. Here the burned bones are up to 5 cm long (*Fig. 40*) while in all other places they are much smaller (a few mm in length). It is possible that the heavily burned bones in the trench originate from animal sacrifice within the *peribolos* of the Temple. The bones may then have been scattered, and ended up on the oth-

[83] Mylona in Wells, Penttinen & Mylona forthcoming.

Fig. 39. Miniature lamp, cat. no. **97.** Photograph by C. Mauzy.

Table14. Blocks 32, 38 and 50: taxonomic representation.

	Cattle	Pig	Sheep/ goats	Dog	Medium size mammals	Large size mammals	Fish
Scapula			1				
Humerus			4	1			
Radius			3				
Metacarpal			2				
Pelvis			3				
Tibia			7				
Matatarsal			4				
Metapodial indet.			3				
Long bones indet.					295	7	
Mandibular hinge			1				
Mandible			1				
Mand. teeth	4	9	36		1		
Max. teeth	3	2	13	3			
Teeth indet.					174	3	
Ribs					8	5	
Vertebrae					1		
Various					1122		1
Total	7	11	77	4	1611	15	1

Table 15. Blocks 32, 38 and 50: non-identifiable bones—size groups.

Fragment size	0–1 cm	1–2 cm	2–5 cm	5–10 cm
Number of bones	467	1049	86	–

er side of the wall when the temple area was cleaned from time to time. The minuscule calcined fragments found elsewhere in the Sanctuary may have been reworked, trampled, burned bones of similar origin, which might have been spread about by various human activities such as walking, moving soil, building, leveling, etc.

The second type of burned bones, those burned lightly, appears to be of a different origin. These are not scattered. We observe concentrations in the primary deposits, but also in the disturbed ones. The light brown color of the bones is the result of exposure to less heat than the black/white ones. We can assume that bones burned in this fashion (refuse disposal? insufficient burning on the altar?) had been disposed of outside the *peribolos* wall in distinct episodes which created the observed accumulations.

The observations made on the distribution of the animal remains are for the most part also valid for the pottery assemblage. Small fragments of miniature pottery were found in all deposits, even though their amount varies in relation to the amount of fragments from normal-sized vessels from block to block, as we have seen. The fragmentation is therefore hardly a result of later re-deposition, but must be understood in the context of the original use of the pots. If they, as we assume, all originate from activities in the temple area both before and after the building of the *peribolos*, then the smashing of miniature pots must have been a regular activity there. It is, of course, impossible to calculate the number of individual pots, but given the small size of the excavated trench, we can safely conclude that they were indeed many. The shapes such as kotylai and kraters, which can be connected with drinking or serving of wine, dominate. Also present are miniatures of closed shapes as amphoras and jugs as well as those of cooking vessels.

Elsewhere in the Sanctuary, miniature pots have been found smashed in the floors of the dining rooms of Building D, and in the general area of the Archaic altar, found to the west of the same building.[84] More or less whole miniature vessels have been found in disturbed contexts elsewhere in Area H, and for instance from the Late Hellenistic and Early Roman contexts, excavated in Area I in 2007 and 2008.[85] Miniature lamps have been found to the west of Building D and now in Area H, and a miniature loom-weight also to the west of Building D.[86]

The different find contexts of the miniature vessels and their different state of preservation can relate to their actual use. A large majority of them have been found smashed into small pieces, acts that may have occurred as a substitute for smashing real, usable vessels. The whole or almost whole vessels as well as the lamps and the miniature loom-weight can be considered as votive gifts. The miniatures, found in

[84] Wells, Penttinen & Billot 2003, 76–77; Wells *et al*. 2006–2007, 71 and fig. 41, nos. 69 and 72.
[85] The publication of the excavations in Area I is forthcoming.
[86] Karivieri 2006–2007, no. 320, and pers. comm; Wells *et al*. 2006–2007, 79 and fig. 43, no. 106.

Fig. 40. Bones burned light brown from Block 38. Photograph by D. Mylona.

Fig. 41. Calcined bones from Block 38. Photograph by D. Mylona.

Table 16. Representation of body parts in various contexts.

	Blocks 6 and 9		Block 15		Block 26		Blocks 32, 38 and 50	
	NBF	%	NBF	%	NBF	%	NBF	%
Limbs	57	27.7	134	12.1	165	21.9	330	19.2
Head	29	14.1	159	14.4	105	13.9	250	14.6
Trunk	7	3.3	3	0.3	7	0.9	14	0.8
Various	113	54.9	809	73.2	475	63.3	1123	65.4
Total	206	100	1105	100	752	100	1717	100

*NBF: Number of Bone Fragments.

much later, domestic contexts, were perhaps found somewhere in the Sanctuary and kept as memorabilia or toys. Intentional depositions of large amounts of whole miniature vessels, which seem common in sanctuaries especially in southern Italy,[87] have not so far been found at Kalaureia.

