

# **THE KOUPHOVOUNO PROJECT**



**2006 EXCAVATION SEASON**

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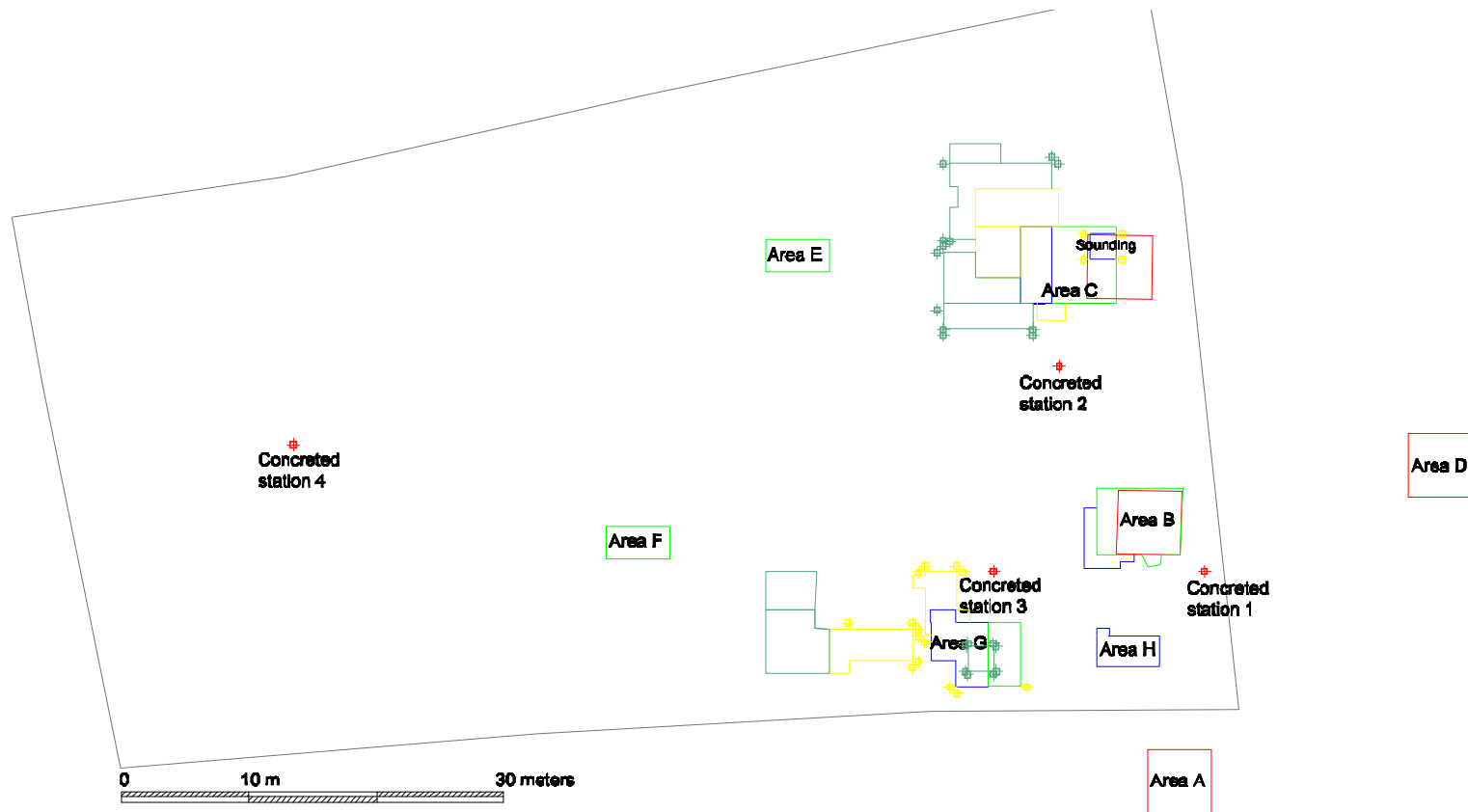


Fig. 1: Plan of the areas excavated in 2006 (light blue).



