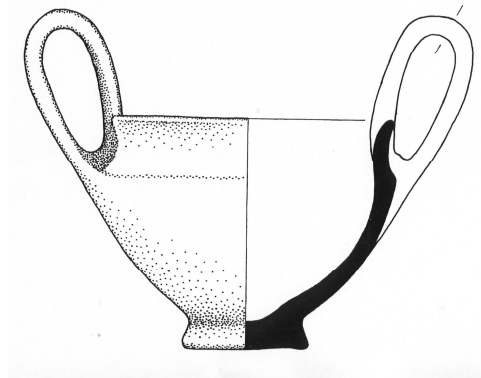


THE KOUPHOVOUNO PROJECT

2003 SEASON

EXCAVATION SEASON 3

William Cavanagh, Christopher Mee, Josette Renard



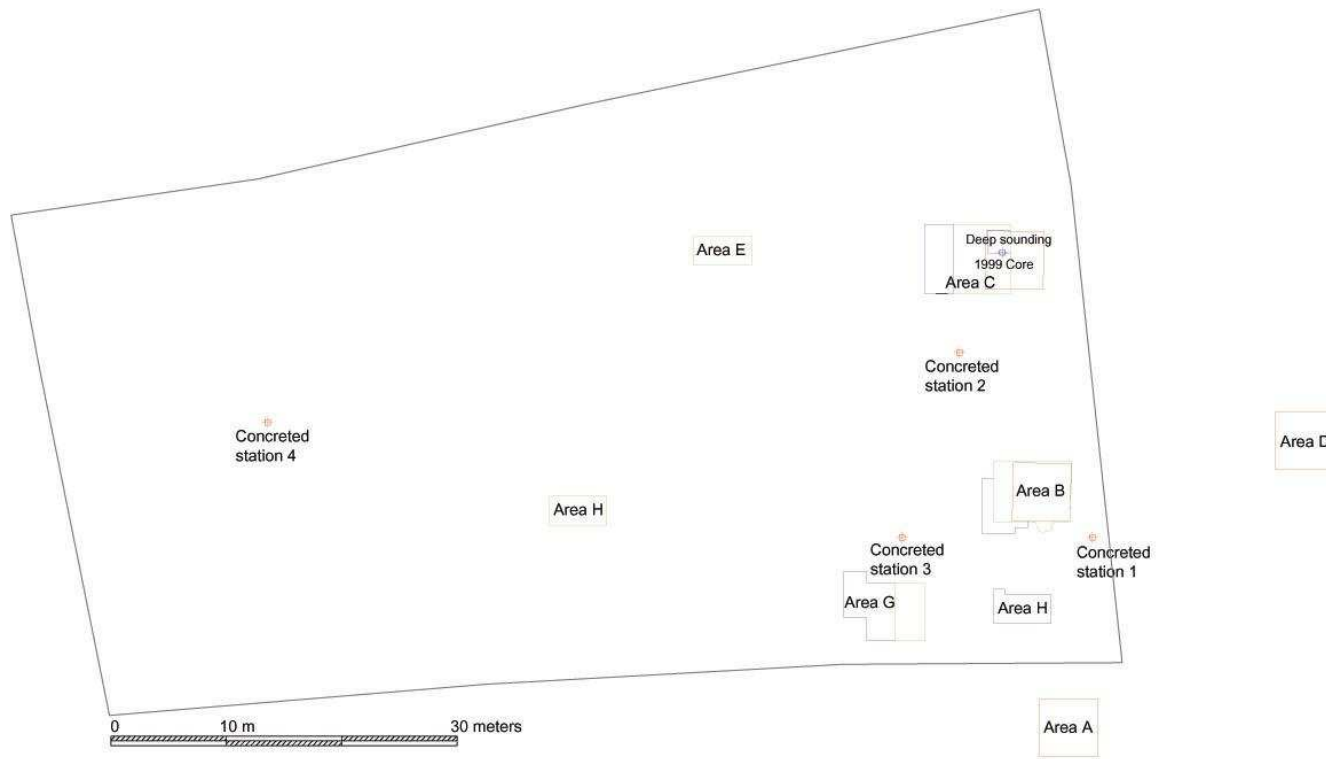


Fig. 1: Plan of the Areas excavated 2001–2003 and the boundaries of the plot of land purchased for the excavations.

PREFACE AND ACKNOWLEDGEMENTS

The third excavation season of the Kouphovouno Project took place during the five weeks 4 August – 6 September 2003. 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 their facilities at their headquarters in Sparta: Dr Panagiotopoulou, Stella Raptopoulou, Nassos Themis and Elena Zavvou. We are most grateful to Dr James Whitley, Rebecca Sweetman, Helen Clark and all the staff of the British School at Athens for their prompt and skilful advice in setting up the excavations. Dr Whitley also paid a visit to the site. The excavations were funded by the British School at Athens, the British Academy, the Institute for Aegean Prehistory, the Society of Antiquaries, the Universities of Liverpool, Blaise Pascal de Clermont-Ferrand and Nottingham, the École Française d'Athènes, the French Ministry of Foreign Affairs, CNRS. Without their support the excavations could not have taken place.

