

EXCAVATIONS AT KOUPHOVOUNO, LACONIA: RESULTS FROM THE 2001 AND 2002 SEASONS¹

INTRODUCTION

THE EXCAVATIONS at the site of Kouphovouno (approximately 3 km SW of Sparta: FIG. 1) arose as part of a scientific project to investigate the evolution of complex societies in the Aegean world, from the Middle Neolithic to EB II, that is c.5800–c.2300 BC. The site is a tell settlement which extends over 4–5 ha.

Kouphovouno was chosen for a number of reasons arising from the current state of research in the Aegean, in the light of both excavation and survey. Intensive and extensive surveys over the last twenty years have revealed relatively few sites in southern Greece spanning the Middle and Late Neolithic periods, and these have not been excavated,² while the transition from Final Neolithic to Early Bronze Age still lacks precise definition. In northern and central Greece, by contrast, our knowledge of the Neolithic and start of the Bronze Age is based on the excavation of settlements with continuous occupation over the phases of both periods. Furthermore, the distribution and density of settlements is very

¹ Particular thanks are due to the members of the Archaeological Service of the Greek Ministry of Culture who helped the progress of the project and extended the hospitality of the facilities at their headquarters in Sparta: Dr A Mantis, Mrs A Panagiotopoulou, Dr Th. Spyropoulos, Mrs Stella Raftopoulou, Mr Nassos Themis, and Mrs Elena Zawvou. We are most grateful to David Blackman, Rebecca Sweetman, Helen Clark, and all the staff of the British School at Athens for their skilful advice in setting up the project. The excavations were funded by the British Academy, the British School at Athens, the Institute for Aegean Prehistory, the Universities of Liverpool, Lorient, Clermont-Ferrand and Nottingham, the École Française d'Athènes, the French Ministry of Foreign Affairs, and the Royal Geographical Society. Participants in the excavations and study were: Simon Besson, Lydie Bodiou, Neil Brodie, Artemis Brofidou, Mark Clayden, Agathe Colleu, Sophie Cringle, Ellen Cross, Gina De'Ath, Dorothée Desvignes, Jenny Doole, Mark Doyle, Emmanuelle Fournier, Annaïg Frémont, Armelle Gardeisen, Louise Gavin, Martyn Henson, Sarah Jackson, Peter James, Anna Karabatsoli, Maria Kousoulakou, Anna Lagia, Patricia Leclerc, Thomas Loughlin, Maria Lymperaki, Timothy Manders, Yoann Le Mézo, Anne-Flore Marziou, Hannah Moran, Sarah Morton, Fanny Moutarde, Graham Murray, Clare Mulcahy, Stephen O'Brien, Christelle Orgival, David Osborne, Raphaël Orgeolet, Adam Partington, Polly Phillipson, Maia Pomadere, Estelle Renard, Jean-Pierre Renard, Ian Rowlandson, Anna Stelatou, Virginie Thomas, Lucy Valassi, Esther Wheeler, Ian Whitbread, and Peter Wilcock.

Special abbreviations:

Buikstra–Ubelaker = J. E. Buikstra and D. E. Ubelaker, *Standards for Data Collection from Human Skeletal Remains* (Arkansas Archaeological Survey Research Series No. 44; Fayetteville, 1994).

Cavanagh–Mee–Renard = W. Cavanagh, C. Mee, and J. Renard, 'Sparta before Sparta: Kouphovouno 1999–2000: report on the intensive survey', *BSA* 99 (2004), 49–128.

Papathanassopoulos = G. A. Papathanassopoulos, *Neolithic Culture in Greece* (Athens, 1996), 225, no. 33.

Phelps = W. W. Phelps, *The Neolithic Pottery Sequence in Southern Greece* (BAR S1259; Oxford, 2004).

Scheuer–Black = L. Scheuer and S. Black, *Developmental Juvenile Osteology* (San Diego, 2000).

Renard = J. Renard, *Le Site néolithique et helladique ancien de Kouphovouno (Laconie). Fouilles d'O.-W. von Vacano (1941)* (Aegaeum 4; Liège, 1989).

Vitelli = K. D. Vitelli, *Franchthi Neolithic Pottery*, i: *Classification and Ceramic Phases 1 and 2* (Excavations at Franchthi Cave, Greece 8; Bloomington, IN, 1993); ii: *The Later Neolithic Ceramic Phases 3 to 5* (Excavations at Franchthi Cave, Greece 10; Bloomington, IN, 1999).

Wiencke = M. H. Wiencke, *Lerna, a Preclassical Site in the Argolid*, iv: *The Architecture, Stratification, and Pottery of Lerna III* (Princeton, 2000).

Zachos = K. Zachos, 'Ayios Dhimitrios, a Prehistoric Settlement in the Southwestern Peloponnese: the Neolithic and Early Helladic Periods', (PhD Boston University, 1987).

² See W. G. Cavanagh, 'WYSIWYG: settlement and territoriality in southern Greece during the Early and Middle Neolithic periods', *JMA* 17 (2004), 165–89. For lists of Neolithic sites see Phelps 30, 45, 65–6.

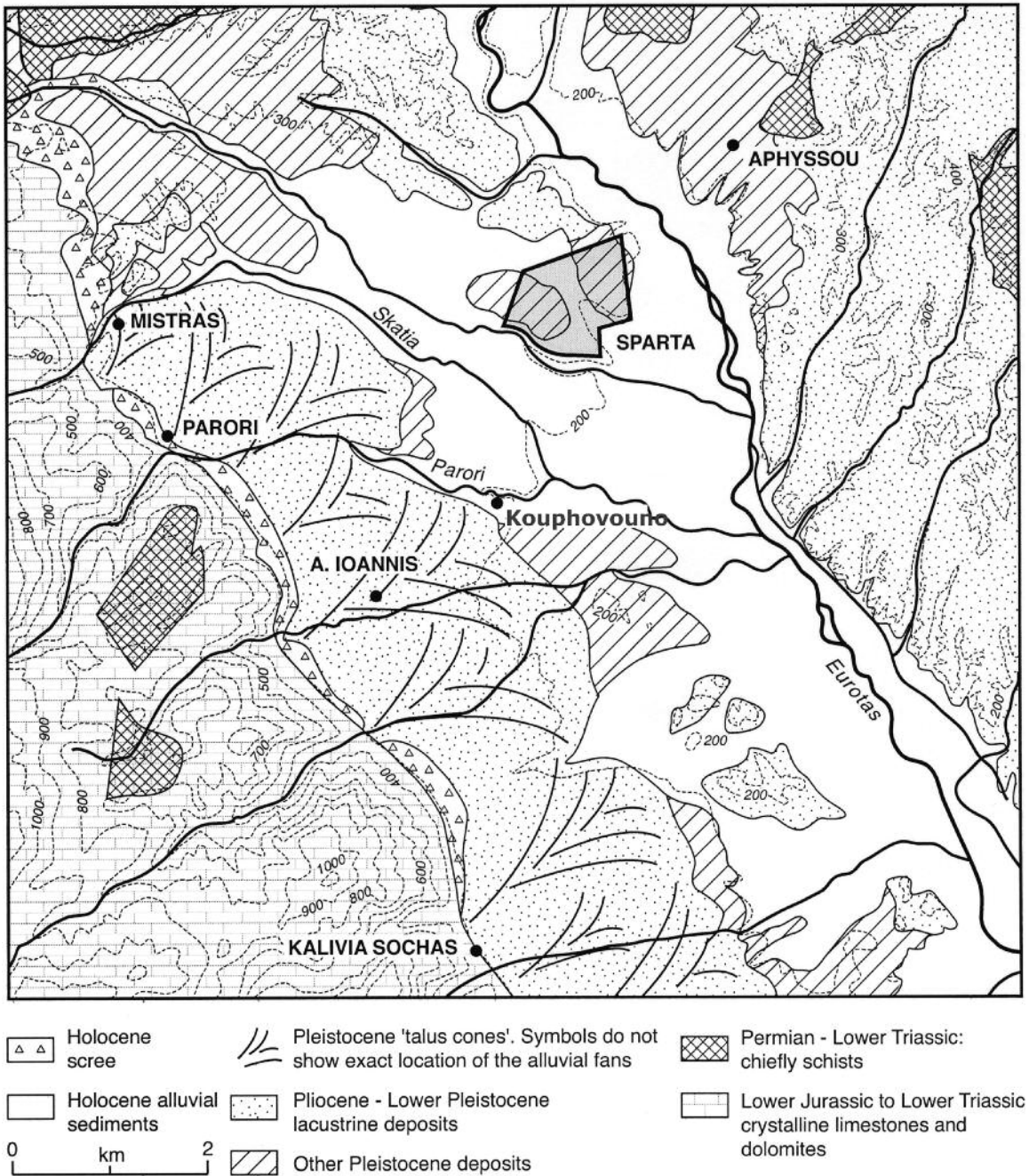


FIG. 1. Site in setting.

different in the south from that in the north. Account must be made, therefore, of these differences between northern and southern Greece, and, in order to understand the changes produced in the Aegean World over the Neolithic and into EH II, new data from fresh excavations are needed for the southern region. The site of Kouphovouno offered the opportunity to clarify this development.

Furthermore, the excavations at Kouphovouno are informed on the one hand by the results of the soundings made by O. W. von Vacano in 1941,³ and on the other by the results of the survey carried out by our team in 1999–2000;⁴ this latter campaign aimed to clarify the extent and date of the settlement, to plot the spatial distribution of artefacts belonging to different phases, and to prepare for the excavation of the site. Surface collection, geophysical prospection (resistivity and magnetometry), collected of soil samples for chemical and physical analyses, as well as coring, were carried out to give an idea of the site's stratigraphy and its environment before it was first settled. The finds collected in the survey showed that the occupation of the site continued, probably in a sporadic fashion, from the Middle Neolithic up to the Late Roman (or Byzantine) period. The comparison of the artefacts recovered through surface collection with those obtained through excavation is another methodological goal, as yet not widely pursued in the Aegean area.

Our programme of research is based on a two-pronged approach, both diachronic and synchronic, and consists of five major objectives, involving work both in the field and in the laboratory:

(i) To add precision to the chronological framework, by establishing a complete stratigraphic sequence from the Middle Neolithic to the Early Bronze Age (MN, LN, FN, EH I, EH II), and establishing a series of absolute dates based on¹⁴C.

(ii) To reconstruct the way of life by studying the organization of domestic and communal space, by exploring the architecture through the materials used and the methods of construction, and by analysing the data on the methods of production (agriculture, husbandry, pottery, metallurgy, stone industry); this anthropological approach also includes study of the human remains in their funerary context, with the aim of recovering information on the population's state of health.

(iii) To reconstruct the ancient environment, the landscape as well as the flora and fauna over the approximately 4000 years of the main occupation of the site.

(iv) To collect and analyse data on contact and exchange between nearby and distant communities and, on the same basis, distinguish the ultimate influences between the southern Aegean and other cultural areas.

(v) To distinguish the natural and anthropogenic mechanisms affecting the formation of archaeological sediments in order better to understand the complex of factors influencing the phenomena observed in the course of excavation.

The first excavation season took place over the five weeks 1 July–4 August 2001 and the second 30 June–3 August 2002 (FIG. 2). During the 2001 season a topographical plan of the site was completed and four trial trenches measuring 5 × 5 m (that is 100 m²) were opened, two on the south slope of the tell (A and B), and two on top (C and D); the placing of these soundings was guided by the results of the survey carried out in 1999.⁵ In 2002 land had to

³ Renard.

⁴ Cavanagh–Mee–Renard.

⁵ See further below the sections on each area.

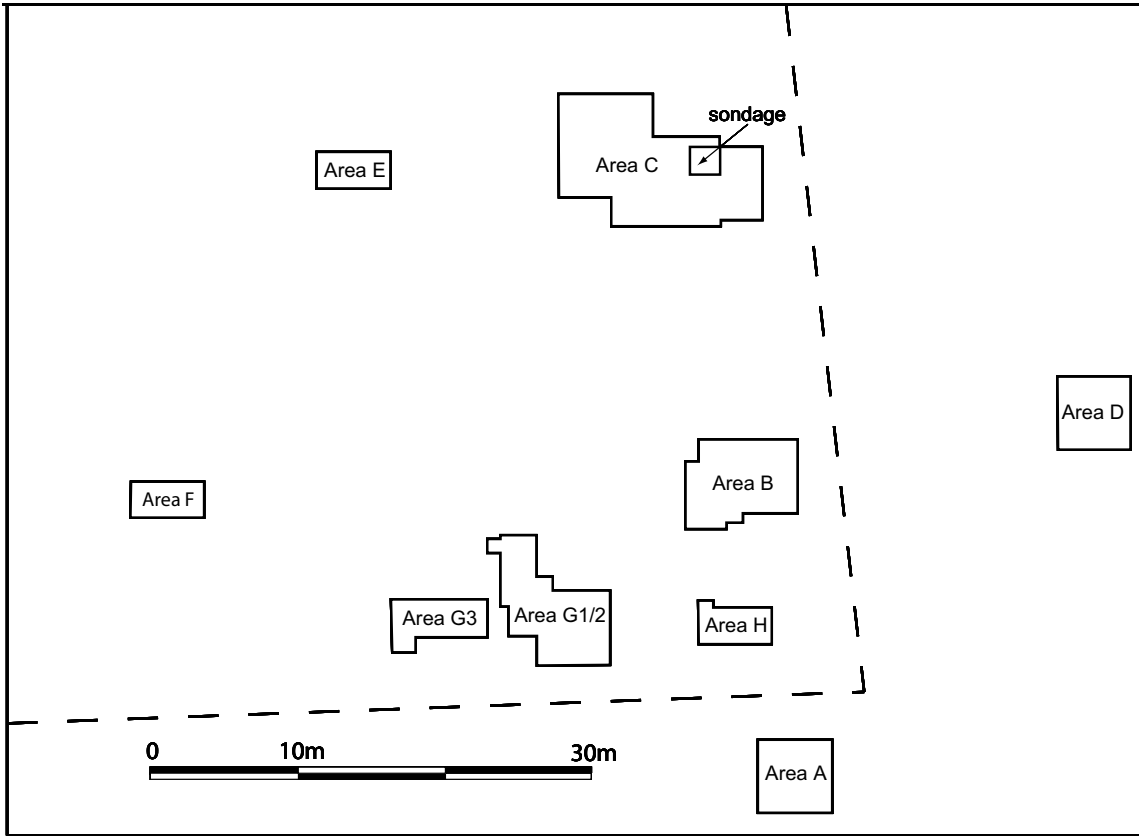


FIG. 2. Site plan with areas.

be purchased in advance of further work. We decided to continue to explore the western slope of the tell, including Areas B and C, but we could not pursue Areas A and D any further, as they were outside the limits of the land acquired. So Areas B and C were extended and three new Areas opened: E, F, and G, each measuring 2.5×5 m, leading to a total exposure of 175 m^2 . The excavation of Areas E and F, situated on the west slope of the hill, was designed to yield information on the formation of the tell; Area G was intended to provide more information on the Early Bronze Age. By the end of the season, it was decided not to follow up any further the excavation of E and F, because the overburden of material from historic periods made it impractical for us to pursue our main objectives in this part of the tell. Consequently, Areas A, D, E, and F are fully published here, as only the other trenches have been further investigated.

Before presenting the final results of our work in these four areas, we shall give a brief account of the methods employed in the field, both with reference to the location of the excavated areas, and the methods of excavation and recording. Thereafter the main results of the work will be presented in alphabetical order of trench: A, D, E, and F (note that in Area A material largely of Early Bronze Age date was excavated, in Area D largely of Late and Final Neolithic date, in Area E of historic date and in Area F largely of Late Roman date). Each

section will give a short summary, then an analysis of the stratigraphy, followed by definitive catalogues of the diagnostic finds accompanied by drawings and photographs.

EXCAVATION PROCEDURES

Recording methods have followed standard procedures of excavation by context, but with changes of methodology and fine-tuning over time. The progress of the excavation in each area was recorded on context forms, which aimed to standardize observations on their description and to make sure all the necessary information was written down; a sketch plan and levels were added on the back of the sheet. An excavation diary was also kept recording progress in each area. Finds of all sorts and samples were recorded on a second sheet for each context; these were given a single running series of numbers, which covered pottery, bones, chipped stone tools, as well as individual finds such as polished stone tools, and samples (for example of soil or mudbrick). Frequently there were several bags of pottery and bone, as each find-number was closed at the end of a day's excavation. Individual finds were given three-dimensional coordinates, but grouped finds were accorded to context alone. Below, references are given by context number and find-number, e.g. 0303.6, where appropriate with the area letter added, individual pieces from grouped finds, such as registered sherds (see below) or pieces of chipped stone, e.g. A0004.3.1. An arbitrary, continuous series of catalogue numbers prefixed by area and type of material (e.g. for Area A, **A1** for pottery, **ACS1** for chipped stone, **AGS1** for ground stone, and **ASF1** for other finds) has also been used for this article; they serve to link the narrative, catalogue and illustrations. Details of the soil samples, recorded under the direction of Peter James, were entered on another form. Soil samples were taken systematically from every context—these will contribute to a final study of the chemical and physical characteristics of the sediments and tell-formation processes.

The different types of contexts required different approaches to excavation. Thus in working on stone features, such as of the stone-filled pit A0004, excavators found difficulty in recognizing intrusive features. There were several possible cuttings, which in fact proved illusory, whilst the grave, which must have been cut into the stone fill, was hard to define because the material dug out was then used to refill the grave. A similar problem was encountered in Area D, where the upper parts of the graves had probably been destroyed by ploughing and the grave fill could not be clearly distinguished from the stone pile. On the whole, however, conventional excavation methods allowed different stone filled features to be separated effectively, as in Area D, where different EH II, FN, and LN stone fills were excavated. Particularly in the LN levels, on the other hand, the various sediments could not easily be distinguished. Here we were dealing in particular with earth levels with only occasional stones, provisionally identified as decayed building clay. Every effort was made to clarify features within these levels, including very careful trowelling and spraying the cleaned surfaces with water, but all to no avail. Occasionally what appeared to be slight differences in colour would show up, for example in the morning dew, but even then the most painstaking excavation failed to confirm the features on further excavation. Finally the only way we found to cope was to excavate in artificial 1 m² units of a standard depth. In contrast to both the stone features and the earth fills, the excavation of MN deposits seemed much more straightforward, in the sense that floors and fills separated quite easily, thanks not least to the destruction by fire of so many MN houses.

ANALYSIS OF THE HUMAN SKELETAL REMAINS

RECOVERY AND PROCESSING OF THE REMAINS⁶

For the purposes of this report we shall consider those graves which were located in Areas A and D (no funerary remains were recovered from E and F), but the procedures here outlined have been generally applied to the skeletons recovered in the excavations. The skeletons were exposed using archaeological and dental tools. Measurements were taken *in situ* in order to calculate stature and help in the determination of sex. Detailed photographs of the skeletons within their grave structure were taken *in situ*, as well as close-ups of areas of the skeletons that were of specific interest, such as features within the grave, post-depositional alterations, pathologies, and sex indicators. The skeletal remains were removed and placed in labelled plastic bags by anatomical region. No preservatives were used in the field or during laboratory analysis. The dryness of the soil, excavation and treatment did affect post-mortem destruction. The skeletal elements that were damaged were mostly parts of the axial skeleton and the epiphyses of the long bones. In sequence, the skeletons were transferred to the laboratory of Biological Anthropology of the Department of Biology of the University of Athens, to be analyzed. Bones were cleaned with tap water using soft toothbrushes over sieves and were left to dry within the laboratory under shade. After drying, skeletal elements were labelled and reconstructed.

METHODS OF ANALYSIS

Taphonomy

The skeletal remains were studied in relation to position⁷ and to alterations in colour, surface and shape changes⁸ in order to understand factors that were important in determining mortuary behaviour.

Determination of sex

There is as yet no consensus amongst researchers concerning reliable macroscopic standards for determining sex of sub-adults,⁹ hence sex determination of the sub-adult remains was not attempted. Sex determination for the adults was based on the observation of morphologic characteristics of sexual dimorphism of the skull and the pelvis,¹⁰ as well as on measurements of dimorphic dimensions.¹¹

⁶ Dr Lagia would like to thank the excavators for the invitation to participate in the Kouphouvouno excavation, the orthopaedist Dr V. Vernardaki for his valuable advice on the study of the pathological lesions, and Annaïg Fremont for helping significantly in the processing of the skeletal remains in the laboratory.

⁷ H. Duda, P. Courtaud, E. Crubezy, P. Sellier, and A.-M. Tillier, 'L'anthropologie "de terrain": reconnaissance et interprétation des gestes funéraires', *Bull. et Mém. de la Soc. d'Anthrop. de Paris*, n.s. 2, no. 3-4 (1990), 29-50; M. Roksandic, 'Position of skeletal remains as a key to understanding mortuary behavior', in W. Haglund and M. H. Sorg (eds), *Advances in Forensic Taphonomy: Method, Theory and Archaeological Perspectives* (New York, 2002), 109-10.

⁸ Buikstra-Ubelaker 95-106.

⁹ S. R. Saunders, 'Subadult skeletons and growth-related studies', in M. A. Katzenberg and S. R. Saunders (eds), *Biological Anthropology of the Human Skeleton* (New York, 2000) 138-41.

¹⁰ Buikstra-Ubelaker 16-21.

¹¹ W. M. Krogman and M. Y. İşcan, *The Human Skeleton in Forensic Medicine*, 2nd edn. (Springfield, IL, 1986) 234-47; A. Lagia, K. Moraitis, C. Eliopoulos, and S. Manolis, "Εκτίμηση φύλου και ηλικίας από τον σκελετό: Εφαρμογή και αξιολόγηση σύγχρονων μεθόδων σε Ελληνικούς πληθυσμούς", *Πρακτικά της Ελληνικής Εταιρείας Βιολογικών Επιστημών*, 22ο Πανελλήνιο Συνέδριο, (Athens, 2000), 138.

Estimation of age at death

The estimation of the age at death of sub-adults was based on the degree of tooth formation,¹² the appearance and union of secondary centres of ossification,¹³ and on the diaphyseal length of the long bones.¹⁴ Immature skeletal remains were assigned to one of the following age categories:¹⁵ (i) infancy (0–1 year), (ii) early childhood (2–5 years), (iii) late childhood (6–12 years), and (iv) adolescence (13–19 years). Age at death for adults was based on the observation of morphological changes in the pubic symphysis,¹⁶ the auricular surface¹⁷ and sternal rib end,¹⁸ the degree of cranial suture closure¹⁹ and dental wear.²⁰ Adult individuals were assigned to one of the following age classes:²¹ (a) young adult (20–34 years) (b) middle adult (35–49 years) and (c) old adult (50+ years).

Calculation of stature

Stature was calculated on the basis of the length of long bones and the application of the equations for estimation of living stature of Trotter and Gleser for American White males and females.²² These formulae, although developed in genetically distant populations, are the most widely used in skeletal biology and provide results comparable to those from other published studies. When bones of both the upper and lower limbs were available, the latter were preferred in the calculation of stature because they give better estimates.²³ In the case of 0105 the length of the long bones was measured *in situ* because of the extremely fragmentary nature of the remains.

Health status

Despite the fragmentary nature of the skeletal remains, a number of skeletal and dental pathological lesions were observable and were studied based on current clinical and anthropological literature.²⁴

¹² C. F. A. Moorrees, E. A. Fanning, and E. E. Hunt, 'Formation and resorption of three deciduous teeth in children', *American Journal of Physical Anthropology*, 21 (1963), 205–13; *ibid.*, 'Age variation of formation stages for ten permanent teeth', *Journal of Dental Research*, 42 (1963), 1490–1502.

¹³ Scheuer–Black.

¹⁴ D. H. Ubelaker, *Human Skeletal Remains: Excavation, Analysis, Interpretation* (Washington, DC, 1989), 65–71.

¹⁵ Scheuer–Black 468.

¹⁶ S. T. Brooks and J. M. Suchey, 'Skeletal age determination based on the Os pubis: a comparison of the Ascádi-Nemeskéri and Suchey-Brooks methods', *Journal of Human Evolution*, 5 (1990), 227–38.

¹⁷ C. O. Lovejoy, R. S. Meindl, T. R. Pryzbeck, and R. P. Mensforth, 'Chronological metamorphosis of the auricular surface of the ilium: a new method for the determination of age at death', *American Journal of Physical Anthropology*, 68 (1985), 15–28.

¹⁸ S. Loth and M. Y. Işcan, 'Morphological assessment

of age in the adult: the thoracic region', in M. Y. Işcan (ed.), *Age Markers in the Human Skeleton* (Springfield, IL, 1989) 105–36.

¹⁹ R. S. Meindl and C. O. Lovejoy, 'Ectocranial suture closure: a revised method for the

determination of skeletal age at death based on the lateral-anterior sutures', *American Journal of Physical Anthropology*, 68 (1985) 57–66.

²⁰ Buikstra–Ubelaker 52–3.

²¹ *Ibid.* 36.

²² Krogman and Işcan (n. 11), TABLE 8. 5.

²³ *Ibid.* (n. 11), 348.

²⁴ e.g. A. C. Aufderheide and C. Rodríguez-Martín, *The Cambridge Encyclopedia of Human Paleopathology* (Cambridge, 1998); D. Resnick, *Diagnosis of Bone and Joint Disorders* (Philadelphia, 1995); D. J. Ortner and W. G. J. Putschard, *Identification of Pathological Conditions in Human Skeletal Remains* (Washington, DC, 1981); C. Roberts and K. Manchester, *The Archaeology of Disease* (New York, 1995); S. Hillson, *Dental Anthropology* (Cambridge, 1996).

AREA A

SUMMARY

Immediately below the plough soil appeared a 'stone-platform' feature extending roughly 3.4 m north–south and 3.6 m east–west. This was set in a much cleaner, yellow clay matrix, evidently decayed mudbrick, containing just a few stones. Near the eastern edge, a skeleton was discovered, lying in a grave bounded to the east by a line of stones. A pair of copper alloy tweezers accompanied the burial.

The 'stone platform' was excavated in quadrants, allowing east–west and north–south sections to be reconstructed. The stone fill was of very loose rubble, consisting of cobbles, earth and a large number of sherds, as well as animal bones, stone tools, and other finds. This had been dumped into a pit cut into earlier levels. The fill (and the pit in which it had been deposited) was deep, and excavation suggested that originally at least 7 m³ of material was dumped here. The pottery was predominantly EH II with some Neolithic.

LOCATION OF AREA A

Area A (FIGS. 3–6) was selected for trial excavation as it lay 6 m north of core C₃, which had revealed 2.5 m of archaeological deposit, and the surface survey indicated concentrations of Early Bronze Age and Neolithic material in this vicinity. The stratigraphic sequence is summarized in FIG. 7 and TABLES 1–3 indicate the levels and pottery content of each context. Surface collection (context 0001) produced a total of 39 sherds mainly MN and EH, but not much was diagnostic. In the original survey 85 sherds were collected in Square 1024, of which 19 were registered, four of them Neolithic and two EH. The height of the ground surface ranged from 197.75–198.09 m asl.

STRATIGRAPHY

The plough soil was excavated as two contexts: the loose upper soil (context 0002), and a more compacted subsurface (context 0003) with rills incised by the plough. The plough soil,

TABLE 1. Contexts in Area A.

Context	Top	Bottom
1	197.75–198.09	
2	197.75–198.09	197.66–197.92
3	197.66–197.92	197.61–197.86
4	197.69–197.90	196.97
5	197.67–197.86	
6	197.78–197.63	197.6
7	197.6	
8	197.74	197.5
9	197.76	197.46
10	197.74	197.5
11	197.1	
12	197.05	
13	197.6	
14	197.79	197.6

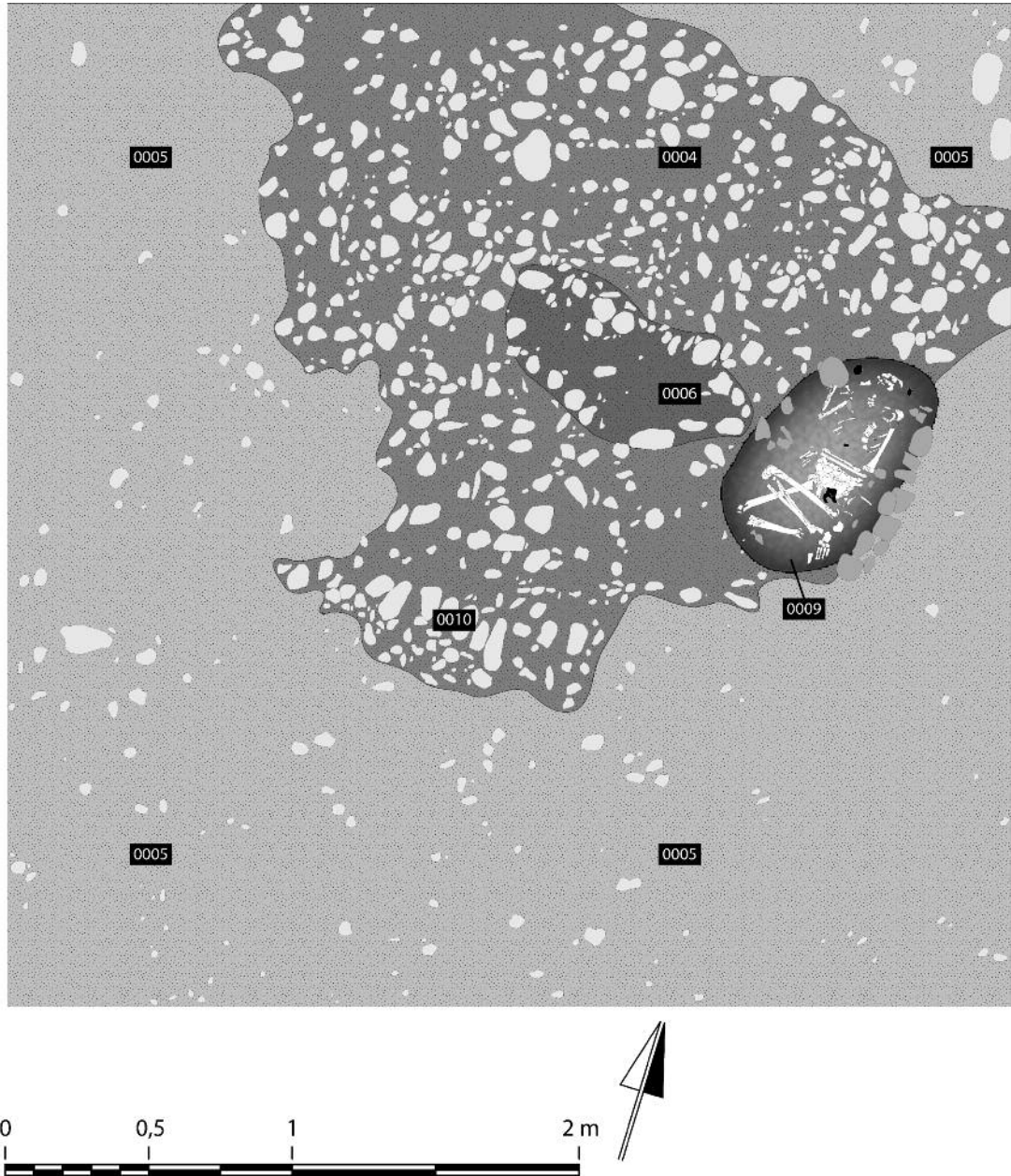


FIG. 3. Area A, main plan (contexts distinguished by shading).

a dark brown, compact silt, was excavated over the whole extent of the area to a depth of 0.10–0.15 m. Not unexpectedly, the pottery in these surface deposits was mixed (MN, LN, possible FN, EH; also medieval and modern). In addition to the pottery, bone, shell, and chipped stone, specific finds were a fragment of a grinder (**AGS1**) a polished stone adze



FIG. 4. Area A, N-S section of context 0004, EH 2 stone-filled pit.

TABLE 2. Totals of sherds and their weights (kg) from contexts in Area A.

Context	Total sherds	Total weight	Fine no.	Fine weight	Coarse no.	Coarse weight
1	39	0.25	31	0.1	8	0.15
2	493	4.53	379	1.98	14	2.55
3	1147	8.9	892	3.69	255	5.21
4	4628	88.357	3458	44.052	1170	44.305
5	214	2.28	138	0.83	76	1.45
6	167	1.49	132	0.75	35	0.74
7	53	0.55	43	0.25	10	0.3
8	269	4.95	200	2	69	2.95
9	392	3.66	274	1.57	118	2.09
10	17	0.245	11	0.045	6	0.2
11	52	2.45	37	1	15	1.45
12	94	2.5	78	1.3	16	1.2
13	9	0.13	6	0.05	3	0.08
14	6	0.1	5	0.06	1	0.04

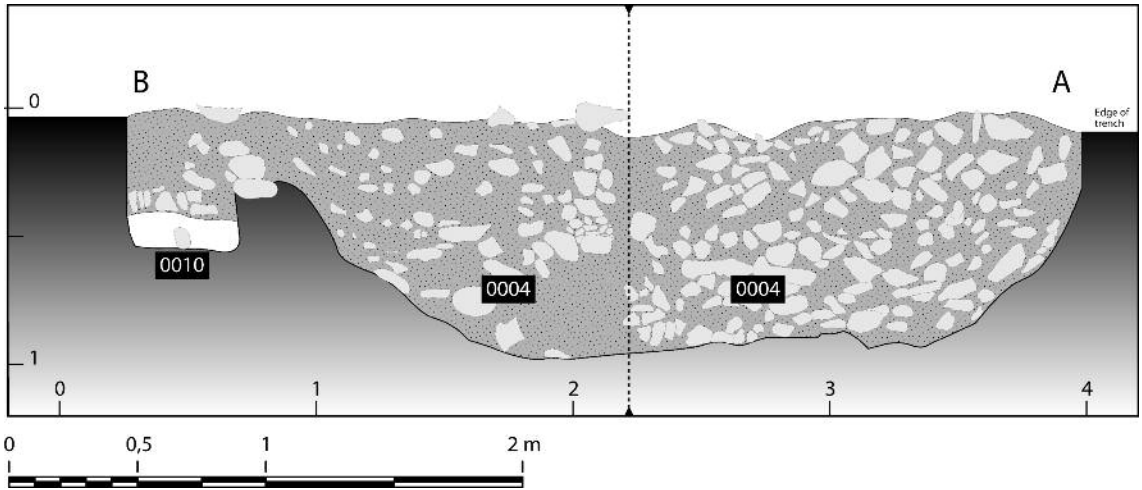


FIG. 5. Area A, E-W section of context 0004, EH 2 stone-filled pit.

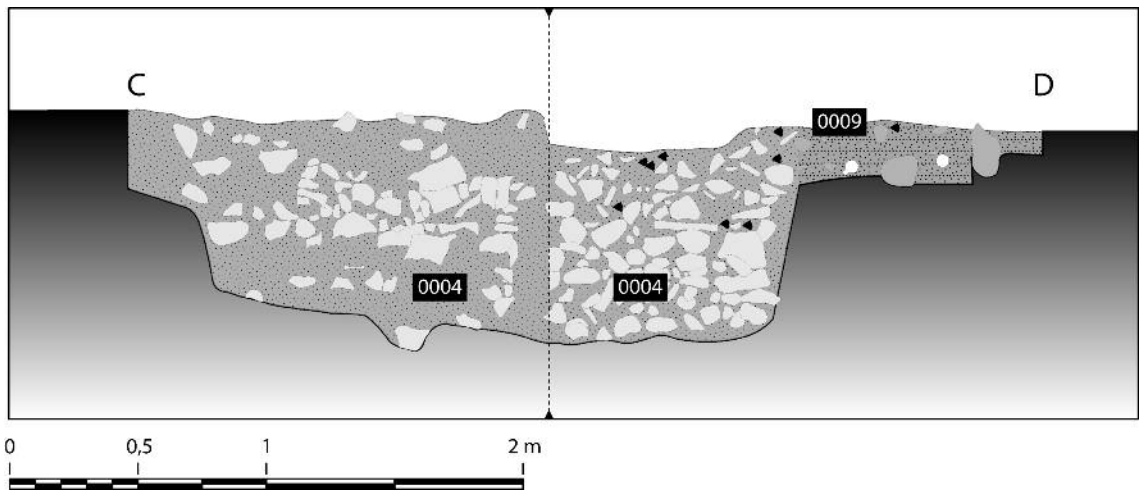


FIG. 6. Area A, grave 0009.

(AGS₂) and a fragment of an axe/adze (AGS₃). Fragments of burnt mudbrick were also recovered. The low average weight of the sherds in many of the contexts reflects the level of disturbance. Note that the grave (0009) had rather small sherds, indicating that it was filled with reused material, whereas the sherds from 0004, 0008, and 0011–14 were larger, suggesting that these were primary deposits and the material from them had suffered less.

GRAVE (FIGS. 3, 6)

Once the surface soil had been removed the major feature dominating the excavation in this area was exposed, the 'stone platform' (context 0004); this will be described more fully below.

TABLE 3. Average weights (g) of coarse and fine sherds from contexts in Area A.

Context	Avg. wt. fine sherds	Avg. wt. coarse sherds
1	3.23	18.75
2	5.22	22.37
3	4.14	20.43
4	12.74	37.7
5	6.01	19.08
6	5.68	21.14
7	5.81	30
8	10	42.75
9	5.73	17.71
10	4.09	33.33
11	27.03	96.67
12	16.67	75
13	8.33	26.67
14	12	40

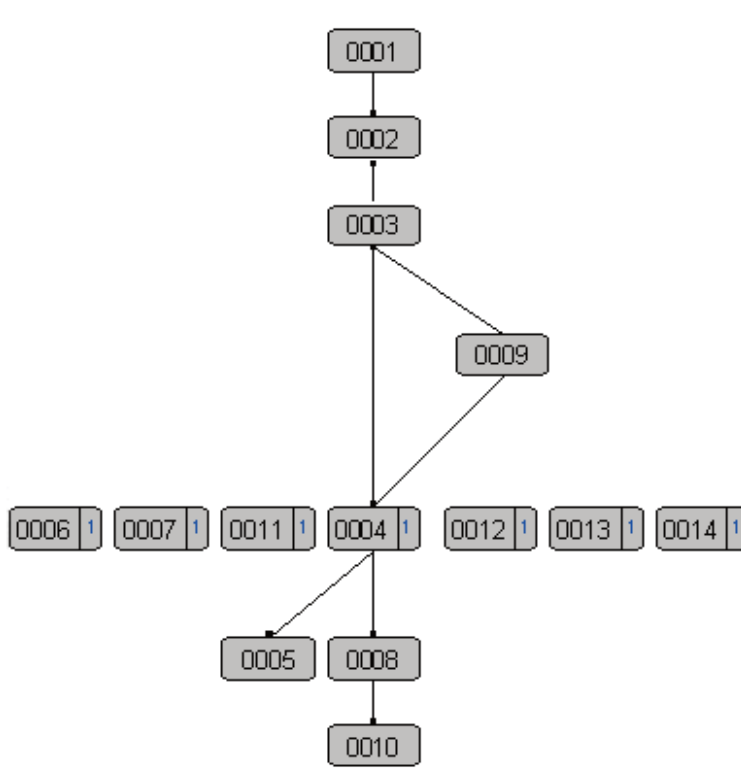


FIG. 7. Area A, Harris matrix.