## PREFACE AND ACKNOWLEDGEMENTS

The sixth season of the Kouphovouno Project took place during the six weeks 24 July – 1 September 2006. 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: Mrs Vasilogamvrou, Mrs Panagiotopoulou and Mrs Stella Raftopoulou. We are most grateful to Dr James Whitley, Dr. Eleni Hatzaki, Helen Clark and all the staff of the British School at Athens for their prompt and skilful advice in setting up the project. The work this year was funded by the British School at Athens, the British Academy, the Institute for Aegean Prehistory, the Universities of Liverpool, Clermont-Ferrand and Nottingham, the École française d'Athènes, the French Ministry of Foreign Affairs and CNRS. Without their support the fieldwork could not have taken place. The team was led by Professors William Cavanagh, Christopher Mee and Josette Renard. Dr Anna Karabotsoli continued her study of the chipped stone tools, Dr Armelle Gardeisen studied the animal bones with assistance from Jean Cantuel. Dr Ian Whitbread continued his study of the ceramic fabrics. Dr Peter James oversaw the soils studies, while Dr Christèle Ballut (CNRS) took samples for micromorphological analysis. Raphaël Orgeolet, Thomas Loughlin, Graeme Laidlaw, Chloe Duckworth and Ian Travers were trench supervisors, assisted by Ben Moore, Joby Woodhouse, Frédéric Mercier, Sam Farnham, Dave Smith and Emmanuelle Fournier. The excavation teams were made up by Artemis Brofidou, Stuart Chell, Lyn Hughes, Stephen O'Brien (Liverpool); Nicola Allum, Alice Greenslade, Malcolm Nicholson, Robert Woodward (Nottingham); Raphael Angevin, Emilie Boutonnet, Jean Cantuel, Grégory Cartelier, Jean-Baptiste Fourvel, Frédéric Mercier, Caroline Millereux, Marie Mosnier, Violaine Nicolas, Alexandra Piquet, Stéphanie Sève (France). Raphaël Orgeolet assisted by Léa Schreiner and Christophe (Clermont-Ferrand), produced digitized images of the plans, and our GIS system was developed, in collaboration with Matthew Fitzjohn (Liverpool), by Liz Jones, who also acted as surveyor. Jean-Pierre Renard took the site photographs. Mercouris Georgiadis and Helen Murphy acted as finds assistant, and Émilie Boutonnet and Nicola Kalimeris organised the sorting of the residue from flotation, as part of the archaeobotanical studies under Dr Amy Bogaard (Nottingham); Eleni Asouti is studying the plant charcoal remains. Estelle Carraud acted as housekeeper, assisted by Gustave Martinez.

### AIMS OF THE 2006 EXCAVATION SEASON

The overall objectives of the project have been summarised in our earlier reports but may be briefly stated under five headings: (1) to refine and improve our understanding of the chronological sequence from the Middle Neolithic through the Early Bronze Age, (2) to further our knowledge of changes in the way of life over that time-span through study of the organisation of settlement, the methods of building construction, the production and use of materials and the agricultural economy (3) to reconstruct the environmental setting of the site through the sixth-third millennia BC (4) to examine the relationships over time of exchange and reciprocity between different communities in the S Aegean area and (5) to study the various mechanisms which contributed to the formation of the archaeological sediments which comprise the basic material excavated and led to the build-up of the tell-site.

By the start of this, the fifth and final season of excavation we were confident that over the course of the excavations we had recovered materials to enable us to

address these issues effectively: we have recovered a large number of contexts dating to the Middle Neolithic, Late Neolithic, Final Neolithic and Early Bronze Ages I and II. These had yielded not only assemblages rich in artefacts, but also the palaeobotanical and -zoological evidence which will allow us to further our knowledge of the prehistoric economy. Carbonized seeds chosen from secure contexts in stratified sequences will be submitted for  $^{14}\text{C}$  dating to allow a Bayesian analysis of the absolute dating sequence. The archaeological sediments have been completely and systematically sampled for chemical and geo-physical analysis, in one of the most extensive and careful programmes to study tell formation processes. Much detail has been found illustrating the architectural practices in the different periods. In the light of this we embarked on the final season of excavation with a number of very specific objectives in view: to clarify the architecture of the MN period and further to investigate the ceramic sequence, in particular that of the MN-LN transition and to complete our programme of sampling contexts for the bioarchaeological programme and scientific study of the sediments.

Consequently in 2006 excavation was concentrated on three main focuses: (1) opening up an extensive sector in Area C (two excavation teams operated here), concentrating on the MN architectural features (2) exposure of more MN architecture in Area G (3) a deep sounding, also in Area G, to trace the LN-MN transition and to complement the deep sounding in Area C which had been taken down to the natural soil in the 2005 season.

## AREA C

During the course of 2006 we exposed 121 m<sup>2</sup> of archaeological deposit in Area C, partly uncovering features excavated previously but mainly by further extending the area of excavation to the north, east and south (Fig. 1). In this preliminary report we shall treat the northern and southern sectors separately as they were excavated by the two different teams.