The team was led by Dr William Cavanagh, Professor Christopher Mee and Professor Josette Renard. As in the earlier stages of the project, Jean-Pierre Renard, who also kept the video diary, filmed the procedures and activities on video. Soil studies were overseen by Peter James (University of Liverpool). Amy Bogaard (U. of Nottingham) and Jo Bending (U. of Sheffield) supervised the water-sieving and recovery of environmental evidence. Graham Murray (U. of Nottingham), Maia Pomadere and Raphaël Orgeolet (U. de Paris I), Thomas Loughlin, Sarah Morton were trench supervisors. Stefania Merlo (U. of Cambridge) acted as surveyor and Matthew Fitzjohn (U. of Liverpool) oversaw the GIS. Anna Lagia (U. of Ohio) continued the study of the human skeletal remains assisted in the field by Annaïg Frémont (U. de Clermont-Ferrand) and Laurence Hapiot. Catharine Mee was finds assistant. Dr Bill Phelps and Professor Rainer Felsch visited us and gave advice on the pottery. Jenny Doole acted as illustrator and Estelle Carraud and Nouanipha Somsai kept house. The students, who worked on all aspects of the project, including excavation and finds processing, were: Simon Besson, Dorothée Desvignes, Virginie Thomas, Emmanuelle Fournier, Marie Saulnier and Delphine Beaumel (France); Joanne Chamberlain, Claire Doddemeade, Kate Raine, Elen Stanaway, Ilias Vlasidis, Paul Williams (Liverpool); Martyn Henson, Jordan Dannatt, Chloe Duckworth, Neal Giles, Anna Griffiths, Joby Woodhouse (Nottingham).

RESEARCH QUESTIONS

The major questions guiding the research programme have been outlined in our previous reports. Its focus on the rise of complex societies in Greece over the course of the MN–EBA periods (say 5000–2000 BC), results from recent progress in our understanding of the process. Intensive survey has demonstrated that few Middle–Late Neolithic sites survive in southern Greece – the earliest identified in the course of the Laconia Survey were Final Neolithic – and very few of them have been excavated. In central and northern Greece the situation is quite different. This north-south divide must be faced, if the change of settlement in the Final Neolithic and the subsequent development of more complex societies in the Early Helladic period are to be

understood. Also radiocarbon dates have made clear the long duration of the Late and Final Neolithic periods, and the whole framework and structure of the process needs reassessment. Consequently new data, and data from excavation, are needed for progress. The Kouphovouno Project is designed to investigate the relationship of what is recorded through surface survey, to the archaeology under the surface.

Aims and objectives

This research orientation has led us to establish the following objectives.

1. Refine the dating framework by establishing a stratigraphic sequence for the MN, LN, FN and EH periods with ¹⁴C.
2. Investigate the technology of architecture, and organisation of domestic space
3. Collect environmental evidence to model the subsistence economy and natural setting
4. Undertake scientific analysis of ceramic and lithic technologies for information on exchange and craft specialisation
5. Recover human remains and study their funerary context
6. Study geomorphology and tell formation processes as a control on survey and excavation results and to throw light on changes in the environment
7. Compare the distribution of surface remains with excavated evidence

The excavations in this third season set out with a number of specific aims in mind:

- to extend and refine the chronological sequence already established in earlier seasons of excavation by uncovering further clear contexts (stratigraphic units).
- to continue the excavation of the architectural remains (in clay and in stone) of the Middle and Late Neolithic periods and to attempt to define the boundaries of those units uncovered.
- to further refine the dating and nature of the ‘stone platforms’ and pits filled with stones, pottery and animal bones.
- to uncover burials for anthropological and parasitological study
- to proceed with the systematic sampling of contexts for palaeoenvironmental study

FIELD RESULTS

In 2002 the project acquired, on behalf of the Greek State, a portion of the site and the areas investigated in 2003 were located within the bounds of this plot (Fig. 1)

Areas B, C and G were extended further to the west and a new area (Area H: 2.5 × 5 m) was opened to the south of B and to the east of G. This gives us the potential to join the excavation of all three areas should that prove appropriate. Furthermore a deep sounding (2 × 2m) was opened in Area C, located to incorporate the core taken

in 1999, which had revealed archaeological deposits to a depth of 2.6 m above the natural sediments. In all the extensions and in the new sounding undisturbed archaeological levels were reached very close below the shallow plough zone.

Every stratigraphic unit has been recorded in such a way as to allow analysis using the GIS system. Corrected digital photographs have been used to aid final planning during the course of the campaign and Stephania Merlo developed an experimental system for true three-dimensional modelling in the deep sounding. As in earlier campaigns, a video journal was recorded. In addition, footage and reports were recorded with the aim of producing a film on the contribution of the excavations and of the study of human skeletons to our understanding of the way of life of people in prehistory.

AREA B

It was decided to concentrate upon the western side of the trench, in order to obtain a LN pottery sequence and with a view of linking the findings here with Areas G and H. After initial cleaning down to the levels exposed in 2002 the trench was extended to the west, and to the south where stone features (0159 and 0160) were later found to mark and overlie MH graves.