Whilst the stones of the platform itself could be clearly distinguished, it was more difficult to draw a clear division between the plough soil overlying the stone platform (context 0003), and other sediments below. Careful excavation however revealed a grave (context 0009), which had been cut into the platform (and therefore is later); the upper part of the grave was evidently destroyed by ploughing. The human remains began to appear 0.25 m below the surface. The grave seems simply to have been dug out of the platform, and its precise dimensions were difficult to ascertain. However, the grave cutting was approximately 1.3 m long and 0.55 m wide (FIG. 3). The grave fill was a firm dark brown clay containing pebbles and stones. There were a few MN, LN, and FN sherds but the pottery was predominantly EH II. In other words both the appearance of the soil and its contents were very similar to that of the 'stone platform' (context 0004), evidently because the soil dug out to form the grave was used to refill it. No doubt such back-fill was also the ultimate source of the quern fragment (AGS18). The floor of the grave sloped from south down towards the north. A rough wall/line of stones was constructed on the east side 0.85 m in length, with the tops of the stones at about 197.75 m asl, 0.2–0.3 m above the floor of the grave. In the grave were found the remains of an adult and an infant. A fuller description of the context, position and orientation of the remains can be found in the section 'Human Remains' below. Copper or bronze tweezers were found by the right humerus (ASF3). Those burials from our excavations with datable finds were Middle Helladic, and the conclusion that this grave should go with the others is supported by the probably MH date of the tweezers.

'STONE PLATFORM' (FIG. 3)

Once its outline was clear, this feature was excavated by removing quadrants in the NE and SW quarters, enabling east–west and north–south sections to be reconstructed (FIGS. 4–5). Overall the area of stone extended 3.4 m north–south and 3.6 east–west. It seems to have been formed by digging a large, sub-circular pit into the earlier sediments (see contexts 0005, 0010–0012 described below), which, where they were revealed, seemed to consist of disintegrated mudbrick/building clay. Judging from indications such as its steep profile, the lack of a primary silt and the absence of a humus layer at its base, the pit was not left open for a long period of time, but was refilled soon after it was cut. It was filled with a mass of stones, earth, and mudbrick in a dark brown earth matrix; the largest of the stones were 0.20–0.26 m in length, the majority rather smaller. The pottery included some MN (A1) (in just 14 out of 57 pottery lots and plainly residual, though lot 94, at the bottom of the SW quadrant, may have cut into MN deposits), LN (A2–4) and a few FN (A5–7) sherds. Red-slipped and burnished sherds could be EH I or early EH II, but over 90% of the pottery was EH II from the top to the bottom of the pit fill. Bone (16 lots) and chipped stone (ACS4, 5, 8–9), were found throughout the context and samples of mudbrick, plaster/calcified limestone, and charcoal were also taken. One fragment of plaster showed traces of red paint (A0004.26).²⁵ Other finds were a polished stone axe (AGS4), a mortar (AGS6), eight whole or fragmentary querns (AGS5, 7–9, 11–14), a grinder (AGS10) and a bone pin (ASF2).

Apart from the grave (0009) it was difficult to discern any other separate features within the pit fill. Early in the excavation, a patch of dark soil apparently set within a stone lining was distinguished (contexts 0006–0007), which looked as though it might be a separate feature

²⁵ On the fine wall-plaster at Lerna see Wiencke 275–6.

(possibly another grave, so seven samples were taken for phosphate analysis). In the end, however, this was judged to be part of 0004, the matrix being a similar, dark-brown soil with a stony fill. The pottery was also similar to the assemblage in 0004. A palette (**AGS15**) was found, and samples of mudbrick taken. At the end of the season, a heavy rainstorm flooded the pit, which needed extensive cleaning in the final days. Some eroded mudbrick (context 0014) and a soft yellow-brown clay containing some pebbles and flecks of charcoal (context 0013) were found stratified above a brown soft sediment (0012), which was originally thought to lie below 0004. In the NW sector a similar patch of soil was found (context 0011). In fact all of these were almost certainly also part of the fill of 0004. 0011 and 0012 contained some LN (**A4**) but mainly EH II (**A14, A38, A55, A70, A79, A103**) pottery. There were few diagnostic sherds in 0013 and 0014.

Context 0005 was used to identify the general trench area into which 0004 was cut. Its upper surface, however, had been damaged by ploughing, and the initial distinction of 0005 from 0003 was rather arbitrary. Excavation started at 197.86–197.60 m asl; the soil matrix was a brown clay, interpreted as decayed mudbrick/building clay, with a scattering of stones and pebbles. In the NW part of the trench a patch of burnt mudbrick, measuring 0.5 × 0.38 m, was found at a height of 197.87 m asl; it continued into the north section, but could not be further investigated. The pottery from 0005 was not particularly diagnostic but included some MN, LN and EH II sherds. As this context was so close to the surface, it would be unwise to conclude that the pit of 0004 had been cut into EH II levels.

At the southern edge of 0004 the line of what was taken to be a wall was distinguished as context 0008. It was an alignment of some seven stones running ESE–WNW for a distance of 0.8 m. The tops of the stones were at 197.7 m asl, and the wall stood two or three stones high. Much of the pottery was MN (**A1**) but there were also LN and EH sherds. A polished stone grinder fragment (**AGS16**) was found and a fragment of green stone, raw material for a tool (**AGS17**). There may have been some contamination from 0004 in the excavation of this context.

Underneath and to the south of 0008 was a fill of earth with some stones (0010). No diagnostic pottery was recognized in this level, but a human finger bone was recovered.

POTTERY (FIGS. 8–19; TABLE 4)

Neolithic

The only excavated context in Area A that should be Neolithic rather than Early Helladic is 0008, though this was contaminated (see above). Most of the Neolithic pottery in the pit (0004), over 60 sherds but just 7% of the total of all sherds from that context, must be residual. Nevertheless, earlier levels were evidently disturbed when the pit was cut. This may well explain the Neolithic pottery in the topsoil contexts, 0002 and 0003, though erosion could also be a factor.

Some of the MN pottery is patterned or scribble-burnished but monochrome is the most common type of decoration, more so than the column in TABLE 4 implies because many of the unregistered monochrome body sherds must also be MN. The problem is that Early Helladic Urfirnis is very similar and undoubtedly accounts for a high proportion of the monochrome pottery from Area A. Identifiable Middle Neolithic shapes include jars and particularly the pedestal bases from bowls (FIG. 8: **A1**).

TABLE 4. Dated sherds from contexts in Area A.

Context	MN P	MN SB	MN M	MN other	MN total	MN %							
2	1	1	7	2	11	23							
3	4	4	7	9	24	39							
4	4	5	7	6	22	3							
5		1	1	1	3	23							
6						0							
7						0							
8	2	4	7	8	21	68							
9	1	1		1	3	7							
10			1		1	100							
11		1			1	5							
12						0							
13						0							
14	1	1			2	100							

Context	LN BW	LN GW	LN WS	LN MP	LN Poly	LN other	LN total	LN %					
2	2	7		2			11	23					
3	1	4	1	1		1	8	13					
4	17	5	5			2	29	3					
5		1	3				4	31					
6								0					
7								0					
8	2	1					3	10					
9	1	1	2				4	9					
10								0					
11								0					
12		5	1				6	50					
13		1					1	100					
14								0					

Context	FN fine	FN coarse	FN total	FN %	EH1	EH2	EH coarse	EH total	EH %	MH	LH	Other	Dated Sherds
2		3	3	6		7	14	21	45			1	47
3		2	2	3		17	9	26	43		1		61
4	1	10	11	1	12	279	525	816	93				878
5				0		2	4	6	46				13
6				0		5	8	13	100				13
7				0		1	2	3	100				3
8				0			7	7	23				31
9		1	1	2		6	30	36	82				44
10				0				0					1
11				0		9	11	20	95				21
12				0		1	5	6	50				12
13				0					0				1
14				0					0				2

Much of the LN pottery from 0004 is Black Ware but in other contexts Grey Ware is also common, typically carinated and open bowls (FIG. 8: A2-4). As noted in the discussion of the pottery from Area D, Grey Ware appears later in the period than Black Ware. There were a few Matt-Painted sherds and it is likely that some of the white-slipped pottery was similarly decorated, as the paint comes off quite easily.

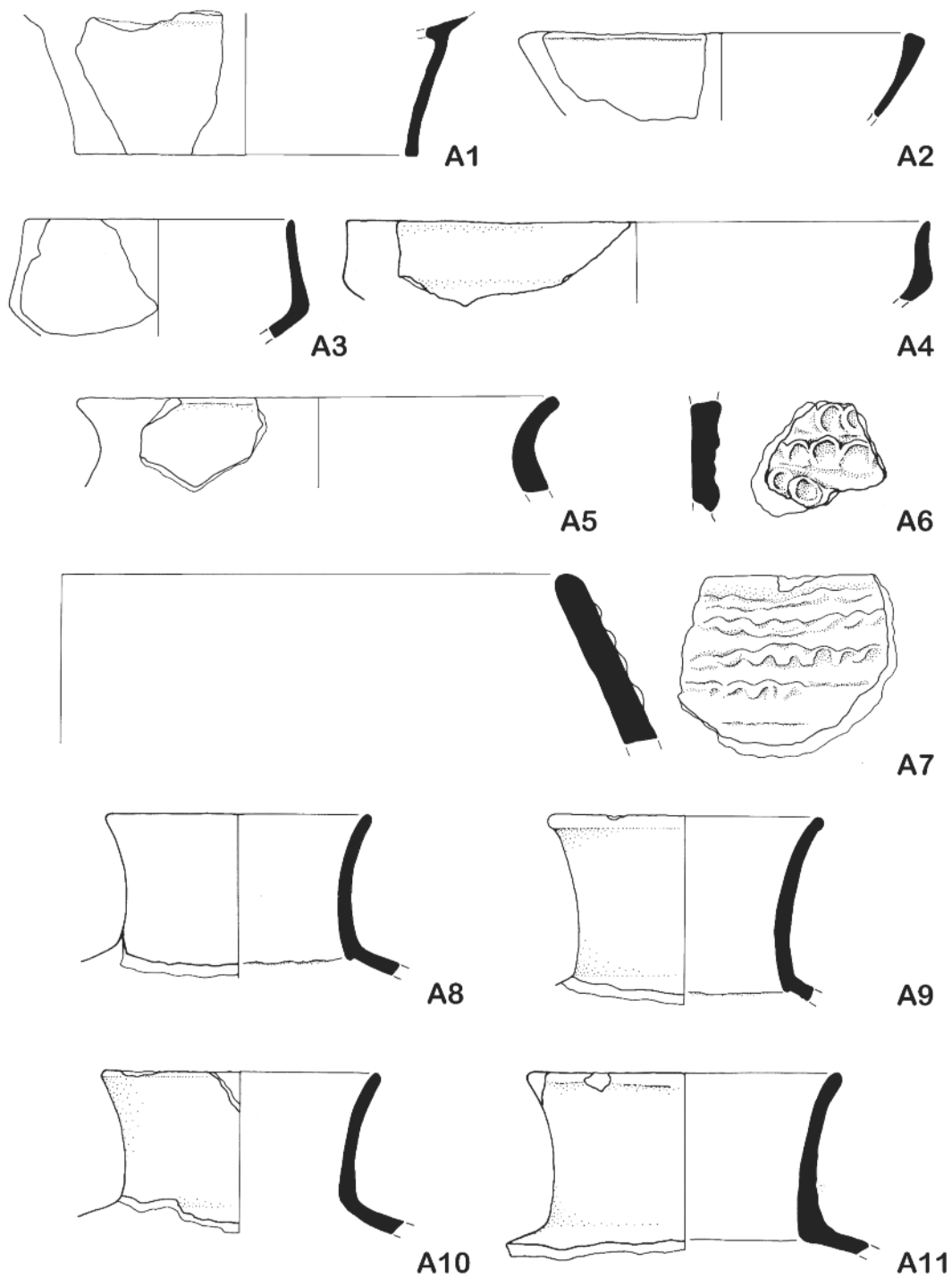


FIG. 8. Area A: MN (A1), LN (A2-4), FN (A5-7) pottery and EH jars (A8-11). Scale 1:3.

Final Neolithic is the least well represented period. Admittedly the pottery, which mainly consists of coarse vessels, is not highly diagnostic but the fabric is distinctive, typified by the jar (FIG. 8: **A5**), and also by the multiple finger-impressed cordons (FIG. 8: **A6–7**). So we believe that the rarity of Final Neolithic pottery is genuine.

Early Helladic

Some of the pottery from 0004 has been dated EH I but this is not certain. The sherds concerned have a cherry red slip, though it does tend to be rather thin and not heavily burnished. So this is not the classic red-slipped and burnished pottery, characteristic of EH I but which does continue into EH II, for example at Eutresis.²⁶ It is more like the dark-painted pottery found at Lerna in phase IIIA, that is early EH II.²⁷ If EH I is only a minor component in A0004, it follows that most of the coarse pottery, which is less diagnostic than the fine wares, should also be EH II.

The pottery is discussed by shape and generally follows the classification used by Wiencke for Lerna III.²⁸

The jars were made in a hard fired, medium-fine or medium, fabric, often light red or reddish-yellow but sometimes white (FIG. 8: **A8–11**, FIG. 9: **A12–14**). Painted decoration is rare. Most should be Lerna types 5 or 6, which are differentiated by the position of the handles on the body, vertical in the case of the former and horizontal for the latter.²⁹ We have handles of both types in context 0004 (FIG. 9: **A15–16** = type 5, **A17** = type 6). Since the Lerna examples have a neck : body ratio of approximately 1 : 6, the height of our jars should be in the 35–60 cm range. As Wiencke suggests,³⁰ they may well have been used to carry and store water. At Lerna the type 5 jars span phases A–C and type 6 phases B–D.

A18 (FIG. 10) could be a type 8 hydria or alternatively a jug. A number of handles with incised diagonal lines (FIG. 10: **A19–20**) or finger impressions (FIG. 10: **A21–2**) should also come from jugs. Similar deeply incised handles occur in late phase A to late phase B contexts at Lerna.³¹ The finger-impressed handles seem to be a local form.

Askoï have distinctive strap handles, often incised (FIG. 10: **A23–4**) or ridged (FIG. 10: **A25–6**). Incision is a feature of type 1 askoï from phases A–B at Lerna.³² **A27** (FIG. 10), a handle which evidently ended in a loop, may be from a ladle. Some spoons have animal head handles, like **A28** (FIG. 10),³³ although this could be a sauceboat attachment.³⁴

Unless part of the spout is preserved, as in the case of **A29–32** (FIG. 11), it can be difficult to decide whether a rim sherd is from a sauceboat or a saucer. However, sauceboats do tend to be deeper and less open than saucers. It is therefore likely that **A33** (FIG. 11) is also a sauceboat, as well as **A34–8** (FIG. 11), which have handles. The position of the handle is one of the criteria used by Wiencke in her classification of the Lerna sauceboats.³⁵ Types 1, 2, and 4 have horizontal handles, type 3 a vertical handle. The decoration also differs in that type 1 is dark-painted or light-painted, occasionally patterned. Type 2 is almost always dark-painted and type 3 light-painted, though an early version of type 3 is dark-painted. The rare type 4 is

²⁶ J. L. Caskey and E. G. Caskey, 'The earliest settlements at Eutresis: supplementary excavations 1958', *Hesp.* 29 (1960), 126–67 at 139–50.

²⁷ Wiencke 25–6.

²⁸ *Ibid.*, *passim*.

²⁹ *Ibid.* 559–69.

³⁰ *Ibid.* 563.

³¹ *Ibid.* 571.

³² *Ibid.* 531.

³³ *Ibid.* 606.

³⁴ Renard 159 and pl. 45. 1–2,

³⁵ *Ibid.* 585–8.

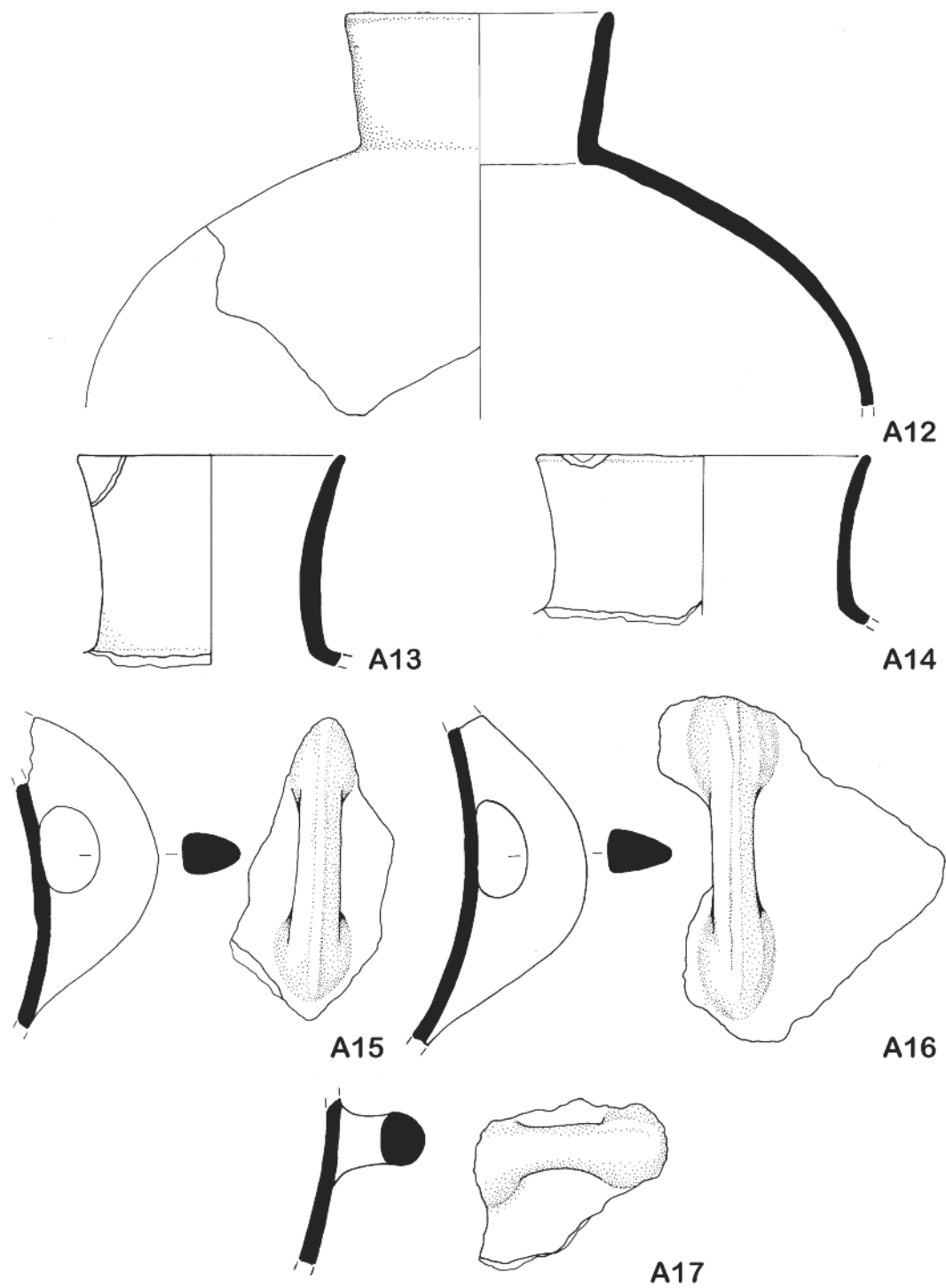


FIG. 9. Area A: EH jars (A12-17). Scale 1:3.

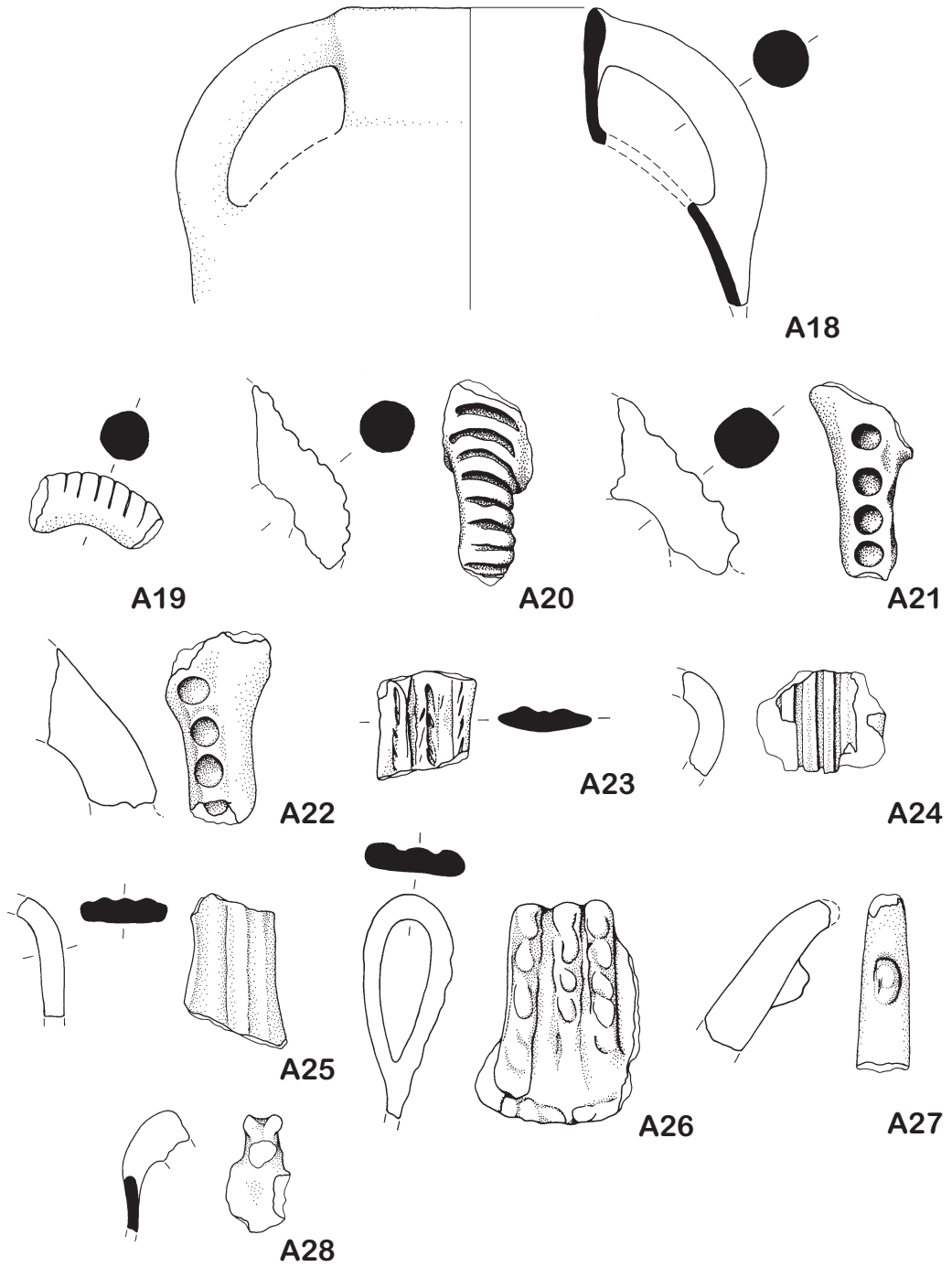


FIG. 10. Area A: EH jugs (A18–22), askoi (A23–6), ladle (A27), and spoon (A28). Scale 1:3.

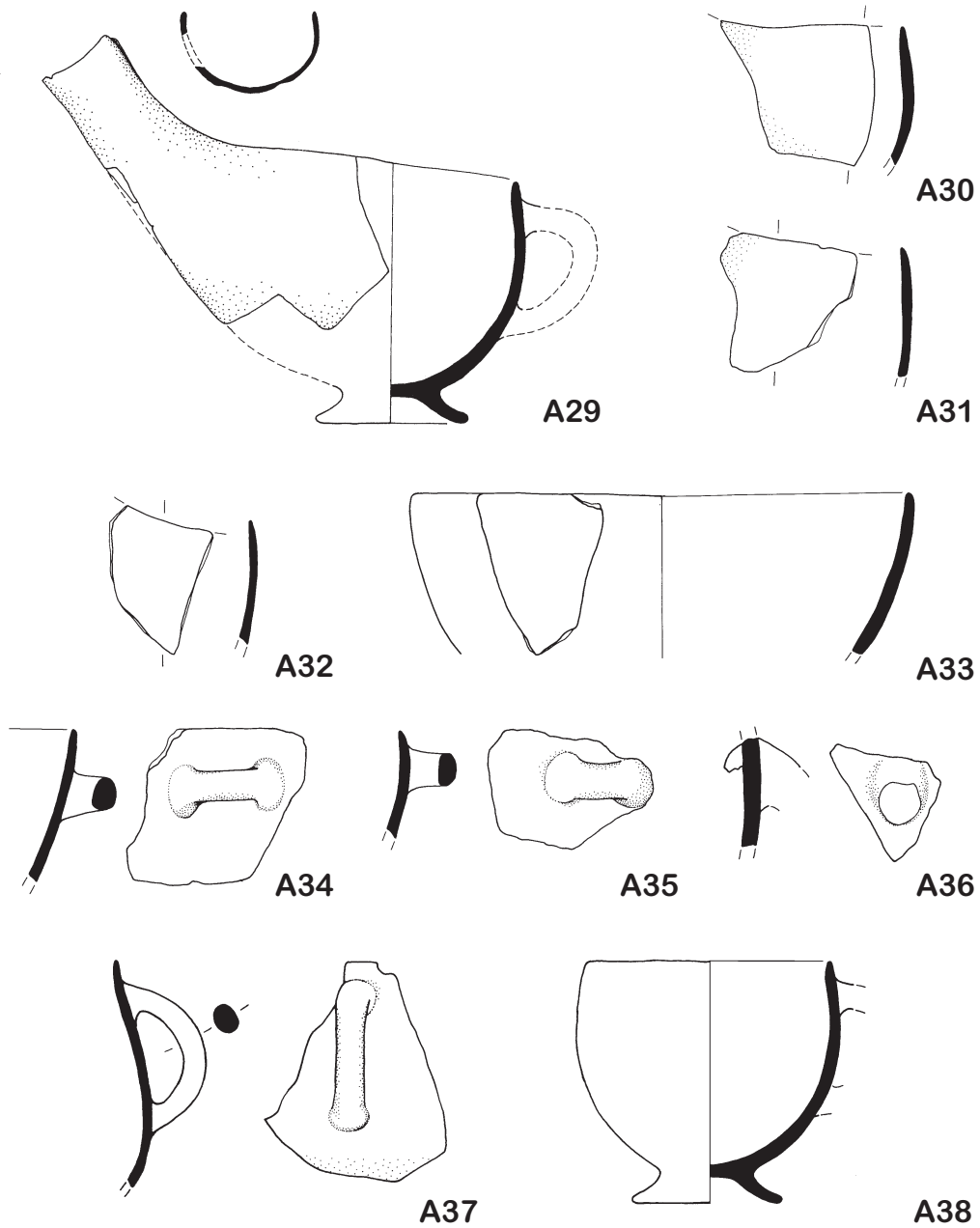


FIG. 11. Area A: EH sauceboats (A29-38). Scale 1:3.

dark-painted or unpainted. The length of the spout and the shape of the body evolve as well. **A29**, the best preserved of our sauceboats, should be type 3 early and also **A36–8**, which are dark-painted and have vertical handles. The horizontal handles of **A34–5** look more like type 2 than type 1. The other sauceboat sherds cannot be classified, though it should be noted that all are dark-painted. At Lerna, the type 2 sauceboat is found in phase A and B contexts but especially in phase C, whereas type 3 early spans phases late phase A–C. Dark-painted decoration is most common in phase B.³⁶

The rims of the saucers (FIG. 12: **A39–48**) do not turn in sharply and at Lerna they would therefore be classified as type 2 early, a mainly phase A shape which does continue into phase B.³⁷ Most of the saucers from Kouphovouno were dark-painted.

There were also a number of large saucers/bowls, with a diameter >20 cm (FIG. 13: **A49–55**). At Lerna this type of dark-painted saucer is late phase A–B.³⁸ **A56–8** (FIG. 14) have flattened rims, like type 1 large saucers, although it is not clear whether they had flat bases. The vertically pierced lug on the rim of **A59** (FIG. 14) is unusual. We do have other examples from Kouphovouno and similar bowls have been found at Anthochori, a site near Xerokambi which the 5th Ephorate has excavated.³⁹ The numerous ring bases (FIG. 14: **A60–70**) could come from sauceboats, saucers, or bowls.

The coarse ware bowls range in diameter from 20–48 cm—the average is around 32 cm. These were clearly utilitarian vessels, made in a much heavier fabric, typically 7–9 mm thick, fired brown, grey, or black and rarely painted. Nevertheless, there is often relief decoration just below the rim or above the base, though sometimes this is rather cursory and does not stand out against the rough surface finish, especially where an implement, possibly a spatula, was used to make a row or rows of shallow indentations (FIG. 15: **A71–7**). Some bowls have finger-impressed decoration as well (FIG. 16: **A78–80**).

On most of the bowls the rim is thickened or rounded and curves in (**A71–8**), less often it is straight (FIG. 16: **A79–80**). Another variant is a prominent T rim (FIG. 16: **A81–4**). The bases of these bowls were flat (FIG. 17: **A85–9**) and it should be noted that none had mat impressions on the underside.⁴⁰ At Lerna the incurved rim bowl with a flat base was the earlier of the two bowl types and had been replaced by mid phase B.⁴¹

There were also bowls in a hard fired grey or brown fabric 6–7 mm thick. Some have sharply articulated plain cordons, which curve down from the rim and form a carination on the shallower bowls (FIG. 17: **A90–3**). This type of decoration is only found in Laconia. On other bowls in the same fabric there is a finger-impressed ridge inside the rim (FIG. 18: **A94–5**). If this was functional rather than decorative, it could have supported a lid, which may explain pierced rim sherds such as **A96** (FIG. 18), unless they were also from bowls. A number of flat circular pans, 40–50 cm in diameter, in a medium-coarse fabric have finger impressions around the shallow rim (FIG. 18: **A97–8**, FIG. 19: **99–100**). It is possible that they were used for baking,⁴² although they were not burned underneath and could not have had hot coals raked up around the rim like the much deeper pans from Lerna.⁴³ They are another local vessel type.

³⁶ Ibid. 587.

³⁷ Ibid. 592–7.

³⁸ Ibid. 601–2.

³⁹ Elena Zavvou kindly showed us the pottery from Anthochori, which is predominantly late EH I and early EH II.

⁴⁰ See Renard 128–9 and pl. 52 for EH bases with mat impressions from Kouphovouno.

⁴¹ Wiencke 547–9.

⁴² Renard 140 and pl. 35 for two restored examples.

⁴³ Wiencke 535.

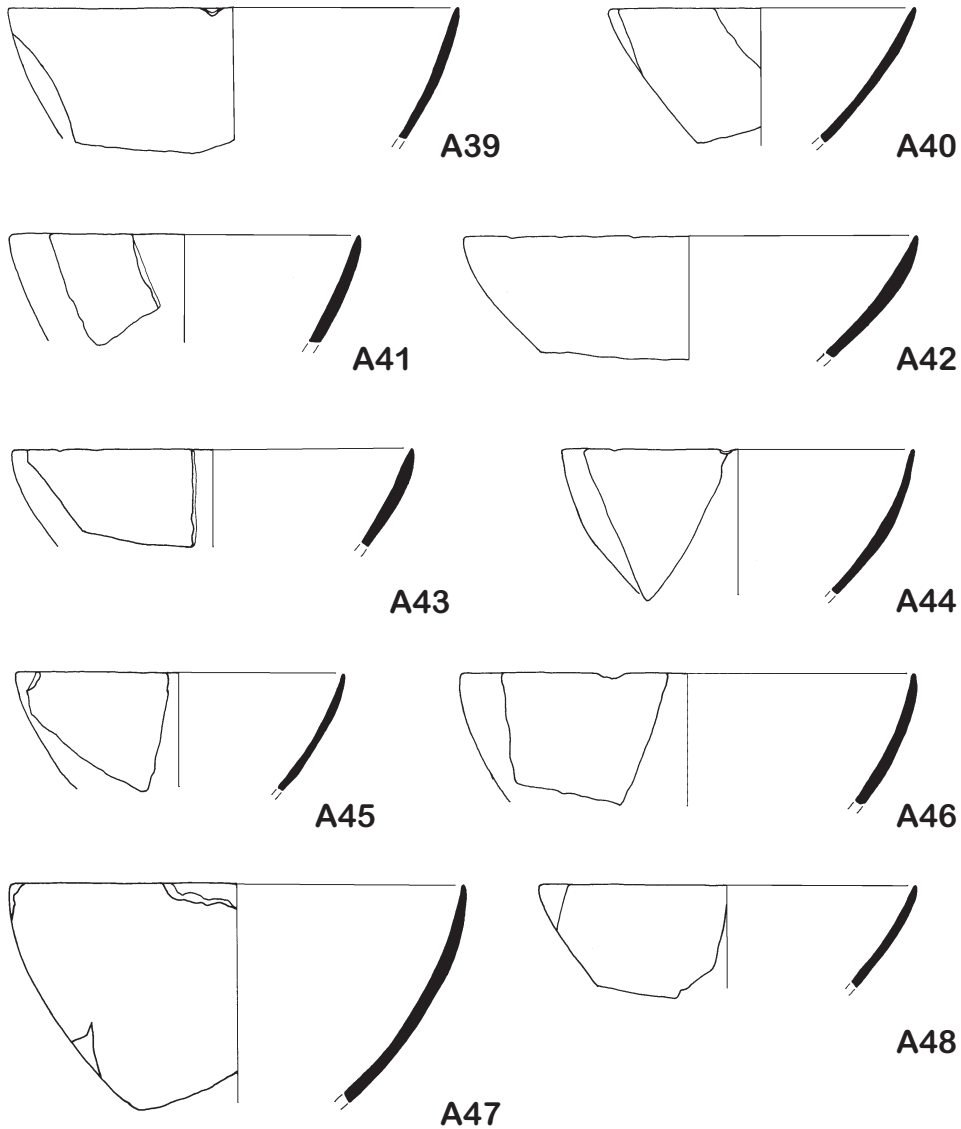


FIG. 12. Area A: EH saucers (A39–48). Scale 1:3.

The stands (FIG. 19: A101–103) had been exposed to heat, particularly on the side with the knobs. Sturdily constructed, they could have taken the weight of a heavy bowl or a row of spits.⁴⁴ It is possible that the finger impressions were not just decorative but kept the food in place as it was cooked. At Lerna the intermediate type stand with circular feet is early–mid phase B.⁴⁵

Most of the Early Helladic pottery comes from context A0004 and is a mixture of fine and

⁴⁴ Ibid. 608–9.

⁴⁵ Ibid. 607.

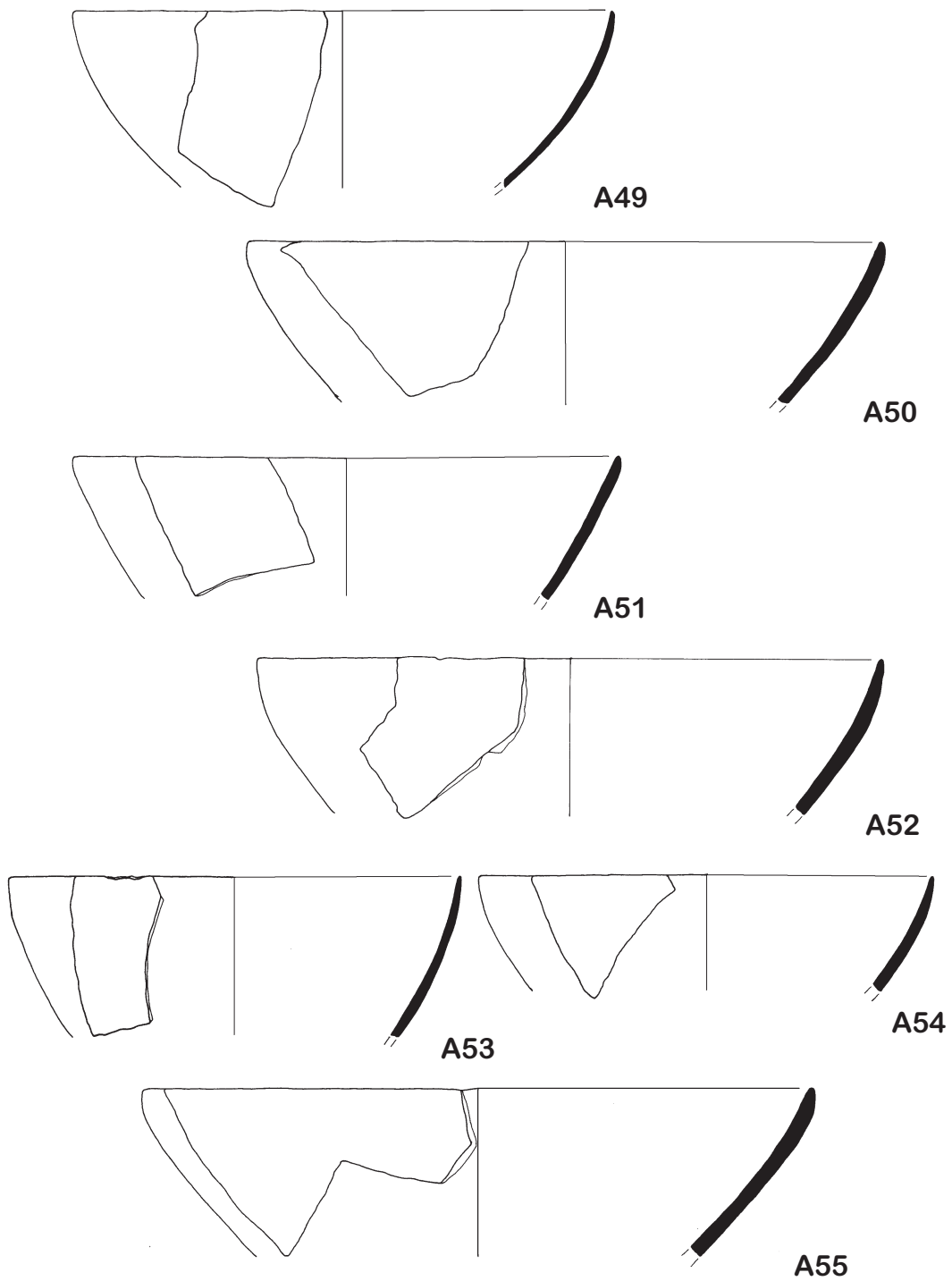


FIG. 13. Area A: EH bowls (A49-55). Scale 1:3.

