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Urbanism in the Aegean Bronze Age

Edited by
Keith Branigan

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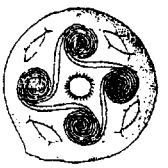

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Contents

Abbreviations

AAA	*Athens Annals of Archaeology*
ADelt	*Arkhaiologiko Deltion*
AE	*Arkhaiologiki Efimeris*
AEMTh	*To Arkhaiologiko Ergo sti Makedonia kai Thraki*
AJA	*American Journal of Archaeology*
AM	*Mitteilungen des Deutschen Archäologischen Instituts, Athenische Abteilung*
AR	*Archaeological Reports*
ASA	*Annuario della Scuola Archeologica di Atene*
BAM	*Beiträge zur Ur- und Frühgeschichtlichen Archäologie des Mittelmeer-Kulturraumes*
BAR	*British Archaeological Reports*
BCH	*Bulletin de Correspondance Hellénique*
BICS	*Bulletin of the Institute of Classical Studies of the University of London*
BSA	*Annual of the British School at Athens*
CAJ	*Cambridge Archaeological Journal*
CMS	*Corpus der minoischen und mykenischen Siegeln*
CP	*Classical Philology*
CQ	*Classical Quarterly*
Ergon	*To Ergon tis Arkhaiologikis Etairias*
G&R	*Greece and Rome*
JAS	*Journal of Archaeological Science*
JHS	*Journal of Hellenic Studies*
JMA	*Journal of Mediterranean Archaeology*
Kr Chron	*Kritika Chronika*
OJA	*Oxford Journal of Archaeology*
PAE	*Praktika tis en Athinais Arkhaiologikis Etairias*
PBA	*Proceedings of the British Academy*
PCPS	*Proceedings of the Cambridge Philological Society*
SIMA	Studies in Mediterranean Archaeology
SMEA	*Studi Micenei ed Egeo-Anatolici*

Preface

Keith Branigan

The papers found in this volume were first presented at the fifth Round Table on Aegean Archaeology, held at Sheffield in January 2000. They were subsequently re-written, in the light of the intensive discussion and debate which they generated, for publication in this volume. Two contributors to the Round Table were unable, for various reasons, to contribute a chapter to the book, but they contributed fully to the discussions which informed the papers published here. We would like to acknowledge the contributions of Cyprian Broodbank and Vance Watrous, as well as the full part played by our principal discussant, Anthony Snodgrass.

Our Round Table was about urbanism, and so is this volume; it is not concerned with urbanisation. That is, we focus not on the process but rather on its end-product. This is partly because we did not want the discussion to drift from urbanisation to state-formation or the emergence of civilisation. Important and interesting as they are, these topics have been the centre of much debate in Aegean prehistory over the past thirty years, and they will be so again. The nature and character of Bronze Age towns, however, has seen much less discussion, particularly at a generalised level. Papers on prehistoric Aegean towns have largely focussed on their architecture, and particularly their elite or public architecture, and are often restricted to a single town or even a single building. The purpose of the Round Table was to direct attention and thought not only to urban settlements as a whole but to their social and economic roles, their demographic significance, and ultimately to their character or personality. These are, after all, what makes a town different to a village, and urban different to rural. They underpin the definition of a town which I offered the Round Table, and which I unashamedly admit is taken from the combined words of Louis Wirth (in 1938) and Bruce Trigger (in 1972): 'a relatively large, dense and permanent settlement of socially heterogeneous individuals, which performs specialist functions, of a non-agricultural type, in relationship to a broader hinterland'.

Whilst that definition can be seen to embrace a number of both Minoan and Mycenaean nucleated settlements, most Aegean prehistorians have long recognised that Minoan towns were in some respects quite different to those of contemporary mainland Greece. This was something that was brought out by our discussions, and indeed the differences were seen to be perhaps more wide-ranging than we had previously realised.

Minoan Urbanism

Todd Whitelaw rightly says that to understand Minoan urbanism we must first attempt to establish its scale in human terms, which means getting to grips with the difficult topic of population estimates. He presents probably the most carefully argued and thoughtful paper yet published on this topic (and an appendix provides some of the raw data for others to use in further research). Keith Branigan compares urban and rural populations and concludes that urbanism was a way of life for a very significant part of

the Minoan population, and that it was structured in a three-tier hierarchy. Jan Driessen, whilst accepting a similar hierarchical structure, uses the evidence provided by more than twenty regional surveys to argue that both settlement history and hierarchy varies from region to region. Tim Cunningham takes the arguement a stage further, with a detailed examination of urban settlements and their hinterlands in east Crete. He identifies local variability both in centre-periphery relations, and in the spatial organisation of towns. The same theme of temporal and regional variability is taken up by Ilse Schoep in her discussion of the urban-hinterland relationship as revealed in the archival evidence. She suggests that in Protopalatial Crete administrative documents are restricted to urban centres and 'public' buildings, whilst in the Neopalatial they are more widely distributed in town and country and appear in private as well as 'public' contexts. Her case studies suggest that urban-rural relationships may have been managed in different ways for different purposes in different times and places.

Overall, the papers on Minoan urbanism suggest that towns were a very significant part of Minoan life, demographically and socially as well as economically, but that the ways in which the urban-rural dialogue was articulated varied considerably from region to region, as well as from Protopalatial to Neopalatial.