LN/FN Deposits

The area of LN/FN activity, in the central part of the west sector of Area B was to be the focus of excavation, the aim to excavate as deeply as possible. Several architectural and possibly architectural features with associated deposits were discovered including 0146 (a short N-S wall), 0148 (a stone feature), 0163 (a post-pad or a pot stand), 0164/0168 (a truncated post-hole, post-pad or pot stand), 0162/0167 (a post-hole), 0165 (possible floor debris), 0143/0175 (dark material in the SW of the area) and 0176 (dark material within and immediately around 0148). It was difficult to reconstruct these features into an architectural whole, though it may have been a lean-to and the thin lens of 0165, with much pottery and dark and organic soil, could have marked its floor.

Adjacent and to the SW, was a square stone feature c. 0.65m x 0.65m of large purposefully arranged stones (0148) with an uneven top surface, plus a related fill (0176), whilst to the south of 0148 and 0176 was another deposit of dark material (0143/0175). A quantity of large animal bones recovered from 0176 and 0143/0175 could, subject to analysis, be butchery debris. Taken with previous year's evidence of milling activity in the east of the trench, this suggests that during the LN/FN the area was largely dominated by the processing of foodstuffs and was possibly divided up into specific functional areas.

The northernmost part of the western sector seemed comparatively barren, containing only 0147 (the general 'background' deposit) with 0177 an area identical visually to 0147 but considerably harder although compacted, and 0149 a mud-brick rich pit with carbonised plant remains. Given the difficulty of recognising distinct contexts, excavation here was carried out by spit. Below 0147 came 0185 which was generally paler, with more inclusions. Morning dew highlighted a series of pits and linear features, some with clear relationships. Excavation of these features stratigraphically was attempted, with box sections and eventual excavation in plan. But none was visible in lower spits and sections were uninformative with no clear cuts. So whilst the features certainly existed, they were impossible to distinguish in

the course of excavation. Towards the base of these deposits fragments of burnt mudbrick began to appear, probably the first indications of MN deposits.

The Burials

Two burial features (0171, 0173/0174 – later 0186), of Middle Helladic date, were discovered in the southern part of the 2003 excavations. Both consisted of a rectangular pit orientated ENE-WSW (with reference to Grid North) with a ring of stones marking their edges. Both also consisted of an initial soil backfill, followed by an increasingly rubbly fill. In the case of 0171 this appeared to have continued into a small mound of stones (0160). 0173/0174 contained no evidence of a stone mound. No certain dating evidence was found from the grave fill of 0171. The skeleton itself was in a foetal position, head to the ENE, feet to the WSW, facing NNW, and in excellent condition.

Grave cut 0173/1074 was given two context numbers initially as the remains seemed to indicate two individuals. The bones were uncovered within a short distance from the top of the cut (as represented by the ‘ring’ of stones marking its periphery) lying on top of a rocky deposit (0186) and themselves covered by a mix of stones and earth fill. To the ENE the pubic bones of a young male were identified (0173) and in the WSW arthritic vertebrae (0174). Despite the heavily disturbed appearance and poor condition of the remains this was taken as clear evidence of two individuals: one young male and one older individual. Two large stones appeared to divide the feature roughly in two and were taken as the boundary between the two contexts. At this stage it was unclear whether there were two graves cutting each other or a single phase feature.

In these cases the bone preservation was poor, some articulated remains did exist, shoulder blade and sternum of 0173, but mixed with disarticulated and incomplete skeletal remains, skulls and teeth noticeably underrepresented or absent. Whether this was the result of reburial or disturbance is unclear. As excavation progressed, it became clear that the ‘ring’ represented one cut and that there was likely to be another set of skeletal remains underneath the stone layer remaining. Excavation proved this to be so and another skeleton in the same condition and position as 0171 was found at approximately the same depth (0186 – skeleton and its grave/backfill). Just above its knees was found the MH kantharos (fig.6).

AREA C

Area C, first opened in 2001, had already been extended in 2002. A further sector was excavated in 2003, extending it another 2.5 m to the west. The aim was to allow excavation of more of the structures made out of clay which had already been revealed in 2001 and 2002 (collapsed walls and ceilings, beaten earth floors). Various new features in stone and in clay were uncovered, and found to be of importance in that they marked clear borders for the buildings.

1. Specifically an alignment of stones, approximately 6 m in length, was uncovered in the western sector: this is most likely the foundation of a house wall (context 0902), recovered for almost its entire length, dating to the end of the Middle Neolithic. Oriented N–S, it consisted of a setting of large stones lined on both sides by a layer of white material (a sort of clay plaster). The floor (0911) probably to be associated with the wall was found to the east of the wall in the central