CONCLUSIONS (*AP*, *PP*)

The archaeological record has a tendency to highlight dramatic events, such as changes in a landscape or destructions of man-made structures, at the cost of periods of normalcy when life goes on without disruption. Clearly distinguishable deposits are created when something is being constructed, as ditches have to be dug for wall foundations and material may be brought in and put down to create a level surface. When a building or a structure is accidentally or intentionally destroyed, the artifacts and other remains preserved in the debris can provide information on the very moment in history when the event took place. In the best of cases the material record can then be compared with information preserved in the written record, which often tends in a similar way to highlight change rather than continuity.

The excavations conducted in Area H in the Sanctuary of Poseidon at Kalaureia witness a number of such short events in the history of the site. One example is the Archaic column drums, which were found in a context datable to the late sixth century BC (see separate article by Jari Pakkanen in this volume). They obviously constitute parts of a votive column, perhaps once crowned or intended to be crowned by a sculpture or a tripod. Such votive columns are not uncommon in major sanctuaries, and they can be seen as representing an intention from the donor's side to manifest status or prestige. The curious fact about the Kalaureia column is that it was never erected. The unfinished drums were instead deposited on a rock shelf and never touched again although they must have been visible both in Antiquity and later. Explanation for such a failed investment may be sought in the historical situation around the Saronic Gulf in the Late Archaic period.

[87] Horsnæs 2001, 79–82, and n. 29.

If the provenience of identifiable artifacts provides evidence of who visited the Sanctuary and who had influence over its affairs, then the material found in the Archaic deposits at Kalaureia so far seems to anchor it very firmly in the Peloponnesian sphere. Corinthian and Argive artifacts loom large among the more obscure, locally or regionally produced items. Athens on the other hand seems to have played no role after the end of the Early Iron Age.[88] Attic pottery is practically non-existent before the very end of the sixth century BC, when all of a sudden it becomes very common. This was also a period of major restructuring of the Sanctuary. The Temple of Poseidon and the *peribolos* around it were built, and demarcation walls in similar masonry were also constructed in the western part of the Sanctuary, as we have seen in previous excavations at the site. As an attempt to erect a major monument, a tall votive column, is given up at the same time, it would seem to mean that the responsible body was no longer interested or able to fulfill the task.

It is tempting to see Athenian influence in the re-structuring of the Sanctuary as this is the time when Athens first started looking towards the south and the Aegean (Thuc. 1.93, 3–7). The nearest sea on the Athenian horizon was the Saronic Gulf, which was even visually dominated by the land mass of Aegina, the dominant sea-power of the period (Hdt. 7.144). Athens' carefully cultivated relationship with Troizen (Hdt. 8.41), which was proclaimed as the very birthplace of its founder, Theseus, can perhaps be seen as an attempt to gain influence in the Aeginetan hinterland. A major investment in a sanctuary to Poseidon on nearby Kalaureia would fit into the same strategy. If this is the case, the votive column that was possibly intended to increase the status of one of Athens' rivals in the region would not have been viable any longer.

Another period of major change in the lay-out of the Sanctuary at Kalaureia was the late fourth and early third centuries BC, coinciding with Kalaureia's independence from Troizen. In the western part of the Sanctuary, Buildings C and D were erected amidst an extension of the sacred area by means of extensive terracing. In the now excavated area a monumental drain was constructed next to the existing Archaic *peribolos* of the Temple of Poseidon. Despite its utilitarian character, the construction of the drain can be seen as a major investment of time and labor in re-structuring the most central part of the Sanctuary. An existing slope to the southeast of the Temple was cut into, and huge amounts of leveling fill was brought into areas where the ground needed to be raised.

An event that coincides in time with the construction of the Hellenistic drain is the dedication of a twin statue of Queen Arsinoe Philadelphos and King Ptolemaios of Egypt to Poseidon by the city of Arsinoe on the peninsula of Methana (see separate article by Jenny Wallensten and Jari Pakkanen in this volume). The inscribed blocks of the statue base were found to the southwest of the structures discussed in this report but there is a very large lime-stone block within them, which may have been the base for the inscription. This could indicate that the construction of the drain and the dedication of the statues are not only related in time but had a common purpose. If this is the case, we have a second instance in which a neighboring state makes use of the Sanctuary in a manifestation of its own status.

The events described above are of the type that normally looms large in the archaeological record, as stated initially in this concluding chapter. They are spectacular yet rare events, and isolated in time in regard to the longevity of the Sanctuary. So how does the archaeological record reflect the periods of normalcy, the centuries in which nothing was built and nothing was destroyed? The answer may be sought in the not so clearly distinguishable deposits of refuse, which accumulated slowly as a result of different types of activities that took place in the Sanctuary. The artifacts and organic remains found in this type of deposits are often fragmented almost beyond identification, as they may have been moved around. Some of them may have found their way to the surface, others were found in the dumps of the 1894 excavations, yet they may reflect the everyday life of the Sanctuary in a more accurate way than the above described, more spectacular finds.

Pottery and other artifacts found in the deposits of the types described above sometimes highlight periods that are not attested in stratified deposits. Rather abundant Late Helladic pottery, a couple of figurines and the bronze figurine of Reshef type certainly substantiate the evidence for settlement and perhaps a sanctuary at the site during the Late Bronze Age (see separate article by Berit Wells in this volume). A large fragment from a bowl dated to the very beginning of the Aegean Bronze Age (no. **96**) may constitute evidence for activity at Kalaureia even a couple of thousand years earlier.