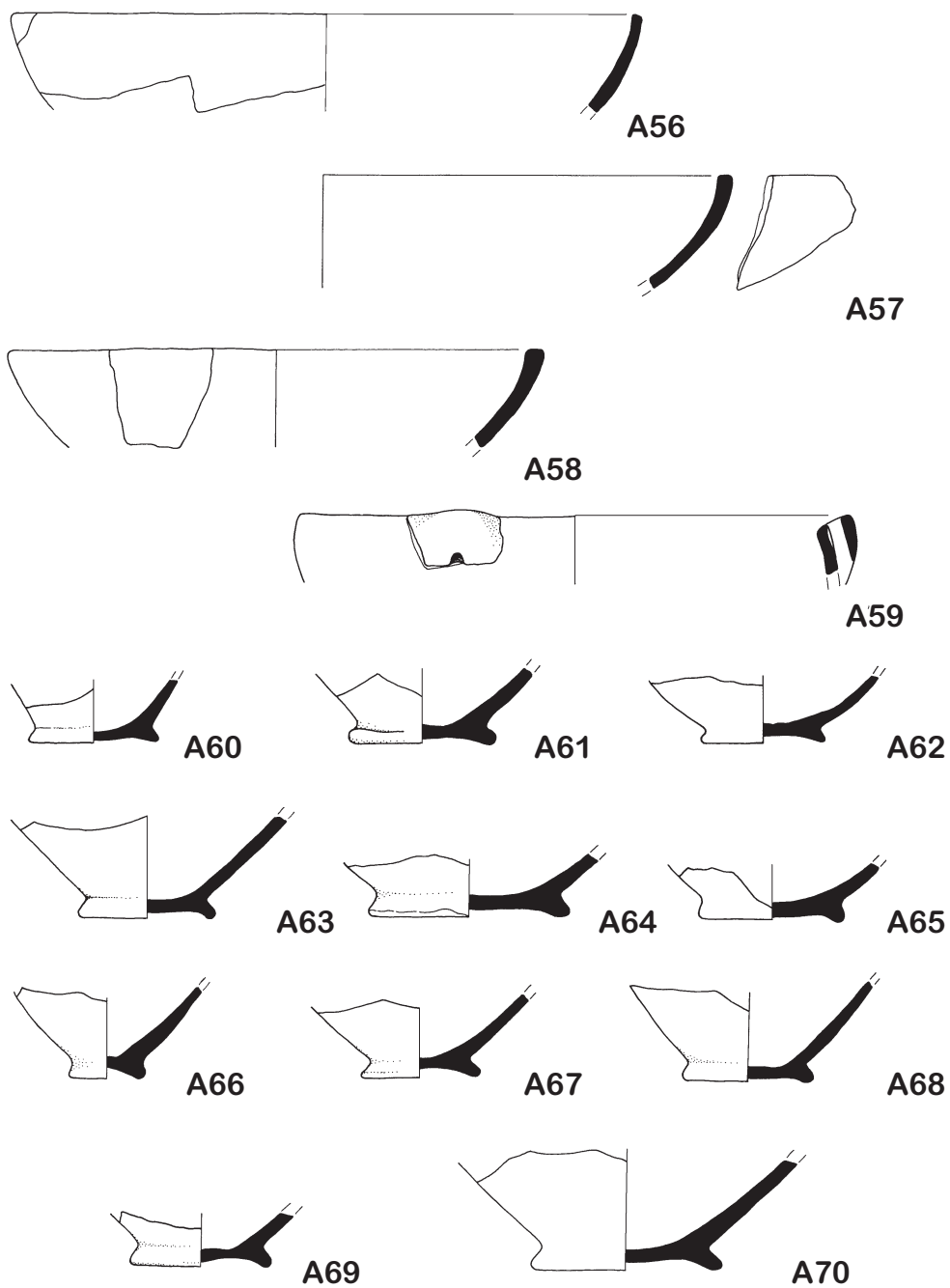


FIG. 14. Area A: EH bowls (A56-9) and bases (A60-70). Scale 1:3.

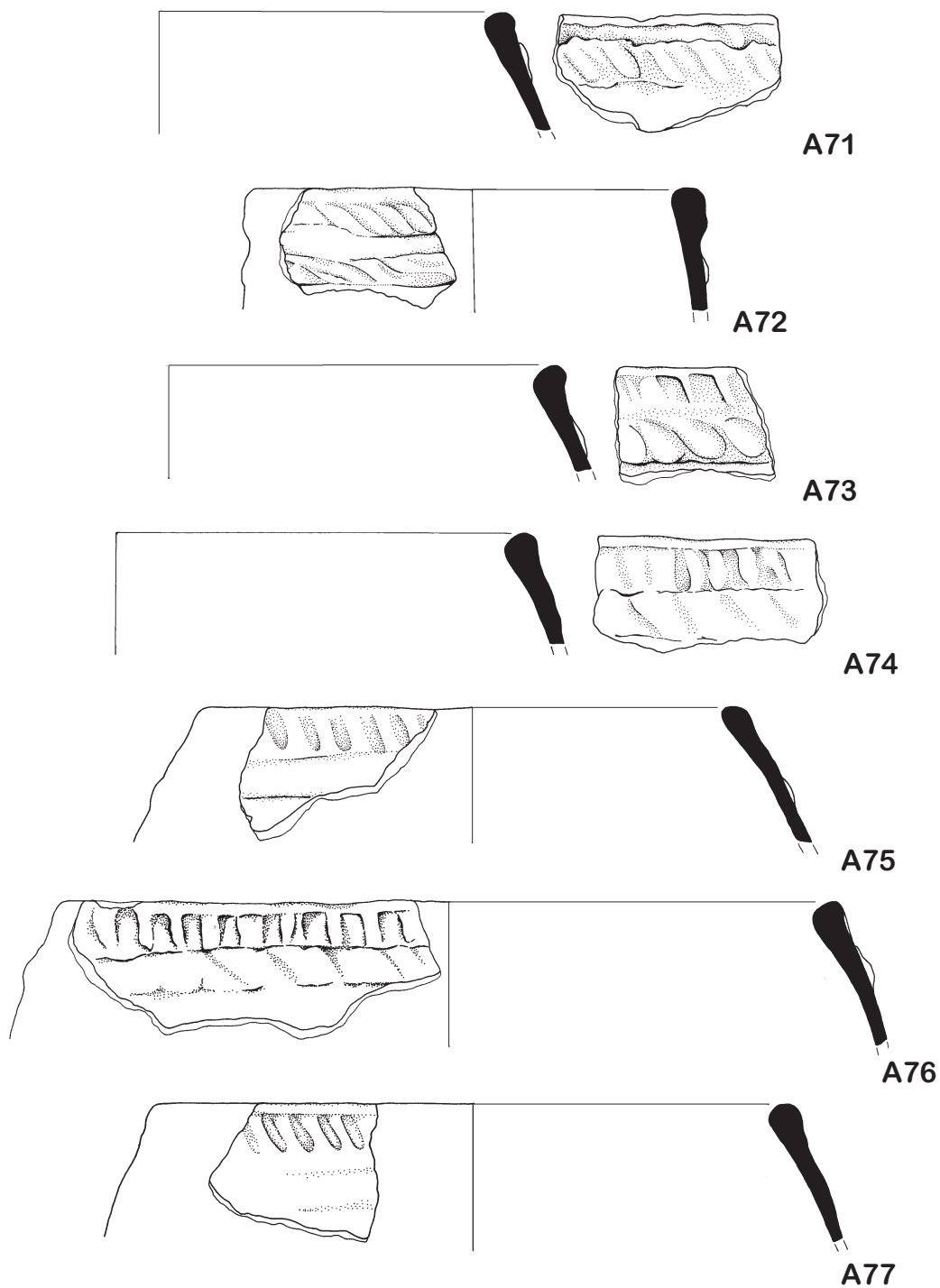


FIG. 15. Area A: EH bowls (A71-7). Scale 1:3.

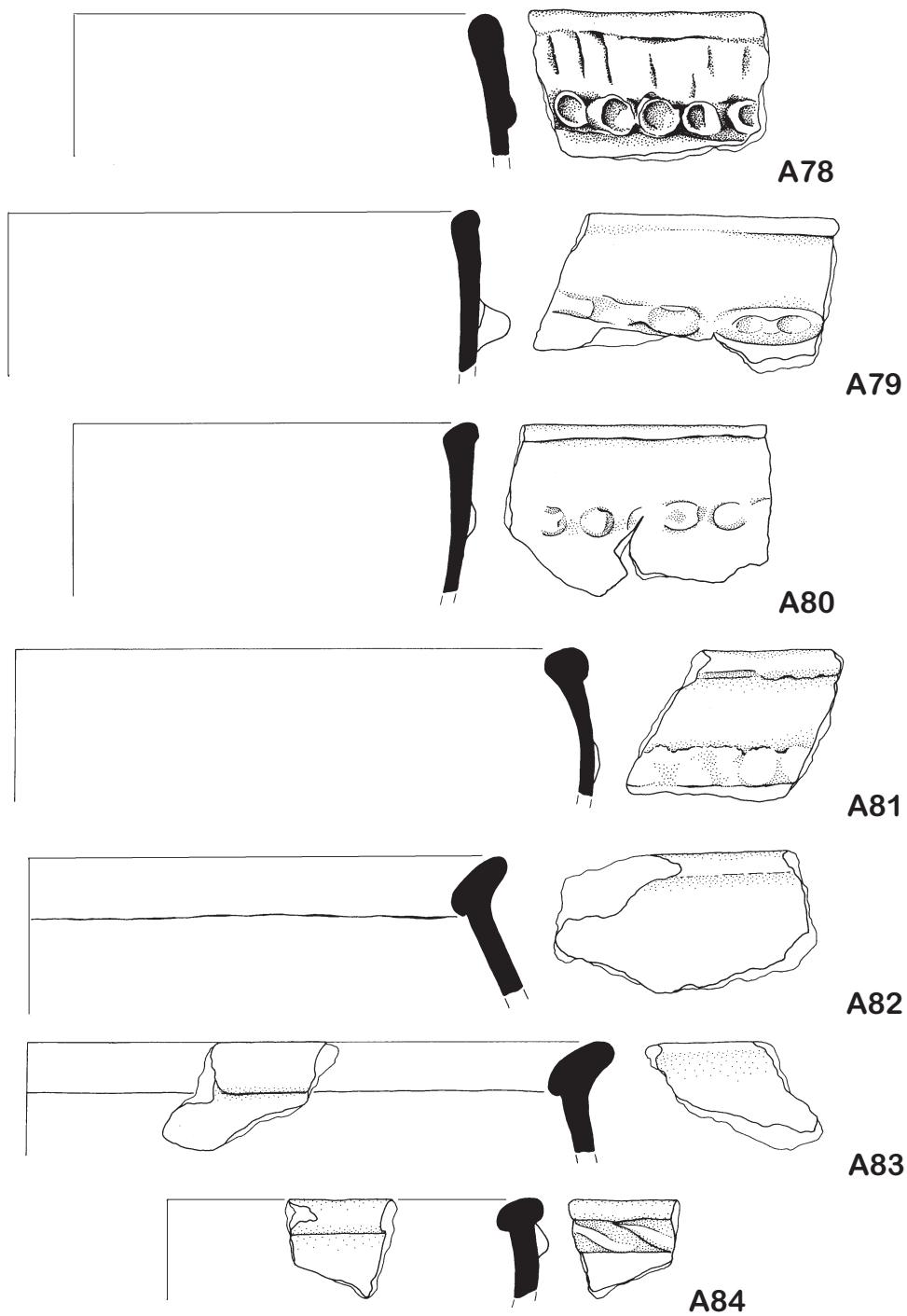


FIG. 16. Area A: EH bowls (A78-84). Scale 1:3.

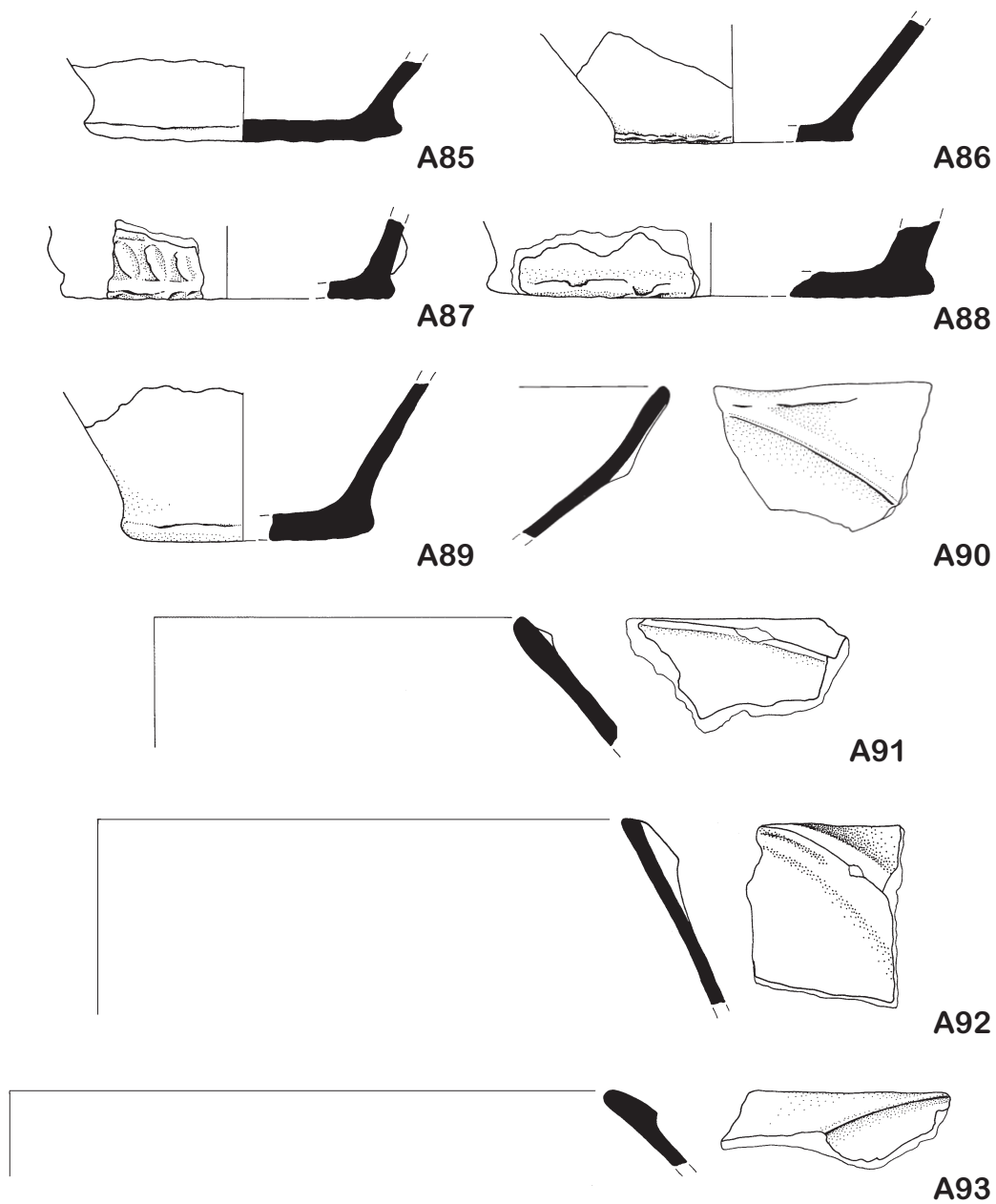


FIG. 17. Area A: EH bowls (A85-93). Scale 1:3.

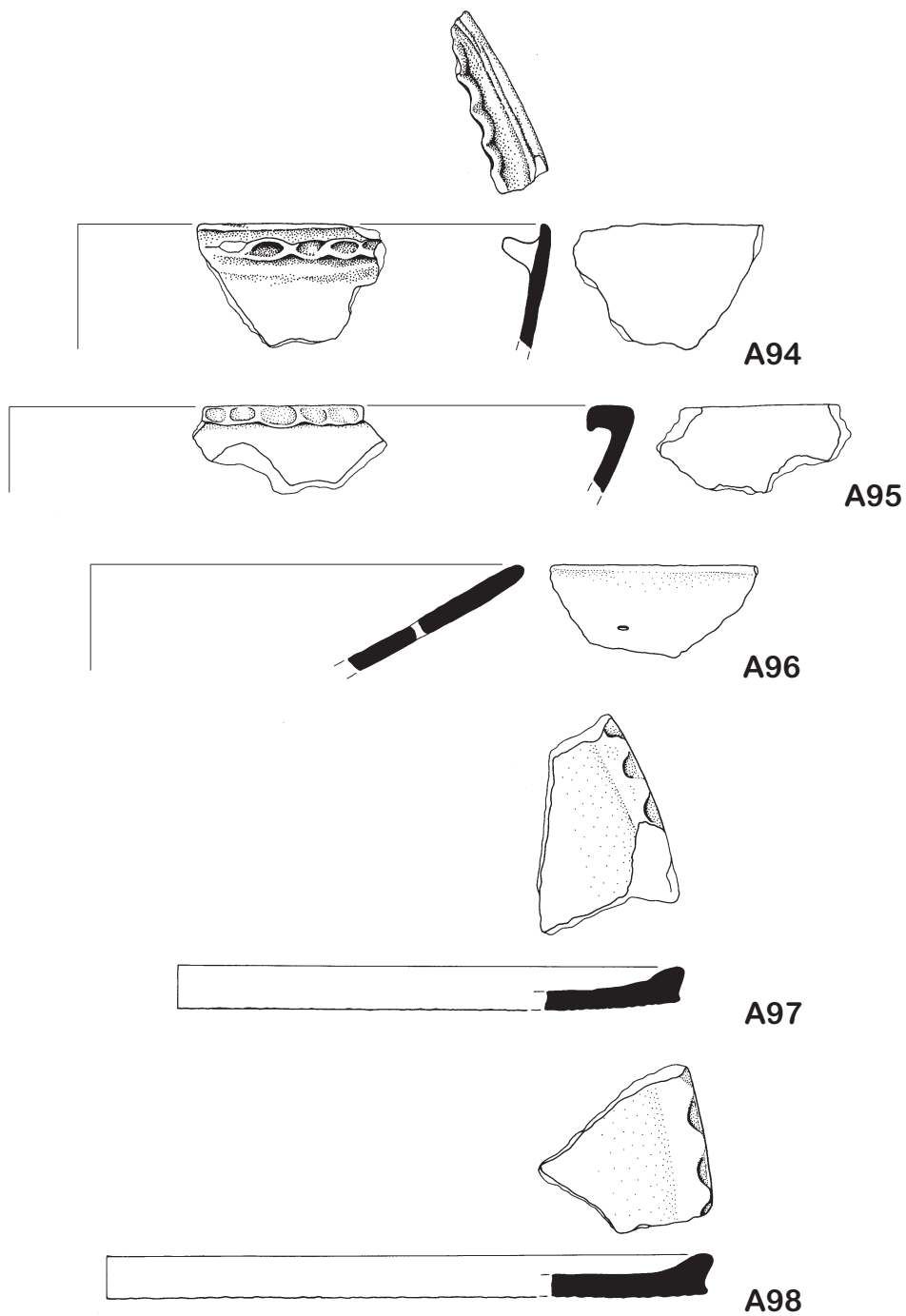


FIG. 18. Area A: EH bowls (A94-6) and pans (A97-8). Scale 1:3.

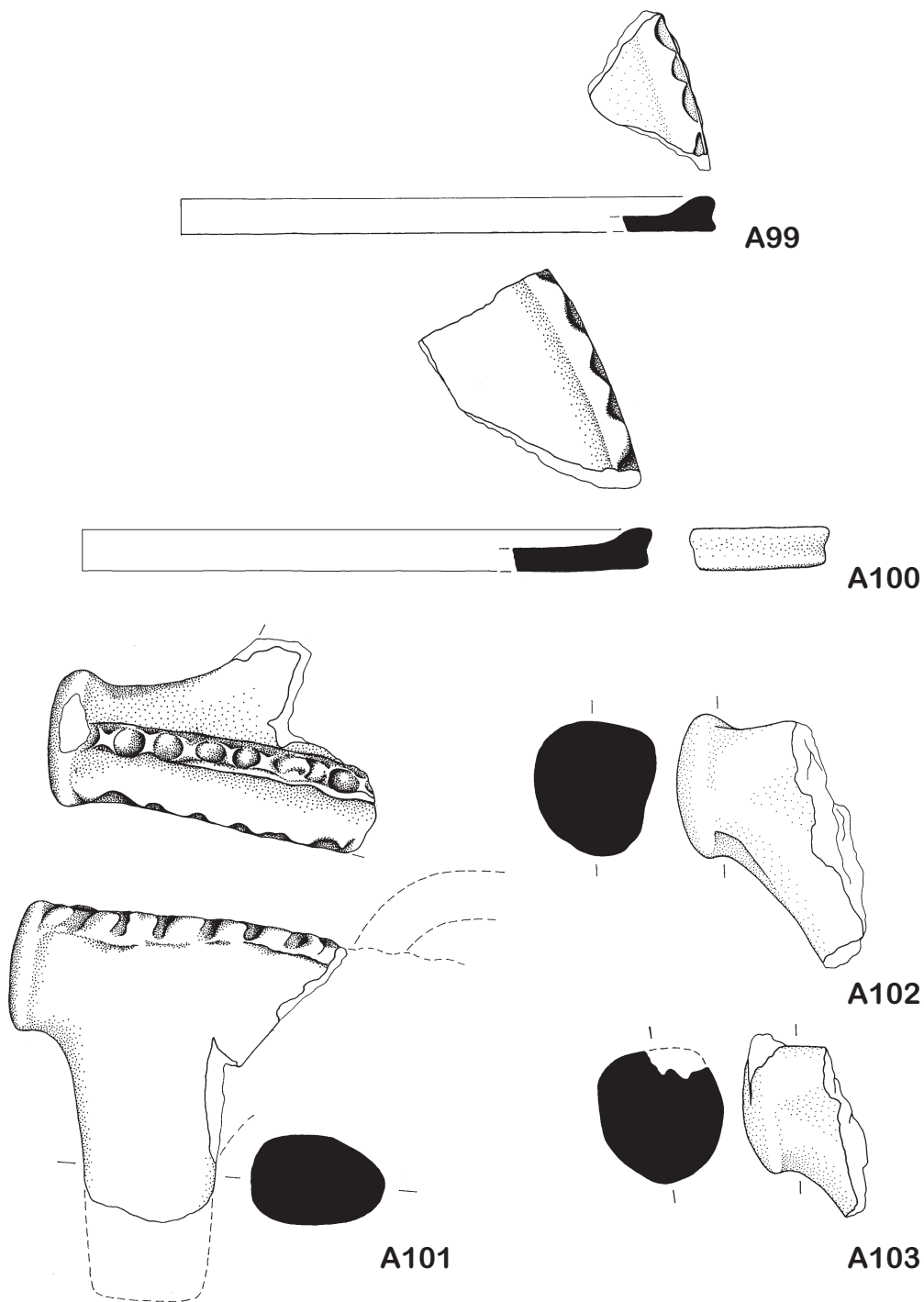


FIG. 19. Area A: EH pans (**A99-100**) and stands (**A101-3**). Scale 1:3.

coarse vessels. It is a typical domestic assemblage of this period. The size and condition of the sherds suggest that these vessels had been in use shortly before they were broken and deposited in the pit; because there were fewer joins than we had initially expected it seems that the breakage did not occur as the pit was filled. Chronologically the pottery covers quite a short time span, in terms of the Lerna sequence late phase A–mid B but it may be predominantly early or mid B. As such it provides us with a good EH II control group for Laconia, one which underlines how well interconnected Peloponnesian sites were, ceramically at least, and also reveals some differences, particularly in the coarse wares.

In this and the following catalogues all measurements are in mm; dimensions are the maximum preserved.

- A1** A0008.02.26. Pedestal base. Bowl. H. 64. W. 64. Th. 7. D. (base) 180. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/2. MN.
- A2** A0005.04.01. Convex thickened rim. Bowl. H. 39. W. 73. Th. 6. D. (rim) 180. Fabric: fine. Surface: 5 YR 5/1. Core: 10 YR 7/4. Grey Ware. LN.
- A3** A0004.094.11. Concave flared rim. Bowl. H. 43. W. 59. Th. 5. D. (rim) 130. Fabric: fine. Surface: 5 YR 5/1. Core: 5 YR 6/1. Grey Ware. LN.
- A4** A0012.01.02. Convex flared rim. Bowl. H. 38. W. 58. Th. 7. D. (rim) 260. Fabric: fine. Surface: 10 YR 6/2. Core: 10 YR 6/2. Grey Ware. LN.
- A5** A0003.02C.38. Concave flared rim. Jar. H. 41. W. 55. Th. 10. D. (rim) 210. Fabric: coarse. Surface: 5 YR 5/6. Core: 5 YR 4/1. FN.
- A6** A0004.087.32. Body sherd. H. 54. W. 42. Th. 10. Fabric: coarse. Surface: 7.5 YR 6/7. Core: 7.5 YR 6/4. Decoration: finger-impressed cordons. FN.
- A7** A0004.094.01. Concave plain rim. Basin. H. 85. W. 97. Th. 17. D. (rim) 440. Fabric: coarse. Surface: 10 YR 6/8. Core: 5 YR 7/2. Decoration: finger-impressed cordons. FN.
- A8** A0004.027.12. Convex flared rim. Jar. H. 72. W. 89. Th. 4. D. (rim) 120. Fabric: fine. Surface: 5 YR 6/6. Core: Gley 2.5/5 bg. EH II.
- A9** A0004.030.06. Convex flared rim. Jar. H. 81. W. 95. Th. 6. D. (rim) 122. Fabric: medium. Surface: 7.5 YR 7/6. Core: 7.5 YR 7/6. EH II.
- A10** A0004.049.14. Convex flared rim. Jar. H. 70. W. 109. Th. 7. D. (rim) 104. Fabric: medium. Surface: 2.5 YR 7/8. Core: 2.5 YR 8/1. EH II.
- A11** A0004.060.01. Convex flared rim. Jar. H. 80. W. 112. Th. 6. D. (rim) 140. Fabric: fine. Surface: 7.5 YR 6/6. Core: 10 YR 6/2. EH II.
- A12** A0004.073.01. Convex flared rim. Jar. H. 90. W. 160. Th. 7. D. (rim) 120. Fabric: medium. Surface: 10 YR 6/8. Core: 10 YR 6/8. EH II.
- A13** A0004.087.05+07. Convex flared rim. Jar. H. 97. W. 89. Th. 7. D. (rim) 120. Fabric: fine. Surface: 10 r 4/2. Core: 10 r 7/1. Decoration: painted monochrome (2.5 y 4/2). EH II.
- A14** A0012.03.01. Convex flared rim. Jar. H. 76. W. 106. Th. 5. D. (rim) 150. Fabric: fine. Surface: 5 y 8/1. Core: 2.5 y 6/1. EH II.
- A15** A0004.103.07. Vertical loop handle. Jar. H. 135. W. 67. Th. 5. Fabric: medium. Surface: 5 YR 8/2. Core: 5 YR 7/2. EH II.
- A16** A0004.110.13. Vertical loop handle. Jar. H. 150. W. 132. Th. 8. Fabric: medium. Surface: 7.5 YR 7/3. Core: 7.5 YR 7/3. EH II.
- A17** A0004.093.12. Horizontal loop handle. Jar. H. 88. W. 104. Th. 7. Fabric: coarse. Surface: 5 YR 4/3. Core: 5 YR 7/2. Decoration: painted monochrome (10 r 3/1). EH II.
- A18** A0004.026.07. Concave flared rim/circular handle. Hydria/jug. H. 133. W. 73. Th. 6. D. (rim) 100. Fabric: coarse. Surface: 7.5 YR 6/4. Core: 2.5 y 5/2. EH II.
- A19** A0002.01B.33. Circular handle. H. 32. W. 57. Th. 20. D: 20. Fabric: medium. Surface: 7.5 YR 6/4. Core: 7.5 YR 6/3. Decoration: incised horizontal lines. EH.
- A20** A0004.106B.15. Circular handle. H. 82. W. 40. Th. 25. Fabric: coarse. Surface: 10 r 5/6. Core: 5 YR 5/2. Decoration: incised diagonal lines. EH II.
- A21** A0004.086.19. Circular handle. H. 88. W. 41. Th. 24. Fabric: coarse. Surface: 2.5 YR 7/4. Core: 2.5 YR 6/1. Decoration: finger impressions on top of handle. EH II.
- A22** A0004.104.14. Circular handle. H. 81. W. 45. Th. 28. Fabric: coarse. Surface: 7.5 YR 7/4. Core: 7.5 YR 6/3. Decoration: finger impressions on top of handle. EH II.

- A23** A0002.04.46. Flattened handle. Askos. H. 43. W. 43. Th. 10. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: incised rows of diagonal lines. EH II.
- A24** A0004.043.12. strap handle. Askos. H. 44. W. 55. Th. 9. Fabric: coarse. Surface: 10 r 6/8. Core: 10 r 6/1. Decoration: incised vertical lines and painted monochrome (10 r 4/8). EH II.
- A25** A0004.066.27. strap handle. Askos. H. 69. W. 39. Th. 8. Fabric: fine. Surface: 7.5 YR 7/4. Core: 7.5 YR 6/4. Decoration: three ridges. EH II.
- A26** A0004.072.06. Plain rim/strap handle. (Askos.) H. 97. W. 56. Th. 8. Fabric: medium. Surface: 10 YR 6/8. Core: 10 YR 6/8. Decoration: three finger-impressed ridges on handle. EH II.
- A27** A0004.049.15. Spur handle. Ladle. H. 75. W. 20. Th. 27. Fabric: fine. Surface: 5 YR 7/8. Core: 2.5 YR 7/8. EH II.
- A28** A0004.083.01. Plain rim/protome handle. Spoon. H. 56. W. 27. Th. 4. Fabric: medium. Surface: 5 YR 6/6. Core: 2.5 YR 6/8. Decoration: modelled animal head. EH II.
- A29** A0004.011.01-05. Incurved rim. Sauceboat. H. 130. W. 140. Th. 4. Fabric: fine. Surface: 7.5 YR 6/6. Core: 5 YR 5/8. Decoration: painted monochrome (7.5 YR 2.5/1). EH II.
- A30** A0004.021.01. Incurved rim. Sauceboat. H. 56. W. 60. Th. 3. Fabric: fine. Surface: 5 YR 6/6. Core: 7.5 YR 4/6. Decoration: painted monochrome (7.5 YR 3/1). EH II.
- A31** A0004.031.04. Incurved rim. Sauceboat. H. 56. W. 55. Th. 3. Fabric: fine. Surface: 2.5 YR 7/6. Core: 2.5 YR 6/8. Decoration: painted monochrome (2.5 YR 4/1). EH II.
- A32** A0004.084.05. Incurved rim. Sauceboat. H. 45. W. 40. Th. 3. Fabric: fine. Surface: 2.5 YR 7/8. Core: 5 YR 7/1. Decoration: painted monochrome (2.5 YR 7/8). EH II.
- A33** A0004.066.09. Incurved rim. Sauceboat. H. 72. W. 51. Th. 5. D. (rim) 210. Fabric: fine. Surface: 7.5 YR 6/6. Core: 5 YR 6/8. Decoration: painted monochrome (2.5 YR 6/6). EH II.
- A34** A0004.060.12. Incurved rim/horizontal loop handle. Sauceboat. H. 62. W. 78. Th. 4. Fabric: fine. Surface: 5 YR 6/6. Core: 5 YR 6/8. Decoration: painted monochrome (2.5 YR 5/6). EH II.
- A35** A0004.100.17. Incurved rim/horizontal loop handle. Sauceboat. H. 69. W. 52. Th. 5. Fabric: fine. Surface: 5 YR 3/1. Core: 5 YR 7/2. Decoration: painted monochrome (5 YR 3/1). EH II.
- A36** A0004.066.26. Vertical loop handle. Sauceboat. H. 33. W. 55. Th. 6. Fabric: fine. Surface: 7.5 YR 7/6. Core: Gley 2.2.5/5 b. Decoration: painted monochrome (2.5 y 3/1). EH II.
- A37** A0004.060.13. Incurved rim/vertical loop handle. Sauceboat. H. 91. W. 74. Th. 3. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 6/8. Decoration: painted monochrome (2.5 YR 5/6). EH II.
- A38** A0011.01.15+18. Incurved rim/vertical loop handle/conical base. Sauceboat. H. 104. W. 113. Th. 4. D. (rim) 100, (base) 60. Fabric: fine. Surface: 2.5 YR 7/6. Core: 2.5 YR 7/8. Decoration: painted monochrome (10 r 5/8). EH II.
- A39** A0004.023.07. Incurved rim. Saucer. H. 58. W. 94. Th. 3. D. (rim) 180. Fabric: fine. Surface: 5 YR 6/6. Core: 2.5 YR 5/8. Decoration: painted monochrome (10 r 5/6). EH II.
- A40** A0004.027.08. Incurved rim. Saucer. H. 64. W. 48. Th. 3. D. (rim) 120. Fabric: fine. Surface: 7.5 YR 6/6. Core: 5 y 4/1. Decoration: painted monochrome (5 y 2.5/1). EH II.
- A41** A0004.029.14. Incurved rim. Saucer. H. 47. W. 42. Th. 4. D. (rim) 140. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. Decoration: painted monochrome (2.5 YR 4/2). EH II.
- A42** A0004.030.03+04+09. Incurved rim. Saucer. H. 49. W. 190. Th. 4. D. (rim) 180. Fabric: fine. Surface: 7.5 YR 6/6. Core: 7.5 YR 5/1. Decoration: painted monochrome (7.5 YR 3/1). EH II.
- A43** A0004.044.10. Incurved rim. Saucer. H. 45. W. 68. Th. 4. D. (rim) 160. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: painted monochrome (2.5 YR 6/8). EH II.
- A44** A0004.059.03. Incurved rim. Saucer. H. 69. W. 58. Th. 3. D. (rim) 140. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. Decoration: painted monochrome (2.5 YR 6/8). EH II.
- A45** A0004.062.01. Incurved rim. Saucer. H. 53. W. 58. Th. 3. D. (rim) 130. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 6/8. Decoration: painted monochrome (2.5 YR 6/8). EH II.
- A46** A0004.062.07. Incurved rim. Saucer. H. 56. W. 64. Th. 4. D. (rim) 180. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 6/8. Decoration: painted monochrome in (5 YR 4/3). EH II.

- A47** A0004.067.10+12. Incurved rim. Saucer. H. 98. W. 102. Th. 4. D. (rim) 180. Fabric: fine. Surface: 5 YR 6/8. Core: 2.5 YR 6/8. Decoration: painted monochrome (2.5 YR 5/8). EH II.
- A48** A0004.070.04+06. Incurved rim. Saucer. H. 65. W. 50. Th. 4. D. (rim) 150. Fabric: fine. Surface: 10 r 6/8. Core: 10 r 7/8. Decoration: painted monochrome (10 r 5/6). EH II.
- A49** A0004.060.02. Incurved rim. Bowl. H. 92. W. 67. Th. 3. D. (rim) 240. Fabric: fine. Surface: 5 YR 6/8. Core: 5 YR 5/8. Decoration: painted monochrome (5 YR 3/1). EH II.
- A50** A0004.066.01+06. Incurved rim. Bowl. H. 85. W. 112. Th. 5. D. (rim) 280. Fabric: fine. Surface: 7.5 YR 6/6. Core: 7.5 YR 5/4. Decoration: painted monochrome (7.5 YR 3/3). EH II.
- A51** A0004.084.03. Incurved rim. Bowl. H. 70. W. 58. Th. 6. D. (rim) 240. Fabric: fine. Surface: 5 YR 5/8. Core: 5 YR 7/1. Decoration: painted monochrome (5 YR 2.5/2). EH II.
- A52** A0004.087.08. Incurved rim. Bowl. H. 76. W. 80. Th. 8. D. (rim) 280. Fabric: fine. Surface: 10 YR 5/6. Core: 10 YR 6/1. Decoration: painted monochrome (2.5 YR 5/8). EH II.
- A53** A0004.100.03. Incurved rim. Bowl. H. 79. W. 42. Th. 5. D. (rim) 200. Fabric: fine. Surface: 2.5 YR 7/6. Core: 2.5 YR 7/1. Decoration: painted monochrome (2.5 YR 4/8). EH II.
- A54** A0004.102.01. Incurved rim. Bowl. H. 57. W. 60. Th. 6. D. (rim) 200. Fabric: fine. Surface: 2.5 YR 6/1. Core: 5 YR 7/2. Decoration: painted monochrome (7.5 YR 4/3). EH II.
- A55** A0011.01.06+07. Incurved rim. Bowl. H. 91. W. 134. Th. 6. D. (rim) 300. Fabric: fine. Surface: 2.5 YR 7/8. Core: 2.5 YR 7/8. Decoration: painted monochrome (10 r 5/6). EH II.
- A56** A0004.035.01+044.02. Flattened rim. Bowl. H. 41. W. 150. Th. 5. D. (rim) 260. Fabric: fine. Surface: 10 r 6/8. Core: 10 r 7/2. Decoration: painted monochrome (10 r 5/8). EH II.
- A57** A0004.092.05. Flattened rim. Bowl. H. 67. W. 40. Th. 5. D. (rim) 360. Fabric: fine. Surface: 2.5 YR 6/6. Core: 5 YR 7/2. Decoration: painted monochrome (5 YR 2.5/1). EH II.
- A58** A0004.104.05. Flattened rim. Bowl. H. 46. W. 46. Th. 6. D. (rim) 220. Fabric: fine. Surface: 5 YR 6/8. Core: 5 YR 7/1. Decoration: painted monochrome (7.5 YR 2.5/2). EH II.
- A59** A0004.029.17. Plain rim/vertically pierced lug. Bowl. H. 22. W. 38. Th. 5. D. (rim) 200. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. EH II.
- A60** A0004.026.11. Raised base. H. 26. W. 57. Th. 3. D. (base) 54. Fabric: fine. Surface: 2.5 YR 6/8. Core: 2.5 YR 6/8. Decoration: painted monochrome (10 r 4/8). EH II.
- A61** A0004.056.03. Raised base. H. 31. W. 73. Th. 4. D. (base) 61. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. EH II.
- A62** A0004.060.17. Raised base. H. 29. W. 77. Th. 3. D. (base) 50. Fabric: fine. Surface: 5 YR 6/8. Core: 5 YR 5/8. Decoration: painted monochrome (2.5 YR 5/6). EH II.
- A63** A0004.062.31. Raised base. H. 40. W. 89. Th. 4. D. (base) 56. Fabric: fine. Surface: 7.5 YR 7/8. Core: 7.5 YR 5/8. Decoration: painted monochrome (7.5 YR 3/2). EH II.
- A64** A0004.066.29. Raised base. H. 26. W. 94. Th. 5. D. (base) 82. Fabric: fine. Surface: 7.5 YR 6/4. Core: 7.5 YR 4/3. Decoration: painted monochrome (7.5 YR 2.5/1). EH II.
- A65** A0004.070.20. Raised base. H. 23. W. 67. Th. 5. D. (base) 60. Fabric: fine. Surface: 5 YR 7/2. Core: 2.5 YR 8/4. Decoration: painted monochrome (2.5 YR 7/4). EH II.
- A66** A0004.103.09. Raised base. H. 35. W. 56. Th. 6. D. (base) 31. Fabric: fine. Surface: 5 YR 6/6. Core: 5 YR 7/2. EH II.
- A67** A0004.104.17. Raised base. H. 30. W. 86. Th. 5. D. (base) 50. Fabric: fine. Surface: 5 YR 6/8. Core: 5 YR 6/8. Decoration: painted monochrome (2.5 YR 6/8). EH II.
- A68** A0004.106A.04. Raised base. H. 40. W. 90. Th. 5. D. (base) 54. Fabric: fine. Surface: 5 YR 3/1. Core: 5 YR 5/8. Decoration: painted monochrome (5 YR 3/1). EH II.
- A69** A0006.13.07. Raised base. H. 22. W. 67. Th. 5. D. (base) 58. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. Decoration: painted monochrome (10 r 4/4). EH II.
- A70** A0011.01.12+16. Raised base. H. 68. W. 122. Th. 4. D. (base) 78. Fabric: fine. Surface: 10 r 6/8. Core: 2.5 YR 6/8. Decoration: painted monochrome out and in (5 YR 3/2). EH II.
- A71** A0004.021.17. rounded rim. Bowl. H. 55. W. 100. Th. 7. D. (rim) 310. Fabric: coarse. Surface: 7.5 YR 6/4. Core: 7.5 YR 6/4. Decoration: impressed cordon. EH II.