section of the building: it was a compact white layer with a number of areas of charcoal. The southern part of the building had been disturbed by the cut for a shallow stone-platform made up of stones and large sherds (context 0288), forming a sort of rectangular pavement. The central part had been overlain by a mass of burnt red clay mixed with pebbles, small stones and large sherds (0905); a large number of carbonised seeds were recovered from this context. The fact that this context was found only on one side of the wall, to its east, argues against its being the collapse of a stone and mudbrick wall, as such a wall would in all probability have left traces on both sides of the foundations. Equally an alternative hypothesis, that this was a working area, is unconvincing, in spite of the presence of a large heavy stone with a concave surface, perhaps a saddle quern. This object rested flat on a lower level, below the mass of burnt red clay, on the level provisionally identified as the floor going with the wall (0911). Hence context 0905 may represent a fill, clearly dated to the end of the MN period, intended to give a level surface for the construction of a new building or some other structure, which could not be recovered because it was so close to the plough zone. The west part of 0905 has been left *in situ* to allow a section to be drawn through the two levels 0905 and 0911. The eastern part of the building had been cut by a large, deep pit, clearly dated to EH II by the associated pottery (see below).

2. In the NW angle of the 2003 extension two walls set at right angles (0919) formed a corner. This corner was bordered to the east and to the south by a sort of paving (0909) formed by pebbles, sherds and animal bones. The 'paving' separates this wall from the west wall of the building described above: it could form a passage or alley. The context (0915) contained within the corner was not excavated, but the gradiometry survey carried out at the end of the season gave a positive signal in this area, indicating a mass of burnt clay, possibly traces of a burnt floor extending further to the west and north.
3. To the east, and inside the building marked on its west side by wall 0902, a small rectangular structure was revealed (0293, 0295). An alignment of stones set on edge (0295) was uncovered in 2002 along the original west baulk in the 'area of food preparation'. Two other 'foundations' were found to the north and to the west and in the south one large flat stone seemed to form a threshold. It is difficult at this stage to relate this small construction to building 0902+0911. The question will be clarified in the next campaign of excavation in 2005.
4. Finally, the area of stones (0245), identified as an Early Helladic stone platform in 2002, and cutting through the various MN floor levels, was shown to be a large pit (0901), sub-circular in shape, roughly 2 m in diameter and 1m in depth. It was filled with medium-sized, large and very large stones, pottery clearly dating to EH II, animal bones and used stone tools. Three very big stones laid in a SE direction seem to have been left in position when the pit was dug, and to form an alignment with other stones placed outside the limits of the pit. No doubt this is an earlier, MN wall associated with one or more of the floors cut by the pit. This context is also of interest for producing firmly dated material, not only pottery but also stone tools, which will help establish a typology for polished stone artefacts for EH II.

Prospects for 2005 include: 1. To clarify the relationships between the floors found in 2002–3 (0269, 0299, 0904 and 0906) and the walls discovered in 2003. 2. To extend the excavations to the NW – a very promising sector with the corner of a wall and the burnt clay continuing into the north and west baulks. The long wall 0902 also

continues into the north baulk and merits further clarification. 3. To explore further the areas already opened up with the aim of uncovering those MN structures least disturbed by Early Bronze Age structures.

AREA C DEEP SOUNDING

The specific aim of the sounding was to investigate the stratigraphy in a part of Area C adjacent to the core taken in 1999, which had established that there were 2.6 m archaeological sediments in this part of the site.

The sounding, measuring 2 × 2 m, was to achieve its aim within five weeks of excavation. It became clear, however, that this was not possible due to the complex stratigraphy and the shallow contexts encountered, each of which needed time to record properly. The size of the sounding meant that we could only partially excavate many features whose limits lay outside its extent, consequently some of the relationships were hard to establish (and further excavation could clarify these). By the end of the 2003 season the sounding had been taken down 1.06 m (c. 1.30 m from the surface as the topmost levels had been excavated in 2002). It will take another season to excavate the trench down to the ancient natural surface.

Below a cleaning spit (0809 revealing the limit of last year's excavation) a series of MN floors (0801–0802) was found, evidently cut by a later lined pit 0804 and 0806. Below 0801 lay a deposit of oxidised fibrous material (0805), most likely burnt sod/turf, perhaps from a wall or roof. This was contained within 0802. In the west of the trench underneath these was a series of contexts (0803, 0807, 0808, 0818) consisting of mixed soil with oxidised clay and charcoal flecking, perhaps a series of deposits to level the area for floors 0801–0802.

In the east sector two postholes 0814 – 0817 were recorded, lined with packing stones and running roughly along the SE edge of 0812. This pattern repeated itself at lower levels: all postholes had the same construction technique and were located in roughly the same area and set roughly the same distance apart (0820–0823 and 0829–0832, both within 0825). 0820–1 were part of a stone feature probably a socle or wall foundation.

In the SE, below 0810, contexts 0818–0819, 0826 and 0827 were uncovered, a series of thin bands of clay up to 1.5 cm in depth, probably clay floors. In the NW 0824, composed of hard yellow mud brick, was gradually revealed as a massive feature dominating much of the sounding. Also in the western part of the trench extended contexts 0825, 0839, 0843 and 0844. They were perhaps occupation layers, although full excavation is necessary in order finally to interpret them; note that 0839 and 0844 contained some clay and humic material and hence may have been part of a midden.