Material from the Early Iron Age was found in a stratified deposit in one small location in Area H. However, the abundant pottery from the same period found in the eroded and disturbed deposits as well as in the dump of the 1894 excavations would seem to suggest some volume for the settlement at the site in the eighth century BC.

A case in point is certainly the hundreds of fragments of miniature vessels found in the trench dug against the Archaic *peribolos* of the Temple of Poseidon. A majority of them were undoubtedly broken and deposited in accordance with religious and ideological considerations, whereas others were kept whole and found their way into later deposits. The use of miniature vessels in sanctuaries may be limited to the Archaic and Classical periods. Yet the sheer amount of the fragments would argue for a high use intensity. Miniature vessels have almost exclusively been assigned religious roles as vo-

[88] Giant amphoras with Attic provenience found in the western part of the Sanctuary in the excavations of 2004 and 2005 indicate that this was not the case during the eighth century BC: see Wells in Wells *et al*. 2006–2007, 68–71.

tive offerings, and their presence in contexts where they are discovered has become almost a proof of the cultic nature of the space. This need not be the case necessarily, however. Bringing miniatures along may simply have become one of the socially accepted norms of behavior within the Sanctuary, signaling the nature of a person's visit to it as being of a religious character. A miniature vessel or, for instance, a miniature lamp did not necessarily manifest theologically defined principles. The vessel could have functioned simply as a kind of an entrance ticket to the Sanctuary.

The animal bones and sea-shells found in the same deposits illuminate another aspect in the life of the Sanctuary, namely that of sacrifice and feasting, a practice that obviously did not change much over the centuries. The two could have been closely connected with each other or indeed parts of the same ritual act, but they could also have occurred separately. All dining and cooking in a sanctuary does not need to be seen as ritual. The presence of pottery for eating and drinking as well as that of organic food remains suggest dining or feasting at a location, of course, but the location in which remains of this type are found can ascribe different meanings to them. The structure that was destroyed when the Hellenistic drain was constructed has been interpreted above as residential because of the domestic character of the recovered assemblage. Yet, everyday pottery could have gained a new function when picked up and brought to a sanctuary to be sacrificed as a votive offering. We are talking about the "sacralization" of items and spaces, something which can be very difficult to discern on the basis of material remains alone.[89] It can be observed through other changes within the same context.

Therefore, it is intriguing to note that at Kalaureia a change over time is noticeable in the pottery found both inside and outside of its original context. Sherds datable to the Early Iron Age and the Archaic period can often be assigned to shapes that were not purely domestic. Besides the miniature vessels, over-sized kraters and perhaps aryballoi and pyxides are such shapes. The pottery from later periods is not different from pottery found in any domestic context. This certainly could reflect a change in the use of the Sanctuary or in how the divinities present there were conceived. It could also reveal that activities which were regarded previously as improper within the Sanctuary gradually became accepted. An increasing demand for catering to the needs of the visitors either for commercial or domestic purposes may, for instance, have been a natural consequence of the expansion of the Sanctuary in the Hellenistic period.

Among other objects, few are of a character that would single them out as cult objects *per se*, such as figurines. Yet, even domestic objects like loom-weights can gain new meaning in this context, as can the domestic pottery. Also personal ornaments, such as rings, as well as weapons and fishnet sinkers, which obviously are remains of whole fish-nets being deposited in the Sanctuary,[90] can be defined here as votives or gifts to deities following, for example, W.H.D. Rouse's very broad definition, "Whatever is given of freewill to a being conceived as superhuman is to be speak strictly of a votive offering. The motive is simple, but not always the same: the occasion is accidental, or, if it be determined, the gift is not compulsory."[91]

The broadness of this definition finally brings us to briefly reconsider the nature of Greek religion as seen through the material remains recovered in the excavations in Area H. Rouse's definition actually reflects the complex and all-encompassing nature of Greek religion, in which sacred and profane are not always easy to separate from one another. Similarly, the discrete and differentiated categories of Greek religion, like communal and private religion, official and domestic cults, were often fundamentally intermingled, so much so that it is sometimes impossible to separate one from the other on the basis of the archaeological material. These categories may be of initial help in the process of understanding the archaeological record, but our approach here is to not regard them as rigid, inflexible entities that the material must match, but rather as loose generalizations which can give guidelines but are not absolute.

Studying a sanctuary site like Kalaureia provides an opportunity to review, revise and perhaps even revoke these categories. In terms of interpreting space, we can gain new insights into the use of the *temenos*. Following the changes in its layout we can start considering political, cultural and possibly even ideological implications behind the changes and how they may have been reflected in the behavior of the people who visited or lived in or nearby the Sanctuary. Following this route rather than directly applying the model, which the existing categories of Greek religion provide us, may prove more fruitful if we wish to acquire new insights into the nature of Greek religion in general.

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[89] See, e.g., Pakkanen 2000–2001, 80.

[90] *A.P.* 6.23. For further references to fishing tools dedicated to Poseidon, see Mylona 2008, Appendix 1.