- A72** A0004.023.03. rounded rim. Bowl. H. 53. W. 77. Th. 7. D. (rim) 210. Fabric: coarse. Surface: 5 YR 6/4. Core: 10 YR 4/2. Decoration: impressed cordons. EH II.
- A73** A0004.031.01. rounded rim. Bowl. H. 49. W. 68. Th. 8. D. (rim) 320. Fabric: coarse. Surface: 5 YR 5/2. Core: 7.5 YR 6/2. Decoration: impressed cordons. EH II.
- A74** A0004.070.01. rounded rim. Bowl. H. 97. W. 52. Th. 8. D. (rim) 340. Fabric: coarse. Surface: 10 YR 7/4. Core: 5 YR 8/1. Decoration: impressed cordon. EH II.
- A75** A0004.081.13. thickened rim. Bowl. H. 70. W. 83. Th. 9. D. (rim) 220. Fabric: coarse. Surface: 5 YR 6/2. Core: 2.5 YR 4/1. Decoration: impressed cordon. EH II.
- A76** A0004.093.01. rounded rim. Bowl. H. 65. W. 155. Th. 7. D. (rim) 320. Fabric: coarse. Surface: 7.5 YR 7/4. Core: 5 YR 7/2. Decoration: impressed cordon. EH II.
- A77** A0004.104.11. rounded rim. Bowl. H. 67. W. 79. Th. 7. D. (rim) 260. Fabric: coarse. Surface: 7.5 YR 6/1. Core: 7.5 YR 2/1. Decoration: impressed cordon. EH II.
- A78** A0004.094.02. rounded rim. Bowl. H. 60. W. 94. Th. 11. D. (rim) 340. Fabric: coarse. Surface: 10 YR 6/8. Core: 5 YR 7/2. Decoration: finger-impressed cordon. EH II.
- A79** A0011.01.02+05+11. Rounded rim/ledge handle. Bowl. H. 68. W. 121. Th. 7. D. (rim) 400. Fabric: coarse. Surface: 2.5 YR 8/3. Core: 7.5 YR 6/2. Decoration: finger-impressed cordon and painted monochrome (10 R 5/6). EH II.
- A80** A0004.066.02+03. Rounded rim. Bowl. H. 73. W. 110. Th. 6. D. (rim) 320. Fabric: medium. Surface: 10 YR 7/4. Core: 10 YR 6/3. Decoration: finger-impressed cordon and painted monochrome (7.5 YR 5/4). EH II.
- A81** A0004.072.01. T rim. Bowl. H. 61. W. 85. Th. 8. D. (rim) 480. Fabric: medium. Surface: 2.5 YR 5/1. Core: 2.5 YR 7/2. Decoration: impressed cordon and painted monochrome (7.5 YR 4/3). EH II.
- A82** A0004.081.01. T rim. bowl. H. 56. W. 111. Th. 10. D. (rim) 360. Fabric: coarse. Surface: 2.5 YR 7/6. Core: 2.5 YR 4/1. EH II.
- A83** A0004.102.05. T rim. Bowl. H. 48. W. 74. Th. 9. D. (rim) 500. Fabric: coarse. Surface: 5 YR 7/2. Core: 5 YR 5/1. EH II.
- A84** A0007.02.02. T rim. Bowl. H. 43. W. 46. Th. 8. D. (rim) 320. Fabric: medium. Surface: 2.5 YR 6/8. Core: 7.5 YR 6/3. Decoration: impressed cordon. EH II.
- A85** A0004.030.12. Flat base. H. 41. W. 144. Th. 9. D. (base) 132. Fabric: coarse. Surface: 2.5 YR 6/6. Core: 2.5 YR 5/1. EH II.
- A86** A0004.031.15. Flat base. H. 50. W. 86. Th. 6. D. (base) 100. Fabric: coarse. Surface: 10 YR 6/2. Core: 10 YR 7/1. EH II.
- A87** A0004.035.13. Flat base. H. 33. W. 42. Th. 7. D. (base) 140. Fabric: coarse. Surface: 5 YR 4/1. Core: 5 YR 6/1. Decoration: impressed cordon. EH II.
- A88** A0004.060.15. Flat base. H. 31. W. 79. Th. 11. D. (base) 180. Fabric: coarse. Surface: 2.5 YR 5/4. Core: 2.5 YR 5/6. EH II.
- A89** A0004.110.20. Flat base. H. 53. W. 100. Th. 6. D. (base) 105. Fabric: coarse. Surface: 7.5 YR 4/1. Core: 7.5 YR 5/3. EH II.
- A90** A0004.100.25. Shallow plain rim. Bowl. H. 89. W. 91. Th. 7. Fabric: medium. Surface: 5 YR 7/2. Core: 5 YR 7/2. Decoration: plain cordon. EH II.
- A91** A0004.009.01-05. Plain rim. Bowl. H. 43. W. 52. Th. 8. D. (rim) 300. Fabric: medium. Surface: 7.5 YR 6/6. Core: 7.5 YR 5/2. Decoration: plain cordon. EH II.
- A92** A0004.030.07. Rounded rim. Bowl. H. 86. W. 64. Th. 6. D. (rim) 440. Fabric: medium. Surface: 7.5 YR 6/3. Core: 7.5 YR 6/3. Decoration: plain cordon. EH II.
- A93** A0004.066.17. Plain rim. Bowl. H. 43. W. 92. Th. 6. D. (rim) 500. Fabric: fine. Surface: 7.5 YR 6/8. Core: 7.5 YR 5/8. Decoration: plain cordon. EH II.
- A94** A0004.022.21. Plain rim with ledge in. Bowl. H. 52. W. 78. Th. 6. D. (rim) 400. Fabric: medium. Surface: 5 YR 6/3. Core: 5 YR 5/2. Decoration: finger impressions on ledge. EH II.
- A95** A0004.102.08. Plain rim with ledge in. Bowl. H. 79. W. 35. Th. 7. D. (rim) 520. Fabric: medium. Surface: 2.5 YR 7/1. Core: 5 YR 7/2. Decoration: finger impressions on ledge. EH II.
- A96** A0004.067.08. Shallow plain rim. H. 84. W. 86. Th. 7. D. (rim) 360. Fabric: medium. Surface: 7.5 YR 6/4. Core: 5 YR 5/6. Decoration: pierced with one hole. EH II.
- A97** A0004.022.25. Thickened rim. Pan. H. 58. W.

83. Th. 8. D. (rim) 420. Fabric: medium. Surface: 5 YR 6/4. Core: 5 YR 5/4. Decoration: finger impressions on rim. EH II.
- Ag8** A0004.027.11. Thickened rim. Pan. H. 68. W. 64. Th. 9. D. (rim) 500. Fabric: medium. Surface: 5 YR 6/4. Core: 5 YR 6/3. Decoration: finger impressions on rim. EH II.
- Ag9** A0004.062.27. Thickened rim. Pan. H. 42. W. 74. Th. 7. D. (rim) 460. Fabric: medium. Surface: 7.5 YR 6/4. Core: 7.5 YR 5/6. Decoration: finger impressions on rim. EH II.
- A100** A0004.067.06. Thickened rim. Pan. H. 64. W. 104. Th. 10. D. (rim) 500. Fabric: medium. Surface: 7.5 YR 6/6. Core: 7.5 YR 6/6. Decoration: finger impressions on rim. EH II.
- A101** A0004.105.01-03. Foot and knob. Stand. H. 132. W. 45. Th. 55. Fabric: coarse. Surface: 5 YR 7/2. Core: 2.5 YR 4/3. Decoration: finger-impressed cordons. EH II.
- A102** A0004.110.31. Knob. Stand. H. 121. W. 80. Th. 33. Fabric: coarse. Surface: 5 YR 7/8. Core: 5 YR 7/8. EH II.
- A103** A0011.01.20. Knob. Stand. H. 80. W. 56. Th. 38. Fabric: coarse. Surface: 5 YR 6/3. Core: 2.5 YR 5/6. EH II.

SMALL FINDS (FIG. 20)

The marble figurine **ASF1** is from context A0009, the fill of the grave, but should be Neolithic. It resembles two of the LN figurines from Franchthi⁴⁶ and a marble head from Alepotrypa, which is LN or FN.⁴⁷ Three of the marble figurines in the National Museum from the 'vicinity of Sparta', almost certainly Kouphovouno, have rather similar conical heads, though less beaky noses.⁴⁸

The copper tweezers **ASF3** also came from the grave. Tweezers of this open spring type can be EH but the incurved edges of the blades make a MH date more likely,⁴⁹ so they were presumably left in the grave with one of the burials.

- ASF1** A0009.26. Head of a marble figurine. H. 21. W. 9. Th. 11. Colour: 2.5 y 8/2. LN.
- ASF2** A0004.099. Bone awl. L. 59. W. 6. Th. 6. Colour: 7.5 YR 5/3. EH. Worked from a sheep or goat metapodial.
- ASF3** A0009.06. Copper tweezers. L. 66. W. 22. Th. 1. Colour: Gley 2.4/10 g. MH

GROUND STONE (FIG. 20)

Area A produced 19 polished stone tools, only four of which are complete: an adze, an axe, a grinder and a mortar. The rest are fragmentary: two fragments of axe/adze, two fragments of grinder, one fragment of a palette and seven fragments of querns. The remaining three objects are of uncertain use. Of the four axe/adzes, complete or incomplete, only **AGS4** was found in a secure EH 2 context. Trapezoidal in shape, it is similar to others found in contexts datable to the Middle Neolithic, for example in Area C. The fragment **AGS11** has a different shape: at least twice as long and thicker, it is also comparable with MN finds from Kouphovouno.

⁴⁶ FC 60 and FS 101: L. E. Talalay, *Deities, Dolls and Devices: Neolithic Figurines from Franchthi Cave, Greece* (Excavations at Franchthi Cave, Greece; fasc. 9; Bloomington, IN, 1993), 19–21 and pl. 15.

⁴⁷ Papathanassopoulos.

⁴⁸ NM3927, NM3930, and NM3932, see Cavanagh–

Mee–Renard 53–5 for a discussion of these figurines and further references.

⁴⁹ D. N. Tripathi, *Bronzework of Mainland Greece from c. 2600 b.c. to c. 1450 b.c.* (Göteborg, 1988), 54, 250 and FIGS. 122–5 for EH and 96, 265–6 and FIGS. 278–84 for MH tweezers.

- AGS1** A0002.7. Oblong grinder? Fragment, covered in cementation. L. 74. W. 6.8. Th. 48. Crystalline limestone. 2.5 y 8/1.
- AGS2** A0003.3. Complete adze. Shape sub-oval. Oval in section. Profile asymmetric, bi-convex. Cutting edge slightly curved. Sides flattened converging towards the butt, which is broad and flattened. Polished all over. L. 27. W. 1.1. Th. (centre) 8. Butt 9. Grey-black limestone. Gley 1.3/n.
- AGS3** A0003.79 Axe or adze. Proximal and mesial fragment. L. 46. W. 2.6. Th. 26. Purple stone with green inclusions. 2.5 YR 4/1.
- AGS4** A0004.1. Complete axe. Shape trapezoidal. Section elliptical. Profile symmetrical. Cutting edge curved. Sides flattened converging towards the large, curved butt. Polished all over. L. 56. W. 4.6. Th. (centre) 18. Butt 19. Greenstone (Gley 1.7/5 g) with light green inclusions (Gley 1.3/10 y) and dark grey-green (Gley 1.7/5 g).
- AGS5** A0004.24. Quern. Fragment. Lower surface convex. Upper surface flattened and smooth. Sides curved and sloping obliquely towards the lower surface. L. 200. W. 160 Th. 16. Sandstone or schist?
- AGS6** A0004.36. Mortar. Oval, flattened stone, hollowed on the upper surface. Lower surface slightly convex. Sides of bowl curved. L. 133. W. 10.3. Th. 54. L. (bowl). 8.3. W. (bowl). 7.0. D. (bowl) 1.9. Limestone. 5 y 7/2.
- AGS7** A0004.37. Quern. Fragment. Broken transversely. Upper surface smooth. Lower surface roughly flattened. Sides sloping. L. 197. W. 19.6. Th. (break) 41, (end) 69. Schist. Gley 2.5/10 b.
- AGS8** A0004.38. Quern preserved for its total length (transverse break). Lower surface flattened, cementation. Upper surface slightly concave. Sides curved. L. 200. W. 196. Th. (ends) 67, (centre) 49. Sandstone, white-grey schist? 5 y 8/1.
- AGS9** A0004.51. Quern. Fragment. Upper surface concave, much cementation. Sides curved. L. 200. W. 120. Th. (side) 45, (min.) 24. Schist. Gley 1.8/n.
- AGS10** A0004.89. Grinder. Spherical stone, covered in cementation. D. 73. Crystalline limestone. Gley 1.7 n, 1.8 n.
- AGS11** A0004.111. Axe reused as hammer. Distal fragment. Section ellipsoidal. Sides parallel. Curved edge blunted and bearing traces of percussion. Ancient break. Some cementation. L. 81. W. (distal). 41. Th. 33. Greenstone. Gley 5/10 gy.
- AGS12** A0004.114. Uncertain use. Subcircular object. One flat surface and one convex surface, and start of a hollow. D. 98, (hollow) 21. Limestone. 2.5 y 8/1.
- AGS13** A0004.115. Quern. Fragment. One end triangular. One surface slightly convex. One surface flat and smooth. Sides curved. L. (to break) 170. W. 114. Th. 55. Limestone. 2.5 y 8/1.
- AGS14** A0004.117. Quern. Fragment. Longitudinal and transverse breaks. Lower surface flat and smooth. Upper surface concave. Sides curved, sloping towards the lower surface. L. 142. W. 106. Th. (side) 31, (min.) 27. Limestone. Gley 2.5/10 b.
- AGS15** A0006.16. Palette. Fragment. Longitudinal and transverse breaks. One surface smooth. L. 126. W. 112. Th. 30. Limestone. 7.5 YR 7/3.
- AGS16** A0008.1. Oblong grinder. Mesial fragment. Profile plano-convex. Sides flattened. Polishing over the whole surface. L. 95. W. 52. Th. 23-9. Light grey-green rock with white limestone and brown-violet inclusions. Gley 6/5 gy, Gley 8/10 y, 2.5 YR 4/2.
- AGS17** A0008.5. Stone intended for the manufacture of a tool. Natural polish. L. 76. W. 53. Th. 32. Greenstone with dark grey-green inclusions. Gley 4/10 gy, Gley 1.3/10 y.
- AGS18** A0009.8. Quern. Fragment. Lower surface irregular. Upper surface smooth, with a small rim at one end. L. 88. W. 71. Th. 52. Limestone. 5 y 8/1.

CHIPPED STONE TOOLS (FIG. 21)

In sum, 76 pieces were recovered, 67 of obsidian (88.2%) and nine of siliceous materials (11.8%). The latter were of various materials: chocolate-coloured radiolite (N = 2), grey/black matt radiolite (N = 3), pink chalcedony (N = 1), and semi-translucent grey flint

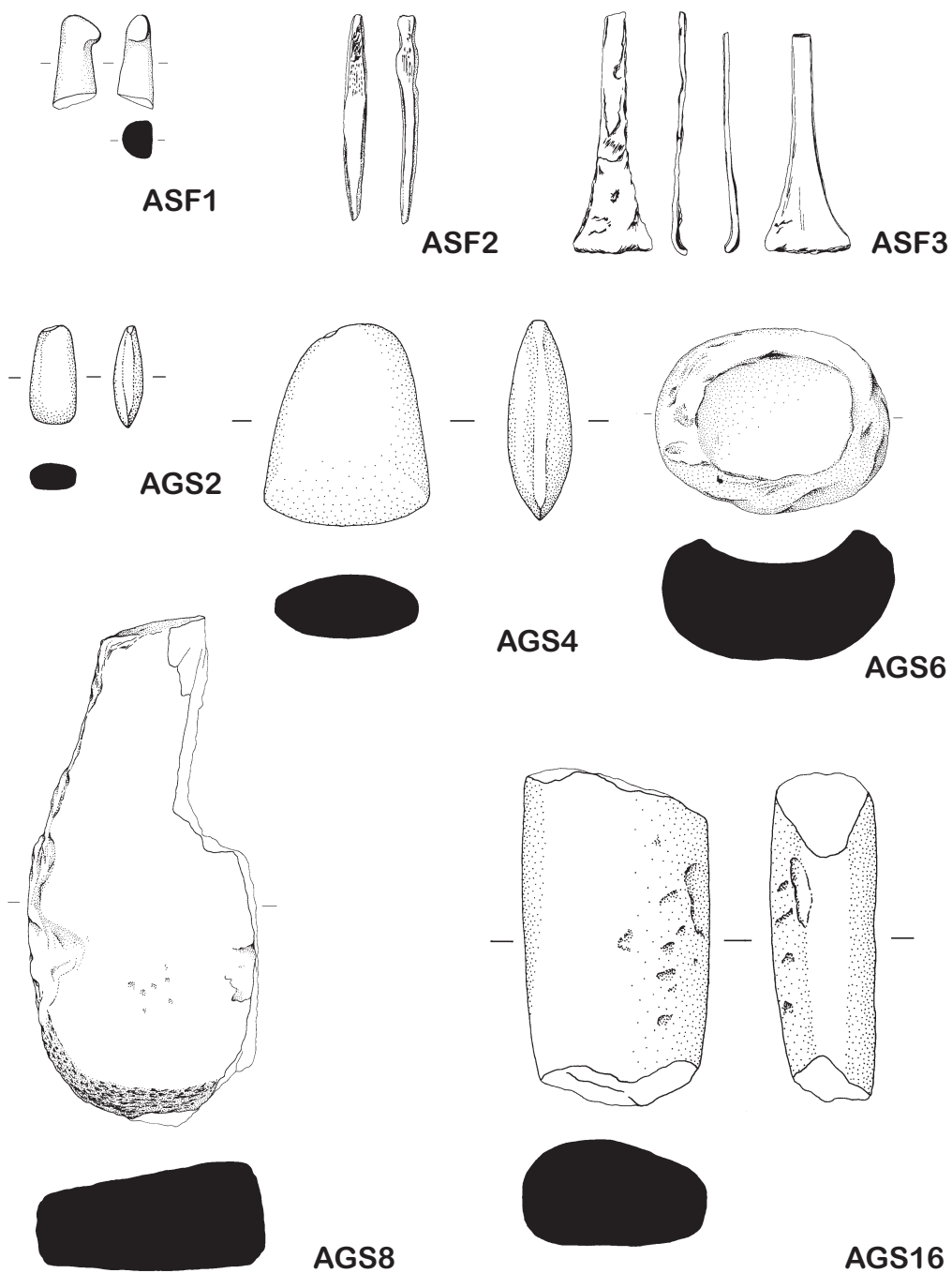


FIG. 20. Area A: head of a marble figurine (ASF₁), bone awl (ASF₂), copper tweezers (ASF₃), stone adze (AGS₂), stone axe (AGS₄), stone mortar (AGS₆), stone quern (AGS₈), stone grinder (AGS₁₆). Scale 1:2 except for AGS₆ and AGS₈, which are 1:4.

(N = 3). These were mostly small flakes and waste from different stages of production. Representation of obsidian was higher: 20 blades from the main production phase (*plein débitage*), 28 flakes, some of which belonged to the preparation phase and some to the rejuvenation phase, four tablets from the rejuvenation of the striking platform, nine core fragments, and six debris.

Although formal tools were rare, all the products had been used as well as the majority of the blades: a drill on a small obsidian flake (**ACS7**), a retouched blade (**ACS8**), an obsidian truncated blade, a *pièce esquillée* on a flake, and a notched obsidian flake (**ACS2**). The majority of the obsidian blades exhibit techno-morphometric characteristics typical of Early Bronze Age prismatic blade production (symmetrical, parallel margins and dorsal ridges, retention of overhang during the preparation of blade detachment). Three secondary crested blades had been struck (e.g. **ACS4**) but, in spite of this, no primary crested blade was found. Equally, no cores were recovered, although there are fragments of cores in secondary use (**ACS1**).

The presence of cortex was limited to a few flakes. All the same, blocks of raw material with large cortical surfaces or cortical flakes from the decortification phase were not recovered.

In general, the material derived from Area A was not very rich, either numerically or technologically; the obsidian specimens were products from blade production, but the incomplete picture of this industry, as well as the very worn character of the majority of the specimens, indicates that products were discarded in this part of the site.

ACS1 A0009.9.1. Obsidian core fragment, from a core of the flat type L. 20.5. W. 14. Th. 9.

ACS2 A0003.5.5. Obsidian notched flake. L. 22. W. 15. Th. 4.

ACS3 A0003.5.1. Curved distal end of an obsidian blade. L. 31. W. 9. Th. 3.

ACS4 A0004.28. Secondary crested blade of obsidian broken into two pieces. L. 58. W. 15. Th. 3.5.

ACS5 A0004.28. Whole tablet of grey-black radiolite for rejuvenating the striking platform. L. 47. W. 37. Th. 11.

ACS6 A0002.8.5. Partial obsidian tablet for rejuvenating the striking platform. L. 19. W. 15. Th. 3.

ACS7 A0009.13.2. Drill on an obsidian flake. L. 16. W. 11.5. Th. 1.5.

ACS8 A0004.82.2. Glossed retouched blade made of obsidian. L. 30. W. 6. Th. 2.

ACS9 A0004.82.1. Distal obsidian blade fragment truncated on the break. L. 40. W. 16. Th. 3.

FAUNAL REMAINS

The bones from the stratigraphic contexts in this area were sorted according to species and anatomy by layer. Nevertheless, given the mixed origin of the surface levels, only the bones from the two securest and best dated layers have been taken into account.⁵⁰

Context 0004

This context contained an assemblage of 437 bone and dental remains, of which only 33.9% could be identified both anatomically and by species (TABLE 5). There was a significant degree of fragmentation in the material, no doubt as a result of the taphonomic conditions, over and above the effects of human and animal consumption.

⁵⁰ Consequently the two levels 0002 and 0003 have not been included in the statistics.

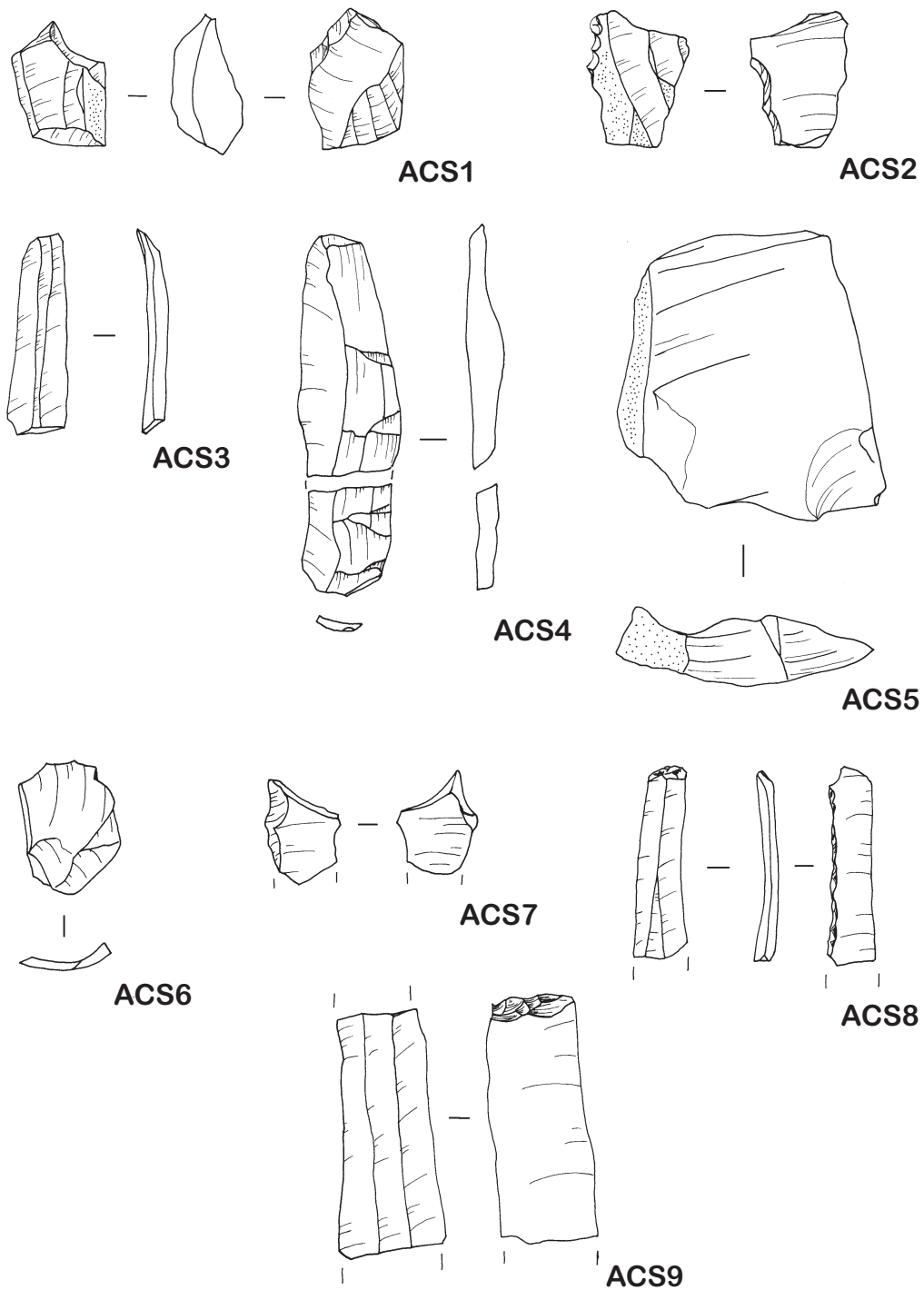


FIG. 21. Area A: chipped stone. Scale 1:1.

TABLE 5. Animal remains from Area A.

Area A	Cattle c.0004	Cattle c.0009	Pig c.0004	Pig c.0009	Pig c.0004	Ovicaprids c.0009	Aves sp. c.0004	Aves sp. c.0009	Lepus sp. c.0004	Lepus sp. c.0009
No. of specimens	29	6	73	5	45	9		1	1	
Individuals										
Very young										
Young			1	1	1					
Young adults		1	2							
Adult		1	2	1	4	1		1	1	
Old	1		2							
Total MNI	1	2	7	2	5	1	0	1	1	0

The impact of carnivores and small rodents is apparent on the surface of 24 specimens. This observation, combined with the marked fragmentation of the bones, argues for an accumulation of food remains subject to the intervention of small scavengers after their deposition. The two principal species represented are animals of medium size: pigs and ovicaprids (both sheep and goats).⁵¹ Despite the presence of the coxal fragment of a hare, it appears that only domesticated animals provided the meat products for subsistence. The presence of just one ox, clearly killed at an advanced age (a superannuated animal retired from agricultural work) raises the question of choice and constraint in subsistence which, in the area of husbandry, balances the option of slaughtering animals against their potential secondary products (labour, transport, milk, wool, leather). In particular, those animals distinguished as 'meat' animals were eaten young for the quality of their meat, or as adults, for their ability to reproduce.

The techniques of butchery and discard, which were used by the occupants of the site, mixed breaking up the carcass by percussion with fine, precise cutting probably using worked tools. All the same, butchery marks are not common enough (18 occurrences) to permit a reliable reconstruction of procedures for the butchery and discard of the carcasses. They confirm food production and the evident intention to portion the animals with the aim of consuming them, as well as a secondary result, as use of the bones as a raw material (confirmed by the presence of bone artefacts from the site). Finally these traces demonstrate the use of different tools, depending on whether the aim was to crack the bones (large, heavy hammers) or to cut the meat (chipped-stone blades or flakes).

In terms of the anatomical distribution, there is nothing of special note, given the complex taphonomy of the context: this observation could be related to the breaking up and fragmentation which largely constrain zoological identification, but also to an irregular process of disposal, whereby no coherent grouping (association, connection, homogeneity whether by individual or species) emerges. Furthermore, the relationship between MNI and NISP⁵² and their disparity across the skeleton indicate various phases of deposition, either during various events over time, or due to contemporary actions but from various different sources (different houses, for example).

The lack of elements such as ribs, vertebrae, small bones such as carpals, tarsals and

⁵¹ Two adult goats and two sheep on the basis of respectively 2 and 6 bone remains.

phalanges, can be accounted for through the action of small rodents and the difficulty of recognizing species given their fragmentation. The same applies to the fragments of long bones, which form a large proportion of the undiagnostic material, whilst the identified bones consist largely of the articular extremities. It is in taking account of these questions of differential conservation and indeed differential identification that the profiles of anatomical representation are presented (TABLE 5)

Cattle: relatively regular occurrence in spite of under-representation of the back (ribs and vertebrae), carpals and phalanges. The back leg is almost absent among the butchered remains but present among the tarsals, metatarsals and phalanges, which are the elements most commonly with cut-marks.

Pigs: frequent occurrence of cranial fragments and long leg-bones. Notable was the absence of the extremities of the legs and of the back, which must have been discarded after the cutting up and dismemberment of the animal. The good state of preservation of the pig jaws, especially the mandibles, is frequently attested in faunal assemblages; the mandibles here are the bones bearing striations from cutting, which underline the interest of the consumers in the head.⁵³ No doubt this part of the animal was particularly prized.

Ovicaprids (sheep and goats together): the ratio between skull and leg-bones is more even, and the ends of the feet are always absent, but the skeletal profile is, overall, regular, apart from a slight disparity between fore- and hind-limbs (which one could equally observe of the pork bones). These differences are related to discard and the initial partition of the animal carcass. The elements present are those which were butchered and hence meaty and exploitable (scapula, humerus, femur)

All these observations together lead to the interpretation that this assemblage resulted from a succession of dumps of waste from meals. It would have been interesting to identify zones of deposition in relation to contemporary occupation, because it is always the question of the treatment of domestic rubbish which allows us to associate these archaeological contexts with the way of life. In reality, the pit was not exclusively intended for organic or food remains, because the relationship between its volume (7 m³) and the number of bones fragments (528 for the two main layers and 33 in the two upper layers) is disproportionate. Furthermore, the archaeological finds are very varied: much pottery, mudbrick, burnt clay, and stone. Note that the uses of this pit were multiple, which appears to confirm a series of events and not a single process of fill.

Context 0009

The faunal material in the grave consists of a small group of animal remains, probably not directly related to the act of interment. The mixed and distinct nature of this assemblage underlines the absence of a specific deposition in the strict sense:⁵⁴ no whole bones, no

⁵² MNI: Minimum Number of Individuals, NISP: Number of Identified Specimens.

⁵³ The cheeks, the tongue, and traces of skinning.

⁵⁴ A. Gardeisen, 'Interprétation des restes fauniques dans les tombes protohistoriques du sud de la France', in

Colloque en hommage à J. F. Salinier, Pratiques funéraires protohistoriques entre Massif central et Pyrénées: nouvelles données. Puy-laurens (Tarn), 15-16 janvier 2000 = Archéologie Tarnaise, 12 (2004), 211-15.

anatomical connections or articulation, absence of osteological connection between the various elements, which were anyway very fragmentary, large number of individuals for so small a sample of specimens (TABLE 5). Two examples have traces of burning and four others have been gnawed by rodents. No anthropogenic marks were observed such as cut-marks, defleshing, or fragmentation of the animal. The species represented include the standard domesticated types: cattle, ovicaprids, pigs as well as an unidentified wild bird.⁵⁵ In all, then, there were 91 specimens, of which 70 could not be identified according to species for a total of six animals (TABLE 5).

In the absence of interpretable deposits and given the poor preservation of the material, one can posit that these bones were introduced to the grave independently of the burial. Such faunal assemblages, poorly characterized and numerically unrepresentative, are frequently introduced with a fill distinct from the interment.⁵⁶ This theory is based on the collection of unidentified bones, the great majority slivers of long bones belonging to animals of medium size (pigs or ovicaprids) which underline, by their preservation, the importance of the pre-depositional processes of fragmentation. This implies that the state and the nature of this material has no direct link with the burial, but is derived from another context, more or less contemporary, whose contents were reused in the creation of the tomb.

Conclusion

The animals in Area A are almost all domesticates, with the unusual examples of a hare and a bird. Whether the goats were domesticated or wild has not been confirmed, but on the basis of the form of the relevant animal, it is the domesticated goat. On the same basis, some isolated bones could indicate the presence of a boar or a very fat pig. The nature of subsistence implied by the bone assemblages points to a diet based almost exclusively on the raising of domesticated cattle, sheep, goats, and pigs. The current contexts do not allow further interpretation of these finds for husbandry in the Early Bronze Age period. On the other hand, beyond a meat diet, they indicate that the rubbish deposits were organized close to the living areas, and that a number of fills or other layers containing traces of domestic activity could have been used in the course of various reorganisations of the site (here a grave).

HUMAN REMAINS

Grave 0009 (FIG. 6)

This grave contained the human skeletal remains of two individuals, a middle-aged adult (0009a) and an infant (0009b). The grave consisted of a rectangular structure of stones delimiting the space of the adult. The ground on which the skeletons lay has considerable inclination, resulting in the feet of the adult lying at a higher level than the skull (approximately 40 cm of a difference in height). Most elements of the adult skeleton were

⁵⁵ This piece has been examined by Luis García, Zoological Museum of Barcelona, who is a specialist in avian fauna.

⁵⁶ Observation made when strewing the bone material from the burials in collaboration with A. Lagia.

⁵⁷ The area between the skeleton and the stones delimiting the eastern wall of the grave, where the infant remains were found, was thoroughly excavated.

⁵⁸ A. Bouwman, J. Prag, K. Brown, and T. Brown, 'Middle Helladic kinship: families, faces and DNA at Mycenae', in G. Touchais, A. P. Touchais, S. Voutsaki, and

found *in situ* in anatomical position, unlike those of the infant remains that were found disturbed at the side of the adult, between the northern wall of the grave and the body. A considerable difference in preservation was observed between the two individuals buried in 0009. The incompleteness of the infant remains, along with their random position in relation to the adult skeleton, suggested a coincidental rather than a purposeful coexistence of the two in the same grave.⁵⁷ Recent DNA analysis, however, indicates that the two individuals were genetically related, arguing for deliberate association.⁵⁸ The evidence suggested that the skeleton of the infant was disturbed by the burial of the adult, rather than that the two were buried together at the same time.

0009a: The Adult

Position and orientation of the skeleton. The skeleton of the adult (0009a) was found *in situ* in a semi-contracted (semi-flexed) position, in a north–south direction (head to the north facing west). The upper spinal region and the skull were lying on their right sides, while the lower spine, thorax, and *os coxae* were extended. The lower limbs were flexed towards the right side, the left lower limb lying over the right. The left arm was extended, the left forearm was semi-flexed over the abdominal area and the left hand was abducted in relation to the forearm. The right arm was rotated laterally and the right forearm was tightly flexed against the upper arm. A large stone west of the right shoulder restricted the space for the right forearm and hand.

Preservation. The skeletal remains of 0009 were very fragmentary, resulting in damage to a number of epiphyseal areas during excavation, transportation and treatment. Overall preservation is rather good. The skull, although very fragmented in the field, was well reconstructed in the laboratory. Teeth were in an excellent state of preservation. Traces of copper (in the form of green coloration) were observed along the shaft of the right humerus indicating the presence of **ASF3** in the grave.

Determination of Sex. The morphological characteristics of the left pubis, the supraorbital margins of the skull, and the metric characteristics of the long bones suggest the presence of a male.

Estimation of age at death. The estimation of age at death was based on the morphological transformations of the left auricular surface, the sternal rib end, the presence of extensive ante-mortem tooth loss, and of extensive degenerative changes in the upper limbs and the spine. All these observations suggest that the age at death of this individual was at least middle-aged.⁵⁹

J. Wright (eds), *Mesohelladika: The Greek Mainland in the Middle Bronze Age* (forthcoming).

⁵⁹ According to cranial suture closure, the individual pertains to a young adult age group. Besides the many questions concerning accuracy in age estimation based on cranial suture closure (V. Galera, D. H. Ubelaker, and L.-A. C. Hayek, 'Comparison of macroscopic cranial

methods of age estimation applied to skeletons from the Terry Collection', *Journal of Forensic Sciences*, 43 (1998), 933–9), it has also been observed that when there is maintenance of the metopic suture, as in the case of 0009, there is an overall delay in suture closure, hence giving a false estimation of age at death.

Height. The living stature of this individual is calculated to be approximately 157.32 ± 3.27 cm based on the length of the left femur.