Fig 2: MN Neolithic structure with foundation walls (1710 and 1715), pebble setting (1732) and box-section taken through 1710.

A number of significant domestic installations and architectural details were revealed, in the N sector of Area C, including a series of walls oriented N-S and E-W, at least one complete room and the remains of a building which was exposed only in part. The E wall (1715) of the building, 4.8 m long, consisted of a foundation of rounded river stones set in an extremely compact, light yellow mortar and reaching up to 0.70 m in height (Fig. 2); its superstructure had not survived, but a post setting at its north end and a number of other settings in the thickness of the wall indicated a wooden framework for the structure. A pivot stone marked the entrance at the north, in front of which was a porch enclosing a circular setting made up of flat cobbles, evidently a working area (Fig. 3). Similar settings, also of MN date, were found elsewhere in Area C and in Area G. The south wall (1710) seems to have been cut by a pit which apparently also destroyed the west wall of the complex. A good part of the interior of this room was covered by pebbles closely set into a compact clay cement (1732); perhaps the bedding for a floor rather than the floor itself, as few artefacts were found resting on its surface. Similar pebble settings were also found elsewhere on the site in MN contexts. A sounding through the south wall, and through the floors on either side of it, revealed that the stone foundations of the wall rested on a dark surface, on which numerous finds lay flat. Above this were three further floor levels (1774, 1773 and 1756 from earliest to latest) 3-5 cm thick and all made up of a mix of materials, whose most marked characteristic was that they were all burnt to a uniform colour. They were laid down after the construction of the wall, but whilst it was still in use. On the latest floor (1756) were found resting sherds, bone, chipped and polished stone tools. A further wall (1711), belonging to another construction, formed the west edge of floor 1756. This wall stopped just short of 1710, and in the corner between the two walls was found an oven, its floor and walls of reddened clay.



Fig. 3: Door pivot stone beside wall 1715 and setting of cobble stones (1724) within the north porch of the building. MN.

In general the MN architecture in the south sector of Area C had been subject to much more severe, later disturbance than was the case in Area C North. After the removal of the surface plough soil a complex of inter-cutting stone rubble features was revealed, whose separation and excavation proved particularly problematic. Especially along the southern edge of the Area a number of levels were found to contain LN, FN and some EBA material as well as MN, these were interpreted as dumps, presumably due to levelling operations during the later history of the site.

In the centre of the trench a long linear stone feature (1817) was recorded running northwest to southeast. Composed of irregular and poorly sorted limestone and schist rocks and cobbles (0.03-0.48 m), it was quite substantial (covering an area roughly 5 x 1.4 m). At most it was four courses deep. On its northern side it appeared to be delimited by rather large stones. On its southern side the edges of the feature were not so clearly demarcated. Within 1817 two postholes were noted: 1811-12 and 1813-14. 1811 was large measuring 0.54 by 0.46 m to the outer edges of the packing stones, with a maximum depth of 0.24 m. 1813 was located immediately to its south and was smaller (0.37x 0.17 m). It appears that 1811 held a large upright timber and 1813 a supporting post. What seemed to be the remains of clay plaster or rendering to this wall was also uncovered (1857).



Fig. 4: Large post settings (1811, 1813) set in stone feature (1817). MN



## AREA G

In Area G, likewise, two distinct focuses of activity were the deep sounding and the extension of Area G to the West.

During the 2005 season, a 2 x 1 metre sounding had been opened in Area G1, from a depth of 197.20. Middle – Late Neolithic transitional pottery was found in the sounding, and it was decided this year to extend the sounding in order to get a fuller and more detailed sequence. The sounding was extended to measure 2 x 2 m and this was excavated in four 1 x 1 metre grid squares by a series of spits (normally 0.10 m deep: Fig. 5).

As the sounding was taken down changes were observed in the nature of the fill, and certain specific features including pits, dumps of material, and stone features were distinguished; but none of these could be defined very closely as floors, post-holes or walls, as they tended to grade slowly into each other. As in the case of the upper, LN levels in this part of the site, we were led to speculate that these soft earth fills indicated that much of the architecture may have been of timber construction, resting here and there on stone pads and props, whose recognition is only possible through wide, open-area excavation. On the other hand the sounding yielded very much the sorts of information we were hoping for: a very rich ceramic repertoire, starting in the Late Neolithic and stretching back well into the Middle Neolithic. Frequent rich deposits of carbonised matter yielded excellent samples of seeds and charcoal for bio-archaeological analysis. The sounding also provided an excellent series of chipped and polished stone tools, as well as rarer finds, including the terracotta female figurine described below (Frontispiece). By the end of the season the sounding had been taken down to a depth of 196.19 (site datum), that is to say 2m below the original ground surface, but without yet reaching the natural soil.



