MYCENAEAN SEMINAR 1993-95

Author(s): Maurice Pope, Cyprian Broodbank, Louise Schofield, Richard Parkinson, Eleni Konsolaki, Lyvia Morgan, Jan Driessen, Naoko Yamagata, Robert Laffineur, Elizabeth Schofield, Catherine Morgan, Eleni Hatzaki, Maria Andreadaki-Vlasaki, Claire Loader, Louise Steel, Susan Sherratt, J.A. MacGillivray, L.H. Sackett, Wolf-Dietrich Niemeier, Cynthia W. Shelmerdine, R.S. Merrillees and John Lavery

Source: *Bulletin of the Institute of Classical Studies*, Vol. 40 (1995), pp. 239-267
Published by: Wiley
Stable URL: https://www.jstor.org/stable/43646587
Accessed: 03-06-2019 18:57 UTC

MYCENAEAN SEMINAR 1993–95

Summaries of all the papers presented to the Mycenaean Seminar at the Institute between May 1993 and May 1995, and of special lectures given in association with the Seminar are printed here. In future, summaries will be printed annually.

12 May 1993

MICHAEL VENTRIS: THE ARCHITECT WHO DECIPHERED LINEAR B

Maurice Pope

This was a joint meeting with the Architect's Association, held in their rooms in Bedford Square.

An account of Ventris's life at home, at school, in the RAF, and as a professional architect was given together with a layman's explanation of the process of the decipherment and an assessment of its importance in the world of scholarship.

The paper was illustrated with slides and (with the kind permission of Mrs Ventris's executors) extracts were played from the 1952 broadcast on the BBC's Third Programme in which Ventris first announced his success.

13 October 1993

A PATTERN IN ISLANDS: SPATIAL APPROACHES IN EARLY CYCLADIC ARCHAEOLOGY AND THE POTTERY OF DHASKALIO-KAVOS *

Cyprian Broodbank

Early Cycladic archaeology can benefit from perspectives that explore spatial patterns and problems. Many aspects of Cycladic culture become clearer if seen in the context of island geography, and by using islands as the framework for predictive spatial models we can fruitfully contrast modelled expectations with archaeological distributions. This approach is exemplified by analysis of two issues: the Late Neolithic Saliagos culture, and maritime trading sites of the Keros-Syros culture (EC II). This paper also describes

*This paper summarizes aspects of my PhD dissertation submitted to the University of Cambridge in June 1995, plus the results of my study for publication of pottery from Dhaskalio-Kavos collected in 1987 by the Athens-Cambridge-Ioannina inter-university project. The interpretation of the site summarized here is mine, and derives from the study of the pottery only; it may require revision in the light of the overall study of the entire assemblage.

the pottery of one major EC II site, Dhaskalio-Kavos on Keros, and the evidence it provides about this important site's functions.

The distribution of the Saliagos culture, the earliest Cycladic settlement horizon, can be plotted and compared with colonization models for Attic-Euboean and south-east Aegean origins. It is probable that the Saliagos culture, best evidenced in the south-east Cyclades, is an off-shoot of the contemporary colonization process in the 'voyaging nursery' of the Dodecanese and adjacent islands. Its uneven long-term success makes sense given the distance from its source area and the harsher environment of the outer Cyclades. Naxos emerges as the key bridgehead, emphasizing the importance of (and a reason for) the continuous sequence at the Zas cave. Another spatial model (proximal point analysis: PPA) allows us to explain the locations of central places within the network of inter-island trade during the Keros-Syros culture. Dhaskalio-Kavos, Chalandriani and Aplomata, all of which have produced evidence of unusual size and/or wealth of status goods, lie in areas of the Cyclades that PPA reveals to be exceptionally well connected in terms of local maritime interaction. Ayia Irini on Kea, another major site, lies in an area that is conspicuously not predicted as central to intra-Cycladic networks; probably its role was as an inter-regional node between the Cyclades and the Attic-Euboean area.

Most of the Dhaskalio-Kavos pottery studied comes from the Special Deposit, also known for its marble finds, but material from other areas of the site is represented. The pottery dates to the Keros-Syros culture, including the Ayia Irini III/Kastri Group. *At least* some 500 vessels were once contained in the Special Deposit. Dominant shapes are sauceboats (including painted, *urfirnis* and yellow-mottled) and pedestalled-based jars; also present are bowls, jugs, pyxides, tankards, probably depas and bell-shaped cup fragments, medium-sized storage jars, domestic apparatus, and sherds of multiple 'lamps' and triple sauceboat vessels. Incised, painted, stamped and plastic decoration are attested in this descending order of frequency. The diversity of fabrics and surface treatments indicates complex processes of supply. Macroscopic analysis argues that a *minimum* of ca. 41% is imported, including storage jars as well as fineware shapes. Most imports seem to come from a local orbit comprising the Erimonisia, Naxos and Amorgos (the range of a short canoe crossing?) but fine shapes can be tentatively linked to Syros and Kea; the yellow-mottled sauceboats are probably of mainland origin. Talc ware is also present. Dhaskalio-Kavos has been variously interpreted. Detailed study of the pottery argues that the accumulation was governed by people at the site, and that no shapes are incompatible with an explanation of the Special Deposit as a burial area. Combined with the PPA results this may support the interpretation of the site as a large maritime trading centre and cemetery, although other hypotheses cannot be ruled out.

10 November 1993

OF HELMETS AND HERETICS: MYCENAEANS ON A PAINTED PAPYRUS FROM AMARNA *

Louise Schofield and Richard Parkinson

In June 1992 the British Museum acquired fragments of a painted papyrus (now EA 74100) from el-Amarna. They were excavated by John Pendlebury for the Egypt Exploration Society in December 1936, and were found, as was a Mycenaean LH IIIA2 stirrup jar, in a Chapel of the King's Statue. Given the find spot, it seems likely that this purely pictorial papyrus was connected with the royal cult under the heretic Pharoah Akhenaten. Three areas of the scene on the papyrus have been reassembled, two of them substantially, and it is clear that it depicts a battle between Egyptians and Libyans. This early New Kingdom battle scene is the only one known on papyrus.

On the most completely reassembled scene one of the Libyans is about to cut the throat of a prostrate Egyptian, whilst two others, armed with bows and quivers, are seen running towards them. The enemy are identified as Libyans by their long white cloaks and tattooed loins. This depiction of an Egyptian being done to death by an enemy is unique in Egyptian art. The other two reassembled areas of the papyrus show two overlapping registers of running Egyptian foot soldiers, perhaps rushing to the aid of their fallen comrade.

All of the running infantrymen are wearing the canonical white kilt of the Egyptian soldier. Some are bare-headed and bare-chested, in the usual Egyptian fashion, whilst others are helmeted and have their upper body protected by an ox-hide tunic. Neither helmets of this form nor short-cropped tunics of ox-hide have been noted worn by Egyptians on other battle scenes. Unless we are dealing here with an otherwise unattested form of Egyptian armour, these features may identify the figures as foreign mercenaries fighting in the Egyptian army.

Although the vertical lines on the helmets resemble those on the helmets worn by Asiatics, the ox-hide tunics cannot be thus paralleled; the warriors wearing these accoutrements on the papyrus lack the hooked noses, beards and yellow skin colour accorded to these foreigners by Egyptian artists. Instead, the facial profiles and skin colour of the helmeted warriors are indistinguishable from the canonical representation of Egyptians.

We therefore suggest an alternative identification. The helmets, with their yellowy-white colour and vertical and horizontal demarcations, resemble the boar's tusk helmet of the Mycenaeans. The short-cropped ox-hide tunics find parallels in Mycenaean Pictorial Style vase-painting; short dotted tunics are worn by a figure on a vase in the British Museum and by one on a vase in the Pierides Collection in Larnaca, Cyprus. The tunics depicted on the papyrus are trimmed at the arms, neck and waist with green paint indicating metal. Metal rims, identified by their excavators as edgings to leather tunics, have been found in some Mycenaean tombs. Moreover, the skin colour and the facial features of the warriors would be perfectly compatible with an identification of them as Aegeans, as a comparison with Egyptian representations of the Keftiu will demonstrate.

*For a more detailed account see now: L. Schofield and R.B. Parkinson, *BSA* 89 (1994) 157–70.

1 December 1993

THE MYCENAEAN SANCTUARY ON METHANA *

Eleni Konsolaki

A recent excavation of the Greek Archaeological Service on the hill of Ayios Konstantinos, located on the east coast of Methana (about 1.5 km to the north of the modern port), has brought to light architectural remains of the Mycenaean period. The excavated structures occupy the south-west part of the top terrace of the hill and are sited within a prehistoric settlement, the surface remains of which can be traced in the immediate surroundings.

Most important is a building complex which is assumed to be of a religious character, as at least one of its rooms seems to have had a primary cultic function, indicated both by its architectural features and its context. This room measures 4.35 by 2.65 m., its main axis running east-west, and is entered through a doorway at the north end of its east side. Its cultic installations comprise a stepped bench set in the north-west corner (directly opposite the entrance), a low platform running along the south wall and a hearth constructed with a few rough stones in the south-east corner. A central area between the platform and the bench is paved with stone slabs forming a low dais.

A fragmentary jar neck found on the floor level near the south west corner may have been used as a device for libations; this was accompanied by an animal-head rhyton, a plain two-handled cup and a dipper, all of which could have been employed for pouring liquids. The provision of music is also indicated by a big conch shell contained in the deposit.

On the steps and in the immediate vicinity of the bench were found a large number of terracotta figurines, more or less complete. The majority of these were bovids, ranging from earlier naturalistic to later schematized types, but unusual forms of group figurines were also represented on a remarkable scale. The repertoire of terracottas comprised, *inter alia*, 10 chariot groups, 5 horses with helmeted riders, 17 'Driven Oxen' and 3 'Ridden Oxen'. One of the latter is a large hollow bovine figure mounted by a rider, or rather a 'toreador', attached to the top of its head and clasping its horns with a gesture which displays power and implies a divinity.