Health Status. At least two traumas were inflicted upon this individual during life. (a) A healed oblique fracture was observed on the shaft of a rib; crushing, bending and grinding produce such fractures. In modern contexts, such fractures are frequently found in motor vehicle accidents and falls from a height.⁶⁰ (b) A healed oblique fracture was also observed on the distal portion of the shaft of the right tibia, an area of the shaft which, along with the middle portion, fractures more commonly. Oblique fractures of the shaft of the tibia are relatively rare and are usually produced by indirect forces when the leg is not in a weight-bearing position. Fractures of the distal portion of the tibia may involve direct blows but often are indirectly produced by forces generated or applied to other parts of the body.⁶¹

Degenerative changes in the form of osteophytes were observed on the upper limbs (left and right shoulder girdles, and elbow joints), the rib heads, the spine (osteochondrosis and osteoarthritis of the cervical, thoracic, and lumbar vertebrae) and the knee joints. Degenerative lesions of the upper limbs are often associated with occupational stress,⁶² while spinal degeneration can be both age-related and associated with a vigorous lifestyle and involvement in specific occupations.⁶³ The presence of *osteochondritis dissecans* on the right patella is due to detachment of a segment of the subchondral bone and articular cartilage; it is an age-progressive condition but it also occurs in individuals engaged in occupations involving heavy use of the knee joints.⁶⁴

Dental health. Extensive ante-mortem tooth loss of at least ten teeth of the anterior and posterior dentition,⁶⁵ large-sized caries on four teeth,⁶⁶ calculus (neck and subgingival) on a number of teeth,⁶⁷ periodontal disease on the right mandible and temporo-mandibular joint disease on the right side.

ooogb: The Infant Remains

A few infant bones (two cranial fragments, one clavicle, and the neural arch of a cervical vertebra) were found in no anatomical order at the lateral side of the left hip joint of the adult. The age at death of the subadult remains is assessed to be that of an infant (0–1 years) based on the size of the clavicle⁶⁸ and the stage of fusion of the left cervical neural arch to its right counterpart and the body.⁶⁹

Of specific interest are the lesions on the left orbital roof and the inner table of the frontal bone, as well as on the anterior and posterior segments of the shaft of the clavicle. These lesions appear as layers of woven bone (new bone formation) on the bone surfaces, a

⁶⁰ A. Galloway, *Broken Bones: Anthropological Analysis of Blunt Force Trauma* (Springfield, IL, 1999), 107.

⁶¹ *Ibid.* 193–6.

⁶² Aufderheide and Rodríguez-Martín (n. 24), 95.

⁶³ *Ibid.* 97.

⁶⁴ *Ibid.* 81–2; Resnick (n. 24), 1266.

⁶⁵ The following teeth were lost before death: all second and third maxillary and mandibular molars of the right side, the second right maxillary premolar, all left mandibular molars, plus the central incisors of the mandible.

⁶⁶ Rmax M1 occl, Lmax M2 cerv, Lmand P1 neck, Rm and M1 crown and root.

⁶⁷ Calculus deposits are frequently associated with poor oral hygiene or carbohydrate consumption, S. Hillson (n. 24), 259–60.

⁶⁸ D. S. Weaver, *New Methods for the Determination of Sex, Age, and Rates of Growth of Infant and Child Skeletal Remains in Prehistoric American Indian Populations* (Albuquerque, NM, 1977).

⁶⁹ Scheuer–Black 204.

condition that is associated with subperiosteal hemorrhages due to scurvy⁷⁰ or meningeal diseases.⁷¹ Similar lesions were observed in the case of KE 0313. On the occurrence of these lesions see discussion of the case of KE 0313 in Area D.

AREA D

SUMMARY (FIGS. 22–5)

Area D was placed at the top of the tell. Archaeological levels were reached immediately below the plough soil, a few centimetres below the modern surface. Erosion had probably removed the most recent settlement levels, as Neolithic contexts were soon exposed. An area of stones, found along the west baulk of the trench (contexts 0303 and 0309), contained mainly FN pottery (0309). It could have been a stone wall which had collapsed, part of a building of which neither the plan nor the elevation could be recognized.

In the SW part of the area, a stone platform (contexts 0306 and 0310) made of small stones and earth (dated EH in the upper part and FN lower down), cut a LN level (contexts 0308 and 0311). The function of this type of feature, common at the site of Kouphovouno, is difficult to define: it could be interpreted as the foundation of part of a house whose floor level or walking surface had disappeared, or an open-air construction like a small courtyard.

The pile of stones contained the skeleton of a baby (0313) which was excavated, and that of an adult (0315) which was left in place. No clearly datable material was found in association with these burials.

LOCATION OF AREA D

Area D was placed at the top of the tell, some distance from the trenches excavated by von Vacano. A square 5 × 5 m, aligned on the grid established for the survey in 1999, was set out among the olive trees on this part of the site. Co-ordinates of the corners of the square were: NW 1135.40 E, 1129.80 N; SW 1135.40 E, 1124.80; NE 1140.40, 1129.80; SE 1140.40 E, 1124.80 N.

STRATIGRAPHY

The stratigraphic sequence is summarized in FIG. 25 and TABLES 6–8 indicate the levels and pottery content of each context. After the surface collection of material resting on the surface (context 0300), complementing that carried out in 1999, the plough soil, consisting of small-medium stones and some pottery, notably EH, was removed in two arbitrary units (contexts 0301, 0302). Context 0303, in the NW corner of the area at 198.52–198.36 m asl (a few centimetres below the modern surface) produced a scatter of stones of various sizes, some small fragments of burnt building clay, and a very mixed group of pottery (MN, LN, FN, EH, MH, LH, and Archaic–Classical; TABLE 9), animal bones, a polished stone adze (**DGS1**) and a spindle whorl (**DSF2**). This stony area extended 2.10 m to the east and 3 m to the south. Context 0304, south of 0303, was a brown sediment, rather loose in texture, and with little

⁷⁰ D. J. Ortner and M. F. Erickson, 'Bone changes in the human skull probably resulting from scurvy in infancy and childhood', *International Journal of Osteoarchaeology*, 7 (1997), 212–20.

⁷¹ M. Schultz, 'Paleohistopathology of Bone: a new approach to the study of ancient diseases', *American Journal of Physical Anthropology*, 44 (2001), 106–47.

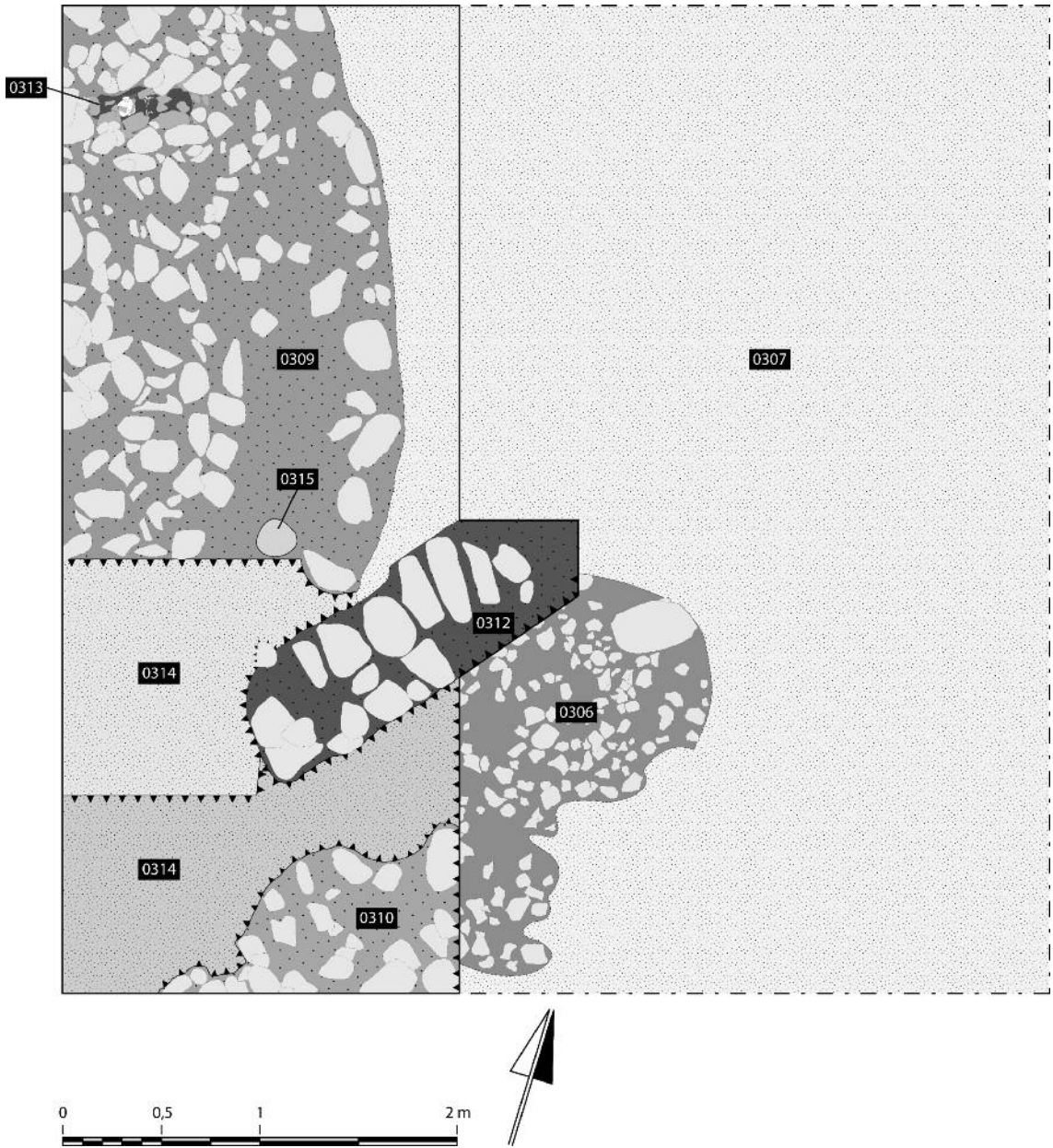


FIG. 22. Area D, plan (contexts distinguished by shading).

diagnostic pottery. At 1.30 m from the west baulk, more small stones appeared, set in a firm soil, with some sherds and animal bones: the whole complex formed a sort of platform at 198.38–9 m asl, extending eastwards and northwards (FIG. 22). This was context 0306, which contained some EH pottery together with animal bones. Stratified below 0301, context

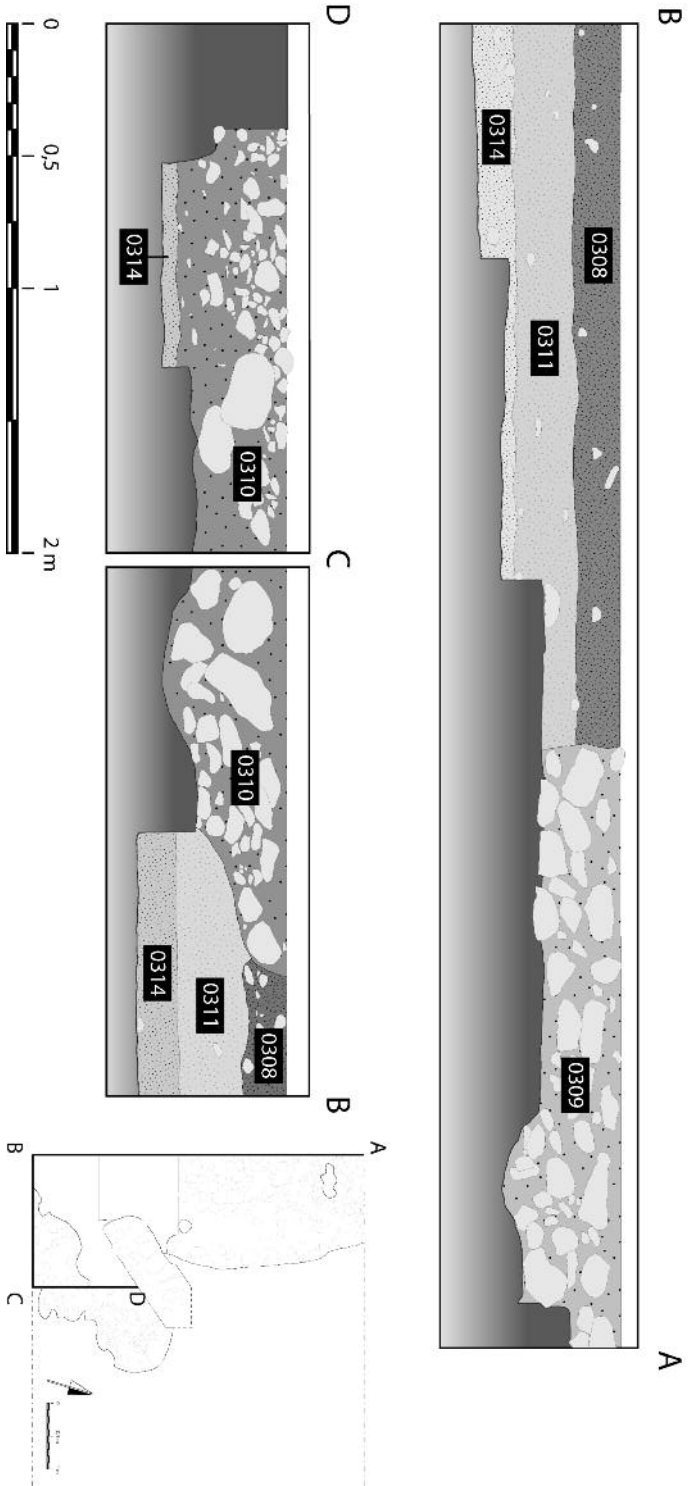


FIG. 23. Area D, sections (contexts distinguished by shading).

TABLE 6. Contexts in Area D.

Context	Top	Base
300	198.50 (centre)	
301	198.32–198.71	198.30–198.50
302	198.30–198.50	198.23–198.52
303	198.46–198.50	198.36–198.51
304	198.46	198.33–198.37
305	198.33–198.45	198.30–198.45
306	198.41–198.46	198.32–198.34
307	198.23–198.45	198.23–198.40
308	198.33–198.37	198.11–198.13
309	198.36–198.51	198.08
310	198.32–198.34	198.11
311	198.11–198.13	198.01–198.07
312	198.23–198.40	198.19
313	198.15	
314	198.01–198.07	197.93
315	198.3	

TABLE 7. Totals of sherds and their weights (kg) from contexts in Area D.

Context	Total sherds	Total weight	Fine total	Fine weight	Coarse total	Coarse weight	Mono-chrome
300	137	1.1	105	0.5	32	0.6	0
301	412	4.08	291	1.64	121	2.44	0
302	69	0.36	55	0.17	14	0.19	0
303	695	5.35	505	2.1	190	3.25	6
304	217	2.12	149	0.8	68	1.32	0
305	3	0.05	3	0.05	0	0	0
306	196	1.55	132	0.55	64	1	0
307	414	2.95	307	1.15	107	1.8	2
308	741	9.07	513	3.42	228	5.65	0
309	556	7.2	363	2.78	193	4.42	0
310	272	3.93	132	0.98	140	2.95	1
311	419	4.84	221	1.39	198	3.45	33
312	164	2.3	82	0.4	82	1.9	0
313	22	0.2	11	0.05	11	0.15	0
314	12	1.14	3	0.04	9	1.1	0

number 0305 was allocated to an ashy area scattered with charcoal, probably the remains of a fire. Context 0307, underneath 0305, was a layer of rather loose brown soil, with a mixture of sherds, animal bones and some chipped stone.

After ten days of excavation, the west part of Area D seemed to hold the greatest interest and it was decided to concentrate on an area 5 m north–south × 2 m east–west, parallel with the west baulk. Context 0308, below 0304, was a brown, firm clay with many late LN sherds

TABLE 8. Average weights (g) of coarse and fine sherds from contexts in Area D.

Context	Avg. wt. fine	Avg. wt. sherds
300	4.76	18.75
301	5.64	20.17
302	3.09	13.57
303	4.16	17.11
304	5.37	19.41
305	16.67	
306	4.17	15.63
307	3.75	16.82
308	6.67	24.78
309	7.66	22.9
310	7.42	21.07
311	6.29	17.42
312	4.88	23.17
313	4.55	13.64
314	13.33	122.22



FIG. 24. Area D: skull and bones of infant burial D 0313.

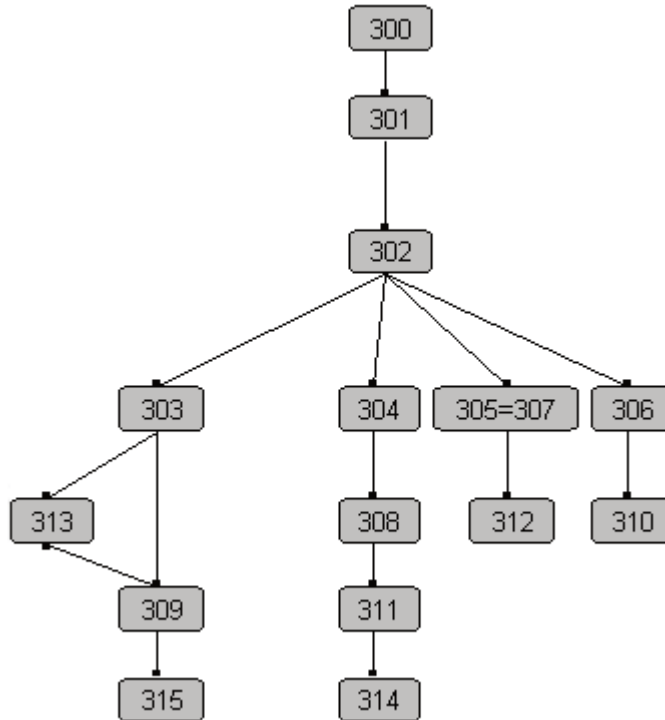


FIG. 25. Area D, Harris matrix.

and animal bones. Some fragments of burnt building clay were found. Note also the presence of chipped stone tools of flint and obsidian, as well as a small bead of black stone (**DSF₃**).

Below 0303, from a height of 198.38 m asl, a level of large stones in a matrix of loose clay appeared, with mainly FN pottery, as well as some LN sherds, animal bones, tools and debitage in flint and obsidian. These stones (context 0309) cut 0308 to the south. They had no consistent alignment, though some of the blocks along the west baulk seemed more carefully arranged. In the pile of stones 0309, the disturbed skeleton of a baby (Context 0313, FIG. 24) was uncovered: it was placed among the stones, but it was not possible to ascertain if it was a real grave. The ground stone artefacts from this context (**DGS₂** a pierced disc, **DGS₃** an axe, and **DGS₄** a mortar) cannot be interpreted as grave offerings.

Context 0313 yielded the skeleton of an infant of about two months, discovered in the pile of stones (0309), in the NW corner of Area D. It was oriented east–west, with the head to the west, and lay on its right side. Animal bones were found mixed with the bones of the child.

A human skull appeared at 197.97 m asl (context 0315) during the removal of the stones of 0309; this second skeleton could not be excavated, due to lack of time.

In the southern part of the area, context 0310 consisted of a stone platform, of which 0306 formed the surface. Context 0310 cut 0308 and 0311, and the stone platform is therefore later. The pottery is largely FN, though there is also some EH. Underneath 0308, context 0311 was not markedly different in its soil, but it produced LN and FN pottery, as well as large

animal bones, whilst under 0311 a loose, sandy layer, context 0314, contained a large LN pedestal bowl stem *in situ* (D5). The lowest level reached by the end of excavation was in this context at 197.93, but was not at the base of the tell.

Exploration of a line of large stones running SW–NE (context 0312), required an extension 1 m² to the east (FIG. 22). It seemed to form the two faces of a wall at 198.40–198.19 m asl. It produced pottery of LN, FN, and EH date.

POTTERY (FIGS. 26–8; TABLE 9)

Middle Neolithic

There were few Middle Neolithic sherds in Area D. Given their size and worn condition, it can be assumed that they were residual. Two preserved traces of pattern decoration, a number were scribble-burnished, which is indicative of a date late in the period,⁷² and some were or had once been monochrome Urfirnis. The feature sherds include jar rims (FIG. 26: D1) and pedestal bases.

Late Neolithic

Late Neolithic pottery is present in most of the contexts but is concentrated in 0308, 0309, and 0311. There is a high proportion of Black Ware, sometimes in a fine fabric but more often coarser, typically with a reddish core, and these heavier sherds can be quite friable. The surface colour is remarkably consistent and both the exterior and interior were usually well burnished; the Late Neolithic pottery has a distinctive feel. Additional decoration is not particularly common but includes simple linear motifs in white paint (FIG. 26: D2), which does not adhere well on the burnished surface, as well as incision (FIG. 26: D3) and pointillé (FIG. 26: D4). The most impressive of the Black Ware feature sherds is the weighty stem of a pedestal bowl (FIG. 26: D5), which would have had a shallow flaring rim like D3. The carinated (FIG. 26: D6) and shoulder (FIG. 26: D7–8) bowls look quite dainty by comparison. Some of the vessels had ledge (FIG. 26: D9) or lug (FIG. 26: D10) handles. Phelps notes that Black Ware occurs in his periods III and IV, that is Late and Final Neolithic.⁷³ However, it does appear to be more common in Late Neolithic contexts. For example, at Corinth it is characteristic of LN I, the early Late Neolithic, and is absent by LN III and LN IV, respectively later Late and Final Neolithic.⁷⁴ At Ayios Dhimitrios in Messenia there were few Black Burnished sherds in level I, which is early Final Neolithic.⁷⁵ In the Kouveleiki A cave at Alepochori in Laconia Black Ware is well represented in the lowest, Late Neolithic, level but not in the Final Neolithic levels.⁷⁶ The range of shapes from Area D is also typically Late Neolithic and we believe that this must be the date of most of the Black Ware sherds, though the fabric of Middle Helladic Argive Minyan is not so very different (see below).

The Grey Ware at Kouphovouno is usually fired a light grey but does vary and can sometimes shade into brown or buff, as is the case at other sites.⁷⁷ Nevertheless, it is distinctive

⁷² Vitelli i. 139.

⁷³ Phelps 70.

⁷⁴ J. C. Lavezzi, 'Corinth before the Mycenaeans', in C. K. Williams and N. Bookidis (eds),

Corinth, The Centenary 1896–1996 (Corinth: Results of Excavations Conducted by the American School of Classical Studies at Athens, xx; Princeton, 2003), 68–71.

⁷⁵ Zachos 51.

⁷⁶ M. Koumouzei, "Η κεραμική από την Α' Κουβελείκη σπηλιά Αλεποχωρίου Λακωνίας", *AAA* 22 (1989), 144–6, 155–60.

⁷⁷ Phelps 77.

TABLE 9. Dated sherds from contexts in Area A.

Context	MN P	MN SB	MN M	MN other	MN total	MN %
300	1			1	2	29
301			1	2	3	13
302				1	1	100
303		2		3	5	17
304		1		2	3	38
306					0	0
307			1	2	3	20
308		1			1	3
309			1	1	2	5
310					0	0
311	1	1			2	5
312					0	0
314		1			1	33

Context	LN BW	LN GW	LN WS	LN MP	LN coarse	LN other	LN total	LN %
300		1					1	14
301							0	0
302							0	0
303	2	4					6	21
304	3						3	38
306		1					1	14
307	2	2	3				7	47
308	17	8	3	1			29	74
309	13				1	1	15	37
310	3	1	1				5	17
311	9	6	2	2			19	43
312	4	1					5	63
314	1						1	33

Context	FN fine	FN coarse	FN total	FN %	EH1	EH2	EH coarse	EH total	EH %	MH	LH	Other	Dated Sherds
300			0	0		3	1	4	57				7
301			0	0		11	7	18	78	2			23
302			0	0				0	0				1
303		2	2	7	1	7	3	11	38	2	2	1	29
304			0	0		1	1	2	25				8
306		2	2	29		3	1	4	57				7
307		1	1	7	1	1		2	13		2		15
308		4	4	10		4	1	5	13				39
309	7	10	17	41		3	3	6	15	1			41
310	6	15	21	70	2		2	4	13				30
311	2	18	20	45	1	1		2	5	1			44
312		1	1	13		2		2	25				8
314			0	0	1		1	33					3

and certainly different from Black Ware (unlike at Aria in the Argolid, where the black and grey burnished pottery overlaps).⁷⁸ Chronologically Grey Ware is a feature of the later Late

⁷⁸ A. Douzougli, *Αρια Αργόλιδος: χειροποίητη κεραμική της νεότερης νεολιθικής και της χαλκολιθικής*

περιόδου (Dimosievmata tou Archaiologikou Deltiou 66; Athens, 1998), 65–6.

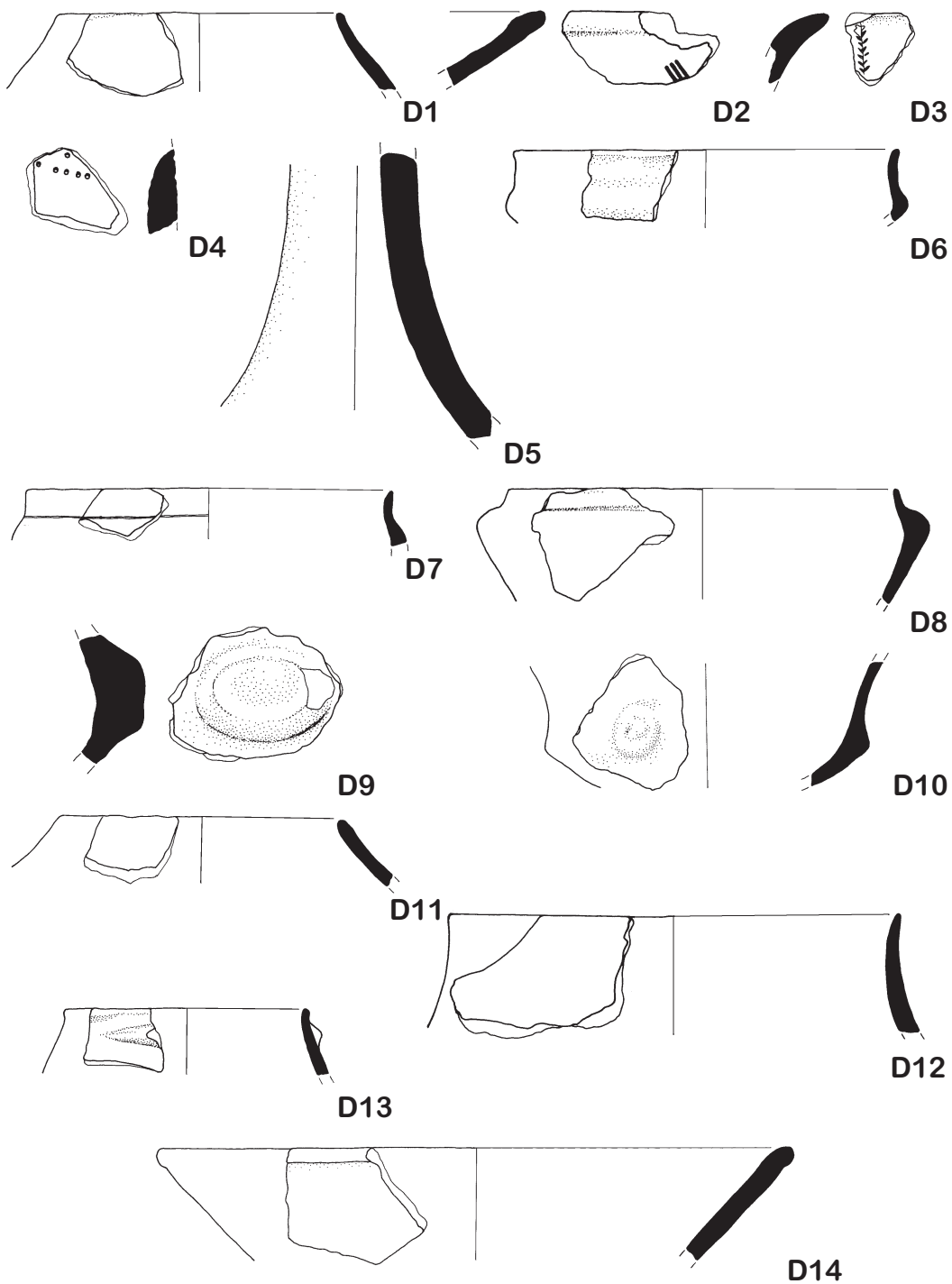


FIG. 26. Area D: MN (D1) and LN (D2-14) pottery. Scale 1:3.

Neolithic.⁷⁹ It is present in eight of the contexts in Area D but especially 0308 and 0311. Most of the sherds are fine and come from jars (FIG. 26: **D11–13**) and bowls (FIG. 26: **D14**).

A number of sherds from Area D have a white slip and it is likely that some were Matt-Painted, similarly the jar (FIG. 27: **D15**), which has no decoration preserved. Finally there is a double vessel (FIG. 27: **D16**) in a reddish fabric.⁸⁰

Final Neolithic

Of the Final Neolithic pottery in Area D, 85% came from contexts 0309, 0310, and 0311. Some sherds, such as the bowl (FIG. 27: **D17**), could be described as fine, but most of the pottery is heavier and not very well made: the fabric is coarse and often poorly fired. The surface colour is variable, usually red, brown, or grey, with the marks where it had been burnished or wiped clearly visible. Many of the sherds were from storage jars (FIG. 27: **D18–20**) and there is also a pierced ‘cheese pot’ (FIG. 27: **D21**). Phelps believes that the holes around the rim were in fact for a cloth or skin cover,⁸¹ though the more porous of these vessels could have absorbed the liquid from milk to leave curds for cheese.⁸² There is some decoration in the form of incision (**D19**) and finger-impressed cordons (FIG. 27: **D22–3**) but no Crusted or Pattern Burnished pottery. In the Peloponnese the distribution of these two wares is centred on the Argolid and Corinthia but does extend into Arcadia and Messenia.⁸³ In the Kouveleiki A cave at Alepochori there were a few Crusted and Pattern Burnished sherds,⁸⁴ at Alepotrypa only Pattern Burnished.⁸⁵ The absence of these wares at Kouphovouno may be due to the limited number of Final Neolithic sherds from the site and it should be noted that Crusted decoration does tend to flake off.⁸⁶ There is also some evidence of regional variation, with Laconia possibly rather isolated. We should therefore be cautious about the chronological implications, though both of these wares had disappeared by the end of the period.⁸⁷

Early Helladic

Although there is Early Helladic pottery in most of the contexts, it is not the dominant component in any except for 0301, which is the topsoil. Some sherds are red-slipped and burnished and could be EH I or early EH II, the likely date of a black-slipped and burnished basin (FIG. 28: **D24**), a rim from another bowl or basin with impressed triangles (FIG. 28: **D25**) and a bowl with a vertically pierced suspension lug (**D26**), a type well represented in Area A (see above). Classic EH II shapes include a sauceboat-bowl rim (FIG. 28: **D27**), a collared bowl rim (FIG. 28: **D28**), an incised askos handle (FIG. 28: **D29**) and raised conical bases (FIG. 28: **D30–31**). A white-slipped grooved bowl-basin rim (FIG. 28: **D32**) is more unusual, though pottery from an EH 2 site in Sparta is similar (we are grateful to Stella Raftopoulou, the excavator, who has shown us the finds from the Photopoulos plot).

⁷⁹ Phelps 77: at Corinth it is particularly common in LN II, Lavezzi (n. 74), 70.

⁸⁰ See Phelps, FIG. 41. 27 for a similar vessel from Corinth.

⁸¹ Phelps 115.

⁸² Vitelli ii. 104.

⁸³ Zachos 52–5.

⁸⁴ Koumouzei (n. 76), 157–8.

⁸⁵ Zachos 52; Phelps 107.

⁸⁶ Zachos 121–2.

⁸⁷ *Ibid.* 121.

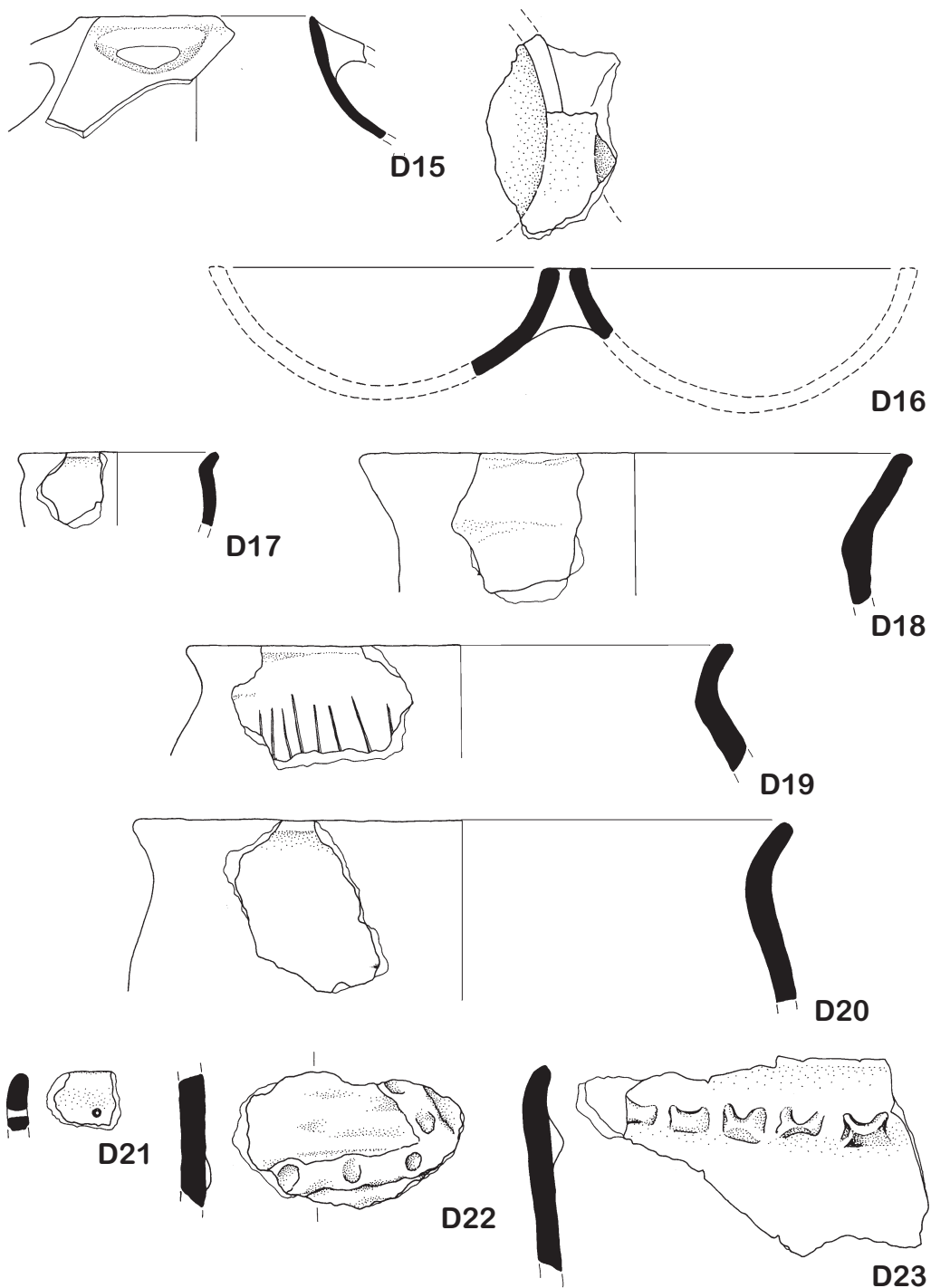


FIG. 27. Area D: LN (D15-16) and FN (D17-23) pottery. Scale 1:3.

Later Pottery

As mentioned earlier, an Argive Minyan bowl (FIG. 28: **D33**) has a surface finish, if not fabric, exactly like Late Neolithic Black Ware. The angular profile is distinctively Middle Helladic, however.⁸⁸ In the case of a Matt-Painted base (FIG. 28: **D34**) it is the decoration that indicates a Middle Helladic date.⁸⁹ There were a few Mycenaean sherds, the most obvious a kylix stem (FIG. 28: **D35**) and one Archaic–Classical Black Glaze sherd.

D1 Do304.05.08. Concave flared rim. Jar. H. 36. W. 51. Th. 5. D. (rim) 126. Fabric: fine. Surface: 10 YR 7/4. Core: 7.5 YR 7/6. MN.

D2 Do308.14.01. Shallow plain rim. bowl. H. 32. W. 69. Th. 7. Fabric: medium. Surface: 2.5 YR 4/1. Core: 2.5 YR 6/8. Decoration: painted with three diagonal white lines (10 YR 4/1). Black Ware. LN.

D3 Do311.01.03. Convex flared rim. H. 31. W. 30. Th. 10. Fabric: medium. Surface: 5 YR 4/1. Core: 2.5 YR 6/6. Decoration: incised herringbone. Black Ware. LN.

D4 Do303.01B.35. Sherd. H. 38. W. 45. Th. 12. Fabric: medium. Surface: Gley 1.3/N. Core: Gley 1.4/N. Decoration: incised pointillé. Black Ware. LN.

D5 Do314.01.04. Stem. pedestal bowl. H. 125. W. 118. Th. 15. Fabric: coarse. Surface: 10R.3/1. Core: 10R.6/8. Black Ware. LN.

D6 Do309.09.02. Vertical flared rim. Carinated bowl. H. 30. W. 42. Th. 4. D. (rim) 170. Fabric: fine. Surface: 10 YR 4/1. Core: 2.5 YR 6/6. Black Ware. LN.

D7 Do308.01.01. Convex flared rim. Shoulder bowl. H. 24. W. 35. Th. 4. D. (rim) 160. Fabric: fine. Surface: 5 YR 2.5/1. Core: 5 YR 6/8. Black Ware. LN.

D8 Do308.14.10. Incurved rim. Shoulder bowl. H. 50. W. 63. Th. 5. D. (rim) 170. Fabric: medium. Surface: 2.5 YR 4/1. Core: 2.5 YR 5–6. Black Ware. LN.

D9 Do310.04.11. Ledge handle. H. 59. W. 76. Th. 9. Fabric: coarse. Surface: 10R.4/1. Core: 10 r 5–8. Black Ware. LN.

D10 Do309.23.03. Lug handle. Bowl. H. 62. W. 51. Th. 4. 120. Fabric: fine. Surface: Gley 1.4/n. Core: 10 r 5–8. Black Ware. LN.

D11 Do303.09.01. Concave flared rim. Jar. H. 29.

W. 41. Th. 5. D. (rim) 128. Fabric: fine. Surface: 2.5 y 5/1. Core: 2.5 y 4/1. Grey Ware. LN.

D12 Do308.05B.01. Convex flared rim. Jar. H. 73. W. 76. Th. 7. D. (rim) 200. Fabric: fine. Surface: 2.5 YR 5/1. Core: 2.5 YR 5/1. Grey Ware. LN.