As 0825 was taken down a series of contexts appeared in the SE of the trench. Initially identified as a floor (0834) with a gully (0835) to its east, 0835 was found to be quite extensive, containing large amounts of pottery and stone. It seemed to form a slump deposit resting on 0824, which by the end of excavation covered almost the entire sounding. 0824 sloped steeply down from east to west. It was an extensive area of mud brick, perhaps a collapsed wall. In the southern baulk another similar deposit (0845) was noticed. This has not yet been explored. 0835 rested on 0845 as well, leading to the interpretation that it was either a dump/midden or a destruction deposit.

AREA G

Area G, opened in 2002 over 2.5×5 m, was at first extended the same distance again, to make the excavation 5×5 m, with the aim of clarifying the continuation of the curvilinear wall, which had been found last year in the north part of the trench. As clear contexts were difficult to distinguish it was decided to grid the 2003 extension into sections measuring 1×1 m, and excavation was carried out by spits of 5–10 cm thickness. It was hoped to reveal on or more LN floor levels related to the wall.

This method allowed us to distinguish two such levels (1630 and 1632) indicated by sherds laid flat, by charcoal inclusions and by slightly burnt building-clay. They could be associated with a line of large stones running east–west (1637 probably a wall) located to the south of them. Unexpectedly, even though it continued along the same line as the curvilinear wall (0625) found in 2002, this wall seems not to be part of the same complex, because it was at a higher level and there was a gap interrupting the line of the two walls. A further extension of the excavated area towards the west and north has shown that 1637 continued west, before changing direction and forming a slight curve towards the north. The more recent of the floors was found in this NW extension, to the east of the wall. Fragments of a large storage vessel lay flat on its surface and a clay animal figurine was associated with these finds.

In addition, a pit of about 1 m in depth was found in the SW corner of the further extension; it was filled with stones, and contained a significant number of EH I sherds, animal bones and stone tools. It continues further west and south, but was excavated down to its bottom in the area opened up. It evidently was cut through levels of the LN period. The exact function of this type of feature, also discovered in Areas A and C, is still not clear. Like the others it proved rich in finds and should be helpful in clarifying the dating and typology of pottery and stone tools in EHI, a gap in our knowledge in the southern Peloponnese.

The south part of the main extension, on the other hand, was poor in finds and lacked clear architectural features. It was, therefore, not excavated to the same depth as the north sector.

AREA H

The original aim in opening Area H was to establish if the Early Helladic material found nearby in Trench A, and indicated in this general vicinity by the surface survey of 1999, was also present here. Excavation has shown this not to be the case, a series of burials thought to be Middle Helladic were found but there was no evidence for any EBA settlement or structures, though some EH II pottery was discovered in a number of contexts (0703–4, 0707, 0716, 0721), probably residual material included in with the MH burials. The four burials thought to be MH cut into features which were probably Neolithic. Two burials were discovered at a lower level than these contexts suggesting they might be earlier in date.

Due to the number of burials the progress of the excavation was slow but a number of stone features have been uncovered in the trench. Further excavation of these features is required to clarify the relationships with the surrounding material.

The trench was set out at 5 m east-west and 2.5 m north-south with a later 1 m-0.5 m extension added in the NW corner to complete the excavation of burial (0718).

Below the topsoil were deposits of compact silty clay which overlay a hard compact carbonate deposit in the east of the trench, (0702), and a scatter of very poorly sorted angular cobbles in the west, (0703). 0703 overlay the four burials

thought to date to the Middle Helladic, (0705, 0706, 0718 and 0715). Three burials certainly cut through the earlier LN deposit (0702), which was spread over the whole area, as could be seen in plan and section. The evidence for 0715 cutting 0702 is less clear but the fill of the grave contained small nodules of the carbonate material, which followed the pattern of the other burials.

The four burials were different in character. 0705 was found overlying angular cobbles, which were later identified as part of a spread of poorly sorted angular cobbles pre-dating the burials. 0705 was placed on top of this level, whilst 0706, 0707 and 0715 cut through it. Thus the cobbles over the burials were most likely re-deposited from the stone feature below. The lower body of 0705 was missing and the remaining bone very fragmented. Some of this damage was caused by modern disturbance and ploughing, as this skeleton was the closest to the surface and therefore the worst preserved. It also appears that burial 0706 cut through 0705. Although no definite grave cut could be seen for either, the cuts through the earlier material suggest this was the case. 0706 was a slightly fragmented but undisturbed burial, the fill was mixed with cobbles from the earlier stone layer through which the grave was cut.

0718 was similar to 0706, once again no definite grave cut was visible. The skeleton rested on a layer of small rounded pebbles which lined the grave cut (0716). This practice is known from other Middle Helladic burials in the region (the Menelaion) supporting the proposed date. The fourth burial (0715) was not articulated like the others. The conditions of the bones indicated that the burial had not been disturbed after interment but had been buried disarticulated. Its grave cut could be distinguished through 0714.

The carbonate deposit that these four burials cut through is a deposit not seen elsewhere on site. It is most likely varying concentrations of CaCO_3 mixed with silty clay. In some areas there are a few nodules of the material and in others it formed a thick, hard concrete-like substance. A substance similar to this was found in Area A, where it had evidently been used to cement stones in a wall. It is possible that this area was used for the production of lime cement or plaster. Samples were taken for analysis.