One female figurine alone, of the uncommon Hollow Psi type, was included in the assemblage, thus occupying an outstanding position in the context. The dearth of female figurines in association with bovids and horses are two striking elements of the deposit, apparently reflecting religious beliefs.

All of the material deposited in this room covers the time span of the period LH IIIA-B. Very few of the finds can be assigned to LH IIIA1, e.g. a pair of naturalistic bovids and the animal-head rhyton, which is painted with stipple. The preponderance of carinated kylikes FS 267 and the presence of a deep bowl FS 284 Group B in the destruction layer show that the room was in use until the end of LH IIIB2.

*A more detailed account will appear in: *Peloponnesian Sanctuaries and Cults* (Proceedings of the Ninth International Symposium at the Swedish Institute in Athens, June 1994.)

12 January 1994

THE WALL-PAINTINGS OF AYIA IRINI, KEA

Lyvia Morgan

The wall-paintings of Ayia Irini, Kea, excavated in the 1960s by the University of Cincinnati and the American School of Classical Studies at Athens, are currently being prepared for publication by myself and Ellen Davies, following preliminary publication by Katherine Abramovitz and conservation by Stella Bouzaki.

House A (for which E. Davies is responsible) yielded a splash pattern (period VI), bluebirds, and a griffin (VII). Fragments of a dolphin frieze came from House J (west) and figural fragments from House B (south-east, now mostly under the sea). The Northeast Bastion has provided the fullest cycle of figurative painting (period VI, LC I/LM IA). The two painted rooms were set within the fortification wall, in a strategic position overlooking the bay and main entrance to the town. The basement had possible kitchen installations, and the large painted rooms above may have functioned as banqueting halls. Access to the rooms was controlled. The miniatures decorated the southern room (N.20), plant panels the northern (N.18). A dividing wall is inferred from differences in the floor plaster.

The plant panels show bramble (blackberry) leaves with berries in places suggesting late summer, and (?) myrtle, without flowers or berries (which are over by late summer). Both plants have medicinal uses. An associated composition shows large reeds and grasses.

The miniature paintings have a yellow background. Landscape is uniquely varied, with sea as a major element, marsh, river, multicoloured rocks and various plants. The buildings (N and E walls) are on two scales: larger, simpler structures; and small scale with features (windows, beams, stone markings, etc.). Some have domes, which, judging by modern parallels, could have been cooling devices. At one point in the composition, a woman walks along a (?) bridge beneath houses next to a winding river with giant reeds. Around the houses at the top is a depiction of cloudy sky or sea beyond a peninsula.

Women are infrequently depicted: five in all, three associated with buildings, two in hide skirts running. In contrast, there are over 70 fragments with men. Some, wearing long white garments, seem to be in a procession, meeting; their gestures are varied and some hold pots on poles. Others, wearing tunics, appear to be dancing. Yet others, wearing shorts and tunics, meet by water and rocks, gesturing to each other.

A scene with men, wearing loin-cloths, leaning over cauldrons next to a large building with sea below, seems to be a focal point for much of the activity (E or S wall). The cauldrons have black marks indicative of fire and the men are presumably preparing a feast. The men holding pots in procession were to the left of this scene (E wall) while some way to the right was a hunter carrying a deer. In the sea were at least two ships. Features such as hull decoration (dolphins, star, festoon), (?) ship's cabin, and paddlers in a small boat, recall the Theran Ship Procession.

To the right of this scene (but facing the other way) was a chariot and horses (S wall). The hunter, on a slightly larger scale than the cauldron scene, came from the right of this (S or W wall). He wears a tunic and helmet and carries a spear. On a slightly larger scale again, is a related scene of fallow deer hunted by dogs (W wall). There is no associated landscape and it may have been a scene on its own.

Dogs, hunter, horses and chariot are all features of later Mycenaean palace painting, though here at Ayia Irini they are incorporated into a wider cycle of images.

The hunter walks away from the hunt scene and towards the chariot and cauldrons. The combination of deer hunt, hunter, chariot and cauldrons makes sense in terms of hunting for a feast, and the festive nature of the occasion is made clear by the procession and dancing and perhaps (as at Thera) the decorated ships.

In this respect, the context of the painted rooms is important, affording views over the bay and towards the entrance to the town. Ships in the bay would have been seen, as would (if the landscape were comparable to today's) a marsh and a (now dried up) river. It is suggested that the paintings depict a local festival with specific landmarks which relate to the surroundings. The season may have been late summer.

Miniature style painting, in which large numbers of people can be accommodated, appears to have been used specifically for the depictions of festivals. The Kean miniatures have close relationships with the Theran miniatures especially, but also with those of Tylissos and (to a lesser extent) Knossos. They were, however, executed by different artists. The particularization of the landscape suggests a cycle of images applicable to festivities of the local people.

9 February 1994

THE PALACE AT KNOSSOS AND ITS ADMINISTRATION DURING LM II–III

Jan Driessen

The toponyms in the Linear B tablets underline that Knossos had become the capital of a large Mycenaean kingdom of a size that Crete had never before known, requiring a proper administration and an army of officials. The question is whether sufficient evidence exists to postulate a fully-functioning bureaucracy at Knossos throughout its LM II–III occupation. Tablets, although obviously a sign of the existence of an administration and the presence of a powerful political institution, can occur in many contexts. If the Khania tablets are really contemporary with (some of) the Knossos tablets, were they made by a Knossian working at Kydonia or rather a Kydonian also working at Knossos? A political power present at Knossos would surely manifest itself through the construction or renovation of public buildings, the palace then being the architectural manifestation of this political power. It would also imply the seat of an administrative body. If no such evidence exists, this may suggest that political control was not wielded from Knossos itself. Examination shows that there is evidence for the presence of a public authority for LM II–IIIA1 Knossos but not afterwards, when there are clear traces for such an authority elsewhere on the island (A. Triada, Tylissos, Kommos). In LM II–IIIA1, only Knossos of all Cretan sites shows obvious signs of construction as well as of public building. In LM IIIA2–IIIB Knossos, however, there is only evidence for cult practices: the shrine near the Stratigraphical Museum, in the Unexplored Mansion, the Palace, the Little Palace and the South-East House. The high number of Khania imports amongst the LM IIIB ceramic material may also be noted. Even if there were proof for some type of administration continuing in LM IIIB at Knossos, the only indications for any kind of power point to a religious institution and/or to Khania.

The many Palace Style vases and fresco fragments may be interpreted as re-deposited destruction debris, preceding a destruction in LM IIIA. This would explain why the Ephyraean goblet is conspicuously absent from some LM IIIA deposits but present amongst the material from the Area of the Cowboy Fresco, the Northern Entrance Passage, the kaselles of the Long Corridor, the S.E. House and the South Front. This, together with the destructions found elsewhere in the town, suggests a serious destruction of the entire site in LM II. The LM IIIA and IIIB pottery and the presence of some diagnostic deep bowls amongst the material from Royal Road, the Little Palace, the North-West House and from a late wall in the South Propylaeum and perhaps elsewhere in the palace suggests that large areas of Knossos remained occupied after a LM IIIA destruction until this mature stage, which is, in any case, later than the pottery associated with the Khania tablets. Knossos then seems to have suffered several destructions up to perhaps a temporary abandonment in the mature LM IIIB period.

The palace at Knossos is an immense building. On analogy with the different Late Bronze Age strata of the Unexplored Mansion, it is too simplistic to postulate a single date for the different destruction deposits encountered in the palace. No unanimously accepted deposit contains both tablets and pottery. Even if this had been the case, it does not necessarily imply that all documents would be dated. The identification of scribes responsible for tablets, found in different areas of the palace, has been regarded as proof that these rooms were destroyed in one and the same conflagration. Due to early excavation and recording techniques, however, we have no idea whether or not tablets found in the same room but by different scribes should really be seen as representing a single deposit. Moreover, isolated Linear B fragments, isolated palmleaf tablets or even small groups of tablet fragments, dealing with different matters and written by different scribes, must be approached with care: their archaeological and epigraphical use is limited since they could have been involved in cleaning or levelling operations. Only very concentrated tablet deposits, either *in situ* or very close to their original situation, have good administrative and chronological value. A proper pinacological, linguistic, palaeographical and textual analysis must be undertaken in order to find out whether the deposit is homogeneous or contaminated. It is only once all deposits are studied in this way that an attempt can be made to consider the unity of archives.

Likewise, sealings are not proof of contemporaneity since a bureaucrat manipulating sealings and tablets may have inherited both the function and its insignia from a predecessor. Sealing shapes, however, are useful to pinpoint similarities and differences amongst the different deposits. They rather underline the absence of uniformity between the different deposits.

The obvious palaeographical differences between the Knossian scribes allow a rough classification into progressive, conservative and hybrid scribal hands, depending on the similarities of their palaeography with Linear A or with mainland Linear B. The spatial distribution of these three classes throughout the palace may partly have chronological implications.

Despite the use of an almost fossilized administrative language, some linguistic differences occurring among the Knossian scribes may also help to differentiate between the various tablet deposits.

The dispersion of tablets throughout the palace at Knossos has often been regarded as reflecting a division in tasks with some tablets suggestive of the actual recording and control of goods and other tablets reflecting the mere storing of information. Such spatial distribution, together with the duplication of topics in different areas could, however, also be due to the partial and diachronic occupation of the building with the administration

successively using specific areas of the palace, moving to another part after localized destructions or changes in the access or communication routes within the complex.

The site of Knossos had a tumultuous Late Minoan history: there is no reason why its palace and tablets should not have had a similar history. More inter-disciplinary studies of the Linear B deposits may lead to the conclusion that the tablets can indeed be used for the reconstruction of a diachronic picture of the administration rather than for a freeze-frame situation.