D13 Do303.09.03. Concave flared rim-strap handle. Jar. H. 28. W. 35. Th. 5. D. (rim) 108. Fabric: fine. Surface: 5 y 6–1. Core: 5 y 6–1. Grey Ware. LN.

D14 Do311.03A.02. Rounded rim. Bowl. H. 72. W. 60. Th. 7. D. (rim) 280. Fabric: medium. Surface: 7.5 YR 6–1. Core: 7.5 YR 7/4. Grey Ware. LN.

D15 Do307.05.29. Concave flared rim-oval handle. Jar. H. 54. W. 83. Th. 4. D. (rim) 100. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 6–1. LN.

D16 Do309.27.20. Incurved rim. Double vase. H. 47. W. 60. Th. 7. D. (rim) 150. Fabric: medium. Surface: 10R.5–6. Core: 10 r 6/6. LN.

D17 Do309.05.10. Everted rim. Bowl. H. 33. W. 30. Th. 5. D. (rim) 88. Fabric: fine. Surface: 10 YR 5/1. Core: 10 YR 4/1. FN.

D18 Do303.01A.18. Everted rim. Jar. H. 66. W. 58. Th. 9. D. (rim) 240. Fabric: medium. Surface: 10 YR 4/1. Core: 10 YR 4/1. FN.

D19 Do309.05.01. Everted rim. Jar. H. 55. W. 79. Th. 10. D. (rim) 240. Fabric: coarse. Surface: 7.5 YR 6/4. Core: 7.5 YR 4/1. Decoration: incised vertical lines. FN.

D20 Do309.05.02. Concave flared rim. Jar. H. 75. W. 73. Th. 10. D. (rim) 290. Fabric: coarse. Surface: 7.5 YR 7/4. Core: 7.5 YR 4/1. FN.

D21 Do310.04.06. Vertical plain rim. Cheese pot. H. 26. W. 32. Th. 9. Fabric: medium. Surface: 10R.4/1. Core: 10 r 5/6. Decoration: pierced with one hole. FN.

D22 Do309.27.22. Sherd. H. 54. W. 103. Th. 11.

⁸⁸ See W. Cavanagh, J. Crouwel, R. W. V. Catling, and G. Shipley, *Continuity and Change in a Greek Rural Landscape: The Laconia Survey*, ii (London, 1996), FIG. 12. 1. 12.

⁸⁹ H. B. Siedentopf, *Alt-Ägina IV 2: Mattbemalte Keramik der Mittleren Bronzezeit* (Mainz, 1991), pl. 114. 739 for a similarly decorated kantharos base from Kolonna.

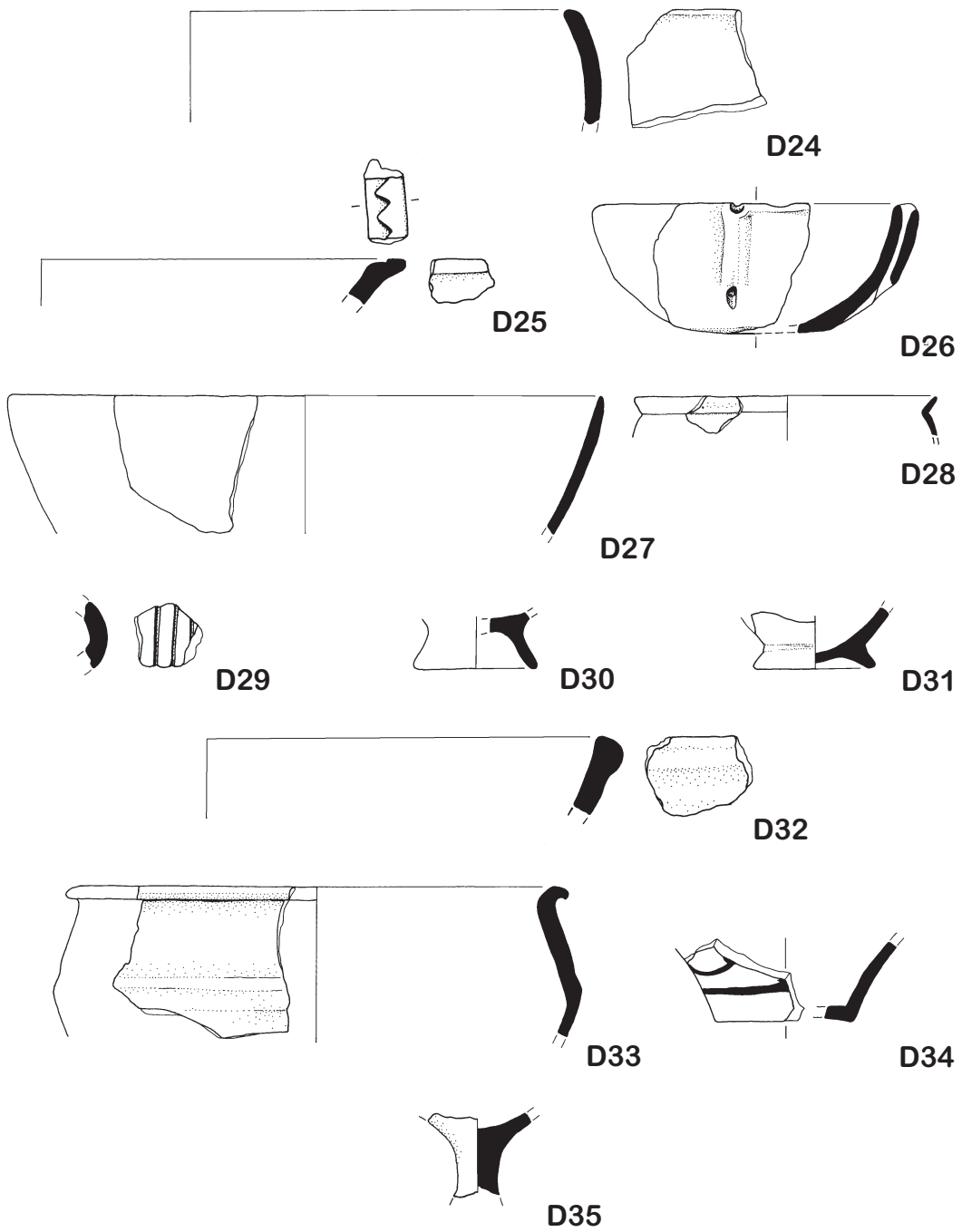


FIG. 28. Area D: EH (D24-32), MH (D33-4) and LH (D35). Scale 1:3.

Fabric: medium. Surface: 2.5 YR 6/8. Core: 2.5 YR 6/8. Decoration: finger-impressed cordons. FN.

D23 Do310.06.01. Vertical flared rim. Basin. H. 88. W. 154. Th. 9. Fabric: coarse. Surface: 2.5 YR 4/1. Core: 2.5 YR 6/2. Decoration: finger-impressed cordon. FN.

D24 Do310.01.01. Incurved rim. Basin. H. 52. W. 62. Th. 7. D. (rim) 340. Fabric: medium. Surface: 7.5 YR 5/3. Core: 7.5 YR 6/2. Decoration: painted monochrome (5 YR 2.5/1). EH I-2.

D25 Do310.04.07. Everted rim. H. 24. W. 26. Th. 7. D. (rim) 320. Fabric: medium. Surface: 2.5 YR 5/6. Core: 2.5 YR 6/8. Decoration: impressed Kerbschnitt. EH I-2.

D26 Do310.04.13. Convex plain rim-vertically pierced lug-flat base. Bowl. H. 57. W. 70. Th. 5. D. (rim) 134. Fabric: fine. Surface: 2.5 YR 6/8. Core: 2.5 YR 6/8. EH II.

D27 Do311.03A.01. Incurved rim. (Sauce boat.) H. 62. W. 62. Th. 4. D. (rim) 260. Fabric: fine. Surface: 2.5 YR 6/6. Core: 2.5 YR 6/6. Decoration: painted monochrome. EH II.

D28 Do301.01B.21. Everted rim. Bowl. H. 16. W. 25. Th. 3. D. (rim) 132. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. EH II.

D29 Do310.09.07. Strap handle. Askos. H. 27. W. 29. Th. 6. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 5/2. Decoration: incised vertical lines. EH II.

D30 Do301.01A.14. Conical base. H. 24. W. 43. Th. 5. D. (base) 54. Fabric: fine. Surface: 7.5 YR 7/4. Core: 7.5 YR 6/1. EH II.

D31 Do301.01A.17. Raised base. H. 25. W. 55. Th. 5. D. (base) 54. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: painted monochrome (10R.6/8). EH II.

D32 Do309.27.07. Rounded rim. H. 30. W. 42. Th. 8. D. (rim) 360. Fabric: medium. Surface: 2.5 YR 6/8. Core: 2.5 YR 6/8. Decoration: white-slipped. EH II.

D33 Do309.29.01. Everted rim. Bowl. H. 66. W. 78. Th. 7. D. (rim) 220. Fabric: fine. Surface: 7.5 YR 3/1. Core: 7.5 YR 6/4. MH.

D34 Do311.01.11. Flat base. H. 35. W. 58. Th. 5. D. (rim) 60. Fabric: fine. Surface: 10 YR 8/3. Core: 10 YR 8-2. Decoration: painted arcade and horizontal line (2.5 YR 2.5/2). Ware: Matt Painted. MH.

D35 Do307.01.17. Stem. Kylix. H. 36. W. 42. Th. 5. Fabric: fine. Surface: 7.5 YR 7/6. Core: 5 YR 7/6. LH3.

SMALL FINDS (FIG. 29)

The most significant of the finds from Area D is the spondylus shell bracelet **DSF1**, which should be LN or FN. Similar bracelets have been found at Alepotrypa⁹⁰ and many other Neolithic sites.

DSF1 Do309.25. Spondylus shell bracelet. L. 32. W. 12. Th. 8. Colour: 5 y 8.1. LN-FN.

DSF2 Do303.08. Terracotta spindle whorl. H. 29. W. 28. Th. 16. Colour: 5 YR 4-4. Mixed context gives no indication of likely date.

DSF3 Do308.13. Cylindrical stone bead. H. 3. D. 4. Gley 1.5/10 y.

GROUND STONE (FIG. 29)

Area D produced four tools: an axe, an adze, both complete and oblong in shape, a pierced disc and a fragment of a mortar. Context 0309, in which three of the objects were found, seems datable to the Final Neolithic. This was a pile of stones, however, perhaps from a collapsed wall, and the objects did not come from a primary context.

⁹⁰ Papathanassopoulos 229, no. 46; M. Sfériadès, 'Préhistoire: le commerce des spondyles, de la mer Égée à la Manche', *Archéologia*, 309 (1995), 42-50; id., 'Spondylus Gaederopus: some observations on the

earliest European long distance exchange system', in S. Hiller and V. Nikolov (eds), *Karanovo, Band III: Beiträge zum Neolithikum in Südosteuropa* (Vienna, 2000), 423-37.

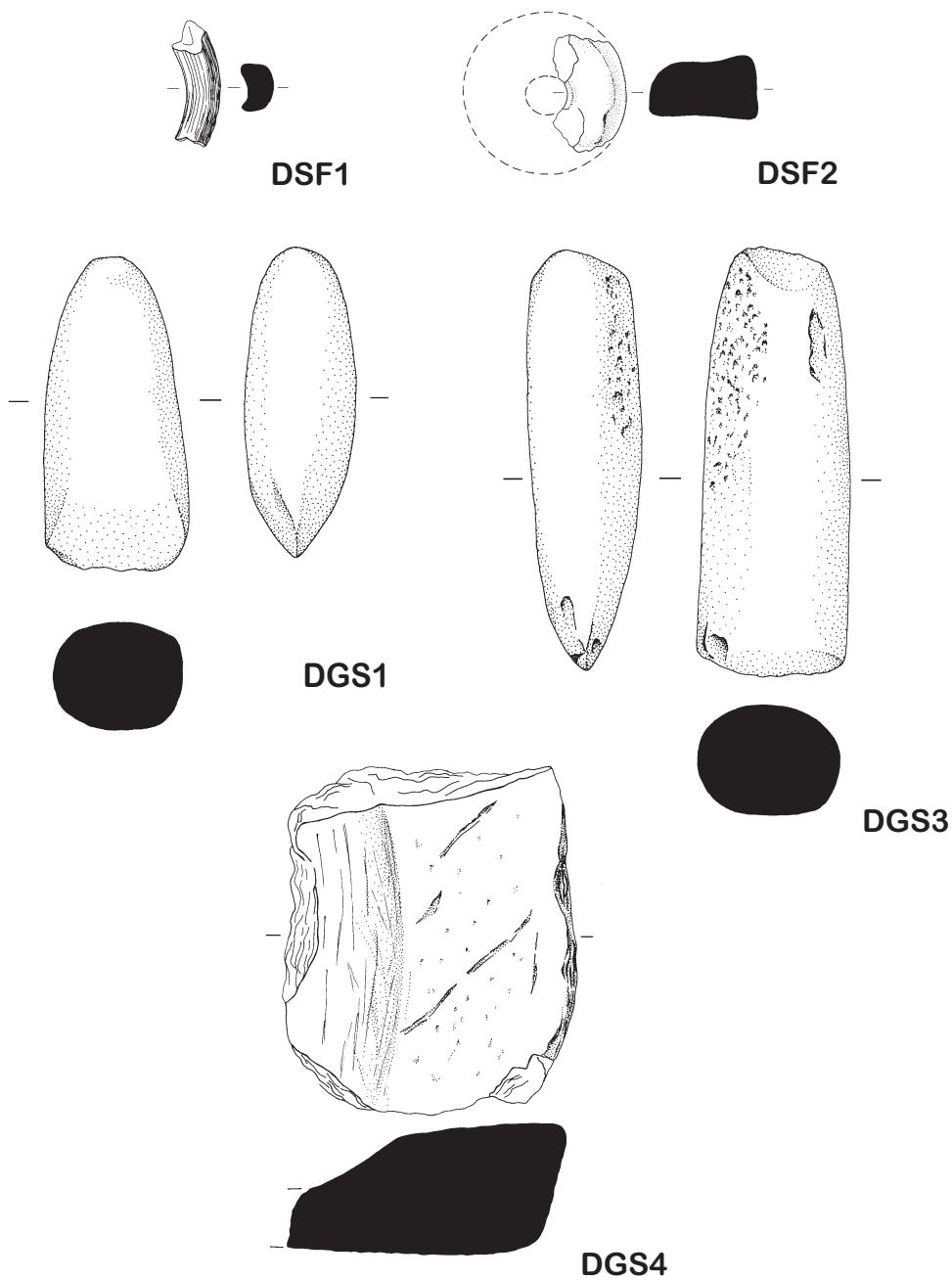


FIG. 29. Area D: fragment of a spondylus shell bracelet (DSF₁), terracotta spindle whorl (DSF₂), stone adze (DGS₁), stone axe (DGS₃), stone mortar (DGS₄). Scale 1:2 except for DGS₄, which is 1:3.

DGS1 Do303.6 Adze. Complete. Shape oblong. Oval in section at middle. Profile biconvex asymmetric. Blade curved, chipped. Sides slightly flattened converging towards the convex butt. Polished all over. L. 8.3. W. 3.7. Butt 1.5. Th. (centre) 2.9. Greenstone. Gley 1.5/5 g.

DGS2 Do309.15. Pierced disc (weight?). Fragment. D (restored) 10.0, (perforation) 0.9–1.2. Schist. Gley 2.4/5 b.

DGS3 Do309.31 Axe. Complete. Shape almost rectangular. Oval in section. Profile biconvex symmetrical. Blade slightly curved. Sides parallel

at the distal end, converging towards the flattened butt. Polished all over, more marked on the bevels. L. 11.5. W. 4.0. Butt 2.7. Th. (centre) 3.0. Greenstone. Gley 1.5/10 gy.

DGS4 Do309.32. Mortar. Fragment. Circular shape, restored. Flattened edge, slightly sloping towards the central cavity. Upper surface smooth, lower surface less carefully worked. D. (restored) 40.0, (central cavity) 30.0. L. (fragment) 14.0. W. (fragment) 12.0, (edge) 6.5. Th. (side) 5.1, (min. pres.) 1.6. Depth (cavity) 3.0. Limestone and schist. 2.5 y 8/2 and 10 r 5/4.

CHIPPED STONE (FIG. 30)

56 pieces were found in total, of which 39 were of obsidian (69.6%) and 17 of siliceous materials (30.4%): honey flint (N = 3), grey, translucent flint (N = 1), chocolate radiolite (N = 3), pink chalcedony (N = 2), quartz (N = 1), green, coarse chert (N = 1).

A greater variety of siliceous raw materials was recorded from Area D, represented by specimens that belonged to all phases of debitage. Tools were rare, but all showed traces of heavy wear: a projectile point of pink chalcedony (**DCS4**), a glossed blade (**DCS6**) and a *pièce esquillée* of honey flint, a coarse projectile point and an end-scraper of grey flint.

The obsidian assemblage illustrates every stage of debitage, but it is not very rich from the technological point of view: no crested blades, no worked cores (except for a piece of core waste (**DCS1**)). The four tablets for the renewal of the striking platform are fragmentary (**DCS2**, **DCS5**) and there are not many blades of full debitage (N = 9; two blades show traces of the preparation of a crest and were produced by indirect percussion, the others having been produced by pressure flaking; all show marked traces of wear). Only one of the tools is of obsidian: a blade *en coches*.

The obsidian assemblage illustrated every stage of debitage, but it was not very rich from the technological point of view: neither primary crested blades nor complete cores, except for a core fragment (**DCS1**), were found; the four tablets from the rejuvenation of the striking platform are partial (**DCS2**, **DCS5**) and there were not many blades from the main production phase (*plein débitage*) (N = 9). Two blades showed traces of crest preparation and were detached by indirect percussion; the rest were detached by pressure flaking. All show marked traces of wear, but only one obsidian tool (namely a notched blade) was found.

Blade production was carried out on the site in Area D, as indicated by the presence of core preparation flakes, small tablets and core platform rejuvenation flakes, but the picture is fragmentary. Certain products, e.g. fine pressure blades, core fragments and a tablet that probably belonged to a flat core (**DCS5**), indicate an Early Bronze Age date.

DCS1 Do303.11.1. Obsidian core fragment. L. 33. W. 11. Th. 6.

DCS2 Do308.6.5. Partial obsidian tablet for rejuvenating the striking platform. L. 6. W. 11.5. Th. 2.

DCS3 Do311.5.1. Small obsidian flake for rejuvenating the striking platform. L. 9. W. 7. Th. 2.

DCS4 Do307.12.2. Small tanged projectile point of pink chalcedony. L. 15. W. 13.5. Th. 0.5.

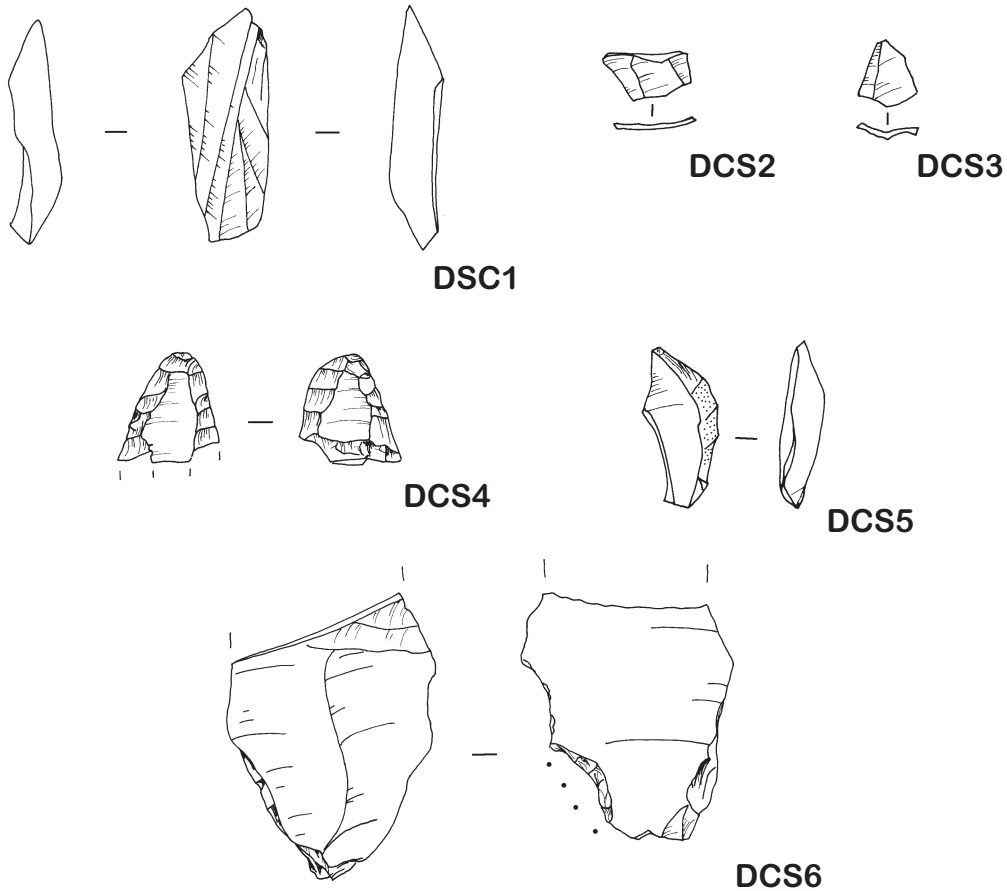


FIG. 30. Area D: chipped stone. Scale 1:1.

DCS5 Do309.11.1. Partial obsidian tablet for rejuvenating the striking platform of a core of the flat type. L. 24. W. 11. Th. 5.

DCS6 Do308.3.1. Retouched flake of honey flint with gloss. L. 37. W. 26. Th. 6.

HUMAN REMAINS

Grave 0313 (FIG. 24)

Context, position, orientation. The skeleton was discovered in the pile of stones (0309), in the NW corner of Area D. Evidently an area of the stones had been removed to allow the body to be placed in a crevice. The opening, hardly a formal grave, was then refilled with the earth, stones and pottery which had been removed to make room for the burial. It was oriented east-west, with the head to the west, and lay on its right side. Animal bones were found alongside the infant remains.

Preservation. A relatively large number of infant remains were recovered from grave 0313. The remains are in a good state of preservation and include bones of the cranium, the maxillae, mandible, three tooth crowns, ribs, vertebral elements, the right upper extremity, the left ilium, the right femur, segments of the left femur, and feet bones. The degree of preservation confirms that the remains were part of a burial and were not randomly placed at the site of discovery.

Estimation of age at death. A number of age indicators strongly suggest that the skeletal remains belong to a newborn (*c.* 2 months). Age can be assessed with considerable certainty owing to the presence of three tooth crowns,⁹¹ which provide the greatest precision in estimating the age of subadults. Furthermore, the length of the petrous part of the right temporal,⁹² the presence of the anterior fontanelle,⁹³ an open mental symphysis,⁹⁴ and the length of the right femur⁹⁵ support the presence of a newborn.

Health status. Woven bone (new bone) was observed in both orbits and the inner table of the frontals of 0313. As mentioned in the case of 0009b, such lesions are linked to haemorrhagic processes that could be due to various meningeal diseases or scurvy.⁹⁶ In the case of 0313, porosity was present in various sites of the skull⁹⁷ in accordance with the distribution described by Ortner et al. for subadult scurvy.⁹⁸ According to these authors, the most pathognomonic feature of scurvy is the porous lesion of the greater wing of the sphenoid.⁹⁹ The same authors argue that the most probable age is between birth and 3 years owing to the rapid growth in infancy and early childhood. However, the very young age of 0313, as well as of 0009b, raises many questions concerning the presence of a major deficiency in the diet. At this age it is expected that the child would be at least partially breast-fed. It has been observed that, even in women who have been severely deprived of proper nutrition, breast milk compensates for nutrient deficiencies in the infant. Hence, other causes for these lesions should also be investigated, including infectious diseases and traumas. Overall, the health status of the two infants (0009b and 0313) raises many questions concerning the conditions of hygiene, the health of the mother and infant, and the patterns of breast-feeding in this time period and region.

⁹¹ Teeth present: max Rdm1 = Cr1/2, Ldi2=Cr3/4-c, mand Ldm2 = Cr1/2.

⁹² The size of the petrous is that of a full-term fetus (41.42 mm), I. Gy. Fazekas and F. Kosa, *Forensic Fetal Osteology* (Budapest, 1978), 153.

⁹³ Anterior fontanelles close by the end of the first or second year, Scheuer–Black 107.

⁹⁴ The two halves of the mandible join at the midline during the first year of life, *ibid.* 144.

⁹⁵ Approximate length of the right femur: 75 mm. According to Ubelaker (n. 14), 71 the age is that of a newborn to 0.5 years.

⁹⁶ See nn. 69–70.

⁹⁷ Distribution of porosity on the skull of 313: the wing of the right sphenoid, the squamous of the right temporal, the basilar of the occipital, the right maxilla, and the zygomatics.

⁹⁸ D. J. Ortner, E. Kimmerle, and M. Diez, 'Probable evidence of scurvy in subadults from archaeological sites in Peru', *American Journal of Physical Anthropology*, 108 (1999), 321–31; D. J. Ortner, W. Butler, J. Cafarella, and L. Miligan, 'Evidence of probable scurvy in subadults from archaeological sites in North America', *American Journal of Physical Anthropology*, 114 (2001), 343–51.

⁹⁹ Ortner et al. (n. 98), 322.

AREA E

SUMMARY

Area E was set on the western slope of the tell, a dozen metres from the top. It had material of Neolithic, Early Helladic, Late Helladic, Archaic–Classical, and Roman date in most contexts between 198.64 and 197.45 m asl (TABLES 10 and 13). The site had apparently undergone terracing and other modifications in the Roman period (FIG. 31), which would explain the mixture of finds. The excavated stone features plainly formed a part of these modifications, even though their exact nature could not be ascertained. The section made in the NW of the area through the concentration of stone gave no sign of wall foundations or structural features. A small Roman jar, resting on its base, was found in the west section and might indicate an occupation layer disturbed to the east by terracing.

LOCATION OF AREA E

Area E was placed on the west slope of the tell, 12.5 m west of Area C, located at the top of the hill. The excavation of this rectangle, measuring 5 m east–west × 2.5 m north–south, looked to reveal structures of Early Helladic date and uncover a chronological sequence from the Neolithic to the EBA period. The surface collection in 1999 had indicated a concentration of EH pottery here, suggesting the presence of strata belonging to this period. In addition it was hoped to obtain information about tell formation on this slope. The coordinates of each corner were: NW 1090 E, 1145 N, SW 1090 E, 1142.50 N, NE 1095 E, 1145 N, SE 1095 E, 1142.50 N. The height of the NW corner was 198.58 m asl, and in the SE 198.88.

STRATIGRAPHY (FIGS. 32–3)

The stratigraphic sequence is summarized in FIG. 33; TABLES 10–12 indicate the levels and pottery content of each context. Work started with surface collection over the area (context 400): only one sherd, a probably MH handle, was collected. Then the plough soil was removed (context 0401) over the whole area; it contained small blocks of limestone in the western part. The pottery, though mixed, was particularly rich in MN sherds, probably as a result of material from the top of the tell being displaced by erosion or agriculture. Various stray ground stone tools were also found: **EGS1** a fragment of a grinder, **EGS2** a fragment of

TABLE 10. Contexts in Area E.

Context	Top	Base
400	198.64 (centre)	
401/407	198.58–198.88	198.42–198.51
402	198.42–198.51	198.31–198.39
403/404	198.42–198.51	198.31–198.39
405	198.42–198.51	198.29–198.36
406	198.42–198.51	198.29–198.35
408/409	198.31–198.39	197.87–197.96
410/411	197.87–197.96	197.58–197.71
412	197.58–197.71	197.45



FIG. 31. Photograph of Area E after excavation: Roman pit with tile and stone.

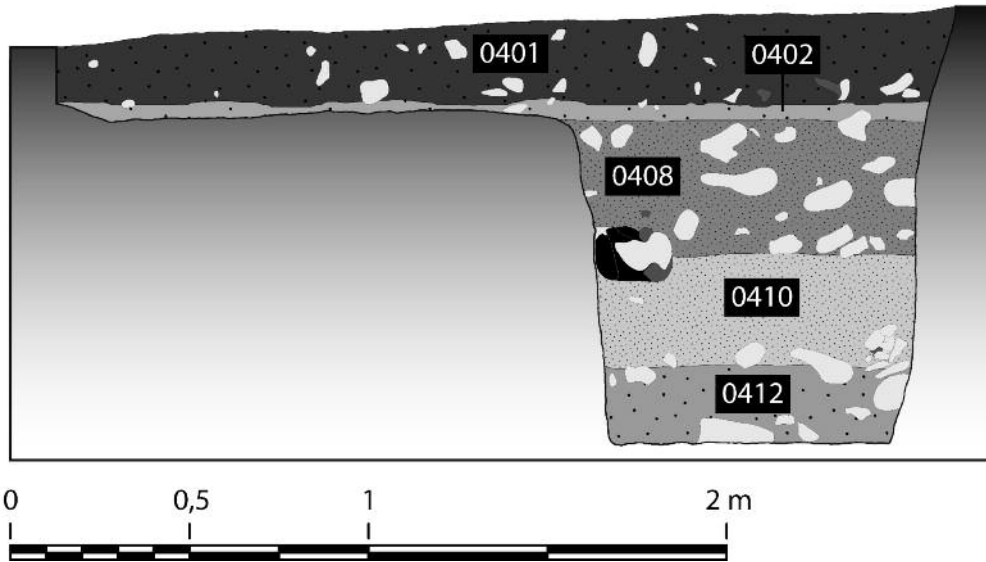
TABLE 11. Totals of sherds and their weights (kg) from contexts in Area E.

Context	Total sherds	Total weight	Fine total	Fine weight	Coarse total	Coarse weight	Mono-chrome
400	1	0.03	0	0	1	0.03	0
401	2281	15.03	1781	7.83	500	7.2	158
402	413	2.88	346	1.41	79	1.47	18
403	161	2.72	112	0.62	49	2.1	7
405	443	2.44	346	1.015	97	1.425	11
406	400	3.27	313	1.75	87	1.52	21
407	85	0.47	74	0.3	11	0.17	2
408	95	1.05	63	0.4	32	0.65	17
409	23	0.34	12	0.09	11	0.25	3
410	33	0.41	22	0.13	11	0.28	5
411	74	0.86	55	0.37	19	0.49	11
412	255	3.95	180	1.7	75	2.25	91

greenstone in the process of manufacture, **EGS3** an axe/adze fragment, **EGS4** a weight, **EGS5** an adze, and **EGS6** a fragment of a hammer. Context 0407 was given to finds from cleaning the section of 401. At 198.64 m asl and 1.20 m from the west baulk, a stone surface mixed with earth was distinguished, which crossed the trench from north to south, so context 0401

South

North



West

East

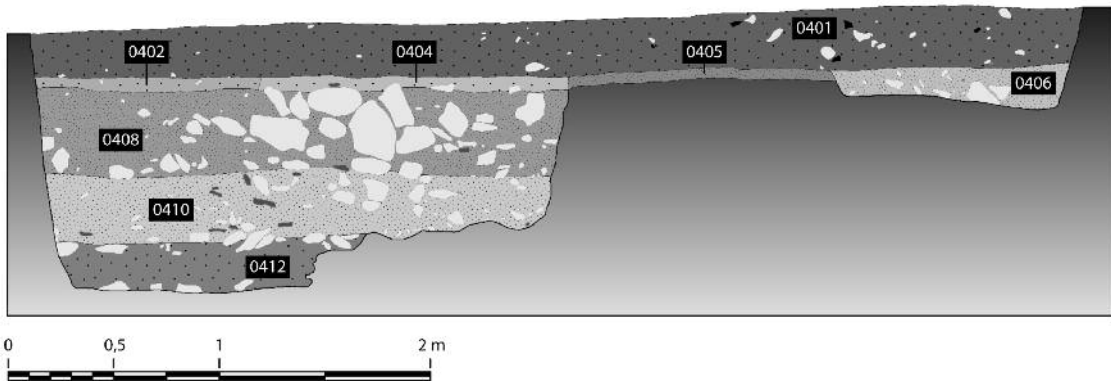


FIG. 32. Area E: (a) east-facing section; (b) south-facing section (contexts distinguished by shading).

was closed. Context number 0404 was used for the stones and 0403 for the fill between the stones, which was of clay packed with tile and sherds, mainly MN and Roman. The west part of the area, to the west of 0403, was excavated as context 0402: its texture was similar to that of context 0401, but it is noteworthy that MN pottery was much less common than in 0401. The eastern part of the area was subdivided into two contexts: 0405 immediately to the east of 0403–0404, and 0406 along the eastern baulk. Context 0405, though similar to 0402, contained in addition traces of carbonised wood and charcoal, as well as burnt stone, but these could be the remains of a modern fire. In context 0406 there were numerous fragments of Roman tile and fragments of burnt clay were also common. Contexts 0402, 0405, and 0406

TABLE 12. Average weights (g) of coarse and fine sherds and total weight (kg) of tile from contexts in Area E.

Context	Avg. wt, fine	Avg. wt. coarse	Tile
400		30	0
401	4.4	14.4	1.5
402	4.08	18.61	6.3
403	5.54	42.85	5.06
405	2.93	14.69	0.2
406	5.59	17.47	0.15
407	4.05	15.45	0.3
408	6.35	20.31	0.7
409	7.5	22.73	0.3
410	5.91	25.45	0
411	6.72	25.79	0.8
412	9.44	30	0

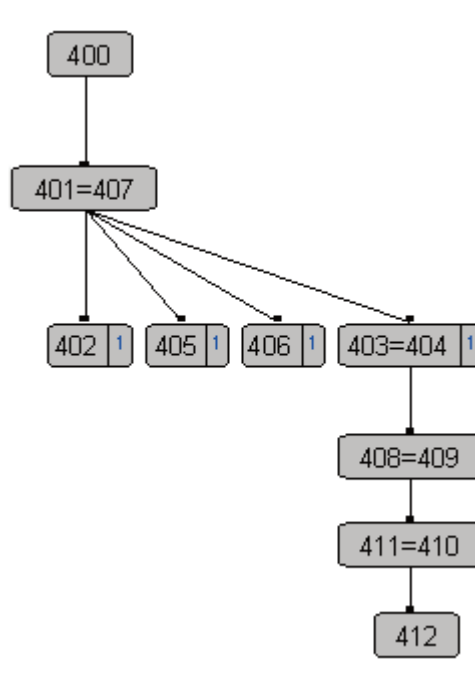


FIG. 33. Area E, Harris matrix.

produced pottery that ranged from Middle Neolithic to Roman. Note also an iron spearhead in 0405, of Roman date (**ESF1**). Some pieces of chipped stone, fragments of flint and obsidian tools, and animal remains complete the finds from these contexts.

It was then decided to concentrate excavation on the NW corner of the area, by opening a

sounding which measured 2.5 m from east to west and 1 m from north to south: in this way it was hoped that the Bronze Age and Neolithic deposits would be reached more quickly, and that it would be possible to understand the stone feature better by getting four sections, two of which crossed the stones. Therefore context 0408 was opened, which proved to be a concentration of small stones and earth, as well as pieces of tile. The pottery was still very mixed. Context 0409 contained finds from straightening the profile corresponding to context 0408. A fragment of a small polished stone axe was found here (**EGS7**).

Next the stratigraphic sounding was further reduced by half, whilst opening context 0410 in the NW corner: the soil was a firm, yellow clay. Finally, below 0410, context 0412 still produced Roman tile and mixed pottery (EH, LH, Archaic–Classical, and Roman), but also a good number of MN sherds. Note also a small Roman jar, almost complete, taken from the west baulk with the rim at 198.05 and the base at 197.90 (contexts 0409/0411). Once the sounding had reached a depth of 1.2 m, Area E was closed, after two weeks of excavation.

It appears that this section of the site consisted of dumps of mixed material belonging to a major reconfiguration of the site dating to the Late Roman period.

POTTERY (FIGS. 34–5; TABLE 13)

Neolithic

There is some Middle Neolithic in most contexts but particularly in the topsoil 0401 and note the number of monochrome sherds here, many of which should also be MN. As mentioned above, it seems likely that these sherds have been transported downslope from higher up the tell. It is therefore remarkable that so much of the datable pottery from Area E, almost 50%, is Middle Neolithic, though ease of recognition may be a factor, because certain shapes, decorative techniques, and fabrics do stand out. Shapes include collar-necked and piriform jars (FIG. 34: **E1–4**), pedestal and carinated bowls (FIG. 34: **E5–8**). A few sherds have patterned decoration (FIG. 34: **E9**) but scribble burnish (**E3**) and especially monochrome is more common. Many of the plain sherds must once have been painted as well.

Two Black Ware sherds from 0405 may be Late Neolithic and the fabric of some of the coarse sherds in 0406, such as **E10** (FIG. 34), looks Final Neolithic.

Bronze Age

Early Helladic pottery is not a significant component in any context. Most of the sherds should be EH 2, like the bowl **E11** (FIG. 34). The Middle Helladic is possible rather than certain but Late Helladic pottery, mainly goblets and kylikes (FIG. 34: **E12–15**), is present in seven contexts, though again as a minor component.

Archaic–Roman

The mix of periods is further underlined by the Archaic–Classical and Roman sherds in almost every context. Much of the Archaic–Classical pottery is black glazed—rims from bowls (FIG. 35: **E16–17**) and a ring base (FIG. 35: **E18**)—but there is also a pithos (FIG. 35: **E19**).