[91] Rouse 1902, 1; already earlier: L. Reisch 1890; cf. *OCD* 1996, *s.v.* votive offering (I. Malkin). For the ancient Greek terminology for votives, see, e.g., van Straten 1992, 248, 252.

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APPENDIX: THE SEA-SHELLS FROM THE EXCAVATIONS IN AREA H IN THE SANCTUARY OF POSEIDON AT KALAUREIA IN 2007 AND 2008

BY

TATIANA THEODOROPOULOU

INTRODUCTION

The molluscan material retrieved from Area H in the Sanctuary of Poseidon at Kalaureia (Poros) consisted of 534 marine shells coming from all excavated trenches in 2007 and 2008.[1] The stratigraphy in Area H follows the already familiar pattern from the excavations conducted in other parts of the Sanctuary, covering a wide timespan of use of the site (*Fig. 1*).[2] In the following, remains from the general Area H and the trench excavated against the Archaic *peribolos* of the Temple to Poseidon are treated separately, as the latter produced a significantly higher number of molluscs.

Methods of recovery

Following the general sampling strategies applied in the Kalaureia excavations, both hand-collection (HC) during excavation and water-flotation (WF) was undertaken in Area H. One fifth of the shell material was recovered thanks to the latter method (108 shells). Water flotation usually completes the information given by hand-collected material but rarely increases the MNI (Minimum Numbers of Individuals): only 1 out of 108 shell fragments may be assigned to a mollusc individual, in contrast to the hand-collected material, in which 35% of all finds could be assigned to whole or sub-whole individuals. On the other hand, water-flotated shells can give important information on fragmentation rates and fracturing patterns.

Study methods

Once recovered, the shell material was studied in the Poros Museum. Shells were identified using several identification guides.[3] The quantification of faunal remains is based on counts of the Number of Identifiable Specimens (NISP) and Minimum Numbers of Individuals (MNI). Both these counts are used in the present study.[4] The information on the malacological material was recorded in a database. A simple statistical analysis facilitated the analysis of the environmental and human parameters involved in the formation of this assemblage.[5]

Preservation of the material

Most of the molluscs seem to have been collected fresh from the sea, as indicated by the condition of the shell's surface (*Fig. 2*). On the contrary, 3/4 of the thorny oysters recovered from Area H and all the thorny oysters from the *peribolos* are either water worn or fossil (*Fig. 2*).[6] It is possible that these shells were collected dead on the beach or in fossil-bearing areas, thus implying that thorny oysters were most plausibly exploited for their shell rather than for food (see below).

Fragmentation is high, as indicated by the number of intact shells, accounting for less than 30% of the material. Fragmentation patterns may reveal specific human actions and/or post-depositional processes that will be discussed later.

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[1] This is a preliminary report on the molluscan material from Area H, as excavation is still ongoing in this part of the Sanctuary.

[2] For more information, see Penttinen & Wells *et al*., this volume.

[3] D'Angelo & Garguillo 1978; Delamotte & Vardala-Theodorou 1994; Fischer, Bauchot & Schneider 1987.

[4] Although MNI reflects better the original numbers of molluscs involved and will be preferred in environmental reconstructions, NISP values may also give important factual information on intentional fracturation and natural post-depositional patterns.

[5] For details, see Reitz & Wing 1999, 191–202.

[6] Mrs. Helga Kanellakis, curator of the Poros Shell Museum, reports the presence on Kalaureia of a plateau full of marine silts, fossil shells of different species and shell-bearing calcareous blocks (personal communication). Fossil shells from archaeological sites are not uncommon (for instance, Reese 1984, 197; *idem* 1990, 185; *idem* 1998, 279; Theodoropoulou 2007, 486–498).

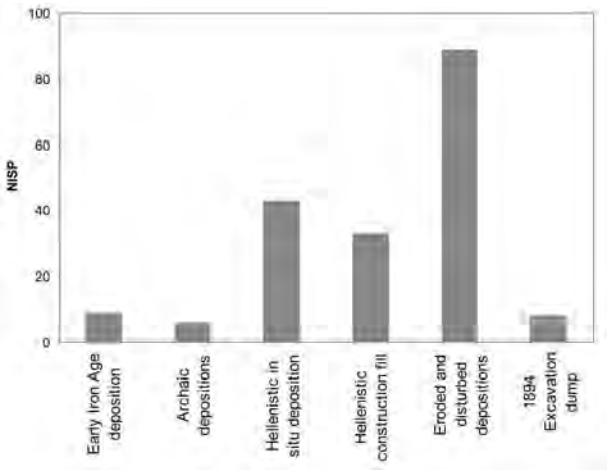

Fig. 1. Shell remains from different deposits in Area H (NISP).

THE EXPLOITATION OF MOLLUSCS THROUGH TIME

Main species, habitats exploited and procurement methods

The species list is relatively short, consisting of 15 families, well reported in the Saronic Gulf (*Table 1a*).[7] Limpets (Patellidae), top shells (Trochidae) and horn shells (Cerithiidae) form the majority of the molluscan material (*Fig. 2*).[8] Other species, both gastropods and bivalves are present.