9 March 1994

THE GODS IN HOMER AND IN LINEAR B

Naoko Yamagata

Despite the observed linguistic and cultural links between Homeric and Linear B texts, scholars have been reluctant to make bold comparisons between the two. It is particularly true in the study of Mycenaean and Homeric religions where few scholars are prepared to go beyond pointing out corresponding names in Homer and Linear B texts and speculating that Potnia was possibly the most important deity (or a class of deities) in the Mycenaean pantheon.

As we are dealing with two very different sorts of texts composed for very different purposes, caution is necessary. But have we not been too cautious to ask what contributions Homer could make in speculations concerning the nature of Mycenaean gods, *if* there is any justification at all in identifying the Mycenaean gods with their Homeric counterparts? The only clue to the nature of the gods which we can obtain from the Linear B tablets is what objects people at that time thought fit to offer to them. By examining what sort of gods received such offerings in later ages, can we not perhaps probe into the nature of the Mycenaean gods?

Admittedly Homer is not a particularly suitable reporter for this purpose, because his poems do not necessarily reflect actual religious practice at any actual historical time. However, the data which he offers are interesting and deserve attention. In Homer, the only sort of offerings that the gods receive from humans are animal sacrifice and wine libation. In Linear B documents, the latter seems attested in both mainland Greece and Crete, and the former is attested so far only on the mainland. The most striking parallel is the *suouetaurilia* offered to Poseidon in *Od.* 11.131 and PY Un 6. However, the parallel is not exact for the Pylos tablet further lists wool and unguent (ἄλειφαρ) among the offerings, while Homer never describes these items being offered to deities. These are not the only items 'missing' from Homer's list; cheese, honey and oil, which appear among the offerings to the gods in Linear B texts, are never offered to the Homeric gods.

The matter appears even more complicated when we observe where in Homer these items do occur, i.e. in the rituals for the dead. Patroclus's body is washed with warm water and then annointed with oil and unguent (*Il.* 18.349–51), and jars of unguent and honey are added to his funeral pyre as offerings (23.170–1). Achilles' body also is prepared with warm water and unguent (*Od.* 24.44–5) and burnt on the pyre with offerings including unguent and honey (67–8), and his bones are stored in a jar with wine and unguent (72–3). Cheese admittedly never appears in religious rituals in Homer, but milk does in Odysseus' offering to the dead which begins with the libation of the mixture

of honey and milk (*Od.* 11.27 *μελίκρητον*). It is also remarkable that human sacrifice, which may be referred to in PY Tn 316, is paralleled only at Patroclus' funeral in Homer.

The overall impression is that the gods in Linear B documents appear to be treated in a similar way to the dead in Homer. Considering that in later ages honey was particularly associated with the cult of the dead and chthonic deities and oil was commonly offered to the dead, it is tempting to speculate that the gods in Linear B documents were more suitably associated with the earth and underworld than the highest mountain and sky. The name Erinys which occurs in KN Fp 1 seems to enhance this view. However, we must admit that the offerings of honey, oil, and unguent must have been the norm at the time, especially in Crete, whatever gods they were intended for. Therefore it is more sensible to interpret it as old-fashioned cult practice which survived mostly in connection with the cult of the dead and of 'old-fashioned' gods. It may be that the more heavenly gods of Homer no longer enjoyed this Mycenaean practice, either because it was not current at the time or the place that the poet knew or knew about, or he simply did not think it fit to be described in his poems. It is impossible to draw any decisive conclusion, but if any link between the Mycenaean pantheon and the Homeric counterpart can ever be established, it seems probable that it is through the chthonic characteristics which many of the Homeric gods do appear to have (e.g. *Ζεὺς καταχθόνιος*) despite the poet's tendency to suppress them.

20 April 1994

MYCENAEAN STUDIES DAY

This day of special lectures marked the fortieth anniversary of the Mycenaean Seminar. Edited versions of the papers presented by Katie Demakopoulou and Harmut Matthäus appear elsewhere in this issue of the *Bulletin*; a summary of Robert Laffineur's lecture appears below.

INTERCONNECTIONS IN THE AEGEAN AND THE EASTERN MEDITERRANEAN IN THE SHAFT GRAVE PERIOD *

Robert Laffineur

> There is not a great deal of material in the Aegean, and none beyond it, that can be suggested to represent M.H. trade in the Late Phase... The range of these [LH I] exports extends to Kastri on Kythera, Miletus, Trianda on Rhodes, and perhaps Troy; in each case only one or two pieces have been found... Nothing of this type has been identified in Crete, Cyprus, and the Near East, where the "L.H. I" pieces reported have always proved, when published, to be L.H. IIA... the mainland was mainly a recipient of imports during the Shaft Graves period, and the activities of mainland traders cannot be shown to have extended eastwards beyond the Aegean.

This statement, quoted from O. Dickinson's *The Origins of Mycenaean Civilisation* (Göteborg 1977: 102), still remains essentially unchallenged today, even though somewhat more shaded opinions have been expressed since, e.g. by O. Negbi:

*For an expanded version of this paper see: R. Laffineur, 'Material and craftsmanship in the Mycenae Shaft Graves: imports vs local production', *Minos* 25–26 (1990–1991:1994) 245–95.

'...maritime connections between the Aegean, Cyprus and Levant during the latter part of the Shaft Graves period were more extensive than has been previously recognised' (*Temple University Aegean Symposium* 6, 1981: 46). The aim of the present paper is to have a closer look at the problem of the possible relations between mainland Greece and the eastern Mediterranean at the beginning of the Mycenaean period and suggest some additional evidence.

First comes the problem of the supply of raw materials, metals (silver, gold, copper and tin) as well as ivory, faience, glass, amber and semi-precious stones (for which the data from the Ulu Burun shipwreck are of exceptional importance).

The next question is that of imported objects: a close analysis of the most frequently cited examples, among which precious vases, shows that really foreign items are quite few in the Aegean (the gold plated alabaster vase 829 from shaft grave V at Mycenae is probably the only sure example). As far as the distinction between imports and local production is concerned, an extremely important remark is that the question of imports versus local production is too often considered in absolute terms as if the choice would be limited to the two extreme cases, between objects that have been manufactured locally and those that have been purchased abroad, whether by exchange or as a result of looting. The reality was no doubt much more complex and a careful distinction should be made not only between objects considered as a whole, but further between the different components in them, namely the material in which they have been made, the technique or techniques used for their manufacture, the shape in which they have been modelled, the eventual decoration which has been put on them, as well as its style and meaning. The possibility exists, for each of these components taken separately, and independently of the other components, either of a local or of a foreign origin. The two options are present in each component and finally give a far wider range of possibilities than the dichotomy of elementary nature referred to above.

As far as techniques are concerned, metal inlay appears as deriving most probably from a Near Eastern, more precisely Levantine influence. Since the inlaid bronze weapons and silver vases correspond to a technique previously unpractised on the Greek mainland and not attested in neighbouring areas in the Aegean, since the true antecedents of those items are known only in the Levantine area, since the technique is applied to items of distinctly local type manufactured locally, daggers and cups, and since the technical process requires long apprenticeship and perhaps years of practice to be used effectively and does not seem to have been learned in the normal course of trade relations, the only possible conclusion is that metal inlay has been initiated in mainland Greece by Levantine craftsmen travelling to the Aegean.

The eventual export of objects from the Aegean to the eastern Mediterranean is finally examined. The evidence is provided here by some of the silver vessels in the Tôd treasure. Their shape is distinctly transitional (an exact parallel for one of them is a gold kantharos uncovered in a tomb of the transitional period at Peristeria in the south-western Peloponnese) and indicates that their arrival in Egypt cannot have occurred as early as the reign of Amenemhat II. The Tôd treasure, consequently, does not seem to have been constituted as a whole at the same time and sealed as such under Amenemhat II; its content has probably rather been increased at several successive occasions, especially during the Shaft Grave period. The Tôd treasure seems at the same time to give evidence that precious objects of mainland manufacture reached Egypt — probably via the Levant — before the period of the earliest *Keftiu* representations in Egyptian tombs, i.e. before the reign of Hatshepsut.

11 May 1994

WATER SUPPLIES AND TOWN PLANNING: A VIEW FROM THE CYCLADES

Elizabeth Schofield

Urbanization depends on a system of water management, which includes both water supply and drainage. In Greece, where there is too little water for half the year, but often too much at once during the winter, it is a particular problem to secure enough for the dry season, while controlling the excess.

Fresh drinking water commonly comes from springs and wells. It often needs to be transported, but constitutes a small proportion of total water consumption. Collected rain water can be drunk, but is more suitable for bathing, cleaning, etc. Efficient collection and storage of rainwater from the roof in a domestic cistern could in theory support four people for a year, allowing the World Health Organization's recommended minimum of twenty litres per person per day. Finally, recycled water can also be used for some purposes, including irrigation.

An investigation of the technology of water management in the Bronze Age should start with the Cretan palaces, which reveal what Minoan hydraulic engineers could do. For a total water management system we must turn to Knossos, where running water was piped into the palace, and a complex drainage system may have collected rainwater for storage, and certainly evacuated it from the building. Creation and maintenance of the system was probably in the hands of a small specialist group of engineers, whose skills were not available elsewhere. The other palaces have nothing remotely comparable, although the palace at Zakros incorporates some sophisticated architectural units designed to supply water from the source.

Minoan provincial towns have produced little evidence for water supply. At Palaikastro, regarded as a model of town planning, only two wells have been found, one incorporated within Building 5, the other in a corner of the courtyard adjacent to House B. Their locations suggest the possibility of controlled public access to either or both of the wells.