Fig 5: Section through the sounding in Area G

Area G was also extended to the west in order to follow up the MN architectural elements which had been identified in 2005. Over the 2006 season an area of 35.2 m<sup>2</sup> was exposed. After clearing the plough soil, it became clear that the westernmost half of the trench was taken up by a major stone rubble dump (1912) and related deposits, which were part of the fill of a cut or terrace (1914) (Fig. 6). It seems likely that this is connected with the similar feature, uncovered in 2002, some 25 m to the north in Area E. The features in both E and G are part of a major reconfiguration of the western half of Kouphovouno dating to the Late Roman period. These fills were taken down sufficiently to allow, without fear of contamination, the excavation the MN levels, which were our main object. The central part of this MN area was occupied by a rectangular structure, marked by four walls (1911, 1915, 1918, 1923); the northern wall of the structure was curved. It appears that the floor in the centre of the room was largely destroyed by ploughing, but to its north was found a hardened surface with sherds lying flat on it (1929), interpreted as a stamped clay floor, together with a cobbled area (1927), similar to that found in area C (1724). The north-east corner of the room was cut and disturbed by an EH pit whose fill was distinguished as 1934.



Fig 6: Area G. On the western half a cut with Roman fills including a stone rubble fill visible in section; to the east a rectangular room, with floor and stone setting to its north.

The clearance of the Roman material enabled us to expose a N-S section through these MN deposits. This revealed that some depth of MN deposit had accumulated. This in turn had been cut by a circular pit, whose distinctive fill was clearly visible in section and in plan. None of these earlier MN levels was excavated. Into the pit-fill

had been cut a foundation trench (1930), into which had been placed the stone packing which formed the stone foundation of the superstructure of the room. The cobbled area (1927), associated with, and to the north of the room, rested on top of the same pit fill. Careful excavation revealed that the other wall foundations in this complex were set in trenches, with larger stones at the centre of the trenches, and smaller stones, set vertically, filling the edges of the trenches.

In the southern part of this sector of Area G, the corners of three other structures met with a cross-shaped rectangular space between them. Unfortunately the later destruction caused by Late Neolithic, Early Bronze Age and Roman activities left the MN remains in this part of the excavation fragmentary.

## **FINDS**

### **Pottery**

All of the pottery excavated this year, a total of 58,200 sherds with a combined weight of 658 kg, has been processed. Once washed, the sherds were divided into fine table wares and coarse storage and cooking vessels, counted and weighed. Feature sherds have been marked with individual numbers and brief comments written on the date and composition of each context. The total number of sherds from the five seasons of excavations is now 214,409 and weighs 2,335 kg.

The earliest pottery came from the deepest contexts in the sounding in Area G. This is Middle Neolithic and predominantly fine with relatively few coarse sherds. A very high proportion of the pottery is painted, mainly monochrome but patterned decoration is also common, more so than scribble burnish, though this does occur. Evidently the pottery was principally used for the presentation or consumption of food and drink. The later phases of the Middle Neolithic period were also well represented in Area C, in both the North and South extensions. In some of the contexts here there were more coarse vessels, in particular bowls and jars with massive pedestal bases and also characteristic cooking vessels, one of which was complete (Fig. 7).



Fig. 8: Middle Neolithic cooking vessel from Area C

As we had hoped, the Middle-Late Neolithic transition could be followed in the sounding in Area G. An increase in the proportion of coarse vessels is one feature of this transitional phase. Monochrome pottery is also very common but it can be difficult to distinguish Urfirmis and Black Ware. The linear decoration often looks Late Neolithic but is lustrous rather than matt-painted, so this is a hybrid style. In due course the Late Neolithic wares become predominant, particularly Black Ware, with Grey Ware, Matt-Painted and some Polychrome as well.

There was also Late Neolithic pottery from contexts in Area C South, mixed with Final Neolithic sherds, which were mainly coarse and often decorated with finger-impressed cordons, and some EH I, again mostly coarse and occasionally red-slipped and burnished. EH II pottery, fine and coarse, was associated with Context 1934 in Area G. The Roman pottery from the stone rubble dump on the west side of the Area consists mainly of storage vessels but there was some table ware. The presence of combed sherds suggests a Late Roman date for this phase of activity.