Species identification goes hand in hand with the marine habitats exploited.[9] The environmental information is quite consistent through time, revealing interesting patterns of shore exploitation (*Fig. 3a–b*). Throughout the time span of use of this area, the majority of the shells were collected in the upper levels of rocky shores, at the low-water mark (*mediolittoral*), occasionally immersed in the water (*medio-/infralittoral*). These molluscs are fixed on hard substrates, usually in colonies, and can easily be spotted and detached from the rock with a minimal toolkit (by hand when the animal is in the water, or with a sharp instrument from the dry rock, a knife or even a stick picked up from the beach). The collection of molluscs in deeper waters (*infra-/circalittoral*) with rocky substrates, such as murex shells and Noah's arks, is also attested. Shell fishing in Posidonia fields, which grow underwater between the surface and a maximum depth of some 40 metres, is attested in Archaic times, and accounts for the collection of the pen shell (*Pinna nobilis*), although the sample for this period is rather limited. Occasional collection of cockles and carpet shells in sandy–sandy/muddy substrates might also be inferred for the Hellenistic horizon and suggests a punctual collection in different shores, probably near a little stream, not necessarily far from the Sanctuary.

Spatial and chronological analysis

The overall impression from the shell material recovered from Area H seems to match the general archaeological image put forward by the excavators. As suggested by A. Penttinen, most of the archaeological material was found in levelling fills or secondarily deposited.[10] A defining event was the construction of a monumental drain in the area in the early Hellenistic times. Other activities which have had an impact are the continuous dumping of materials from the inside of the Archaic *peribolos* around the Temple of Poseidon. *Fig. 1* shows the general distribution of shells through time, confirming the above suggestion: a significant assemblage comes from the Hellenistic period and construction fills of the same time, yet most of the material seems to have been deposited during consecutive episodes of erosion.

Mollusc uses

In a second step the shell material was further processed in order to put forward possible concentrations and uses of molluscs in different zones of Area H (*Table 1b*).

The Early Iron Age samples (*Table 1a–b*) consist essentially of a few edible top shells. A slightly different profile is outlined for the Archaic samples, comprising a wider variety of edible molluscs, yet represented by a single shell, such as ark, murex, horn shell and carpet shell. Of interest is a pen shell valve, which was given a triangular shape (*Fig. 2h*). Although this iso-

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[7] Delamotte & Vardala-Theodorou 1994 (see distribution list for each species).

[8] Reese 2000, 622.

[9] The *supralittoral zone* is the area above the high tide that is regularly splashed (in Greek waters only tides of 10–20 cm are observed), but not submerged by sea water. Seawater penetrates these elevated areas only during storms with high waves. The *mediolittoral zone* undergoes periods of emergence and submergence due to tidal effects, swell, wave action and other sea movements. The upper sub-zone in the Mediterranean coincides with the highest level of submergence by waves so that the species undergo extended periods of emersion which may result in desiccation during summer. The lower sub-zone is submerged and exposed regularly by waves and species rarely have to endure prolonged emersion. The neritic zone, divided into *infralittoral* and *circalittoral zones*, is the part of the ocean extending from the low-tide mark to the edge of the *continental shelf*, with a relatively shallow depth extending to about 100 meters. The infralittoral zone has generally well-oxygenated water, low water pressure, and relatively stable temperature and *salinity levels*. These, combined with presence of light and the resulting photosynthetic life, make the infralittoral zone the location of the majority of sea life. The circalittoral zone is the lower limit of the continental shelf, where light penetrates with difficulty.

[10] Penttinen & Wells *et al.*, this volume.

Table 1a. Shell remains in Area H.

Species identification	Common name	EIA	Arch.	Hell. (*situ*)	Hell. (fill)	Erod.	Dump	NISP	MNI
Patella caerulea (Linnaeus 1758)	Common limpet			13	5	12	5	35	25
Cerithium vulgatum (Bruguière 1792)	Horn shell		1	4	5	19	1	30	23
Trochidae	Topshell	10	1	1	6	5		23	8
Patella sp.	Limpet			12	7			19	2
Spondylus gaederopus (L. 1758)	Thorny oyster			2	1	14		17	13
Monodonta turbinata (Born 1780)	Topshell					11	1	12	6
Arca noae (L. 1758)	Noah's ark		1	1	1	8		11	5
Hexaplex trunculus (L. 1758)	Purple dye murex		1	1	2	6		10	7
Muricidae	Murex			3		1		4	2
Conus mediterraneus (Hwass/Bruguière 1792)	Cone					3		3	3
Pinna nobilis (L. 1758)	Penshell		1			1		2	2
Bolinus brandaris (L. 1758)	Purple-dye murex			1		1		2	2
Glycymeris sp. (L. 1758)	Bittersweet					2		2	2
Tonna galea (L. 1758)	Tun shell		1					1	1
Tapes decussates (L. 1758)	Carpet shell	1						1	1
Patella ulyssiponensis (L. 1758)	Rough limpet						1	1	1
Patella rustica (L. 1758)	Rustic limpet					1		1	1
Corallium rubrum (L. 1758)	Coral					1		1	1
Cerastoderma glaucum (Poiret 1789)	Olive green cockle					1		1	1
Chama gryphoides (L. 1758)			1					1	1
Acanthocardia tuberculata (L. 1758)	Tuberculate cockle			1				1	1
Acanthocardia sp. (L. 1758)	Cockle			1				1	1
Total		10	6	41	28	86	8	179	109

Table 1b. Shell distribution in Area H by period.