The Roman pottery is not especially diagnostic but a number of the sherds should be Late Roman: a bowl rim (FIG. 35: **E20**), the jar from context 0411 (FIG. 35: **E21**—it has not been possible to restore a complete profile because this is very fragmentary) and other closed

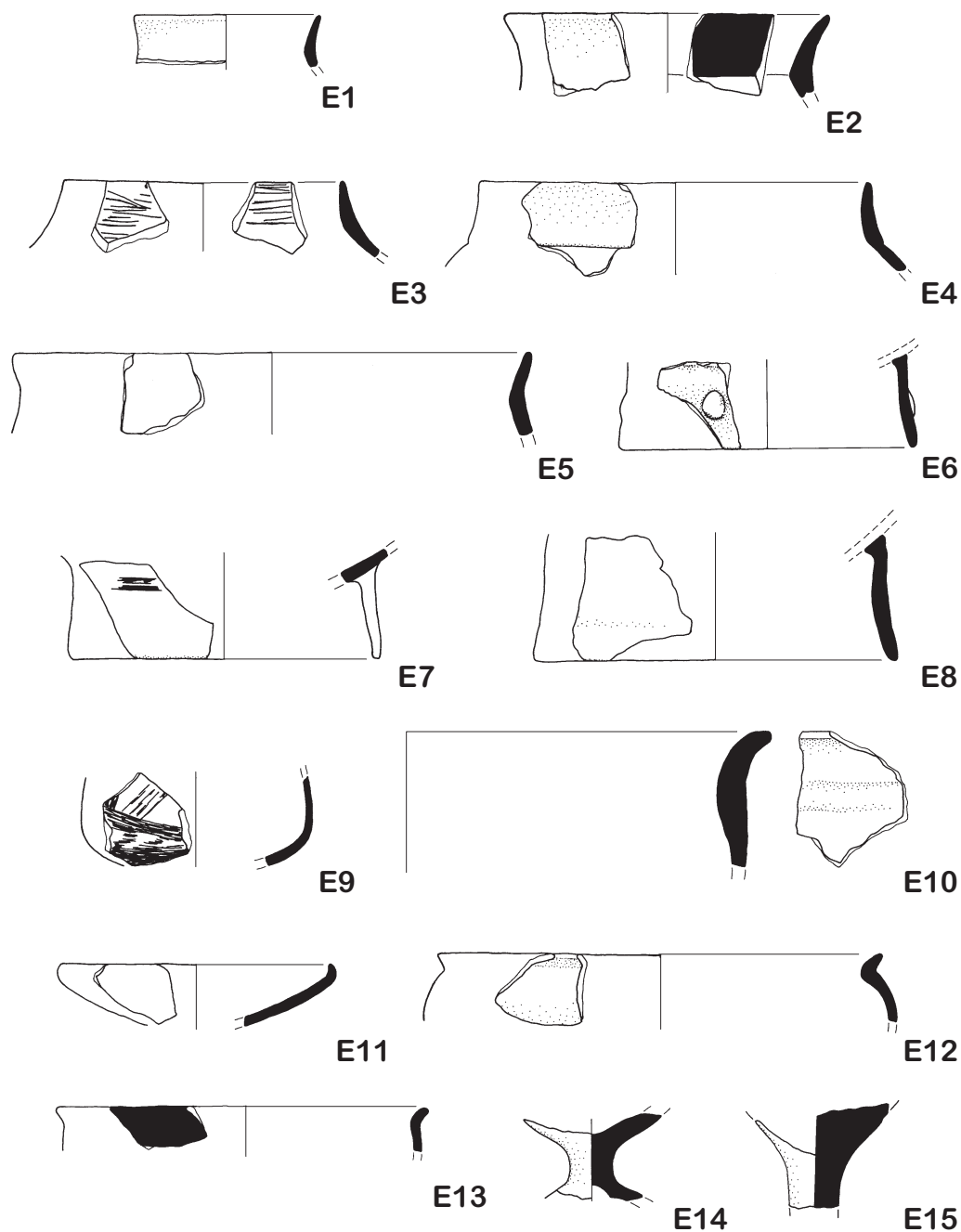


FIG. 34. Area E: MN (E1-9), FN (E10), EH (E11), and LH (E12-15) pottery. Scale 1:3.

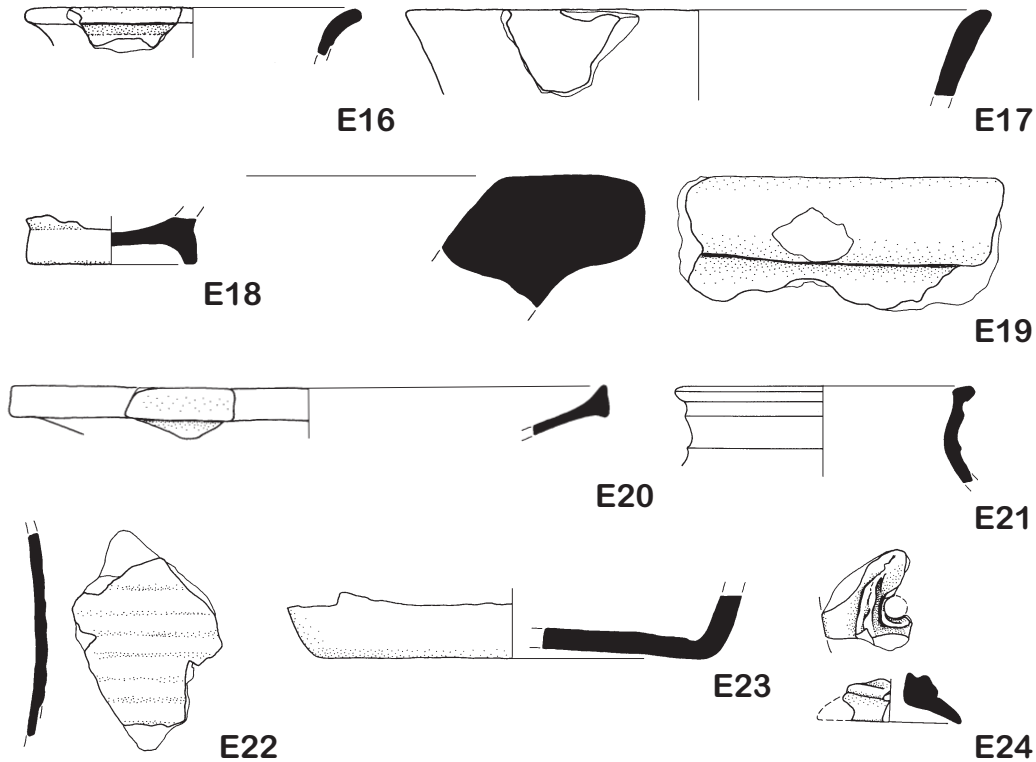


FIG. 35. Area E: A–C (E16–19) and R (E20–4) pottery. Scale 1:3.

vessels (E22 a sherd from an amphora or flagon with ribbed decoration and E23 a flat base: FIG. 35), some in local fabrics. There is also a lamp (FIG. 35: E24).¹⁰⁰

E1 Eo401.03A.17. Collar rim. Jar. H. 21. W. 42. Th. 3. D. (rim) 80. Fabric: fine. Surface: 5 YR 6/8. Core: 5 YR 6/8. MN.

E2 Eo401.03B.02. Concave flared rim. Jar. H. 35. W. 37. Th. 5. D. (rim) 140. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: painted monochrome (5 YR 2.5/2). MN.

E3 Eo401.03B.03. Collar rim. Jar. H. 31. W. 32. Th. 4. D. (rim) 120. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: scribble burnished out and in. MN.

E4 Eo401.14.20. Collar rim. Jar. H. 40. W. 50. Th.

5. D. (rim) 170. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 6/4. MN.

E5 Eo410.03.01. Everted rim. Bowl. H. 35. W. 37. Th. 6. D. (rim) 220. Fabric: fine. Surface: 7.5 YR 8/6. Core: 7.5 YR 8/6. Decoration: painted monochrome out (10 r 4/8). MN.

E6 Eo401.03A.15. Pedestal base. H. 37. W. 35. Th. 4. D. (base) 125. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: relief rivet-painted monochrome (5 YR 4–6). MN

E7 Eo405.13.05. Pedestal base. H. 40. W. 56. Th. 5. D. (base) 130. Fabric: fine. Surface: 5 YR 7/4.

¹⁰⁰ We are extremely grateful to Clare Pickersgill, who examined the pottery from Area E and provided detailed notes on the Roman sherds.

TABLE 13. Dated sherds from contexts in Area E.

Context	MN P	MN SB	MN M	MN other	MN total	MN %			
400					0	0			
401	1	6	16	23	46	68			
402	1			6	7	54			
403			2	1	3	23			
405		1	1	3	5	36			
406	1	1	3	1	6	33			
407		2	1	4	7	100			
408				1	1	8			
409					0	0			
410		1			1	25			
411		1	2	1	4	31			
412			6	1	7	47			

Context	LN BW	LN GW	LN WS	LN MP	LN coarse	LN other	LN total	LN %
400							0	0
401							0	0
402							0	0
403							0	0
405	2						2	14
406							0	0
407							0	0
4088							0	0
409							0	0
410							0	0
411							0	0
412							0	0

Context	FN fine	FN coarse	FN total	FN %	EH1	EH2	EH coarse	EH total	EH %
400			0	0				0	0
401		2	2	3		5	1	6	9
402			0	0	1			1	8
403			0	0			1	1	8
405			0	0		2	2	4	29
406		5	5	28				0	0
407			0	0				0	0
408			0	0		2	1	3	25
409			0	0				0	0
410			0	0				0	0
411		2	2	15		1		1	8
412			0	0			1	1	7

Context	MH	LH	M/LH total	M/LH%	A-C	R	A-R%	Dated Sherds
400	1		1	100			0	1
401	1	2	3	4	6	5	7	68
402		1	1	8	1	3	23	13
403	1		1	8	1	5	38	13
405		1	1	7	1	1	7	14
406		4	4	22	1	1	6	18
407			0	0			0	7
408		3	3	25	2	3	25	12
409		1	1	100			0	1
410			0	0	2	1	25	4
411		2	2	15	1	3	23	13
412		1	1	7	3	2	13	15

Core: 5 YR 7/4. Decoration: painted monochrome (5 YR 2.5/1). MN.

E8 Eo412.04.03. Pedestal base. H. 53. W. 51. Th. 6. D. (base) 150. Fabric: fine. Surface: 5 YR 7/6.

Core: 5 YR 7/4. Decoration: painted monochrome (2.5 YR 4/8). MN.

E9 Eo402.10.03. Body sherd. H. 40. W. 38. Th. 4. Fabric: fine. Surface: 7.5 YR 7/4. Core: 7.5 YR 6/4. Decoration: painted diagonal lines and monochrome (2.5 Y 3/1). MN.

E10 Eo406.08.09. Vertical flared rim. Basin. H. 58. W. 48. Th. 7. D. (rim) 310. Fabric: coarse. Surface: 2.5 YR 4/1. Core: 2.5 YR 4/8. (FN).

E11 Eo408.03.12. Incurved rim. Bowl. H. 25. W. 36. Th. 4. D. (rim) 120. Fabric: fine. Surface: 5 YR 6/8. Core: 5 YR 5/2. Decoration: painted monochrome (10R.2.5/1). EH II.

E12 Eo406.04.05. Everted rim. Goblet-kylix. H. 31. W. 39. Th. 4. D. (rim) 190. Fabric: fine. Surface: 2.5 Y 8/3. Core: 2.5 Y 8/3. LH3.

E13 Eo409.04.01. Everted rim. Bowl. H. 18. W. 40. Th. 3. D. (rim) 160. Fabric: fine. Surface: 7.5 YR 8/6. Core: 7.5 YR 8/6. Decoration: painted monochrome out and in (7.5 YR 2.5/1). LH 3.

E14 Eo401.07.01. Stem. Goblet. H. 35. W. 54. Th. 5. Fabric: fine. Surface: 7.5 YR 8/4. Core: 7.5 YR 7/1. LH.

E15 Eo402.07.05. Stem. kylix. H. 37. W. 51. Th. 5. Fabric: fine. Surface: 7.5 YR 8/6. Core: 7.5 YR 7/3. LH 3.

E16 Eo412.04.02. Convex flared rim. Bowl. H. 18. W. 45. Th. 4. D. (rim) 120. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: painted monochrome (5 YR 2.5/1). A-C.

E17 Eo405.13.02. Convex plain rim. Bowl. H. 35. W. 55. Th. 7. D. (rim) 230. Fabric: fine. Surface: 7.5 YR 8/3. Core: 7.5 YR 8/4. Decoration: painted horizontal lines (7.5 YR 2.5/1). A-C.

E18 Eo410.04.02. Ring base. H. 20. W. 72. Th. 5. D. (base) 160. Fabric: fine. Surface: 10 YR 8/4. Core: 10 YR 7/3. Decoration: painted monochrome (10 YR 2/1). A-C.

E19 Eo403.19.02. Rounded rim. Pithos. H. 53. W. 130. Th. 45. D. (rim) 580. Fabric: coarse. Surface: 5 YR 7/8. Core: 5 YR 7/8. (A-C.)

E20 Eo403.20.03. Thickened rim. Bowl. H. 20. W. 43. Th. 3. D. (rim) 240. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 7/8. (L?)RO.

E21 Eo411.05.01. Everted rim. Jar. H. 37. W. 65. Th. 4. D. (rim) 120. Fabric: fine. Surface: 10 YR 7/4. Core: 10 YR 7/4. (RO?).

E22 Eo402.07.15. Body sherd. H. 87. W. 60. Th. 4. Fabric: fine. Surface: 2.5 YR 6/8. Core: 2.5 YR 6/8. Decoration: horizontal grooves. LRO.

E23 Eo403.20.07. Raised base. H. 26. W. 150. Th. 8. 160. Fabric: fine. Surface: 2.5 YR 7/8. Core: 2.5 YR 6/8. (L?)RO.

E24 Eo406.08.02. Rim. (Lamp). H. 17. W. 36. Th. 5. D. (rim) 56. Fabric: fine. Surface: 2.5 YR 7/4. Core: 2.5 YR 7/4. Decoration: relief cordon. RO.

SMALL FINDS (FIG. 36)

ESF1 Eo405.12. Iron spear point. L. 69. Th. 12. Colour: 10 YR 7/4. RO.

ESF2 Eo402.13. Glass vessel. H. 31. W. 36. Th. 3. Gley 1.6/10 gy. RO.

GROUND STONE (FIG. 36)

In Area E, all the objects save one, an incomplete axe/adze, were found in the topsoil and consequently cannot be dated with certainty.

EGS1 Eo401.5. Grinder. Incomplete. Shape rectangular. Section elliptical. Surfaces convex. One end flattened. Sides curved.. L. 6.7. W. 5.1. Th. 2.0. Limestone. 2.5 Y 8/1.

EGS2 Eo401.9. Raw material in course of being worked. L. 10.7 W. (at ends) 2.9-5.4. Greenstone. Gley 2.5/5 b.

EGS3 Eo401.11. Axe or adze. Proximal fragment. Sides converging slightly towards the large,

convex butt. Polished all over. L. 49. W. (break at centre). 48. Th. 37. Butt 35. Brown rock. 10 YR 4/1 + 10 YR 6/2.

EGS4 Eo401.13. Pierced disc (weight?). Fragment. D (restored) 52, (perforation) 7. Phyllite. Gley 1.7/10 y + Gley 1.6/n.

EGS5 Eo401.14. Adze. Complete. Shape trapezoidal. Oval in section. Profile biconvex and asymmetric. Blade curved with two little breaks.

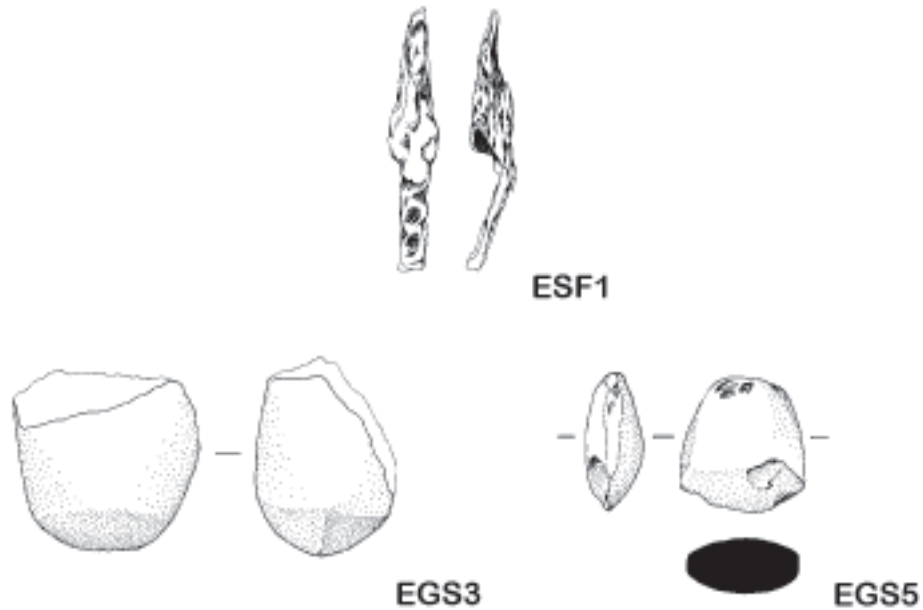


FIG. 36. Area E: iron spearhead (**ESF1**), stone axe/adze (**EGS3**), stone adze (**EGS5**). Scale 1:2.

Sides flattened, converging towards the large, flattened butt. Carefully polished all over. L. 36. W. 33. Butt 2.1. Th. 15. Black rock. Gley 1.3/n.

EGS6 Eo401.15. Hammer. Fragment. Traces of percussion. Polished all over. L. 52. W. 3.3. Th. 17. Greenstone. Gley 1.6/10 gy.

EGS7 Eo409.3 Axe or adze. Proximal fragment. Sub-oval in section. Sides converging towards the narrow, slightly convex butt. Polished all over. L. 55. W. (break at centre) 39. Th. 3.3. Butt: 18. Dark grey-green quartzite. Gley 2.4/5 b.

CHIPPED STONE (FIG. 37)

Eighteen pieces in total were recovered, nine of obsidian (50%) and nine of siliceous materials (50%): white flint (N = 1), honey flint (N = 4), red radiolite (N = 1), brown chert (N = 1), chocolate radiolite (N = 1) and quartz (N = 1).

The sample is small and includes products of various materials that belonged to various phases of debitage (main production phase, core preparation phase, and rejuvenation phase). The absence of certain technological categories (cores, tablets, crested blades) is striking, whereas the blades of the main production phase are few (3 of obsidian, 2 of siliceous materials). Only one tool was found: a tanged projectile point, made on a thick obsidian flake with traces of heavy wear.

ECS1 Eo405.9.1. Yellow flint tablet for rejuvenating the striking platform. L. 10. W. 22. Th. 3.

ECS2 Eo410.5.1. Honey flint core. L. 30. W. 12. Th. 6.

ECS3 Eo410.4.1. Obsidian projectile point. L. 33. W. 9. Th. 7.

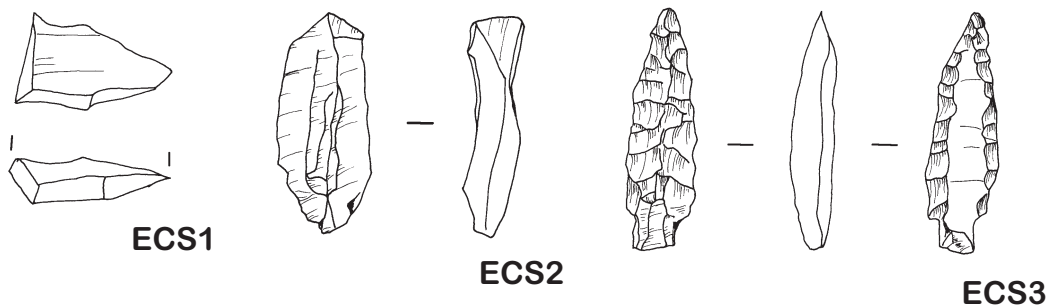


FIG. 37. Area E: chipped stone. Scale 1:1.

FAUNAL REMAINS

The nine contexts recorded show a significant degree of fragmentation and had a very mixed fauna: the assemblages provided almost no specimens identifiable by anatomy, but rather fragments of bones from a variety of sources. Note in particular that the teeth, especially those of the ovicaprids, had spalled under the pressure of the earth. Otherwise, on the basis of the very few identifiable bones, the remains of the standard domesticated animals were recovered from this Area. In brief, no zoological or cultural inferences can be drawn.

AREA F

SUMMARY (FIGS. 38-41)

Just below the plough soil, whose surface lay at 199.2-199.4 m asl, an alignment of hard-packed clay crossed the area from NE to SW (0503). Certainly considerably later than the Roman period, it could not be associated with any stone foundation or clay floor and its significance is not clear. We next encountered a major Roman destruction deposit, consisting of tile, pottery and jumbled stone. Finds included glass vessels (**FSF4-5**) and a square-headed Roman iron nail (**FSF3**). Late Roman combed ware confirmed the date. This destruction deposit was exposed over the whole extent of Area F, though two baulks were left unexcavated to allow sections to be drawn.

In order to explore the lower levels we opened a trial at the west end of the area (Box A) and took this down to approximately 0.75 m below ground level. Underneath the destruction deposits Middle Neolithic occupation levels were recovered. A small shell pendant (**FSF1**) was found within the earth contained within a small upturned Middle Neolithic carinated bowl. No Early Helladic material was discovered below the Roman, possibly because the Bronze Age levels had been terraced away.

LOCATION OF AREA F

Area F was opened with the intention of exploring the tell formation further to the west of the main cluster of areas opened in the centre of the site. Its corners were located at 1072.50 E 1120.00 N; 1072.50 E 1125.50 N; 1077.50 E 1122.50 N; 1077.50 E 1120.50 N; that is 5 m east-west and 2.5 m north-south. In the 1999 survey this formed part of squares 1215 and

1216, which produced 23 sherds altogether, though only one was registered; on the other hand there was much more tile than in the squares at the centre of the site (3.4 kg altogether). Roman pottery was found in adjacent squares (1214, 1265), as well as some Archaic–Classical black glaze (1217, 1266). However, there were no Neolithic or Early Bronze Age sherds in the vicinity. Before excavation proper, the area was cleared of vegetation and sherds lying on the surface were collected (context 0500). The 25 sherds included a MN pedestal base and an EH 2 base. The surface collection also produced a further 1.8 kg of tile. A heavy concentration of tile was found over much of the western part of the site indicating a large Roman structure or structures overlying the earlier remains, so another objective was to clarify whether intact prehistoric strata were preserved below the historic levels. Core 8, sunk some 20 m to the south of Area F, indicated a depth of 2.5 m of archaeological sediments.

STRATIGRAPHY (FIGS. 38–41; TABLES 14–17)

The plough soil was removed over the whole surface (context 0501) to a depth of about 0.10 m. Some Middle Neolithic, EH, A–C, and Roman pottery (TABLE 17), as well as a considerable quantity of tile (15.4 kg), was recovered; also two pieces of obsidian (0501.8) and a flint blade (0501.11). Within the surface soil an area of ash and burning (context 0502) was excavated separately: among the 14 sherds recovered was a LH kylix stem and 0.8 kg of tile. Below the surface a line of hard grey clay was found (context 0503), its top at 197.07–197.30 m asl; it extended 5.2 m from the middle of the west baulk to the NE corner of the area, was 0.38 m

TABLE 14. Contexts in Area F.

Context	Top	Bottom
500	197.20–197.41	
501	197.20–197.41	196.99–197.03
502		
503	197.32	197.01
504	197.22	196.96
505	197.29	197.06
506	197.25	
507	197.06	196.72
508	197.02	196.78
509	198.68	196.72
510	196.86	196.67
511	196.91	196.66
512	197.08–197.23	
513	197.11–197.24	
514	197.14	
515	196.82	196.63
516	196.45–196.62	196.67–196.43
517	196.77–196.73	
518	199.32	
519	199.32	
520	199.38	196.28
521	197.26–197.03	

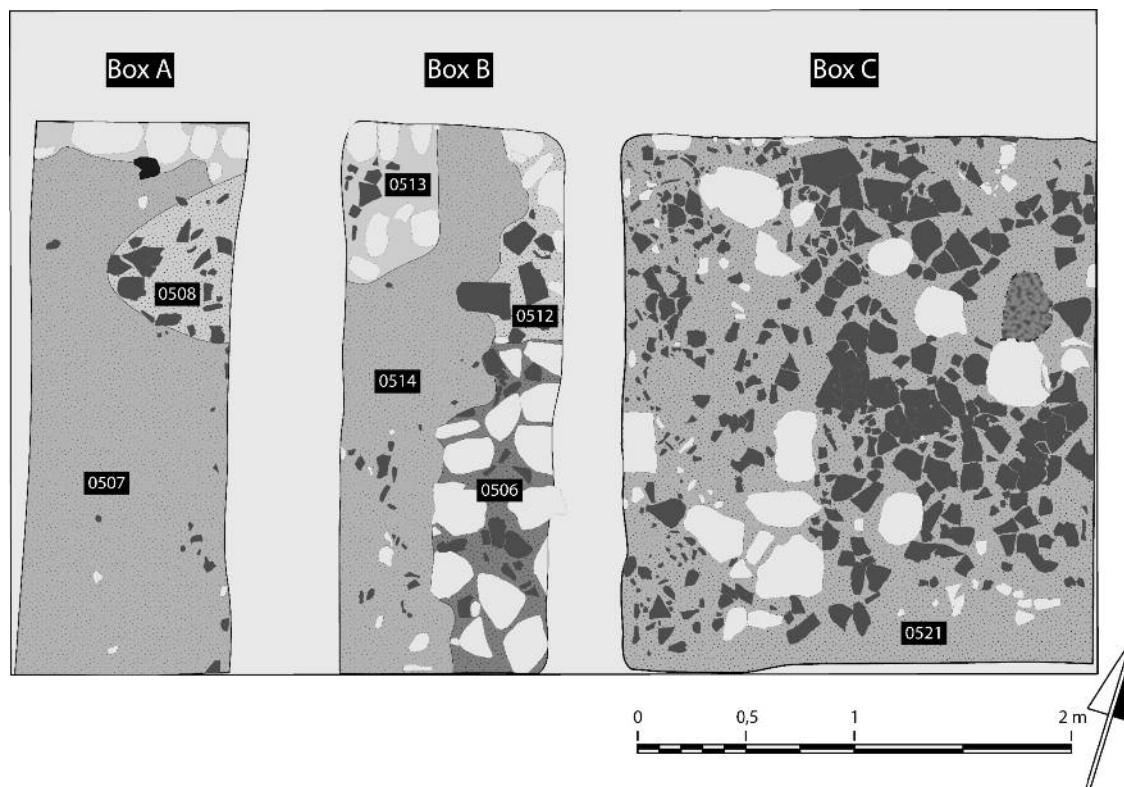


FIG. 38. Area F, plan section (contexts distinguished by shading).

TABLE 15. Totals of sherds and their weights (kg) from contexts in Area F.

Context	Total sherds	Total weight	Fine total	Fine weight	Coarse total	Coarse weight	Mono-chrome
500	25	0.3	19	0.1	6	0.2	0
501	247	2.26	200	1.36	47	0.9	10
502	14	0.16	8	0.07	6	0.09	0
503	60	0.66	42	0.27	18	0.39	1
504	375	2.63	272	1.22	103	1.41	18
505	123	1.1	82	0.49	41	0.61	12
507	96	0.68	59	0.28	37	0.4	6
508	55	0.54	36	0.27	19	0.27	4
509	36	0.475	28	0.3	8	0.175	5
510	39	0.32	34	0.18	5	0.14	3
511	223	1.76	201	1.19	22	0.57	41
515	21	0.44	19	0.14	2	0.3	5
516	141	3.2	110	1.25	31	1.95	35
517	17	0.54	10	0.07	7	0.47	3
518	15	0.3	15	0.3	0	0	0
520	63	0.85	53	0.45	10	0.4	27

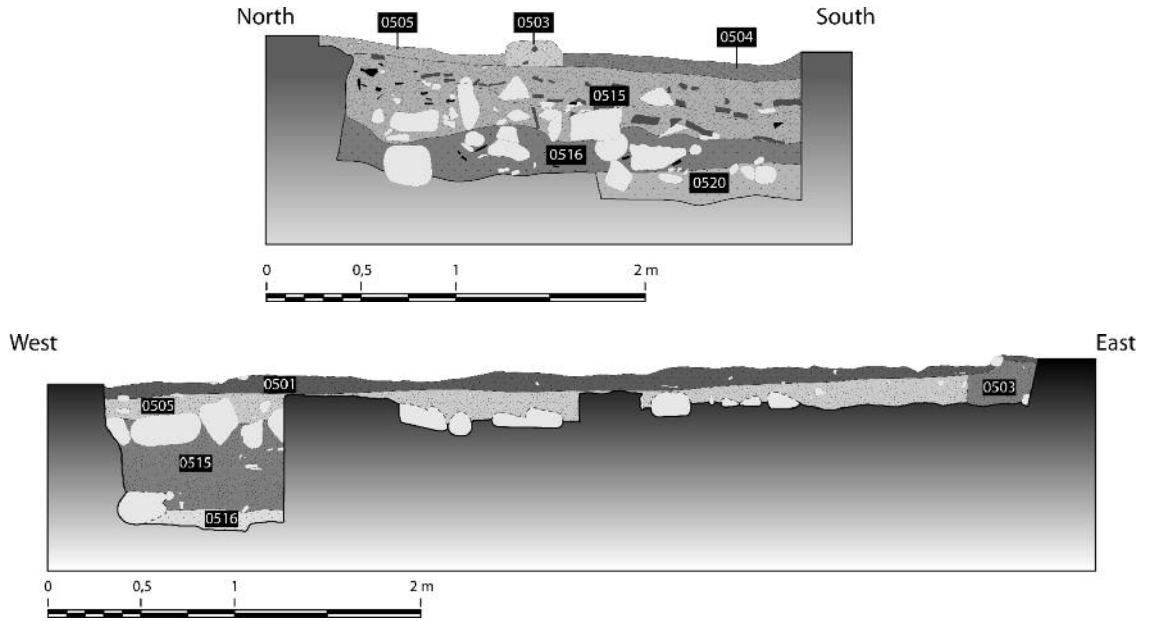


FIG. 39. Area F: east-facing section; (b) south-facing section (contexts distinguished by shading).



FIG. 40. Photograph of Area F, context 0521, Roman destruction layer.

TABLE 16. Average weights (g) of coarse and fine sherds and total weight of tile (kg) from contexts in Area F.

Context	Avg. wt. fine	Avg. wt. coarse	Tile (kg)
500	5.26	33.33	1.8
501	6.8	19.15	16
502	8.75	15	0.8
503	6.43	21.67	2.98
504	4.49	13.69	9.2
505	5.98	14.88	6.9
507	4.75	10.81	5.6
508	7.5	14.21	16.7
509	10.71	21.87	2.5
510	5.29	28	7.8
511	5.92	25.91	0
515	7.37	150	0
516	11.36	62.9	0
517	7	67.14	0
518	20		0
520	8.49	40	0

wide and 0.25 m high. A mixture of sherds, mainly Archaic–Classical and Roman, and 29.8 kg of tile were recorded. The significance of this clay layer is not clear. The soil to its north was excavated as context 0505 and to the south as 0504, and two internal baulks were left, the first 0.50 m wide running north–south at 1073.50 E 1120.00 N, and the second, 0.25 m wide running north–south at 1075.00, 1120.00. Neither in excavation nor in section could 0503 be clearly distinguished from 0505 and 0504, so it may simply represent compressed plough soil. All three contexts 0503–0505 are best considered as a single level overlying the intact archaeological layers and probably represent compacted plough soil. The pottery in 0504 was mainly Middle Neolithic and Roman and there was also 9.2 kg of tile, as well as a square-headed Roman nail (**FSF3**). In 0505 the pottery was again predominantly Roman. There was 5.9 kg of tile and two fragments of glass (**FSF4–5**).

Three boxes, divided by the two baulks, having been established, excavation continued in each box separately from this point onwards. Box A, in the west, measured 1 × 2.5 m, Box B, in the middle 1 × 2.5 m and Box C, in the east, 2.2 × 2.5 m.

Box C

This part of the area was worked down to a destruction layer consisting of tile and stone together with burnt mudbrick. It was exposed over the whole area of the box (2.2 × 2.4 m) with no obvious edge (197.25–197.0 m asl). The destruction layer as revealed was given context number 0521 (FIG. 40), but was not excavated. Much of the tile was in large fragments, and the stones had fallen on their flat sides, indicating that they should rest on a floor underneath.

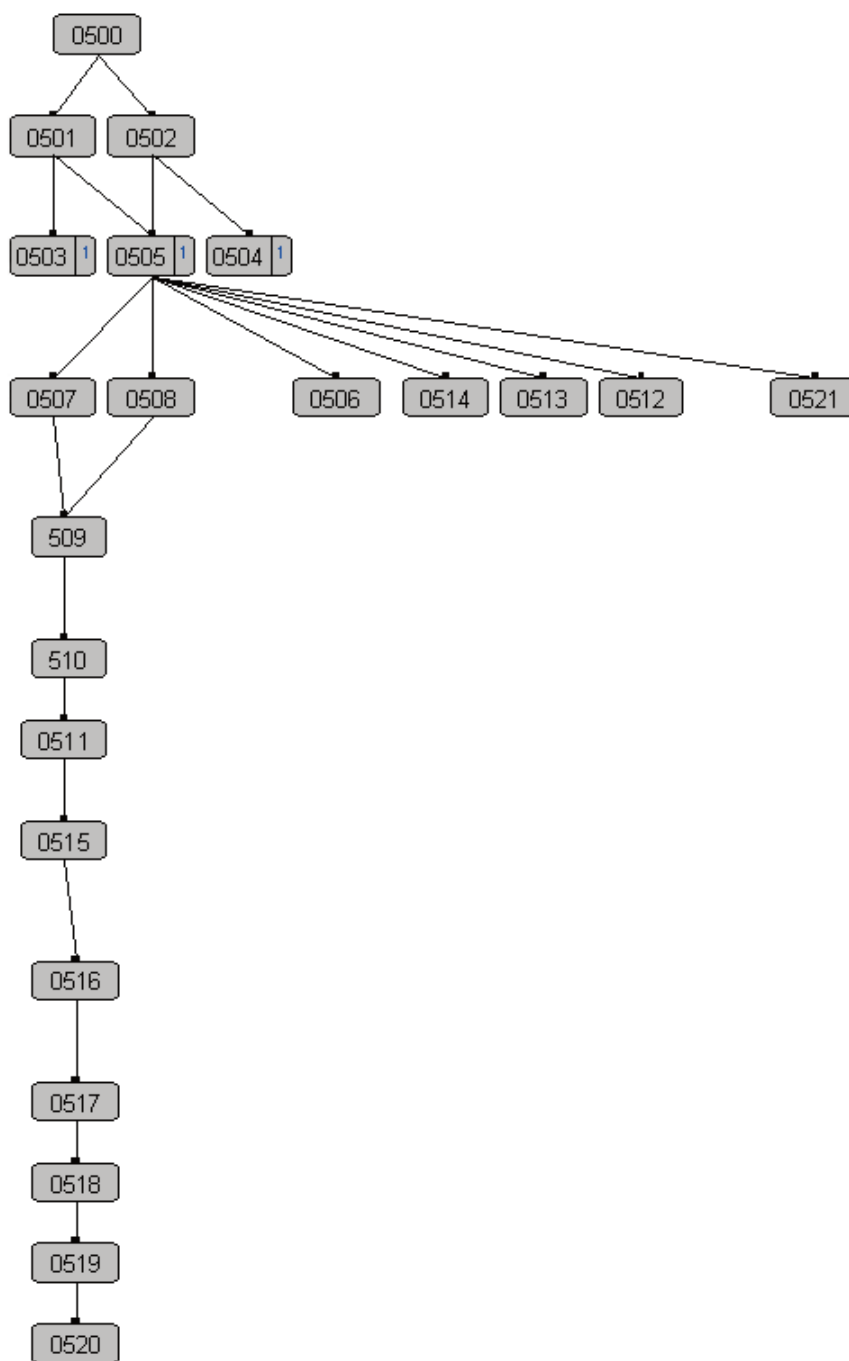


FIG. 41. Area F, Harris matrix.

TABLE 17. Dated sherds from contexts in Area F.

Context	MN P	MN SB	MN M	MN other	MN total	MN %				
500				1	1	25				
501	1		4	6	11	50				
502				1	1	33				
503	1			1	2	22				
504			2	4	6	32				
505				2	2	20				
507				4	4	36				
508		1			1	17				
509					0	0				
510			1		1	50				
511	3		6	2	11	73				
515			4	3	7	64				
516	3	2	8	5	18	90				
517				2	2	100				
518				1	1	100				
520	1	1		3	5	100				

Context	LN BW	LN GW	LN WS	LN MP	LN coarse	LN other	LN total	LN %
500							0	0
501							0	0
502							0	0
503							0	0
504							0	0
505							0	0
507							0	0
508							0	0
509							0	0
510							0	0
511		1					1	7
515							0	0
516	2						2	10
517							0	0
518							0	0
520							0	0

Context	FN fine	FN coarse	FN total	FN %	EH1	EH2	EH coarse	EH total	EH %
500			0	0		1	2	3	75
501			0	0		3	1	4	18
502			0	0			1	1	33
503			0	0		1		1	11
504			0	0			1	1	5
505			0	0				0	0
507			0	0				0	0
508			0	0				0	0
509			0	0				0	0
510				0	0			0	0
511			0	0				0	0
515			0	0				0	0
516			0	0				0	0
517			0	0				0	0
518			0	0				0	0
520			0	0				0	0

Context	MH	LH	M/LH total	M/LH%	A-C	R	A-R% total	A-R%	Dated Sherds
500			0	0			0	0	4
501			0	0	1	6	7	32	22
502		1	1	33			0	0	3
503			0	0	4	2	6	67	9
504			0	0	1	11	12	63	19
505		2	2	20	1	5	6	60	10
507			0	0	2	5	7	64	11
508			0	0	2	3	5	83	6
509		1	1	11	2	6	8	89	9
510			0	0		1	1	50	2
511			0	0		3	3	20	15
515			0	0	4		4	36	11
516			0	0			0	0	20
517			0	0			0	0	2
518			0	0			0	0	1
520			0	0			0	0	5

Box B

The removal of contexts 0503–0505 revealed a continuation of the destruction layer found in Box C. Here the destruction level (again not excavated) was labelled context 0506. It extended over 2.5 m north–south, but a maximum 0.64 m westwards from the baulk edge; the tile and stone lay between 197.00 and 197.25 m asl, as in Box C. Further west in Box B, cleaning revealed two further contexts: an area of much cleaner light grey soil, to the west of 0506, labelled 0514, and in the NW corner of the box a concentration of stones with a quern-mortar visible in the north baulk. The northernmost of these two contexts (0514) seemed to continue a line of stones running along the north baulk of Box A, possibly forming a wall, though this needs confirmation through further excavation.

Box A

It was decided to concentrate on the westernmost part of the area, in order to take the levels down to intact prehistoric deposits. Below 0503–0505 a level of light grey soil containing stone and tile (context 0507) was removed to a depth of about 0.15 over the 2.5 × 0.9 m extent of the Box (the highest point 197.01, lowest 196.72 m asl). There were Middle Neolithic, Archaic–Classical, and Roman sherds, 5.6 kg of tile and two pieces of obsidian (0507.7). A small patch (0.9 × 0.7 m) with a greater concentration of tile (0508) was excavated separately but should be considered as part of the same deposit as 0507. Most of the pottery was Archaic–Classical and Roman. The tile weighed 16.7 kg.