At Gournia, a much smaller town, no wells are reported. Much of the water (at least 14,000 litres daily for a population of perhaps 700) must have been carried in from outside. The steep, narrow, cobbled streets would have made this task much harder than at Palaikastro.

There is little sign that Minoan towns were planned with a water supply in mind, though there is careful provision for drainage. Nor is there compelling evidence for systematic collection of rainwater, although individual houses are likely to have collected a certain amount, sometimes in simple impluvia, sometimes perhaps in vessels placed in open courtyards. Securing the domestic water supply was a private matter for individual households, almost certainly a female responsibility. Designing and constructing drainage systems, both to protect one's own property and to safeguard the town, was a masculine and communal concern. Hence, drainage plays a large part in Minoan town planning, but public water supplies hardly figure at all.

Some Cycladic towns likewise reveal much concern for drainage, but little for water supply. At Akrotiri on Thera, there is plenty of evidence for the domestic use of water, but no source has yet been found. Unlike Crete, houses do not incorporate open unroofed space, so that any collection of rainwater must have been undertaken outside the buildings.

At Phylakopi, certainly a planned town, one well is known, in the courtyard in front of the Mycenaean megaron. The location, in the one large open space in the town, suggests it may have been publicly accessible, but with controlled access. It is not clear whether the well existed earlier, in the open space in front of the LC I mansion. Ayia Irini on Kea has one known source of water on the peninsula. This spring was used in Early Cycladic times, abandoned in the Middle Bronze Age (presumably it was contaminated or had run dry), and revived in Late Cycladic I/II, when the Spring Chamber was built. In all phases when the spring was active, there is evidence of careful planning of the western sector of the site in order to provide access. Small though it is, Ayia Irini is an unusually well-planned town.

12 October 1994

FROM PALACE TO POLIS? RELIGIOUS DEVELOPMENTS ON THE GREEK MAINLAND DURING THE LATE BRONZE/EARLY IRON AGE TRANSITION

Catherine Morgan

This paper documents cult developments on the Greek mainland from LH IIIC to EPG, focusing on evidence from Isthmia, Kalapodi, Olympia, Amyklai and the several shrines of the Argolid, as part of a broader discussion of the role and operation of ritual tradition (the acquisition and transmission of cult knowledge). None of the shrines which continue into the protogeometric period can at present be dated earlier than LH IIIB2; thereafter, it is suggested that there are two main stages in the material development of the mainland shrines from the immediate post-palatial period to the beginning of the ninth century. The first involves a shift in site location which seems likely to echo changes in local power structures and also to reflect a deliberate choice of cult as mechanism for communication within communities. It may thus be seen as the start of a process of re-appraisal of community identity as palatial authority crumbled and shifted, and regions became more isolated. In so far as it is possible to generalize about the nature of activity during this period, it centres on dining and sacrifice, with relatively little attention being paid to the dedication of votives. The second, which is not evident until the late 10th century at the earliest, involved a real change in material practice and wealth investment, and centres on the dedication of metal (with the diversion of certain bronze types, such as tripods and figurines, almost exclusively to cult).

9 November 1994

THE DESTRUCTION DATE OF THE LITTLE PALACE AT KNOSSOS: LATE MINOAN IIIA OR LATE MINOAN IIIB? *

Eleni Hatzaki

The purpose of this paper is to re-examine the stratigraphical, architectural and ceramic evidence from the Little Palace (LP) at Knossos in order to assign a date to the fire destruction, which baked hard and, as a result, preserved a small number of tablets in the Linear B script and over a hundred sealstone impressions preserved in lumps of clay. The latter were found scattered within the earth fill on the ground floor of several rooms, which had been re-modelled, prior to this fire destruction.[1] In early publications on the LP, Evans, who based himself extensively on Mackenzie's notebooks, ascribed the destruction deposits to the Re-occupation period. However, in later years he re-assigned these deposits, without any stated reasons, to the Last Palace Period.[2]

The excavation notebooks reveal that Mackenzie often dated walls or other architectural features according to their quality of construction or general appearance. Thus it was felt that the rubble and plaster partitions in the north-east part of the LP reflected the inferior standards of the last LP occupants and consequently were assigned to the Re-occupation period.[3] Furthermore, Evans' and Mackenzie's understanding of the local ceramic sequence was at an early stage of development, as a result of which comments on LM III or Re-occupation period pottery may equally be referring to what we today identify as LM IIIA or LM IIIB.[4] Consequently the date of this destruction can not be defined from the excavation notebooks, especially since not a single vase was reported from those parts of the building which produced deposits of sealings.[5]

To summarize, the following observations can be made regarding the LP: in a part of Knossos where dense Minoan and post-Minoan occupation has been observed, the site's stratigraphy was oversimplified by the excavation method, in which only burned levels were identified as Minoan. The scattered distribution of the sealings in eight different rooms, one of which was completely inaccessible from the ground floor, suggests that these had fallen from the upper floor, which was fully in use at the time, together with various upper floor architectural features, such as a column base, gypsum paving and doorjambs.[6] Furthermore, the contents of the so-called Fetish Shrine, which were found

*This paper is based on a section of my thesis: E. Hatzaki, 'The Little Palace at Knossos: re-examination' (unpublished DPhil thesis, Oxford 1994).

[1] For the LP sealings and their distribution see M.A.V. Gill, 'The Knossos sealings: provenance and identification', *BSA* 60 (1965) 85–91 and esp. fig. 3 II. The architectural modifications observed by Evans and Mackenzie can be seen on J. Boardman, *On the Knossos Tablets* (Oxford 1963) 62, fig. 12.

[2] Cf. A.J. Evans, 'The Palace of Knossos and its dependencies. Provisional report for the year 1905; *BSA* 11 (1904–05) 6 and *PM* IV 599–600.

[3] Cf. L.R. Palmer and J. Boardman, *OKT* 136–38 and 61–67.

[4] This is best demonstrated by the LM IIIA pottery from the Royal Villa, which was incorrectly dated to the Re-occupation period, cf. A.J. Evans, 'The Palace of Knossos. Provisional report for the year 1903', *BSA* 9 (1902–03) 153, fig.92. For a more detailed discussion see M.R. Popham, *The Destruction of the Palace at Knossos*. SIMA 12 (Göteborg 1970) 20.

[5] '*Many plain LM III cups*' were marked on a pencil sketch-plan (*DM/DB* 2.v.05) which was reproduced in L.R. Palmer, *OKT* pl.xxvi. It should be noted that these are conical cups of an LM IA date.

[6] Cf. L.R. Palmer, *OKT* pl.xxvii.

together with sealings in two different ground floor rooms, must have fallen from the upper floor as well.[7] The nature of the architectural modifications, which seem to have been thin partitions resting on the paved ground floor, suggests that these were not in response to an earlier destruction within this part of the building.[8] Their purpose was to alter the circulation, lighting and subsequently, the function of the rooms in question. The quantities of early LM IIIA and LM IIIB pottery strongly suggest that the site was inhabited during each ceramic period, in both of which some event occurred, as a result of which stratified deposits were left behind.[9] The presence of LM IIIA and LM IIIB pottery from the same areas or rooms in the building implies that Mackenzie must have missed one of the two occupation levels. The stratigraphical possibilities are endless, especially since incomplete excavation notebooks and the fraction of the pottery preserved leaves much ground for speculation. However taking into account the manner in which the building was excavated, the architectural properties of the north-east part of the LP where wood was abundant, and the notebooks which show that once the burned earths were reached only one deposit was identified, I would like to suggest that the fire destruction should be associated with the early LM IIIA pottery. In such a case the nature and location of the subsequent LM IIIB occupation levels remains unknown. Most probably the upper courses of the LP walls were re-used, until the site was abandoned or destroyed by fire in LM IIIB.

[7] For a detailed presentation of the different stratigraphical possibilities in relation to the position of the so-called 'Fetish Shrine' see G.C. Gesell, *Town, Palace and House Cult in Minoan Crete.* SIMA 67 (Göteborg 1985) 93–94.

[8] One such example is the thin partition wall set above the east balustrade of the lustral basin visible in A.J. Evans, 'The tomb of the Double Axes and associated group, and the pillar rooms and ritual vessels of the "Little Palace" at Knossos', *Archaeologia* 65 (1913–14) 60, fig.74 and 62, fig.76

[9] Cf. Popham (n.4) 62–63, 108–09 figs.14–5, 111 fig.17, pl.2b-c, 3f, 6a, 42–44; and M.R. Popham, 'Some LM IIIB pottery from Knossos', *BSA* 65 (1970) 195–202.

17 November 1994

SPECIAL LECTURE

THE KHANIA REGION IN ANCIENT TIMES

Maria Andreadaki-Vlasaki

Until the middle of the 20th century, archaeological work in the western part of Crete was very limited; but by the 1960's, research began to become more intensive. Here we tried to show a general archaeological picture of the Khania region as it is being formed by the evidence offered by systematic and rescue excavations.

The neolithic sites are mostly caves in various points of the Khania region such as the town(s) of Khania, Akrotiri, Keramia and Kissamos.

The EM period starts with the arrival of new peoples on the island. EM settlements have been located or partly excavated at Nea Roumata — where a small tholos tomb is strongly reminiscent of contemporaneous Cycladic burials— Debla Varypetrou, Nopeghia, Sphakia and Gavdopoula. The most important site is the coastal settlement of Khania itself with its centre on the Kastelli hill. In the MM period this developed into a dynamic centre. During LM it was organized in squares with well-made constructions and rich houses. The archives of Linear A and B clay tablets imply a palatial centre here. In LM III Khania became a very important centre with Mycenaean, Cypriot, Phoenician, Italian and Egyptian imports. The local pottery workshop, known as the Kydonian workshop, was one of the best on the island. Other remarkable settlements are Nerokourou, Stylos, Samonas and Nopeghia. Quite a few LM III tombs are scattered around the region and three tombs have now been discovered at Maleme, Stylos and Phylaki.