Directly below the layer of carbonate material was a deposit of brown silty clay which overlay a spread of poorly sorted sub angular cobbles (0714). Although described as a 'stone platform' this feature was only one layer deep and the assortment of stones also makes its interpretation uncertain. Two burials were found at a lower level and it is possible that the spread of stones is related to these.

During the excavation of 0714 another stone feature became clear: 0720 was a semi-circular stone feature which ran into the north baulk. The shape suggests this may be another grave, possibly a stone lined tomb, however time constraints did not allow for excavation.

The grave cuts of the burials under 0714 were not clear, so their relationship was difficult to ascertain. 0713 was an articulated child burial, slightly fragmented. The upper body may have been disturbed by the later grave 0706, which lay directly above. The lower body of 0719 was immediately under the later burial 0715, although the lower limb bones look in good condition and the later burial may not have been cut deep enough to disturb them. The upper body of 0719 was not found. The other burials were in a flexed posture, and if so in this case it would have run west-east. The child burial 0713 was directly to the west of 0719 and may explain its disturbance.

The material surrounding the graves (0721) was indistinguishable from their fill and consequently grave cuts could not be recognized, but 0713 probably cut 0719.

Stone features visible in the trench were not excavated this season. Three on the east side of the trench (0710–0712) may be related to each other, and another (0722) runs into the west baulk. The relationship between these and the material that surrounds them (0721) is not clear at this level. The cobbles may rest on 0721, making them later, or be surrounded by it, making them earlier. Further excavation is required to clarify the relationships and stratigraphy.

GEOPHYSICAL SURVEY

All references to ‘north’, ‘south’, ‘east’, and ‘west’ refer to grid north, south, east and west.

A small geophysical survey was carried out on 1 September 2003 in order to supplement an original survey carried out by Neil Brodie in 1999. The survey area was chosen in order to augment the information provided by the original survey in the light of excavation discoveries and in order to predict subsurface features in an area that will become a future excavation focus. As with the original survey, the instrument used was a Geoscan FM-36 fluxgate gradiometer, a type of magnetometer. The sample interval was increased by a factor of four over the original survey, to 0.5m in each direction. A total area of 739m² was covered, and the results are shown in Fig. 2. In the northern half of the survey area the main feature (A) is about 11 m x 6 m in size and consists of a negative northerly section and a positive southerly section. It is normal for magnetic anomalies to consist of positive and negative parts. Observed values range from -35nT to 50nT, approximately. This is a coherent anomaly, unusual for such a large area. It probably represents a single subsurface feature, most likely an area of burning (perhaps burned mudbrick, *in situ*).

To the south and east of feature A, feature B consists of a relatively slight anomaly (a few nanoTesla above background) but whose shape is suggestive of an anthropogenic nature. The main, north-south section runs in part along the edge of an excavation trench, and might be simply a feature generated by the trench. The southerly east-west part of feature B is however unrelated to the excavation, and has an apparent 90° return at its west end. This feature might be indicative of buried foundation layers. It must be re-emphasised, however, that the feature is weak, and a non-archaeological explanation is possible.

In the southern half of the grid three clear anomalies are present (C, D and E). The most likely explanation for each of these is that they represent iron pegs missed in clearing the area. Each has the characteristic very high gradient associated with iron.

However, feature D differs from features C and E in one crucial respect. It is formed of a core negative anomaly with positive halo, which itself has a negative halo; C and E have a core positive anomaly with surrounding negative halo. C and E are about 4 m in diameter, while D is 6 – 7 m in diameter. It is likely that these differences may be explained simply by differing sizes in the iron object in question. However, it is just possible that anomaly D is archaeological in nature.