Once these contexts were removed, a concentration of building-stones and tile was revealed at the centre of the Box (context 0509), measuring roughly 1.5 × 0.8 m, between 196.9 and 196.7 m asl. This may well form part of the same destruction horizon as 0506–0521, though somewhat lower in absolute height. The pottery was predominantly Roman and 2.5 kg of tile were recovered. This tile lay within a cleaner clay matrix (context 0510), which almost certainly formed part of the same destruction horizon (rather than 0509 being the fill of a pit). There were few diagnostic sherds in 0510 but 7.8 kg of tile. Below this a new 0.08 m spit was excavated (context 0511: 196.8–196.7 m asl) over the whole area of the box, in the

hope that this could be cleaned down to the prehistoric levels. Very little tile turned up and most of the pottery was Middle Neolithic but did include some Roman sherds. One flint and one obsidian tool were also found (0511.3).

Context 0515 lay below 0511; it was a light grey compacted clay with a rubble of pebbles and cobbles. It extended over the whole Box, except for a small patch in the SE sector. It contained mainly Middle Neolithic and some Archaic–Classical pottery; there was no tile. Context 0516 was excavated over most of the trench, though stones protruding from the section limited access to its edges (FIG. 39); it extended from 196.6–196.4 m asl. It was a mass of stone in a light brown-grey sediment, with predominantly Middle Neolithic pottery and nothing obviously Archaic–Classical or Roman. No tile was recovered from this layer. Other finds included a figurine (FSF2), and a flint blade (0516.7). The relatively large size of the sherds (TABLE 16) indicates that this material is not residual and combined with the absence of tile and the finds from the layers below, confirmed that intact MN remains were stratified below the Roman in this part of the site, from a depth of approximately 196.6 m asl (that is to say some 0.7 m below the surface). Context 0517 was excavated separately, for fear of later contamination, but in fact it contained no diagnostic sherds and no tile, so the fear was probably ill founded. 0518 marked a single find, an almost complete Middle Neolithic bowl at 1121.10 E, 1072.75 N, 196.7 m asl, inside which was a small shell pendant (FSF2).

Context 0519 was small patch of light grey clay containing few stones and no finds, whilst 0520, excavated at the south end of the Box (1 × 0.8 m at 196.3 m asl), was a light brownish-grey sediment containing pebbles and cobbles. The registered pottery is all Middle Neolithic and note the number of monochrome sherds as well.

POTTERY (FIGS. 42–3; TABLE 17)

Neolithic

As in Area E, the Middle Neolithic pottery in the topsoil, 0501, could have been washed or moved downslope. However, we also have contexts in which Middle Neolithic is the dominant, 0511 and 0515, or sole component, 0516, 0517, 0518, and 0520. Shapes include collar-necked (FIG. 42: F1–4) and piriform jars (FIG. 42: F5–7); the tubular lug (FIG. 42: F8) is also from a jar. F7 is unusual in that the fabric is rather coarse and fired dark grey rather than orange. Most of the Middle Neolithic pottery is fine and was evidently used for the presentation and consumption of food and drink, whereas F7 may be a rare cooking vessel. There is a similar jar, also in a grey fabric, from Franchthi¹⁰¹—the ledge lug is characteristic of FCP 2.4–5, the late Middle Neolithic phases.¹⁰² Even better preserved is a monochrome bowl with a simple rounded base (FIG. 42: F9), though a pedestal base (FIG. 42: F10) is more common on deep and carinated bowls (FIG. 42: F11). There is patterned decoration, mainly diagonal lines, on some of the jar rims (F3 and F6). Scribble burnish is not as common as monochrome Urfinis and, as is always the case, much more of the pottery must once have been painted.

A few sherds from 0511 and 0516 have tentatively been dated Late Neolithic but may well be Middle Neolithic and there is no obvious Final Neolithic pottery either.

¹⁰¹ Vitelli i, FIG. 56a.

¹⁰² Ibid. 121.

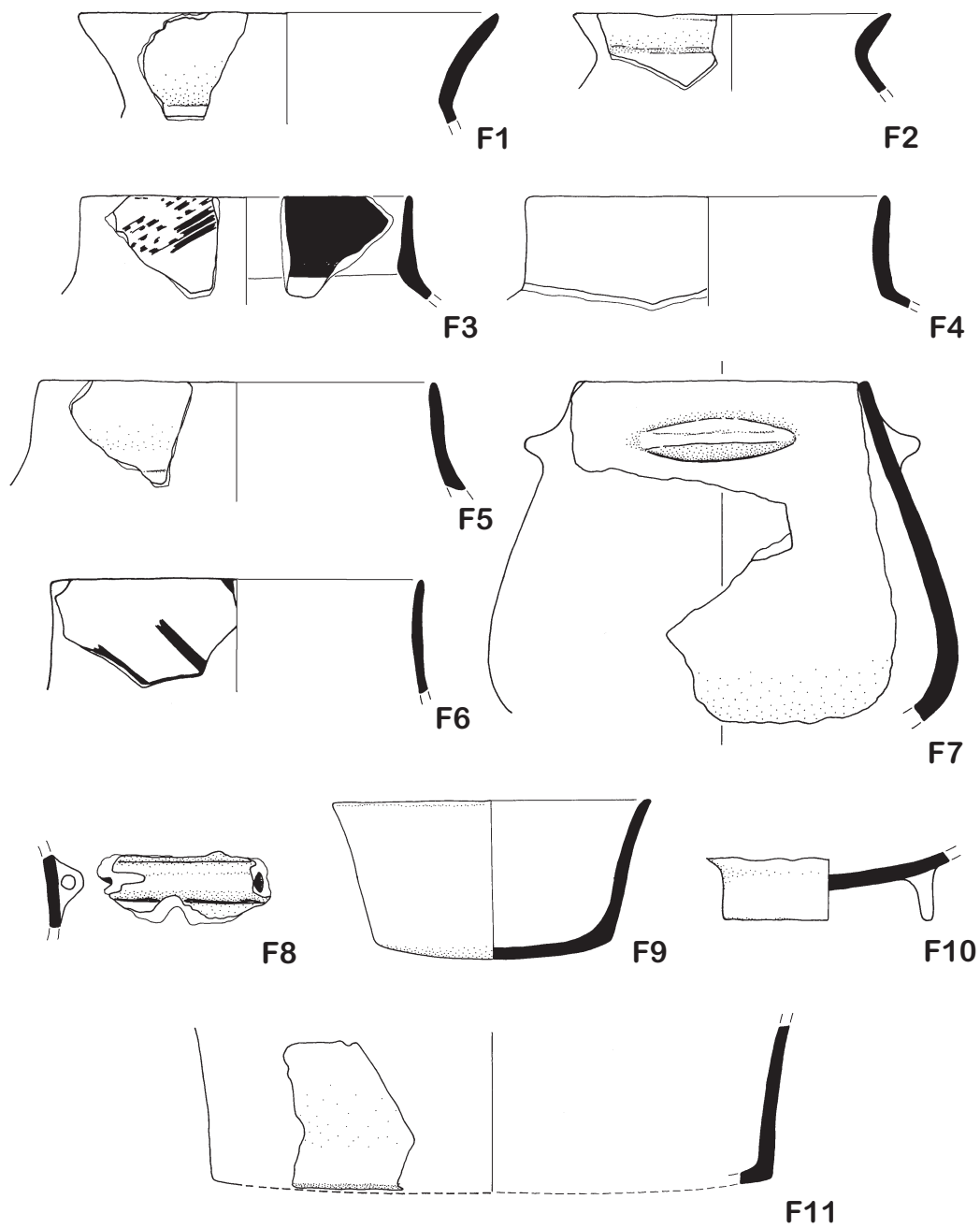


FIG. 42. Area F: MN pottery (F1-11). Scale 1:3.

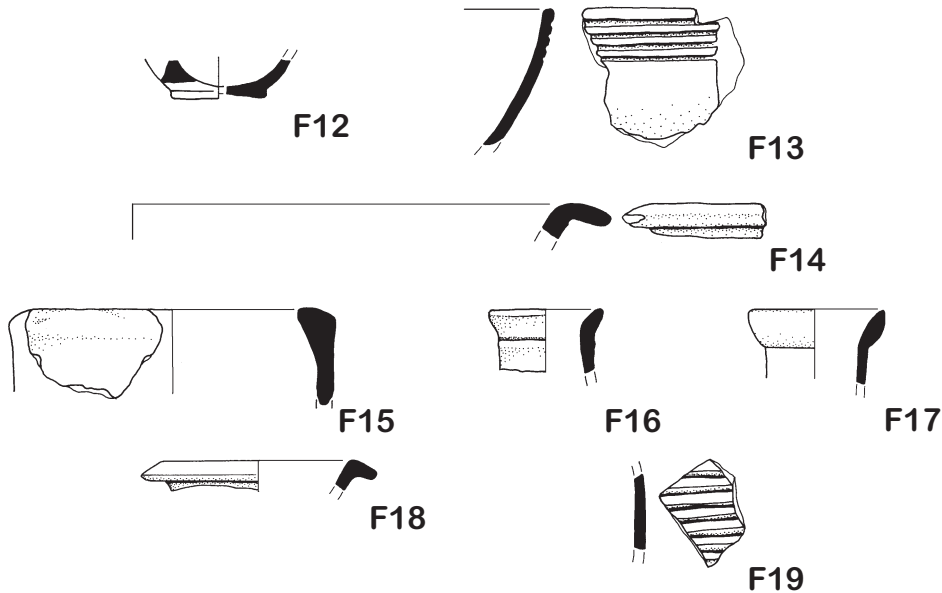


FIG. 43. Area F: A–C (**F12**), HE (**F13**), and R (**F14–19**) pottery. Scale 1:3.

Bronze Age

Most of the Early Helladic sherds were in the topsoil, no Middle Helladic pottery was noted and not many Mycenaean sherds. If there were Bronze Age occupation levels here, they have been completely removed.

Archaic–Roman

Although not a major component in any context, the number of Archaic, Classical, and Hellenistic sherds does indicate some type of activity on the west side of the site. Most of the pottery is black glazed, like the base (FIG. 43: **F12**), though a ribbed bowl rim (FIG. 43: **F13**) is painted dark red and should be third century BC.

There is more Roman pottery but it is not particularly diagnostic and cannot be closely dated. Nevertheless, it does look predominantly Late Roman.¹⁰³ Some of the sherds come from open vessels, bowls and basins (FIG. 43: **F14**), closed shapes include amphorae (FIG. 43: **F15**), flagons (FIG. 43: **F16–17**) and jugs (FIG. 43: **F18**). There is ribbed decoration on several sherds (FIG. 43: **F19**). Much of the pottery on Roman rural sites consists of storage vessels¹⁰⁴ and this may be the case at Kouphovouno as well.

F1 Fo507.05.01. Everted rim. Jar. H. 46. W. 45. Th. 4. D. (rim) 170. Fabric: fine. Surface: 7.5 YR 6/6. Core: 5 YR 6/6. MN.

F2 Fo515.03.01. Everted rim. Jar. H. 32. W. 50. Th. 4. D. (rim) 134. Fabric: fine. Surface:

5 YR 7/6. Core: 5 YR 7/1. Decoration: painted monochrome (5 YR 5/4). MN.

F3 Fo516.13.04. Collar rim. Jar. H. 43. W. 48. Th. 4. D. (rim) 140. Fabric: fine. Surface: 5 YR 7/6.

¹⁰³ Again we are grateful to Clare Pickersgill for her observations on the pottery from Area F.

¹⁰⁴ W. Cavanagh, C. Mee, and P. James, *Laconia Rural Sites Project* (BSA Supp. 36; London, 2005), esp. 302.

Core: 2.5 YR 7/8. Decoration: painted diagonal lines out, monochrome in (2.5 YR 2.5/1). MN.

F4 Fo516.17.01. Collar rim. Jar. H. 45. W. 78. Th. 4. D. (rim) 156. Fabric: fine. Surface: 2.5 YR 7/6. Core: 2.5 YR 7/6. MN.

F5 Fo511.09.02. Concave flared. rim. Jar. H. 45. W. 52. Th. 5. D. (rim) 170. Fabric: fine. Surface: 2.5 YR 7/6. Core: 2.5 YR 7/6. MN.

F6 Fo516.10.02-03. Flared rim. Bowl. H. 45. W. 78. Th. 4. D. (rim) 158. Fabric: fine. Surface: 5 YR 6/6. Core: 2.5 YR 6/6. Decoration: painted diagonal lines out (2.5 YR 2.5/1). MN.

F7 Fo516.09.01-03. Concave flared rim-ledge handle. Jar. H. 145. W. 138. Th. 7. D. (rim) 124. Fabric: coarse. Surface: 5 YR 2.5/1. Core: 10 YR 8/4. MN.

F8 Fo504.05.04. Horizontally pierced tubular lug. H. 30. W. 74. Th. 5. Fabric: medium. Surface: 5 YR 6/6. Core: 5 YR 6/4. MN.

F9 Fo518.03.01. Convex flared rim - rounded base. Bowl. H. 68. W. 136. Th. 5. D. (rim) 136. Fabric: fine. Surface: 5 YR 7/6. Core: 5 YR 7/6. Decoration: painted monochrome (2.5 y 6/1). MN.

F10 Fo516.08.01. Pedestal base. H. 26. W. 98. Th. 6. D. (rim) 88. Fabric: fine. Surface: 5 YR 6/6. Core: 5 YR 7/1. Decoration: painted monochrome (2.5 YR 2/6). MN.

F11 Fo516.03.04. Carinated body sherd. Bowl. H.

62. W. 54. Th. 6. D. (rim) 240. Fabric: fine. Surface: 5 YR 6/6. Core: 5 YR 5/1. MN.

F12 Fo508.05.02-03. Raised base. H. 15. W. 48. Th. 4. D. (rim) 38. Fabric: fine. Surface: 7.5 YR 7/6. Core: 7.5 YR 6/6. Decoration: painted monochrome out (7.5 YR 2.5/1). A.-C.

F13 Fo509.03.08+10. Convex flared rim. Basin. H. 55. W. 65. Th. 4. D. (rim) 400. Fabric: fine. Surface: 2.5 YR 7/4. Core: 5 y 6/2. Decoration: horizontal grooves, painted monochrome (5 YR 4-4). HE.

F14 Fo504.07.06. Everted rim. Basin. H. 14. W. 58. Th. 8. D. (rim) 380. Fabric: fine. Surface: 5 YR 6/6. Core: 7.5 YR 5/2. (L?)RO.

F15 Fo501.05.04. Thickened rim. Amphora. H. 35. W. 55. Th. 6. D. (rim) 100. Fabric: fine. Surface: 7.5 YR 6/6. Core: 2.5 YR 6/8. RO.

F16 Fo503.08.01-04. Everted rim. Flagon. H. 25. W. 45. Th. 4. D. (rim) 45. Fabric: medium. Surface: 5 YR 6/8. Core: 5 YR 6/6. (L?)RO.

F17 Fo508.03.01. Everted rim. Flagon. H. 30. W. 33. Th. 4. D. (rim) 55. Fabric: fine. Surface: 5 YR 6/8. Core: 10 YR 5/2. LRO.

F18 Fo515.03.03. Everted rim. Flagon-jug. H. 12. W. 45. Th. 4. D. (rim) 94. Fabric: fine. Surface: 5 YR 7/8. Core: 5 YR 6/6. LRO.

F19 Fo507.05.06. Body sherd. H. 34. W. 43. Th. 4. Fabric: fine. Surface: 7.5 YR 6/8. Core: 7.5 YR 6/6. Decoration: horizontal grooves. LRO.

SMALL FINDS (FIG. 44)

There is a shell pendant exactly like **FSF1** from the Kitsos Cave.¹⁰⁵ Although stylized, it can be identified as a bear because of the 'membres épais, tronc robuste, tête conique' and this is also true of the Kouphovouno pendant. The two bears should be close contemporaries but **FSF1** is from a MN context, whereas the Kitsos pendant is LN or FN.

FSF2 could be the lower half of a cylindrical female figurine, matched by an equally schematic head, like an example from Franchthi¹⁰⁶ but some MN vessels do have rather similar feet.¹⁰⁷

FSF1 Fo518.04. Shell pendant. L. 22. W. 14. Th. 1. Colour: 2.5 y 8-1. MN.

FSF2 Fo516.05. Terracotta figurine. L. 72. W. 26. Th. 26. Colour: 7.5 YR 6/6. MN.

FSF3. 0504.10. Iron nail. L. 43. W. 15. Th. 3. Colour: 10 YR 5/4. RO.

FSF4. 0505.05. Glass vessel. H. 18. W. 36. Th. 3. Transparent. RO.

FSF5 Fo505.10. Glass vessel. H. 22. W. 11. Th. 2. Transparent. RO.

¹⁰⁵ N. Lambert (ed.), *La Grotte préhistorique de Kitsos (Attique), missions 1968-1978 II* (Recherches sur les grandes civilisations, Synthèse no. 7; Paris, 1981), 410; Papathanassopoulos 337, no. 294.

¹⁰⁶ Talalay (n. 46), 18-19 and pl. 17 c.

¹⁰⁷ Vitelli i. 439, FIG. 61 d.

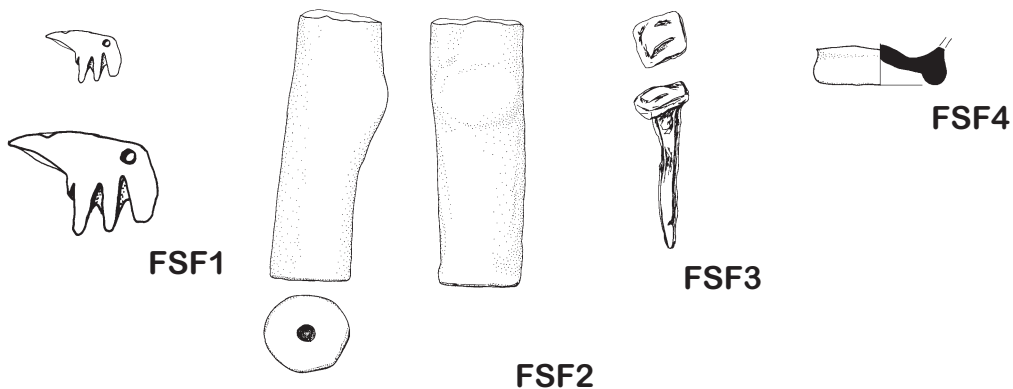


FIG. 44. Area F: MN shell pendant (**FSF1**); fragment of Neolithic terracotta figurine (**FSF2**); iron nail of Roman date (**FSF3**); fragment of a Roman glass vessel (**FSF4**). Scale 1:2.

CHIPPED STONE (FIG. 45)

The assemblage from Area F is even more limited. Two renewal tablets (**FCS1**), one piece of core waste, two blades of full debitage, and three flakes (one a reduction flake) are of obsidian. Unusual is a tool of obsidian broken in antiquity into three fragments: an arrow head (?) very worn (**FCS2**).

Eleven pieces in total were recovered, eight of them of obsidian (72.7%) and three of siliceous materials: yellow flint (N = 1), grey, translucent flint (N = 1) and grey, matt radiolite (N = 1).

The assemblage from Area F is even more limited in number compared with the other two areas. Two tablets, one core fragment, two blades, and three flakes (one of which is a core preparation flake) are of obsidian. Interestingly, one very worn projectile point was found, possibly broken in three pieces after use (**FCS2**).

FCS1 Fo503.4.1. Tablet from an obsidian core of flat type. L. 10. W. 13. Th. 8.5. broken in antiquity into three pieces. L. 15. W. 8. Th. 4.

FCS2 Fo504.13.1. Obsidian projectile point

FAUNAL REMAINS

Like Area E, Area F provided a relatively shallow stratigraphy, in which the MN levels were found below Roman. It appears, on the basis of the bone assemblages, that the same characteristics apply as those described for Area E: the groups are disturbed and fragmented, which reflects both their proximity to the surface and perhaps also the different treatment of food debris in the Roman period. Thus the uppermost levels contained very poor assemblages both in terms of quantity and quality: less than half-a-dozen fragments by stratigraphic unit, represented by small slivers. On the other hand the material associated with the MN is more abundant and better preserved, and allowed assemblages to be distinguished similar to those already analysed in other parts of the site.

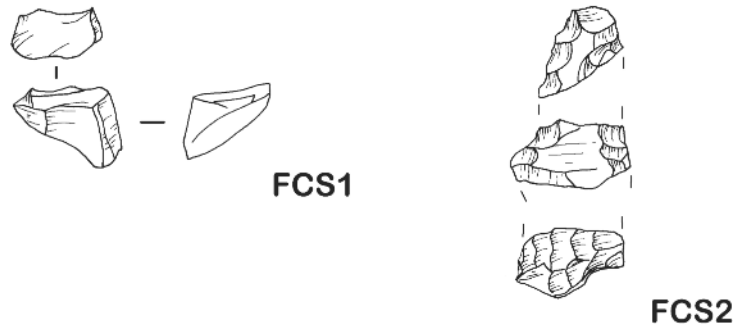


FIG. 45. Area F: chipped stone. Scale 1:1.

CONCLUSIONS

The aim of this article has been to present a final report of the results from four areas of the excavations (A, D, E, and F) in a timely fashion and in a final and definitive form. Because these areas had produced material from most of the periods of occupation at the site, this account gives a brief overview of the history of the site of Kouphovouno. At the same time we have also consciously worked towards a model for the publication of the project as a whole. Inevitably, however, these results represent partial progress towards meeting the overall aims outlined at the beginning of this article, and will feed into the final report of the whole project. All the same, we can offer some specific conclusions.

SURFACE SURVEY AND EXCAVATED DEPOSITS

Here we shall make some comments on the reliability of the surface survey as a guide to subsurface remains. The overall results of the survey have already been published¹⁰⁸ and the following should be read in association with that report. The surface distribution of artefacts could reflect a number of processes. As the areas excavated are close to the top of the mound and the slope is relatively gentle, this will have moderated the potential impact of erosion.¹⁰⁹ However, there may have been some deflation of deposits, whereby the soil matrix was washed away, leaving the artefacts exposed on the surface. They could then be transported by mechanical processes, such as kicking by livestock. Agricultural activity can also expose or bury artefacts in the plough zone.¹¹⁰ Of course the surface assemblage may result from a combination of these different processes and therefore needs careful interpretation. A further problem, which has been recognized but not formally treated in surface survey in Greece, is variation in the recognizability of pottery from period to period.¹¹¹ It has often been observed that even the small, otherwise featureless fragments of black-glazed pottery can be identified and therefore ascribed, at least in broad terms, to Archaic–Hellenistic, whereas a much smaller proportion of Roman body-sherds are datable, because they cannot be

¹⁰⁸ Cavanagh–Mee–Renard.

¹⁰⁹ Cavanagh et al. (n. 104), 16–17.

¹¹⁰ Ibid. 17–19.

¹¹¹ J. Rutter, 'Some thoughts on the analysis of ceramic

data generated by site surveys', in D. R. Keller and D. W. Rupp (eds), *Archaeological Survey in the Mediterranean Area* (BAR S155; Oxford, 1983), 137–42.

identified through surface treatment alone. We can term this the problem of underrepresentation.

In what follows, the results of surface collections made in 1999 in the 5×5 m squares later identified as Areas A, D, E, and F will be analysed and placed in the context of finds from the eight adjacent squares, thereby broadening the focus to surface finds from a square 15×15 m centred on the area excavated. These finds will be compared with finds from the surface collection made in 2001/2002, finds from the plough soil, and material from the more deeply stratified levels. Constant reference will be made to the statistics in TABLES 1–17.

Area A (TABLES 1–4)

In the original survey square 1024 (= Area A) produced 85 sherds, of which 19 were registered and six dated more closely (four Neolithic, two EBA). In 2001 a further 39 sherds were collected, none certainly diagnostic though some of the coarse ware looked EBA. Taking the eight squares surrounding it plus 1024 itself (973–5, 1023–5, 1073–5) the ratio of Neolithic : EBA pottery is 48 : 52. This compares well with the ratio of 56 : 44 found in the plough soil of Area A (A0003–4). In the large EBA pit (A0004) the ratio was 7 : 93 (N : EBA), indicating that 7% of residual Neolithic sherds were found in a relatively uncontaminated EBA context. The rather more disturbed Neolithic level A0008 had a proportion 77 : 23 (N : EBA) owing to some later intrusive pottery. No MBA pottery was found either in the surface material or from excavation, to go with the grave A0009.

Area D (TABLES 6–9)

In 1999 square 1278 produced just 48 sherds, owing to poor visibility, one possibly of Neolithic date; in 2001 the surface sample of 137 (D0300) produced seven datable sherds. The sample from the nine squares (1227–9, 1277–9, 1327–9) collected in 1999 produced a N : EBA ratio of 54 : 46, the 2001 collection from Area D (= 1278) a similar 43 : 57. The 481 of the plough soil (D0301–2) included just 24 datable sherds (5%), with a strikingly different ratio of 18 : 82 N : EBA. This disparity indicates that in this case the distribution of pottery on the surface did not represent that immediately below. Almost as surprisingly the plough soil does not correspond with the more intact (though quite plainly disturbed) layers below (D0303–14), where Neolithic pottery prevailed (81 : 19 N:EBA). In these last contexts, out of the 3711 sherds collected, only 6% could be closely dated. The M–LBA sherds found in this area confirms some activity in the vicinity, but as in the case of Area A it was not picked up in the surface material.

Area E (TABLES 10–13)

Square 1418 (which includes Area E) produced 52 sherds, two EBA and two possibly Neolithic. With the adjacent squares (1367–9, 1417–19, 1467–9) the total came to 378 sherds, though the northernmost row produced very little owing to dense vegetation cover. The diagnostic Neolithic and EBA pottery had a ratio of 79 : 21 N : EBA. As the excavation revealed historical finds we cannot say that the surface remains were strongly indicative of what was found below; quite a lot of tile was recovered from square 1367, to the south-west (1.25 kg), but in the other squares the tile was of average weight or less (0.5 kg). In the plough soil (0401) 2281 sherds were collected, but only roughly 3% of the total, 68, were closely datable; of these 68% were MN, 3% FN, 13% Bronze Age and 16% historical. Lower

down in the stratigraphy the historical sherds became more frequent, but never dominated the assemblage. A number of points emerge from this. There seems no doubt that the levels excavated here were laid down in the Roman period. Much of the undiagnostic pottery must be of historic date, but only very small proportion was closely datable, a much smaller proportion than is the case of Neolithic, Bronze Age, or Classical pottery assemblages.

Area F (TABLES 14–17)

Area F covered a small part each of squares 1215 and 1216. Very little pottery indeed was collected in 1999 (23 sherds from the two squares) largely because of the poor visibility. Indeed in the 12 adjacent squares (1164–7, 1214–17, 1264–7) there were only 255 sherds, among them four certain and three possibly Neolithic, three Classical/Hellenistic, and two Roman. The tile collected, however, on average 1.4 kg per square, pointed clearly to activity in the historic period, though not necessarily exclusively Roman. In 2002, 25 surface sherds were collected (over an area of 12.5 not 25 m²); one Neolithic and three EBA sherds were identified. Once into the excavated levels the Roman material became much more apparent, but largely because of the roof tile and floor tile. In levels F0501–F0515 among the 1289 sherds collected, there were more Neolithic diagnostic sherds than Roman (53 : 47 N : R), even though the former must be residual.

SUMMARY

The results of this analysis suggest that surface survey can give a crude idea of the occupation of a multi-period site but it is not an instrument of high precision. Small sample size and the different recognizability of pottery according to period (a smaller proportion of sherds are diagnostically Roman than Middle Neolithic) are particular problems to emerge from the analysis. Furthermore, excavation has confirmed what common sense would suggest, the tell has suffered from the movement of sediments, the displacement of remains and sometimes extensive reconfigurations of earlier deposits.

In Areas A and D there are signs of a later history of activity whose remains have not survived intact. Thus in A we found in excavation only the subsurface remains from an EBA settlement which must have had superstructures. Here the surface finds reflected the contents of the plough soil well. Grave A0009 can be taken to imply a post-EBA ground surface perhaps some 0.3–0.5 m higher than today. Deflation of so much EBA material would lead us to expect a higher proportion of EBA pottery than the 56% reported from the plough zone. Thus mixing with the surface material from squares upslope and/or mixing from the immediately underlying EBA (0004) and Neolithic (0008) contexts seems the more satisfactory explanation. The EBA pottery from the eroded levels may have moved further downslope (though the surface survey finds do not strongly support that assumption) or has been lost through weathering. Area D suggests a different history. The marked difference between the preponderance of EBA pottery found in the plough soil, on the one hand, and the much lower presence of EBA finds both from the surface and from the underlying deposits, on the other, indicates that a record of EBA activity has survived in the plough soil, even though any intact levels had been destroyed, perhaps even by the MBA. Thus post-depositional effects on a complex site like Kouphovouno can produce quite different signals in the surface finds from one part of the site to another.

The results from Areas E and F likewise gave mixed messages. Poor visibility, small samples

and underrepresentation made the surface material from both, and from E in particular, a poor predictor of the sub-surface archaeology. Given the evidence from our excavations in Area C, which are just upslope, there is much prehistoric material in the vicinity of E. Thus the finds from the excavation of this small sounding reflected much more the Roman archaeology downslope and to the west, whereas the surface finds corresponded more with the archaeology upslope and to the east. In Area F it was the tile rather than the pottery which betrayed the presence below ground of roughly 0.7 m of intact Roman deposits. The prehistoric finds indicate some residual EH pottery in the surface levels, but an increasing predominance of MN further down. Our evidence indicates that during the Roman period there was extensive remodelling of the western part of the tell, which involved cutting away Bronze Age and Neolithic deposits—this explains why the intact prehistoric levels below the Roman are no later than MN.

We conclude, therefore, that the finds from the surface survey are broadly reliable, but cannot give a precision down to a resolution of the 2.5×5 or 5×5 m squares which Areas A, D, E and F represent; for the area excavations (B, C, G) the surface finds were more indicative. We found the more commonly occurring and the more easily recognizable ceramics (in this case MN and EH pottery and Classical–Roman tile) the more reliable indicators. For reasons we do not fully understand Late Roman surface pottery in Laconia seems to be much sparser and less diagnostic than in other parts of Greece. We have not found fabrics a particularly good indicator of date, and there are certainly pitfalls. For example it can be very difficult unaided by other diagnostic features to distinguish LN Black Ware from the MBA Dark-Burnished fabric by eye. Interpretation of the pottery from the less commonly represented periods is problematic. We took the stray Archaic–Hellenistic pottery to be a result of manuring,¹¹² whereas the M–LBA pottery, which occurred in greater abundance, seemed to indicate settlement. In fact M–LBA sherds were only very thinly distributed in the general region where we opened excavation, and, not surprisingly, did not alert us to the presence of the cemetery in this area, as most of the graves contained no pottery.

Middle Neolithic

Whilst a good sample of MN material was recovered from Areas A, D, E, and F, most of the contexts were relatively small, or the pottery was residual in later deposits. The trial in F, however, was able to show that the Roman remains were stratified to a depth of about 0.7 m from the surface and below this were intact MN deposits. To judge from the cores taken elsewhere on the west side of the tell, it would appear that there is a depth of 2–3 m of archaeological deposit, and our best estimate is that deeply stratified MN remains will be found below the Roman. This too confirms the extent of the MN settlement based on the surface survey results.

Late Neolithic

The archaeological features from Area D were frustratingly difficult to interpret. They consisted of stone piles, the uppermost of which had plainly been disturbed in the Middle Bronze Age. The groups of finds, however, were particularly helpful, in giving stratified Late

¹¹² Cavanagh–Mee–Renard 102–3.

Neolithic and Final Neolithic deposits and a good sample of pottery and other artefacts of these dates. It is plain that Kouphovouno was firmly in contact with the rest of the Peloponnese—the pottery shares a common repertory of shapes, fabric, and decoration—whilst the chipped stone, although primarily of obsidian, shows a great variety of materials, witnessing a wide range of contacts. The fragment of a spondylus shell bracelet likewise bears witness to the site's involvement in the exchange network across the Balkans. Whilst the Final Neolithic pottery is also closely comparable in form and fabric with that from elsewhere in Southern Greece, the rarity of Pattern Burnished and Crusted Wares seem to reflect a specifically Laconian element in the repertory.

Early Bronze Age

The excavations in Area A allowed us to investigate one of the stone platforms which were also a feature of von Vacano's excavations. The immediate conclusions confirm its size (roughly 3.5 m in diameter and 0.8 m in depth) and formation (a large pit cut and almost immediately filled with earth, stone rubble and other detritus). Analysis of the pottery (relatively few joins) and the animal bones (fragmentation and the effects of scavengers) confirms the indications that its primary purpose was not as a rubbish pit. On the other hand, the pottery is consistently of one period and made up of relatively large fragments (see TABLES 2–3), so that the fill does not derive from rubble long accumulated in some other part of the site. Various theories have been put forward to explain these stone-filled features: that they were house platforms, areas for drainage, foundations for large heavy structures, but none seems entirely convincing. Parallels of a sort might be the rubble bastions and foundations of the Rundbau at Tiryns, but not only were these part of a monumental building, but also the technique was quite different, consisting of stone foundations, with wall faces, resting on the natural bedrock (in places the bedrock rose higher than the foundations); they formed a levelling foundation for a mudbrick superstructure.¹¹³ The bothroi of EH Lerna seem to have been much smaller (AG-1 measured 1.4 m at its widest; the majority seem to have ranged 0.9–1.3 m in diameter and up to 1 m deep (about one-fifth of the capacity of A0004), others were smaller and clay-lined).¹¹⁴ Cairns of stones 5 m or more in diameter and 3–4 m high have been identified as defensive structures, but seem too large to serve as a parallel and to have wall-faces, unlike our features.¹¹⁵

Middle Bronze Age and Mycenaean

Settlement remains of Middle or Late Bronze Age date were not identified, but given the general paucity of finds in those MH graves which have been excavated it seems unlikely that the finds recovered come from destroyed graves. The pottery from Areas A, D, E, and F confirms the picture of a thin but widespread scatter found in the 1999 survey.¹¹⁶ Conclusions on the basis of the burials¹¹⁷ can be summarized. Two of the four areas considered here

¹¹³ K. Müller, *Tiryns, Die Ergebnisse der Ausgrabungen des Instituts*, iii: *Die Architektur der Burg und des Palastes* (Augsburg, 1930), 80–8.

¹¹⁴ Wiencke 27–9, 50, 55–6, 73, 75, 78, 111–12, 118–19, 140, 191–2.

¹¹⁵ T. F. Tartaron, D. J. Pullen, and J. F. Noller, 'Rillenkarran at Vayia: geomorphology and a new class of Early Bronze Age fortified settlement in Southern Greece', *Antiquity*, 80 (2006), 145–60.

¹¹⁶ Cavanagh–Mee–Renard 100 FIG. 29.

¹¹⁷ Comparative studies: S. Triantaphyllou, *A Bioarchaeological Approach to Prehistoric Cemetery Populations from Central and Western Macedonia* (BAR S976; Oxford, 2001); A. Papathanasiou, *A Bioarchaeological Analysis of Neolithic Alepotrypa Cave, Greece* (BAR S961; Oxford, 2001); J. L. Angel, *The People of Lerna* (Washington, 1971); id., 'Health as a crucial factor in the changes from hunting to developed farming in the Eastern Mediterranean', in M.

contained one grave each: 000g in Area A held a male adult and an infant, 0313 was an infant burial (though the grave nearby, which was not excavated, held an adult, confirming evidence from the other graves at Kouphovouno that adults and children were buried in the same part of the site). The bodies were evidently placed in the grave in fresh condition, soon after death. This is testified by the presence of the skeletal remains in anatomical order *in situ* and the maintenance in anatomical articulation of joints that are easily dislocated post mortem. 000g had the lower extremities in flexed position (000g) and its skull was turned to its right.

The health status of the subadults indicates severe episodes of stress during infancy and childhood: At least two of the infants (000gb, 0313) present lesions that are associated with an infectious disease or a metabolic deficiency.¹¹⁸ The severity of these conditions and the very young age of the two infants raise many questions concerning the conditions of hygiene, the overall health of the mothers and infants, and the patterns of breastfeeding in this time period and region.

Healed traumas were observed at the right tibia and ribs of 000g and the presence of extensive degenerative lesions on both the upper and lower parts of the skeleton of 000g is compatible with the picture that is known so far from prehistoric sites of Northern Greece,¹¹⁹ according to which both sexes are involved in productive activities.

Oral Health. The occurrence of extensive loss of teeth during life in the adult (000g) could be related not only to age progression, but also to factors such as the hardness of the diet or to the increased presence of carbohydrates. Caries and calculus were present in 000g.¹²⁰ Chemical analysis of the bone samples could help clarify the composition of the diet.

Archaic and Classical

Pottery of this period was recovered from Areas E and F. We interpreted the very thin scatter of Archaic to Hellenistic pottery found in the surface survey as due to manuring;¹²¹ the excavated material is not inconsistent with this interpretation.

Roman

The results of the 1999 survey made it clear that there was an extensive Roman site on the west side of the tell. The trials in E and F have now clarified the relationship of the Roman remains with those of the earlier periods. A large cut in Area E seems to mark a significant episode in which prehistoric levels were terraced away and a mass of earth, stone, and rubble was heaped up. Traces almost certainly of the same episode, a trench full of stone, earth, tile, and Roman pottery, was recorded in 2006 in part of Area G some 25 m to the south. This seems to belong to a phase of clearance of the Roman site dating to the Late Roman period.

N. Cohen and G. J. Armelagos (eds), *Palaeopathology at the Origins of Agriculture* (London, 1984), 54–56; S. C. Bisel and J. L. Angel, 'Health and nutrition in Mycenaean Greece: A study in human skeletal remains', in N. C. Wilkie and W. D. E. Coulson (eds), *Contributions to Aegean Archaeology* (Dubuque, 1985) 197–209; J. H. Musgrave and M. Popham, 'The Late Helladic IIIc intramural burials at Lefkandi, Euboea', *BSA* 86 (1991), 269–96; E. Stravopodi, S. K. Manolis, and A. Neroutsis, "Μελέτη του ανθρώπινου σκελετικού υλικού από Σπήλαιο Λιμνών", in A. Sampson (ed.), *Σπήλαιο των Λιμνών στα Καστριά*

Καλαβρύτων (Etaireia Peloponnesiakon Spoudon no. 7; Athens, 1997), 456–82.

¹¹⁸ Respective lesions on the third infant (213b) are not observable due to the incompleteness of the remains.

¹¹⁹ Triantaphyllou (n. 117), 144.

¹²⁰ *Ibid.* 145; Triantaphyllou observed higher calculus and low caries rates in her early populations (EN, EBA), suggesting that the early populations consumed high levels of meat, while the diet of the late populations (LBA, EIA) was richer in carbohydrates.

¹²¹ Cavanagh–Mee–Renard 102.

Area F produced walls and a destruction deposit of part of a Late Roman structure, including the collapse of its tiled roof. The table ware and glass vessels suggest occupation and the remains storage vessels go some way to confirm our original theory that this is an extensive Late Roman farm or a small settlement.

University of Nottingham

University of Liverpool

Montpellier 3, Université Paul Valéry

W. CAVANAGH

C. MEE

J. RENARD