Our knowledge of the Geometric period in the Khania region is limited. Most of the evidence comes from cemeteries (Pelekapina, Modhi, Gavalomouri, Vouves, Kavousi). The burials are mostly cremations but inhumations are not absent. They are accompanied by a large number of clay vessels as offerings.

In spite of little evidence for Geometric settlements, we know that city-states began to be established around that time. In the 5th century BC the cities seem to have been powerful. The 4th century and the Hellenistic period were the heyday of art in spite of civil unrest. Great prosperity is evident during the Roman occupation when impressive monuments were erected and many public works were executed.

The most important of these cities were: Kydonia, in the modern town of Khania; Aptera, to the south-east of Kydonia; Polyrrhenia, the most powerful city in the extreme west; Phalassarna, a considerable naval power; Kissamos, underneath the modern town of Kastelli Kissamou; Elyros, the most important city of Selino district; Lissos, Elyros' port, of great prestige due to its Aesculapium; and Tarrha, at the outlet of Samaria gorge.

7 December 1994

MYCENAEAN FORTIFICATIONS: DEFINING CYCLOPEAN AND A CONSIDERATION OF BUILDING PRACTICES

Claire Loader

A total of 132 Cyclopean walls have been reported in Greece; 85 of which occur on mainland Greece, the remaining 47 found in Crete, the Cyclades, the Ionian islands, the Dodecanese, Cyprus, Syria-Palestine and the Transjordan, Anatolia, and southern Europe. Yet few fit the definition of Cyclopean; many have been labelled as Cyclopean because they use large stones, but show no construction technique similar to a true Cyclopean stonework, and others are so poorly preserved that no architectural classification can be made. This has resulted in 27 mainland Greek walls being confirmed as Cyclopean.

These 27 confirmed walls studied typologically for similarities and differences in construction, date, and location in order to determine if an architectural style is favoured in a certain period or region, and different groups have been contrasted for architectural developments over time. The result is a typology where the structures divide into five distinct groups.

The stonework used to construct the walls has been broadly defined as being of large irregular-shaped blocks, commonly of local limestone, unworked or roughly dressed and assembled without mortar, but with small stones set in interstices. Unfortunately, this is the extent to which this masonry has been defined, leaving unanswered questions concerning the engineering of the walls and the amount of labour invested in the projects. Although contact with the Greek islands, Cyprus, and the Near East cannot be disputed, the evidence seems to suggest that the Cyclopean technique was a style specific to and originating on mainland Greece. It seems that the initial aim of Cyclopean masonry was to provide great structural and mechanical strength. Its popularity was the consequence of a desire to build strong monumental walls, not only to secure later administrative and religious centres but to display the wealth and domination of the ruling power. Although the size and structural arrangement presupposes that Cyclopean masonry was used for its strength, its appearance also suggests that it provided a means by which to convey the wealth and prosperity of the territory within which it was based. This does not imply that defence was not a consideration of the Mycenaeans, but that danger was by no means imminent. Cyclopean walls afforded good protection from potential assailants; however, they would have required many working hours and a large number of labourers to quarry, transport, and lay the stones, costs being inflated when stones were imported. Calculations made in considering resource availability demonstrate that fortifications exceeded all defensive requirements and were probably constructed to promote and strengthen the status of the state through a display of its wealth in large-scale building programmes.

11 January 1995

LATE CYPRIOT BURIALS: THE EVIDENCE FROM KALAVASOS-*AYIOS DHIMITRIOS* *

Louise Steel

Excavations by the *Vasilikos Valley Project* at the locality of *Ayios Dhimitrios*, near Kalavasos in southern Cyprus, have uncovered an important Late Cypriot settlement. The site occupies some 11.5 hectares. It was inhabited during LC IIC, and was abandoned before the end of the thirteenth century BC. There is no evidence for any LC IIIA activity at the site.

Seventeen tombs have been excavated to date at *Ayios Dhimitrios*. These range in date from LC IB/IIA to LC IIC, and are located in all the major areas of excavation. The first tombs to be excavated at *Ayios Dhimitrios* (Tombs 1–11) predated the occupation of the settlement, impying that the burials were not intramural, but formed a burial ground separate from the LC IB/IIA-B settlement, which has yet to be located. The latest burials in the more recently excavated tombs from the North-East Area (12–16), however, are contemporary with the LC IIC occupation of *Ayios Dhimitrios*. These were found in a line beneath the major north-south road connecting the North-East Area with the domestic structures in the southern part of the site.

The tombs conform to the typical LC type of rock-cut chamber tomb, with an oval or bilobate chamber accessed through a vertical, square dromos to the side of the chamber. The provision of one or two rock-carved benches was noted in the North-East Area tombs (11,13,14). Also noted in this area was the use of a single dromos, servicing two chambers, a large main chamber to the north and a smaller chamber or niche, which appear to have been reserved for the remains of infants. The typical rite was inhumation and the body was placed in an extended dorsal position directly on the floor or the bench.

A fine selection of grave goods accompanied the burials. The pottery found in the tombs is quite distinct from that of the usual domestic/settlement assemblage and, though the quantities of specific wares vary between tomb groups, fine wares (Base Ring, White Slip, Red Lustrous and Mycenaean imports) predominate. The choice of vessels deposited was standard. Typical grave offerings were the WS hemispherical bowl and BR carinated cup. The WS II krater from Tomb 14, is unusual for its bichrome pictorial decoration, with opposed birds flanking a stylized palm tree. An interesting feature of Tombs 13 and 14 is the occurrence of large BR I jugs, some 50 cm high, that would traditionally be considered somewhat earlier than the other vessels in the tomb. The Red Lustrous and Mycenaean wares were primarily used as containers of slow-pouring liquids — perhaps explicitly associated with the funerary ritual. Mycenaean drinking sets, comprising cups, bowls and kraters were restricted to the wealthier tombs of the North-East Area (in particular to 11,13,14).

The tombs were equipped with a fine range of other grave goods in different media. The North-East Area tombs were particularly well equipped and illustrate the luxuries to which the elite group had access. These include an impressive collection of gold jewellery, ivories (including the torso of a figurine), faience and alabaster vases, a gaming board, and a silver Hittite figurine.

*Tomb 17, which was discovered during the 1995 season, is not included in this discussion.

The recently excavated tombs at *Ayios Dhimitrios* are important for assessing the prominence of the site in the LC period, and reflect the wealth and sophistication of Late Bronze Age Cyprus.

8 February 1995

COMMERCE, IRON AND IDEOLOGY IN THE EASTERN MEDITERRANEAN, 1200–700 BC*

Susan Sherratt

There are two aspects of early utilitarian iron use which pose particularly intriguing problems. One is why it started when it did (in Cyprus in the 12th century BC). The other is the determined lack of heroic iron weaponry in the Homeric epics, despite Homeric references to iron in a variety of other material cultural contexts. In an attempt to get these two problems to meet in the middle, I argue that utilitarian iron (initially in the form of knives) was developed on Cyprus around 1200 BC as part of a process of progressive commercial diversification which involved the creation and stimulation of markets for goods with a high value-added element. The decentralized, commercial context in which utilitarian iron was introduced into the Aegean from the east in the 12th and subsequent centuries resulted in stresses, which eventually found expression in an element of ideological iron weapon rejection in the later 8th century, at a time when Greece was engaged in constructing its own distinct, panhellenic identity.

*A paper on which the seminar is based is published in V. Karageorghis (ed.), *Cyprus in the 11th century* (Nicosia, 1994) 59–106.

8 March 1995

RECENT EXCAVATIONS AT PALAIKASTRO 1986–1994: PROMINENT PROBLEMS AND POSSIBLE SOLUTIONS

J.A. MacGillivray and L.H. Sackett

The British School at Athens has conducted six excavation seasons interspersed with three major and several minor study and consolidation seasons from 1986 to 1994 at Palaikastro on Crete. The archaeological investigations are sponsored by the Institute for Aegean Prehistory and the British Academy, and directed by J.A. MacGillivray and L.H. Sackett. Among numerous issues addressed by the research programme, five were selected for discussion with the Mycenaean Seminar:

1. *The timing of the Minoan eruption on Thera and its effects on Crete.*

Traces of volcanic ash from what seems to have been the Minoan eruption of Thera have been found in open areas in and adjacent to Buildings 1, 5, and 7, and substantial deposits were noted in Building 6. They seem to represent airborne ash deposited either during or shortly before sustained rainfall, as they are preserved in thin, superimposed layers—like fine sediment. The clearest contexts are in Building 6. Here the ash came after the building was destroyed, when the latest pottery in use was in styles of the LM IA

period, and dismantled. This part of the site was then abandoned, so it is difficult to establish with certainty the *terminus ante quem* of the ash fall. An indication may be given by the stratigraphy on the north-east side of Building 7 where a lens of ash is superimposed by LM IA pottery. Unfortunately, here also we lack confidence as the deposit comprises sherd material and cannot be taken as a primary context. Our current opinion is that the ash came down during the LM IA period. Of interest is the evidence for a great deal of erosion due to water flowing through the streets of the town in quantities unforeseen by the building's architects. The evidence includes a rough stone buttress on the exposed north-west corner of Building 5, and the raised entrance and drain on the south side of Building 1 where a street fed traffic from the town centre toward the sea, ending in a drainage channel previously interpreted as our 'Harbour Road'.

2. *The evidence for the exploitation of water in urban sites.*

The discovery in 1994 of two wells in Building 6 has caused us to re-think the need for fresh water in Minoan Crete. The four wells now known from Palaikastro, including those in Block B and Building 5, seem to have been established during the LM IB period and not earlier. While it may be suggested that climatological change may have forced the inhabitants to search for new supplies, we might also consider a change in attitude toward water and the ground during the LM IB period; perhaps a consequence of the arrival of newcomers from the Greek mainland.