Period	H001	H002	H003	H004	H005	H006	H007	Total NISP
Early Iron Age deposition		9						10
Archaic depositions	4					2		6
Hellenistic *in situ* deposition					42			41
Hellenistic construction fill	22	3			3			28
Eroded/disturbed depositions	6	12	6		56	3	3	86
1894 Excavation dump				6	2			8
Total NISP	32	24	6	6	103	5	3	179

lated specimen may be considered as a remnant of food, its worked nacre indicates another use, possibly as an inlay.[11]

Moving to the Hellenistic period, one might describe the shell assemblage as food-oriented: limpets, top shells, murex and Noah's arks, although it is rather difficult to indicate the contexts of this consumption. However, it seems that the use of molluscs was not limited to nutritional purposes, as water-worn/fossil valves of thorny oyster as well as a big specimen of tun shell indicate. Their presence might provide evidence for the use of shells as tools or recipients of some kind.[12] Personal observations of the use of tun shell in modern times on Poros and in the Methana peninsula indicate that this round-shaped shell might have been used either for decoration or as a vase, to transport or store liquids.

Uses other than consumption might also be suggested for a number of shells from the eroded and disturbed samples, although their context cannot be further defined. Three cone shells and 14 *Spondylus* fossil valves need to be interpreted in terms of their functional or decorative purpose. Cone shells without perforations, such as those recovered from area H, cannot have served as pendants or beads for necklaces. Other uses are possible, such as spinning tops or decorative elements (on clothes, statues, walls).[13] More precisely, as far as fossil spiny oysters are concerned, their use as tools, such as spools or polishers,[14] fishing weights,[15] or lamps[16] seems possible. Some of

[11] Karali 1999, 40.

[12] D.S. Reese, in his review of Cassid lips and Helmet shells from Near Eastern and Mediterranean graves and sanctuaries (1989), suggests a decorative or ornamental use for complete Helmet shells, molluscs similar to the barrel shell's shape and morphology. See also Becker 1996, 13.

[13] Reese 1983, 353–357. Although these examples come mainly from prehistoric sites, the use of cone shells in later periods cannot be ruled out, as shells have always inspired possible uses, namely in ornamental contexts. For examples with and without perforations from sanctuary contexts, see also Amandry 1984, 378–380; Reese 1990, 186–187; *idem* 2000, 638.

[14] Becker 1996, 13; Karali 1999, 19–21; Theodoropoulou 2007, 523–530.

[15] Allen 1986, 67.

[16] Karali 1999, 21.

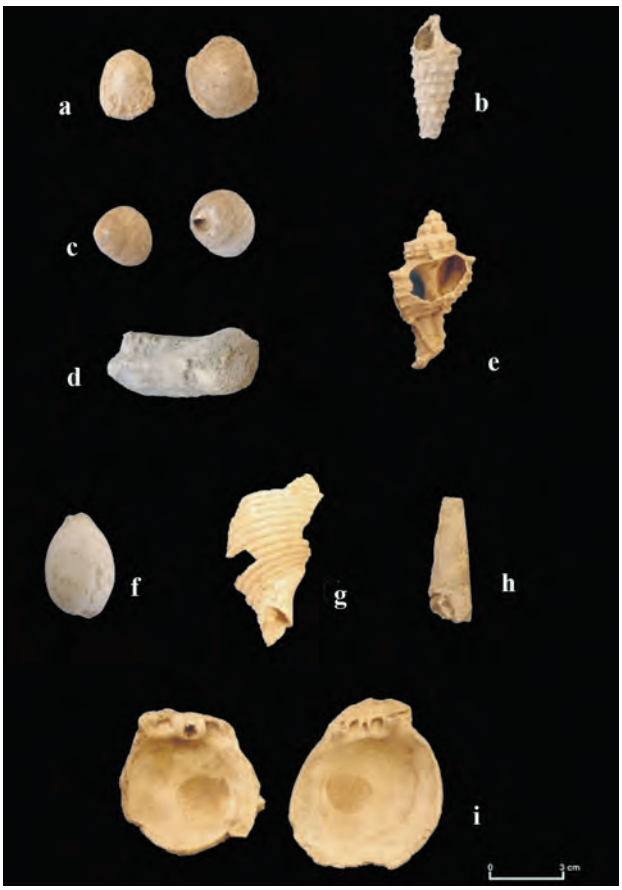

Fig. 2. Main species in the shell assemblage from Area H and the trench at the *peribolos*: a) common limpet (*Patella caerulea*); b) top shell (*Monodonta turbinate*); c) horn shell (*Cerithium vulgatum*); d) Noah's ark (*Arca noae*); e) murex (*Hexaplex trunculus*); f) cowry (*Cypraea Luria lurida*); g) tun shell (*Tonna galea*); h) pen shell (*Pinna nobilis*); i) spiny oyster (*Spondylus gaederopus*).