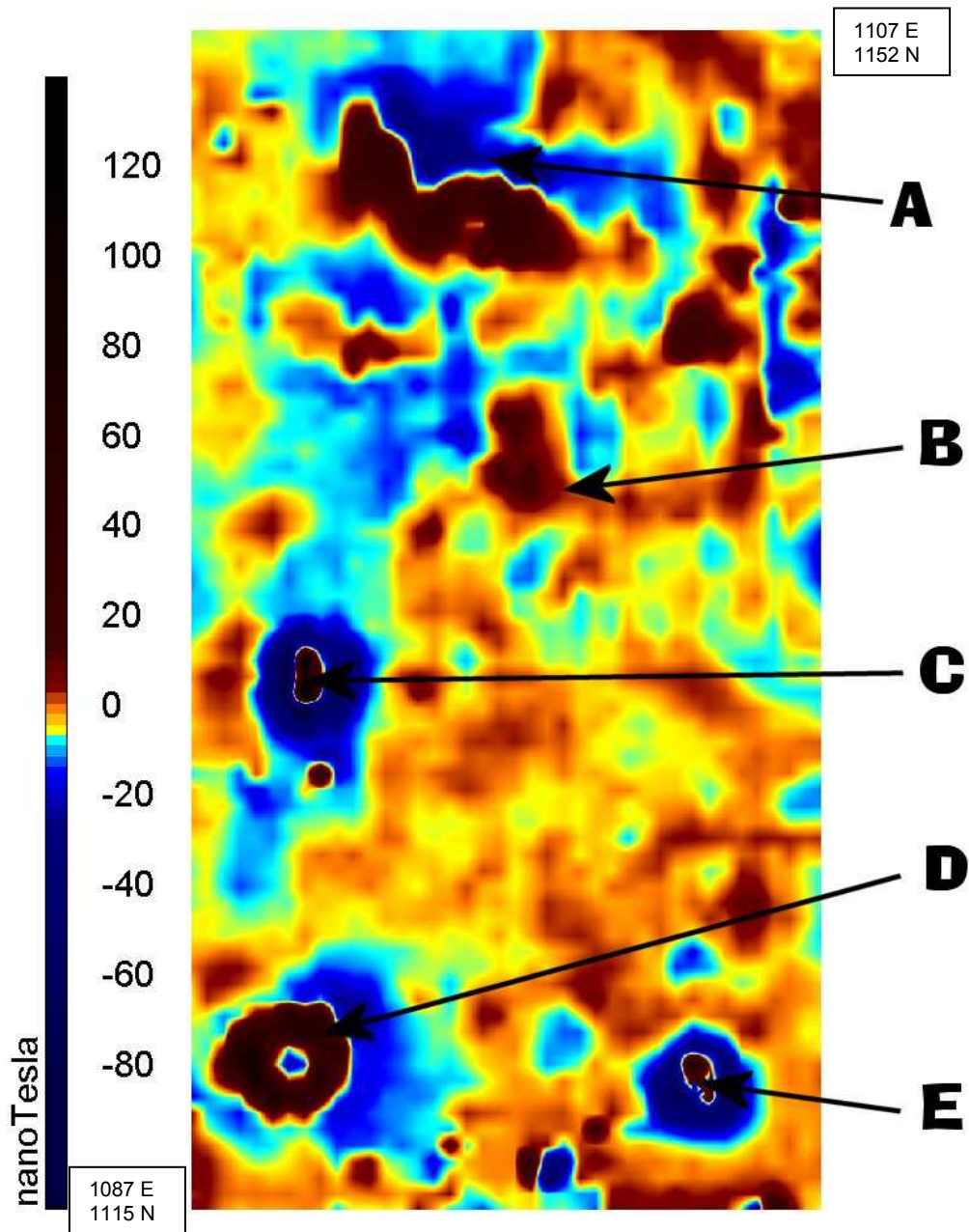


Fig. 2. Magnetometry survey showing magnetic features A–E.

SOIL SAMPLING

Sampling of soil in the trenches continued along the same lines as those followed in 2002. All contexts exposed in trenches B, C, G and H were sampled, at several locations in the larger contexts, in newly excavated areas starting from the ground surface. Several assistants were trained to sample in each trench. The samples were transported to Liverpool for cold storage and chemical, mineral magnetic and other physical analyses. In addition to bagged samples, a number of soil blocks were removed intact and packed for micromorphological analysis.

The aims of the analyses are to characterize soils of all contexts in order, first, to contribute to the interpretation of features, second, to determine whether diagnostic 'fingerprints' of features can be defined and, third, to model the site system in terms of inputs, transformations, transfers and losses of materials. A better understanding may thus be achieved of site formation processes and of the nature and persistence of archaeological soil traces over long timescales. The range of analyses to be undertaken will be decided partly in the light of the analyses of the cores taken on the site in 1999 and 2001, but will include phosphorus, organic carbon, trace metals and mineral magnetic properties. In addition, each sample will be examined under low-power microscope in the laboratory before the chemical and other analyses are begun.

ENVIRONMENTAL SAMPLING

The policy has been to sample every archaeological context, wherever possible some 60 litres of soil, though small contexts could restrict the size of sample and particularly rich deposits and/or floor deposits could be sub-sampled. The samples were first dry sieved through a 1cm mesh (any finds from the sieve being returned to the context find bags). The dry-sieved soil was then taken to be water sieved, with the flots passing through meshes of 1.0 and 0.3 mm. In all 256 separate samples were processed by wet sieving (a total of > 5000 litres of soil). Preliminary inspection indicates some very promising deposits, and even the less prolific contexts frequently produced a reasonable number of seeds. Some progress was made in sorting the residue, which, in addition to environmental evidence, also produced occasional beads and micro-debitage from chipped stone production.

FINDS

Pottery

All of the pottery from the four areas excavated this year, a total of 35,815 sherds, has been processed. Once washed, the sherds were divided into fine table-wares and coarse cooking and storage vessels, counted and weighed. Feature sherds were marked with individual numbers and brief comments written on the date and composition of each context. A representative selection of sherds was also drawn.