3. *The violent destructions at the end of the LM IB period and the problem of the arrival of the Greeks in Crete.*

There is evidence for two destruction horizons both containing ceramics in styles of the LM IB period in east Crete. We speculate that both were the results of human agency and related to similar events likened to war elsewhere in Crete. It may be that the second destruction took place when the Palace Style pottery of LM II was already in use at Knossos. The potters at Palaikastro continued to manufacture forms of the LM IB period into the LM II and III periods and did not make the forms commonly associated with central and west Crete, such as the champagne cup and kylix.

4. *The evidence for urban shrines and cult figures in Minoan Crete.*

The discovery of a chryselephantine statuette, called the Palaikastro 'Kouros', in a small court defined by Buildings 1, 3 and 5 and in a room directly off the court, has forced us to investigate the question of Minoan town shrines and to consider the possibility that one or more of the associated buildings had a religious character. We strongly suspect that the 'Kouros' was a cult statue and that its status as such may have been the reason it was defaced intentionally and scattered about the court. One of the reasons for a general absence of representational art prior to the LM IB period may be explained by the essentially aniconic cult of Neopalatial Crete prior to the arrival of the Greeks at that time. The same may be said for sacred architecture. Perhaps the wanton destruction of Buildings 1 and 5 and the smashing of the 'Kouros' should be viewed as a time of iconoclasm and revolt resulting from traditional elements in the population resisting changes brought in during the LM IB period. Shrines and human figurines became common in most buildings during the LM III period.

5. The need for consolidation and conservation of monuments for education and posterity.

We are currently researching ways of providing temporary shelters for fragile structures, such as Building 5. The presence of mud-brick and rammed earth walls and steps force us to consider a shelter scheme that we propose to combine with an educational display. We are also investigating ways of introducing a long-term management programme for the site.

29 March 1995

MINOANS AND HYKSOS: AEGEAN FRESCOES IN THE LEVANT *

Wolf-Dietrich Niemeier

When Sir Leonard Woolley found in Yarim Lim's palace of Alalakh VII fragments of wall frescoes 'identical in colouring, technique and style' to those in the Palace of Minos at Knossos, he concluded that 'there can be no doubt but that Crete owes the best of its...frescoes to the Asiatic mainland'. Woolley dated Alalakh VII to the 18th century BC. Meanwhile it was demonstrated that this date was too high and that Alalakh VII belongs in the 17th century BC. But still the Alalakh frescoes appeared to be distinctly older than their Cretan parallels, since Minoan representational frescoes started—according to the conventional chronology—in the 16th century BC. Nevertheless, I had always had problems with Woolley's theory. The *al fresco* technique of the Alalakh wall-paintings formed a completely isolated example in the Near East where the *al secco* technique was used almost exclusively until the Hellenistic period. However, in Crete the *al fresco* technique was used from ca. 2000 BC onwards, and the movement of the reeds on some of the fresco fragments from Yarim Lim's palace produces a completely Minoan and un-Near Eastern impression. Therefore, the Alalakh frescoes appeared to be an alien element in their cultural context. Since they were thought to be older than their Minoan parallels, they could not, however, be attributed to Minoan influence. Thus the Alalakh frescoes for a long time formed a kind of mystery to me.

This was the state of affairs in 1987, when the late A. Kempinski discovered a painted plaster floor in the Middle Bronze Age palace at Tel Kabri, Western Galilee. As he immediately realized, painted plaster floors are completely unknown in the Near East but form a characteristic feature of the Minoan and Mycenaean civilizations. Could Tel Kabri help to solve the mystery of the Alalakh frescoes? I readily accepted his invitation to join him as partner and together we conducted the Kabri excavations from 1989 to 1993.

The Great Hall of the palace at Tel Kabri with the painted plaster floor was completely excavated during the 1989 and 1990 seasons. Tests and analyses clearly demonstrated that the floor was painted in *al fresco* technique. The floor was painted with a grid pattern of red lines. The squares enclosed by this grid were painted with an imitation of the

*For preliminary reports on the Kabri floor and wall-painting cf. W.-D. Niemeier, 'Minoan artisans travelling overseas: the Alalakh frescoes and the painted plaster floor at Tel Kabri (Western Galilee)', in: R. Laffineur (ed.), *Thalassa: L'Égée préhistorique et la mèr=Aegaeum 7* (1991) 189–200; *idem*, 'Tel Kabri: Aegean fresco paintings in a Canaanite palace', in: S. Gitin (ed.) *Recent Excavations in Israel: A View to the West, AIA Colloquia and Conference Papers 1* (1995) 1–15. For the parallel phenomenon of warrior burials in the Levant and the Aegean cf.: P.M. Muhly, *Minoikós laxeutikós táphos ston Póro Irakleíou* (1992). An extended version of this paper will be published in: L. Morgan (ed.), *Aegean Wall Painting: Essays in Honour of Mark Cameron.*

marbling of gypsum slabs like that on dadoes at Knossos, Thera and Alalakh. In some parts of the floor, floral motifs are painted in the squares, yellow and dark blue crocus blossoms, chains of stylized iris blossoms of the characteristic Minoan so-called V–type and curved garlands of more 'naturalistic' iris blossoms. All these floral motifs have parallels in Minoan fresco-painting but are alien to the Canaanite iconography of that period. Thus the Kabri floor can give us an impression of lost plaster floors in Crete and throw new light on the origin of Mycenaean painted plaster floors.

In 1990 and 1991 we found more than 2300 fragments of wall-fresco on the doorway opening from the Great Hall to the north. Although the fragments were very tiny and few of them could be joined, we were able to ascertain that they come from a miniature fresco very similar to that from the West House at Akrotiri on Thera. We were able to distinguish the representations of a rocky shore, of houses constructed in ashlar masonry and with 'beams heads', of boats in the sea, and of a swallow flying in the air. Further fragments of the Kabri miniature fresco belonged to the representation of a winged griffin.

From 1991 onwards Minoan fresco fragments have been found in the Hyksos capital Avaris in the eastern part of the Nile Delta, in the ruins of a palace destroyed by Ahmose soon after the middle of the 16th century BC. The restoration and study of this rich fresco material is still at an early stage, but already there are important results. There are many typically Minoan motifs: bull-leaping and animal hunt scenes, labyrinth pattern, half rosette and triglyph motif etc.

In the spring of 1994 I was able to study the fresco fragments from Yarim Lim's palace at Alalakh VII in the Ashmolean Museum, Oxford. Their Minoan character was confirmed, and there are some new results. The twigs and foliage of a tree identified by Woolley on one of the fragments are in fact the 'Notched Plume' motif of a griffin's wings. The bull's horn of another fragment may have belonged to a bull-leaper's scene.

If we follow the traditional chronology of the Aegean Bronze Age, the Kabri miniature fresco is 50 to 100 years older than its counterpart at Akrotiri on Thera and the bull-leapers of the Avaris frescoes are 50 to 100 years older than the best Cretan parallels for them, the representations on gold rings — on their part certainly imitating greater art — known chiefly from seal impressions preserved by the LM IB destructions. This gives further evidence for the correctness of the new high chronology for the beginning of the Aegean Late Bronze Age as suggested by the radiocarbon dates fron Akrotiri and other evidence.

How can we explain the existence of Aegean frescoes in the Canaanite palaces of the Hyksos period? Since frescoes cannot be exported on board a ship, their existence at Alalakh, Tel Kabri and Avaris indicates travelling artists — not Syrian artists who travelled to Crete as Woolley had suggested but Aegean artists who travelled to the Levant and to Egypt. M. Bietak, the excavator of the Avaris frescoes has recently suggested that the dynastic marriage of a Hyksos ruler with a Knossian princess could explain the existence of the frescoes. The princess would have brought with her part of her princely household, among others also fresco painters. The ritual significance of the wall-paintings would point to the conclusion that Minoans lived in Avaris in close contact with the ruling class there and were able to pursue their own ritual life. The frescoes at Tel Kabri and Alalakh would reflect further dynastic marriages between the Canaanite and the Minoan world.

I am not convinced by that model, however. If Minoan princesses with their princely households had indeed come to the courts of Avaris, Tel Kabri, and Alalakh, we would expect at those sites finds of other Minoan artefacts beside the frescoes, i.e. Minoan

pottery and ritual objects. But not a single piece of Minoan pottery or other Minoan artefact has been found in the levels of the period of the frescoes. To explain the phenomenon of Aegean frescoes in the Levant during the Hyksos period, one has to look in another direction. In a tale in the mythological poetry of Ugarit, the goddess Anat sends the divine messenger, Qadesh wa-Amrur, over the sea by way of Byblos to the god of handicrafts, Kother wa-Hasis, about whom we read: 'And Kaphtor is the throne he sits on'. Kothar wa-Hasis is brought from Crete to build a splendid palace for the god Baal and to furnish it with precious objects of art. The frescoes of Alalakh, Tel Kabri and Avaris appear to demonstrate that —just as in the myth Kothar wa-Hasis was called from Crete to furnish the palaces of the deities with precious works of art — so in reality Aegean artisans were called to paint ceremonial rooms in Levantine palaces of the Hyksos period with ritual frescoes. This appears to indicate a very special relationship between the Canaanites of the Hyksos period and the Minoan sea empire which must have been more than mere trade relations. Also of interest in this connection is the cover of an alabaster pyxis with the cartouche of the Hyksos pharoah Khyan found in the palace at Knossos. Recently, P. Muhly has pointed to the parallel phenomenon of warrior burials in both regions which may also be understood in this context of close intercultural connections. The closer investigation of the very exciting problem of Aegean-Canaanite relations during Hyksos period will be the task of future research.

Ed. note. In addition to the paper summarized above, Professor Niemeier generously presented a brief illustrated account of his recent work at Miletus. In view of the importance of this material we are happy to include the following summary.