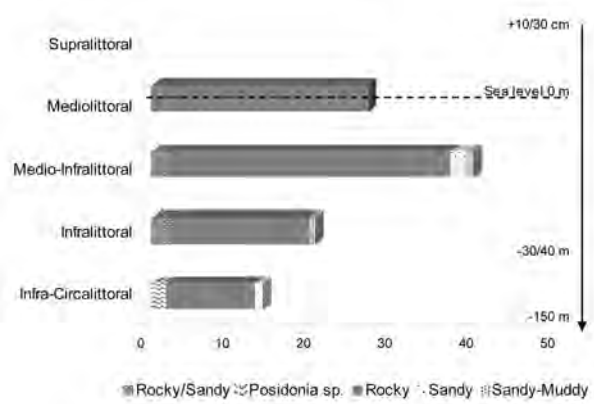

Fig. 3a. Reconstruction of marine environments as reflected in shells from Area H in all periods (values in MNI).

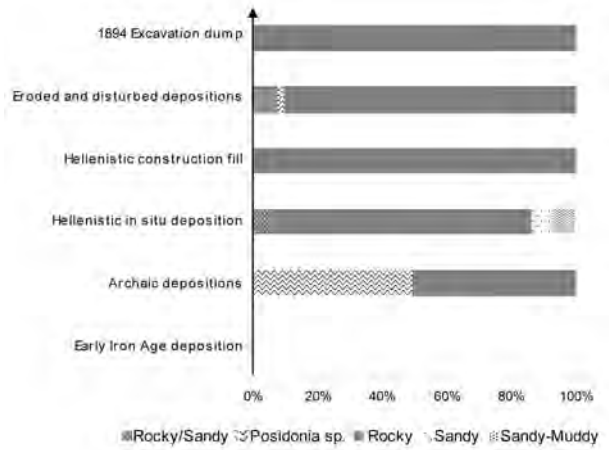

Fig. 3b. Marine environments exploited throughout occupation in Area H (values in MNI).

the Kalaureia examples bear signs of cutting in order to give the shell a more oval/quadrate shape.[17] On the other hand, one cannot rule out the possibility that some of these fossil shells were transported along with filling sediment from the beach or the nearby plateau. The presence of a unique pen shell valve might also reflect a tool use.

A final comment concerns the 1894 excavation dump, which yielded a limited number of edible molluscs, limpets and top shells. The nature of this assemblage does not permit any detailed interpretation.

THE TRENCH AT THE *PERIBOLOS* OF THE TEMPLE

As the shell material from the *peribolos* area is quite abundant, a separate analysis is useful. *Fig. 4* explicitly demonstrates a higher concentration of shells in the peripheral zone outside the *peribolos* of the Temple of Poseidon as compared to the rest of area H. Over 250 shell remains were recovered from the Archaic horizons, whereas mixed levels accounted for almost 1/5 of the material or 78 shells out of 431 (*Table 2a–b*). This assemblage may be of specific importance for the understanding

[17] For an overview of the uses of *Spondylus*, see Prummel 2000. See also water-worn specimens from other Peloponnesian sites: Tiryns, Asine, Nichoria, and Midea in von der Driesch & Boessneck 1990, 153; Reese 1982, 140–141; *idem* 1992, 773; *idem* 1998, 279. On water-worn shells from Greek sanctuary contexts, see Reese 1990, 186–187; *idem* 2000, table 6.28.

Table 2a. Shell remains in the trench at the *peribolos* (H005).

Species identification	Common name	Arch	Mixed	NISP	MNI
Patella caerulea (Linnaeus 1758)	Common limpet	194	22	216	25
Trochidae	Topshell	38	10	48	6
Cerithium vulgatum (Bruguière 1792)	Horn shell	9	14	23	11
Hexaplex trunculus (L. 1758)	Purple dye murex	10	10	20	7
Arca noae (L. 1758)	Noah's ark	2	4	6	2
Patella ulyssiponensis (L. 1758)	Rough limpet	1	4	5	4
Spondylus gaederopus (L. 1758)	Thorny oyster	2	3	5	2
Muricidae	Murex		5	5	1
Glycymeris sp. (L. 1758)	Bittersweet	3	1	4	2
Monodonta turbinata (Born 1780)	Topshell	1	1	2	2
Acanthocardia tuberculata (L. 1758)	Tuberculate cockle		2	2	2
Venus verrucosa (L. 1758)	Warty venus	1		1	1
Cypraea (Luria) lurida (L. 1758)	Cowry	1		1	1
Conus mediterraneus (Hwass/Bruguière 1792)	Cone		1	1	1
Cerastoderma glaucum (Poiret 1789)	Olive green cockle	1		1	1
Cardites antiquatus	Antique cockle		1	1	1
Total		263	78	341	69

Table 2b. Shell distribution in the trench at the *peribolos* by period.