### *Pottery Fabrics*

Dr Ian Whitbread continued to develop the methodology for his work on the pottery fabrics. The following is a brief summary of his fuller report.

Fabrics were divided into a range of groups defined in the first instance by wall thickness (>4mm, 4-8mm, >8mm) and were further divided on the basis of clay colour and inclusion frequency and composition. It is anticipated that wall thickness is likely to correlate with inclusion size. Inclusions generally reflect the local geology: phyllite/schist for metamorphic rocks, limestone/calcite for calcareous regions, and quartz for terrigenous sediments. Fabric properties were recorded with the aid of a hand lens (x10) and stereomicroscope (x18). Quantities of inclusions were assessed using a comparator chart, for which a fair degree of tolerance must be allowed. The ware definitions do not necessarily identify discrete pottery fabrics, but are a working model to be verified through further analysis and by correlation with other ceramics attributes, such as vessel shape, decoration and context.

Middle Neolithic pottery is primarily oxidised and it is possible that 'orange' fabrics may be fired red under certain circumstances. The high quality of much of the pottery in manufacture, decoration and firing suggests that potters were careful in the production of their ware, and thus colour differences may be significant. This may be tested in terms of consistency of specific firing results against fabric, shape, and decoration. Grey-fired pottery may reflect reducing conditions during firing or the remains of carbon from 'incomplete' firing. Some vessels appear to have oxidised external surfaces and grey interiors ('orange' & grey, red & grey wares), which are likely to reflect upside-down stacking and the resultant production of localised environments within the firing. This effect is likely to have been intentional since changing the stacking arrangement could easily have eliminated it. The reddish-brown fabrics appear to reflect a different clay body given distinctions in feel and hardness. The soft, coarse fabric would be consistent with cooking wares, although evidence of soot seems to be on internal rather than external surfaces.

### *Fabric properties*

The majority of minerals and rocks identified are quartz, calcite, limestone, phyllite, possibly white (silver) mica and possibly clay pellets (tcfs = textural concentration features). These inclusions are primarily identified by colour. Identifications are

tentative given the limitations of accurate characterisation under 'hand specimen' conditions. Quartz is usually identified by its lack of cleavage and by being harder than a steel point. Calcite has three cleavages, forming a rhombohedral shape. Like calcite, a steel point easily scratches limestone. Calcite and limestone will alter under certain firing conditions (above about 650°C) and this is evident in some of the pottery: calcium carbonate to calcium oxide to calcium hydroxide. A common result is lime spalling on pottery surfaces. 'Orange peel' ware (Fig. 9) may in part be an outcome of this process. It refers to the dimpled interior surfaces of what are probably 'orange' medium limestone and 'orange' medium sandy wares. This dimpling may reflect the removal of limestone from the surface of the pot. This is not a post-depositional effect since it is only present on the interior surfaces of vessels, the exterior surfaces of which are in good condition, sometimes with limestone showing through. It does not appear to be a product of vessel forming. Subparallel indentations can be seen on some internal surfaces that may have arisen from wiping or dragging inclusions during forming or surface finishing; in some cases these have subsequently been covered with paint. It may be worth examining whether the 'orange peel' effect could be use-wear. If it is the result of limestone (calcium hydroxide) removal then could it reflect the storage of liquids, particularly if they were mildly acidic?

Further analyses (e.g. thin section and chemical analysis) will be necessary to test the validity of the hand specimen wares outlined below. The distinctions have been expressed rather loosely as wares while they remain provisional. Equally the names of these wares are descriptive but not necessarily consistent. Once the distinctions between wares have been confirmed by further analysis it would be best to rename them in a more orderly format as fabrics.



**Fig. 8: 'Orange peel' damaged interior surface (top) undamaged exterior surface (bottom).**

#### *Other Finds*

Of particular note was a terracotta female figurine from the sounding (Frontispiece). This is reminiscent of the Middle Neolithic figurine found in 2002 but the decoration is in the transitional MN/LN style. Another figurine, from Area C (Fig. 9) is an example of the split type discussed by Talalay (L.E. Talalay, 1987. 'Rethinking the function of clay figurine legs from Neolithic Greece: an argument by analogy', *AJA* 91: 161-9/L.E. Talalay, 1993. *Deities, Dolls and Devices: Neolithic Figurines from*

*Franchthi Cave, Greece 45-6*). The polished and chipped stone artefacts include a very fine flint blade, 9 cms in length (Fig. 10).



Fig. 9 Split MN figurine from Area C.



Fig. 10: MN chipped stone artifact, Area C.