NEW EXCAVATIONS IN BRONZE AGE MILETUS 1994

Wolf-Dietrich Niemeier

During recent decades, Bronze Age Miletus has played an important role in the discussion on the characters of the 'Minoan thalassocracy' and the Mycenaean expansion in the Aegean. Moreover, Miletus — identified by several scholars with Millawanda of the Hittite texts — has been involved in the controversial discussions on the equation Ahhiyawa = Mycenaean Greece.

Earlier excavations at Bronze Age Miletus had left the following important questions unanswered:

1. When did Minoan influence start at Miletus: at the beginning of the New Palace Period or already during the Old Palace Period?
2. What is the character of the Minoan presence at Miletus? Is it a settlement colony, a governed colony or a community colony in K. Branigan's terminology?
3. When and how did Miletus become more Mycenaean rather than Minoan in culture?
4. What is the character of the Mycenaean presence at Miletus?
5. Is Miletus the Millawanda of the Hittite texts?
6. When and how did the Bronze Age settlement at Miletus end?
7. When did the re-settlement of Miletus happen: in the sub-Mycenaean or in the Protogeometric period, and from where did the new settlers come?

In the summer of 1994 I started new excavations with the goal of gathering as much data as possible in order to answer these questions.

Excavations were started on the Stadium Hill where P. Hommel excavated in 1971–73 a building complex identified by him as a Mycenaean megaron with an adjacent

courtyard which according to C. Mee (*AnatSt* 28 [1978] 136) possibly formed a 'palace'. However, as our excavation demonstrated, the building complex is not of Bronze Age date but probably formed part of an insula of the re-building of Miletus after the Persian destruction of 493 B.C.

We then moved to the area of the temple of Athena where abundant Bronze Age remnants had been already found in earlier excavations from the beginning of this century on. We started to dig to the south of these older excavations, underneath the Roman road running from east to west and to the south of it. Our hopes to excavate here undisturbed levels were only partly fulfilled. In most of the 4 x 4 m. squares we found down to more than 2 m. from the surface a refilling of (undocumented) earlier excavations containing pottery from all periods (Minoan to modern). Only in two adjacent squares we came upon the ruins of a Late Geometric House and a contemporary open courtyard just underneath the preserved foundation of the Roaman road. There we hope to dig undisturbed Late Bronze Age and Early Iron Age levels during future seasons.

In the last week of the season we finally reached undisturbed Bronze Age levels underneath the deep refillings. There the layers of the second and third building phases had been destroyed by the older excavations and we came directly on the destruction level of the first building phases with masses of conical cups, tripod cooking pots and other locally produced domestic ware vessels of Minoan types. Fragments of fine imported decorated ware from Crete date the destruction to the transition from LM IB to LM II. Further remarkable finds are fragments of wall frescoes (showing white lilies on red ground and the miniature representation of a landscape with a river and a griffin) and of an alabaster chalice of Minoan type.

As to the unanswered questions mentioned at the beginning we were able to gather some data concerning question 2. Of the categories of objects expressing Minoan influence and/or presence we have positive evidence for the following:

a) Pottery: we have found quantities of pottery of the characteristic Minoan kitchen kit. The percentage of Anatolian pottery is very low, not more than 2%.

b) Several clay loomweights of the standard Minoan type point to the existence of a Minoan-type textile industry.

c) The fragments of wall frescoes and of an alabaster chalice point to ritual of Minoan-type.

All this forms evidence for actual Minoan presence at Miletus, the exact character of which has to be clarified in further excavations.

10 May 1995

ANNIVERSARY MEETING

A COMPARATIVE LOOK AT MYCENAEAN ADMINISTRATION(S)

Cynthia W. Shelmerdine

The parenthesis in my title indicates the question addressed in this paper: do all Mycenaean kingdoms operate the same way, or can we detect differences, however subtle, between them? A number of factors come into play: the period when each palace was built, and the size and development of the area under its control, can be measured to some extent archaeologically; the tablets provide administrative details for another sort of comparison. The key points usually cited by anthropologists as indications of statehood are the development of writing, the construction of a palatial centre, complexity of social ranking, trade in prestige goods, and a state religion. On all the grounds usually cited as indications of statehood—the development of writing, the construction of a palatial centre, complexity of social ranking, trade in prestige goods, and a state religion—it seems clear that the Mycenaeans evolved to this level of social and political complexity during LH I–II. This paper summarizes the case for the first four of those criteria. It then goes on to consider the differences between the ways each palatial system may have differed in its development and methods of administration. Differences in kingdom size and settlement patterns reflect differences in the evolution of each area from the Middle Helladic period, as may variations in tomb types and the size and location of cemeteries. The various regions of Greece seem to have continued to develop differently during the Mycenaean period.

Despite obvious similarities in their administrative systems and terminology, the tablets reflect some of these more subtle differences. A tendency toward centralization of craftworking at Pylos contrasts with the more decentralized system at Knossos, which is likely to be a Minoan inheritance. The paper goes on to consider differences in how scribes are deployed among different administrative topics—the degree to which each specializes, and in general the way the tablets are grouped and stored. Again comparisons are easiest between the two largest archives. At Knossos a scribe is more likely to monitor several phases of an industry, such as the collection and distribution of aromatics. At Pylos, scribes may record the business of several different industries, but tasks within a department are more strictly divided than at Knossos—personnel records are handled separately from related work tablets, for example.

The paper also considers where groups of tablets are stored, as an indicator of administrative organization. Unlike Knossos, Pylos has a central archive coexisting with outlying departments. The paper identifies a new department associated with the Southwestern Building at Pylos. It is concerned with the textiles *146 and *166+WE, which are both kinds of cloth manufactured outside of the normal palace textile industry, and mentioned in different tablet contexts from cloth production under direct palatial supervision. The separate location of this department is consistent with the different administrative status of these textiles.

The paper closes by bringing Mycenae and Thebes briefly into the picture. For instance, in the House of the Oil Merchant and adjacent buildings one can see a pattern of goods being stored downstairs and administrative records related to them being kept upstairs in the same building, with no scribal overlap from house to house. It is not clear whether Mycenae also had a central archive in the palace proper, but the tablets from

these LH IIIB1 buildings cover the same topics as those from the Acropolis, which date to LH IIIB2, and indeed mirror the preoccupations of other palaces as well—oil, aromatics, textiles. They are much more likely to represent an outlying branch of the palatial administration than an independent enterprise.

16 May 1995

SPECIAL LECTURE

THE ARCHAEOLOGIAL BACKGROUND TO THE CYPRO-MINOAN SCRIPT

R.S. Merrillees

Numerous attempts have been made to decipher the Cypro-Minoan script since it was first identified as an indigenous Late Bronze Age writing system in Cyprus, but none has so far commanded scholarly acceptance because, *inter-alia*, the corpus of relevant material is too small. Furthermore the extant evidence needs critical re-editing, particularly with a view to determining what is most likely to be an intelligible inscription, and what is not.

Most studies have concentrated on the philological aspects of the Cypro-Minoan script at the expense of the archaeological and have not viewed the objects on which the signary occurs as artefacts as much as texts, to be treated accordingly. Classification of inscribed articles by shape and material shows that they are mostly newcomers to the Cypriot morphological and technical repertory and reinforces the argument in favour of an external derivation of the script.

Cretan Linear A remains the most plausible source of Cypro-Minoan writing, which is first reliably attested in the island around 1500 BC and continues until after 1050 BC. The inscribed terracotta tablets, clay and stone cylinders, terracotta balls, copper/bronze ingots, silver and copper/bronze bowls, pottery containers and other items of ivory, metal and stone, all bear witness to a widespread but low level of literacy in the Late Cypriot period, and may represent more than one language.

The process by which the Cypro-Minoan script came to be adopted and developed in Cyprus cannot be reconstructed on the basis of available evidence, but would have had to involve the movement of people between Crete, the presumed place of origin, and Cyprus. The possibility that the evolution took place in Cyprus is enhanced by the way the script conforms to local artistic canons, especially the apparent absence of pictograms, which feature in Linear A but have no antecedent in Cypriot pottery decoration, which rarely shows incised or painted animate motifs.

Determining what language might be rendered in the Cypro-Minoan script is made difficult not only by the lack of a sure bilingual but by the inconclusive nature of archaeological data where ethnic interpretation is concerned. There are nevertheless indicators which should be further explored. A re-used Old Babylonian cylinder seal with two columns of cuneiform text and one of Cypro-Minoan might provide some insight if all the inscriptions were engraved concurrently, and recent research into the Philia Culture of the Late Chalcolithic period suggests a substantial emigration from Anatolia to Cyprus in the mid-third millennium BC.

There are many epigraphic, material and contextual parallels between the evidence for Cypro-Minoan and the Classical Cypriot syllabary, which tends to suggest that one of the Bronze Age languages spoken in Cyprus was an ancestor of Eteocypriot. If any informed guess were to be hazarded as to the origin of this or another indigenous tongue used in the

Late Cypriot period, it would be that it is more likely to have belonged to a pre-Hittite family in the north than to linguistic groups in the east or the west.

24 May 1995

SOME 'NEW' MYCENAEAN ROADS AT MYCENAE: *Εὐρυάγυια Μυκήνη* *

John Lavery

It was suggested that Chantraine's account of *ἄγυια*(DELG) would allow a meaning 'with a wide road-system'. 'New' M roads were introduced, gaps in known ones filled, and the relations of both to the citadel established (Map 1).

M1—a section of small blocks opposite the Lion Gate continues east behind the guards' house as a huge ramp-style wall, and then onwards, with breaks, to the ruts; one length possibly originally 5 m wide. The gap between Dragonera and Voriki Diaselo is filled by a long stretch of ruined M–way east and just above the modern road. A continuation is traceable to below Stephani. Further kerb blocks N of Agionori, and kerb bed above Klenia take M1 to Tenea, and suggest that its function was to exploit the prime land in that area.