Most of the Middle Neolithic pottery comes from contexts in Area C. In the lower levels of the sounding, the pottery was predominantly fine and of exceptional quality, with a very high proportion of Urfirnis decoration, patterned (Fig. 3) or monochrome. An unusual white-ware sherd may have been imported. The range of shapes and more especially the motifs suggest a date in the middle phase of the period for the deepest contexts that have been investigated so far. Urfirnis decoration was also common elsewhere in Area C and there was much more scribble burnish, randomly burnished lines fired a darker colour, which is characteristic of the later phases of the Middle Neolithic at sites such as Franchthi. Most of the pottery was fine but there was coarse ware from some contexts. In most cases the vessels concerned were evidently very large bowls with high pedestal bases, rather than storage jars or cooking pots.

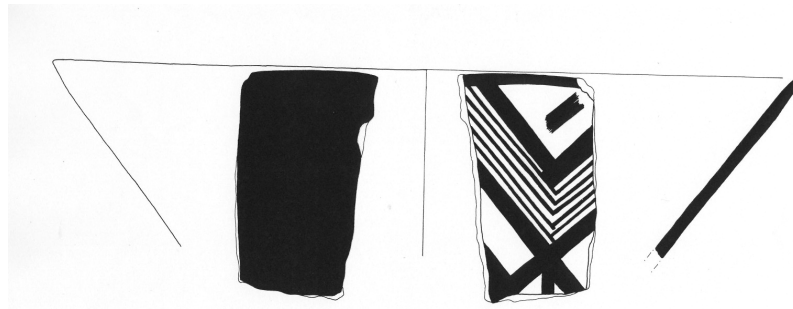


Fig. 3. MN straight-sided bowl with Urfirnis decoration (rim diameter 34 cms).

There is much Late Neolithic pottery, mainly from Areas G and H, in particular fine and coarse varieties of Black Ware, usually burnished and sometimes decorated with white paint or incision. Rhyton fragments indicate that some contexts should be LNI. Grey Ware, fired in a range of colours, is also present and Matt-Painted pottery (Fig. 4), typically with a white-slipped or white fabric. A few sherds have Polychrome decoration. Much of the Late Neolithic pottery is coarse and some may be Final Neolithic, although few contexts of this period were excavated.

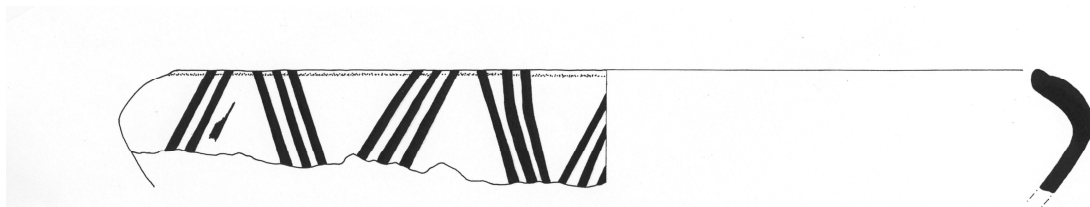


Fig 4. LN matt-painted bowl, (rim diameter 33 cms).

From the stone-filled pit in Area G there is EHI red-slipped and burnished pottery and coarse wares, which will help us to define this period ceramically. The pottery from the pit in Area C is predominantly EHII and includes typical fine shapes (Fig. 5) and coarse ware vessels, often with finger-impressed decoration. One of the graves in Area B produced a complete Middle Helladic kantharos (Fig. 6).

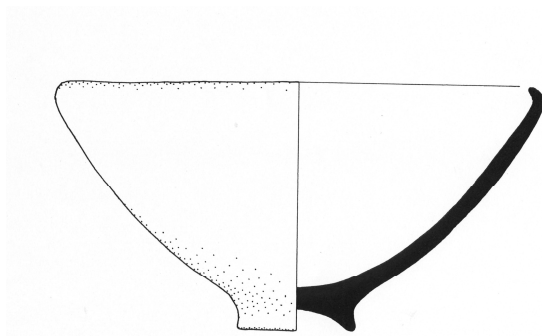


Fig. 5. EH2 incurving-rimmed bowl, (rim diameter 16 cms).



Fig. 6. MH kantharos (rim diameter 10 cms)

Stone and Other Materials

Chipped stone artefacts of obsidian and flint were recovered from most deposits, among them a superb blade made of jasper, found in the MN floor deposit 0299 (Fig. 7). Other finds included querns, ground and polished-stone tools, bone pins, stone sling-shots, clay spindle whorls and fragments of clay figurines.

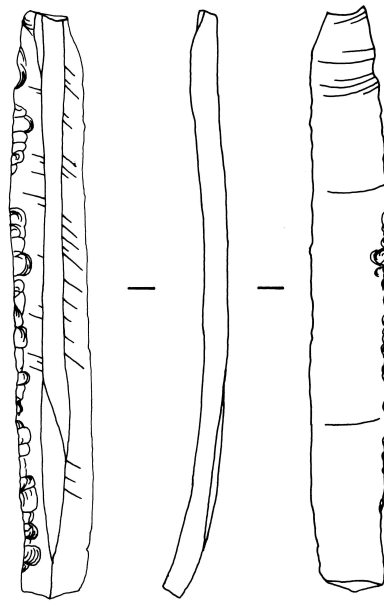


Fig. 7. MN jasper blade with retouch, (max. length 14.2 cms).