Period	Total NISP
Archaic deposition	263
Mixed depositions	78
Total NISP	341

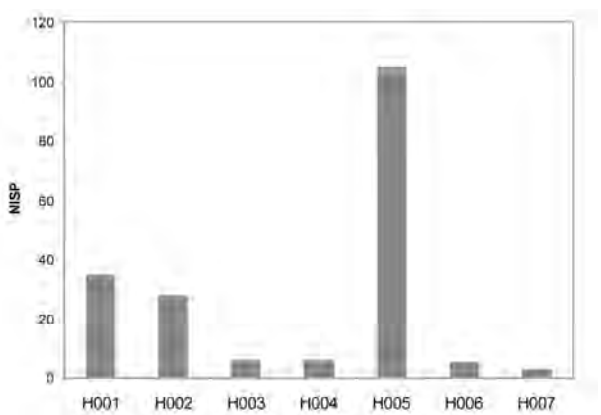

Fig. 4. Distribution of shell remains in Area H and the *peribolos*.

of the use of molluscs inside the temple area, as various lines of evidence suggest that the material found in this area probably originates from within the temple area.[18]

Main species, habitats exploited and procurement methods

The shell spectrum from the trench at the *peribolos* covers the whole range of the identified species from Area H (*Fig. 5*). If one focuses on the remains from the Archaic levels, the species

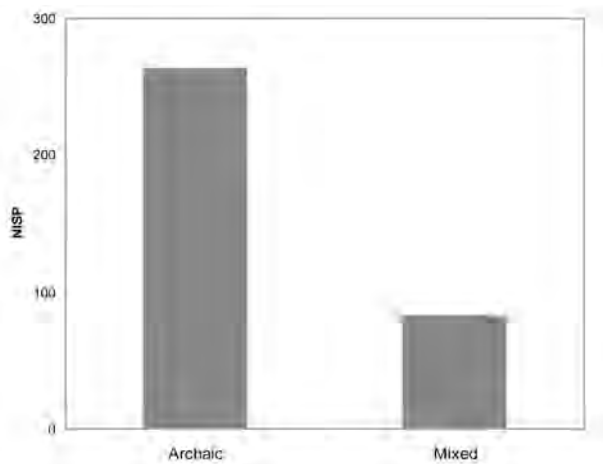

Fig. 5. Shell remains in different horizons from the trench at the *peribolos* (NISP).

list becomes more limited. The collection of molluscs seems to have taken place in the upper littoral zones (*Fig. 6*), although a number of specimens might have come from significant depths.

Of particular interest is the fact that edible molluscs such as limpets, top shells, horn shells and murex shells, bittersweets and arks found in this context certainly suggest consumption of shellfish inside the temple area.[19] Other molluscs

[18] See Penttinen & Wells *et al*., this volume. There are few references on shells remains from sanctuary contexts; for a review, see Reese 2000, 623. The Sanctuary of Apollo at Eretria also produced a number of shells (personal analysis).

[19] For similar contexts with considerable quantities of edible shells, see Corycien cave (Amandry 1984, 378–380); Kommos (Reese 2000, 642); reference concerning the Sanctuary of Demeter and Kore on Acrocorinth in Reese 2000, 623. Information on consumption of mammals from this area as comparison will also be useful.

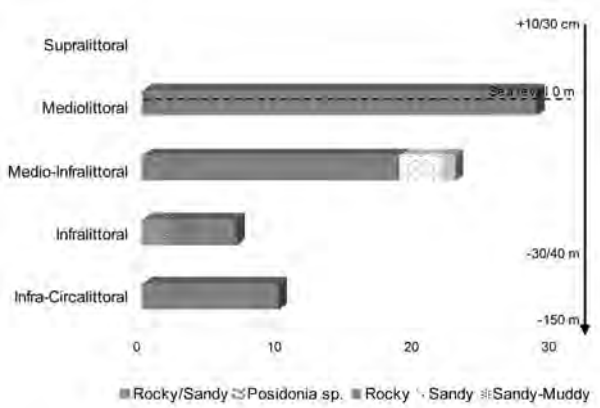

Fig. 6. Reconstruction of marine environments as reflected in the shell remains from the trench at the *peribolos* (values in MNI).

found in the deposit, namely the cowry and the cone shell, might represent objects of some ritual importance or bear a particular meaning (fertility powers, amulets and porte-bonheurs, marriage gifts to girls).[20]

CONCLUSIONS

The shell assemblage from Area H is quite consistent. Most of the remains come from the Archaic levels near the *peribolos* of the Temple of Poseidon and provide a clear image of a focused exploitation of molluscs for consumption. Isolated examples of non-edible species imply that shells may have been used as tools, recipients or ornaments, possibly in a ritual context. It seems that most of the molluscs are the result of either a waste disposal outside the temple *peribolos* or of multiple episodes of erosion. The continuation of the excavation in this particular area might allow a better understanding of the use of molluscs inside and outside the temple area.

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[20] For ethnographical parallels, see Germain 1924, 362–363; Fischer 1949, 149–157; Claassen 1998, 204. Archaeological examples in Becker 1996, 14; Reese 2000, 635–636, and references.

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