M2 was traced from Steffen beyond his point 345m (=*Ω*) to the north. A further 1200 m of M–way above A. Basileios takes the road down into the Zygouries-Kleonai plain.

A new road with many huge blocks relates point directly to the citadel via the Perseia area and an industrial suburb (quarries, clay, *phourno*, houses) at Palaiogalaro. This road *Rho* also passes a possible site for the *Ἄλσος*(Sacred Grove) of the Mycenaeans (Apollod II i 3f), and five cemeteries.

M3 runs from the ruts to Tsoungiza and Kleonai, connecting the Nemea valley with the citadel. A lower western branch, after passing a large 'mansion' (NE), crosses the *Kokoretza*, and inter alia, climbs to the commercial area of the Cyclopean Terrace Building.

A western Mycenaean road emerges in M6 running NW from Epano Pigadi, and probably south to the A. Georgios bridge and Heraion. It offers connections with the 37 km site, and via Limiko and the Kelossa with the M sites Hill 503, Phlious and Aidonia, so relating the Asopos basin with the citadel.

A second large 'mansion' on a northern extension, M6N, and two others by the A. Georgios bridge (SW and SE 'mansions') offer a circuit of vast storage space around the citadel.

Further western roads M7 to Chani (from the carpark) and Deiras (Argos), and M8 (Phichtia), offer wider prospects in the west.

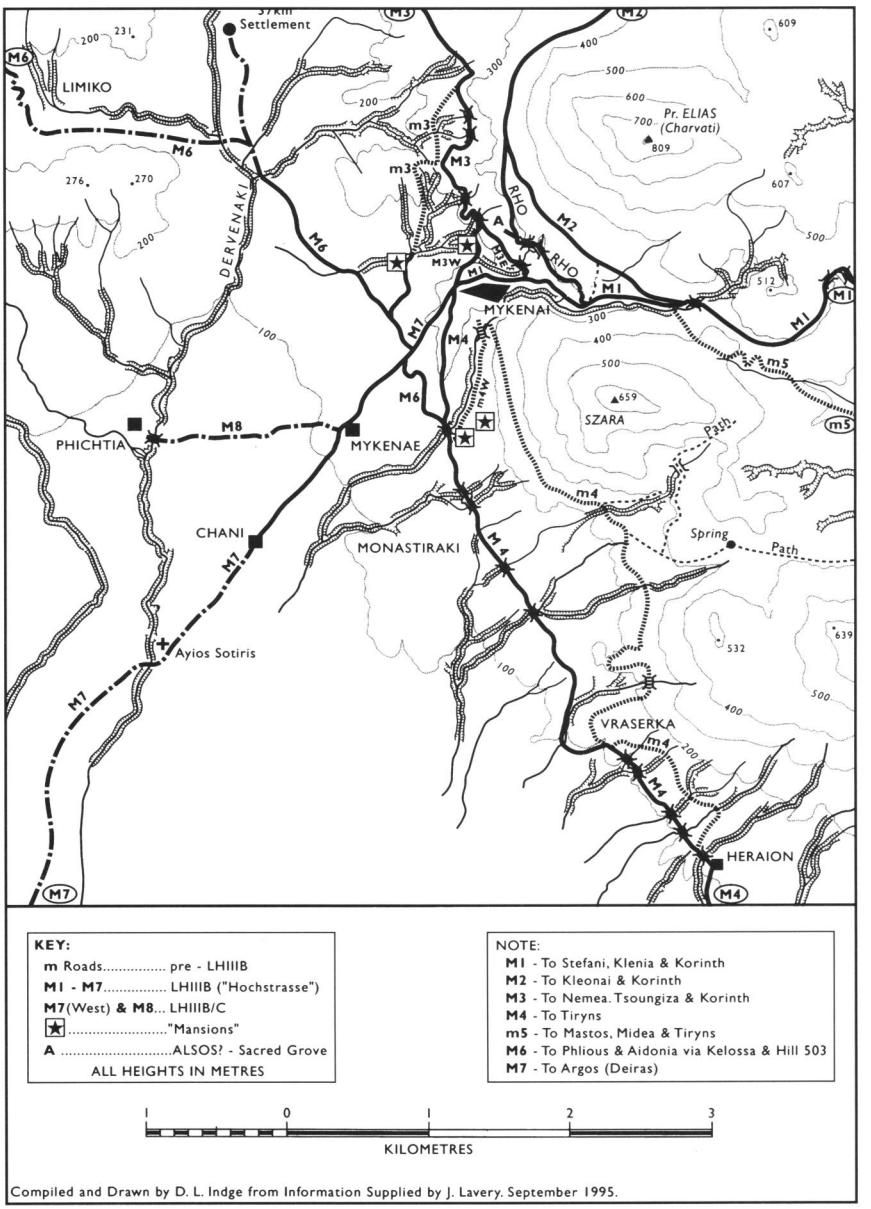
The Heraion road M4 is now established from the bridge at A. Georgios to the carpark area. A southern extension, visible via tracks, links the Heraion with Tiryns, and a similar extension of m5 (pre-LH IIIB), links the Berbati plain with that citadel.

*The doubts of Mee and Cavanagh (*BSA* 1990) whether M cemeteries 'were located where they could be served by roads' could not be supported. All M cemeteries at Mycenae are on M–ways, m-ways, or related to them by specific paths. Further south, the author found the Szara and Ptesia cemeteries while looking for m-4. Even the high Euboia chamber tombs are in the vicinity of the Cyclopean house ruins found by Steffen, 42, and related by him to the 'Tempel personal'. Tsountas was right when he observed that Mycenae cemeteries are *ὡς ἐπὶ τὸ πλεῖστον παρὰ τὰς λεοφορους* (*AE* 1888: 123). Only the Boliari chamber tomb, 2 km NW of the citadel, is not on a known road.

New characterization of the Tiryns casemates (38 in number) suggests further storage space. The possibility of Tiryns as a port was put forward, cf the beach market in Hdt I.1 ff; cf *ἐπακτία τιρύνθι* S. Tr. 1151.

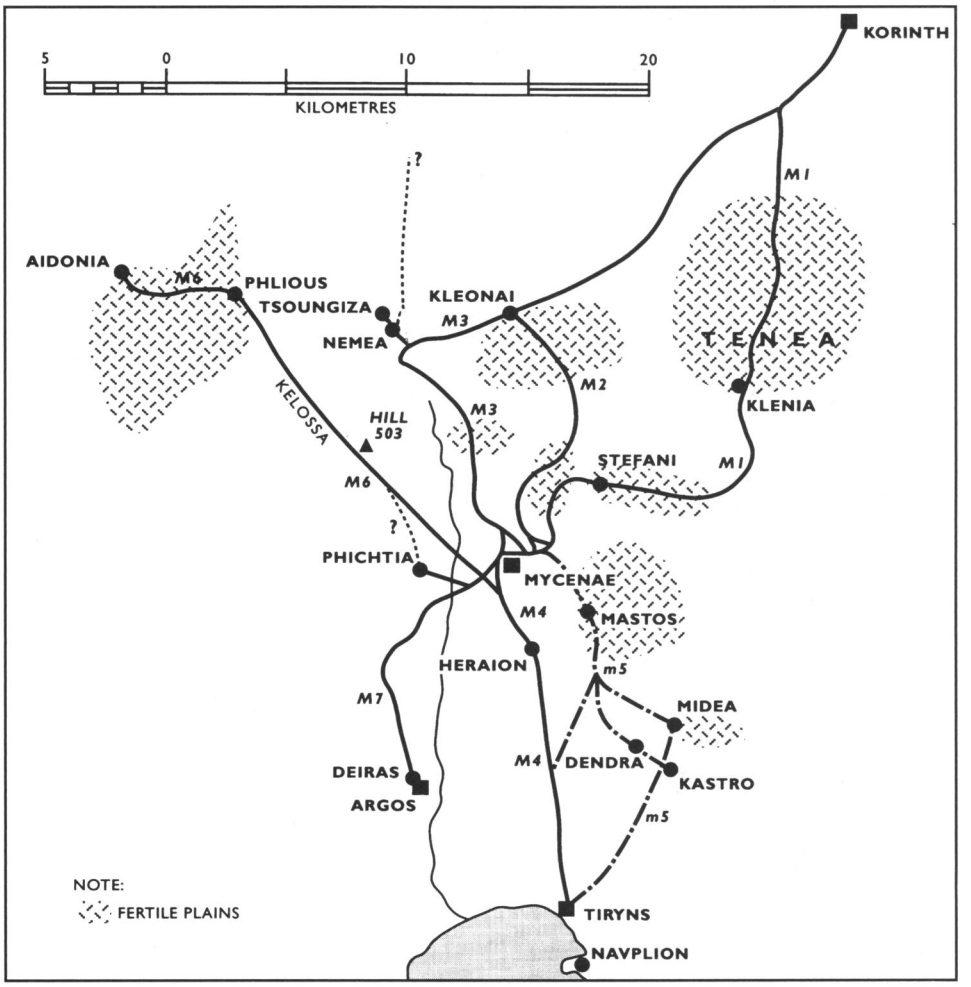
It was suggested that the M roads provided the land-locked but rich plains of Phlious, Nemea, Kleonai, Tenea and Berbati with access to the sea and the market (Map 2). Except for the last, they all pass through Mycenae with its storage 'mansions'. This suggests the possibility of some kind of confederacy beginning perhaps in late MH III, in which Mycenae was the clearing-house and Tiryns the outlet.

AN OUTLINE OF THE MYCENAEAN ROADS



MAP 1

MYCENAE, TIRYNS AND THE INLAND PLAINS



MAP 2