Mycenaean Urbanism

The early stages of mainland urbanism have received little attention and Anastasia Dakouri-Hild's paper on Middle Helladic Thebes is therefore a particularly welcome contribution. She demonstrates that variability in both the density and architecture of domestic housing is a feature of this early town, and that changing social structures may be reflected in the development of the town through the Middle Helladic. One of the most obvious points of difference between Minoan and Mycenaean towns, the size of public spaces and courts, is taken up and explored from the Mycenaean viewpoint by William Cavanagh. Open spaces and courtyards in Mycenean towns have their own distinctive character and functions. They have little to do with public meeting places, but much to do with public ceremonial processions and progress. The ceremonial roads which lead from the courts, lead also beyond the urban centres to their rural hinterlands. John Cherry and Jack Davis explore the settlement of those hinterlands in an attempt to understand better what sustained the central places. Their case study of the Nemea valley reveals only a handful of other potential towns in the region of Mycenae, forming a second tier in the urban hierarchy. Below this there appear to be only villages, hamlets and farmsteads. John Bennett and Cynthia Shelmerdine, examining the case of Pylos and its nearest neighbours, are able to outline the growth of the nucleated settlements, and by relating the archaeological to the textual data, to suggest the way in which relationships between first and second rank centres may have developed. Stelios Andreou examines a very different region, in central Macedonia, where small-scale societies endured for millennia. In the Late Bronze Age a small number of significant nucleated settlements with features like perimeter walls, spatial organization, and acquisition of long-distance trade objects, were clearly the focus for social activity and the exercise of power. This is the sort of complexity we might associate with towns but should that term be applied to these Macedonian mounds?

Certainly, as we noted earlier, size is not everything when it comes to defining urbanism, the provision of social and economic services and amenities are essential features of towns. It is appropriate therefore that the volume begins with Christopher Mee's discussion of nucleation and dispersal in Neolithic and Early Bronze Age Laconia. He demonstrates that the growth of nucleated settlements alone neither announces the arrival of urbanism nor does it always necessarily prepare the way for it. But to explore how and why towns develop is not only a long and difficult task, it is also a different one to that which the fifth Round Table set itself.

Acknowledgment

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Nucleation and Dispersal in Neolithic and Early Helladic Laconia

Christopher Mee

Introduction

Urbanism does not simply reflect the size of the community under consideration but presupposes a certain level of organizational complexity as well—political, social and economic (Konsola 1986: 9–11; 1990: 463–71). The difficulty we face as archaeologists, and more particularly as survey archaeologists, is that size is often the only basis on which we can make inferences about the settlement hierarchy in a region. So it should be acknowledged that urbanism, *sensu stricto*, is not the theme of this paper. However, I will examine the issue of complexity in the Neolithic and Early Helladic periods. This is one of the principal objectives of the project which has recently been initiated at Kouphovouno, just south of Sparta. I intend to set the results of the first field season in the wider context of the Laconia Survey and the Laconia Rural Sites Project and to see whether the situation is comparable elsewhere in Laconia and the rest of the Peloponnese.

Kouphovouno

Kouphovouno (Figure 1.1) has been described by Waterhouse and Hope Simpson (1960: 74) as 'the most important Neolithic site in Laconia'. Von Vacano excavated here for two weeks in 1941. Most of his finds subsequently disappeared but those stored in Sparta Museum have been published by Josette Renard (1989). In 1999 we undertook an intensive survey of the site as the first stage of the project. Our approach was based on the techniques which had been developed for the Laconia Rural Sites Project (Cavanagh and Mee 1999).

A 250 by 250 m grid was laid out from the dry river-bed which forms the northern boundary of the site, and centred on the summit of the mound (Figure 1.2). The total area to be sampled was just over 6 ha, although 0.48 ha in the south-west and 0.9 ha in the north-west could not be treated because they were under cultivation. The size of the site and the quantity and quality of the finds led us to devise two methods for artefact collection. In the centre of the site 592 five metre squares, were sampled intensively. The team members were instructed to collect every artefact which they could see and to cut or brush aside the vegetation if necessary. As some of the squares were covered by tall grass or dense scrub, this was quite laborious and often painful. Around the periphery of the site the squares were combined into 20 m by 5 m units. The team swept across each of these units in close order but no attempt was made to cope with dense vegetation cover and so proportionately fewer artefacts were picked up. 214 units were recorded in this way.

Figure 1. 1 Kouphovouno

Neil Brodie supervised a gradiometer survey of the site. The variation in magnetic intensity was greatest around the centre of the mound, the core of the prehistoric settlement. Four areas of burnt earth, probably mudbrick or daub were identified but it is not yet clear whether the rectilinear outlines of these features relate to buried structures. Resistivity survey was also tried but proved less effective.

Nine 7.5 cm cores were drilled in a series of transects across the site. Eight of the cores went 5 m deep and one was taken down to 10 m. They were examined by Peter James and Alison Jones in the field and samples have been taken for analysis of fossil biogenic material, especially pollen and diatoms. The cores revealed an anthropogenic horizon which varies in depth from 55–400 cm and contains sherds, 'brick earth' and stone. Below this there is a layer of clay with sand and gravel beds or lenses. It would appear that the site was built on the floor of a drained lake, although a floodplain environment cannot as yet be ruled out. If there was a lake in the Holocene, it may well have stretched across the present Eurotas valley. Is this the origin of the story in Pausanias (3.1), that Eurotas, one of the first kings of Sparta, 'channelled the stagnant water from the plain down to the sea, and when it had drained away he called the river which was left there the Eurotas'?

Now that the pottery has been systematically studied, we know that Kouphovouno was occupied in the Middle Neolithic,

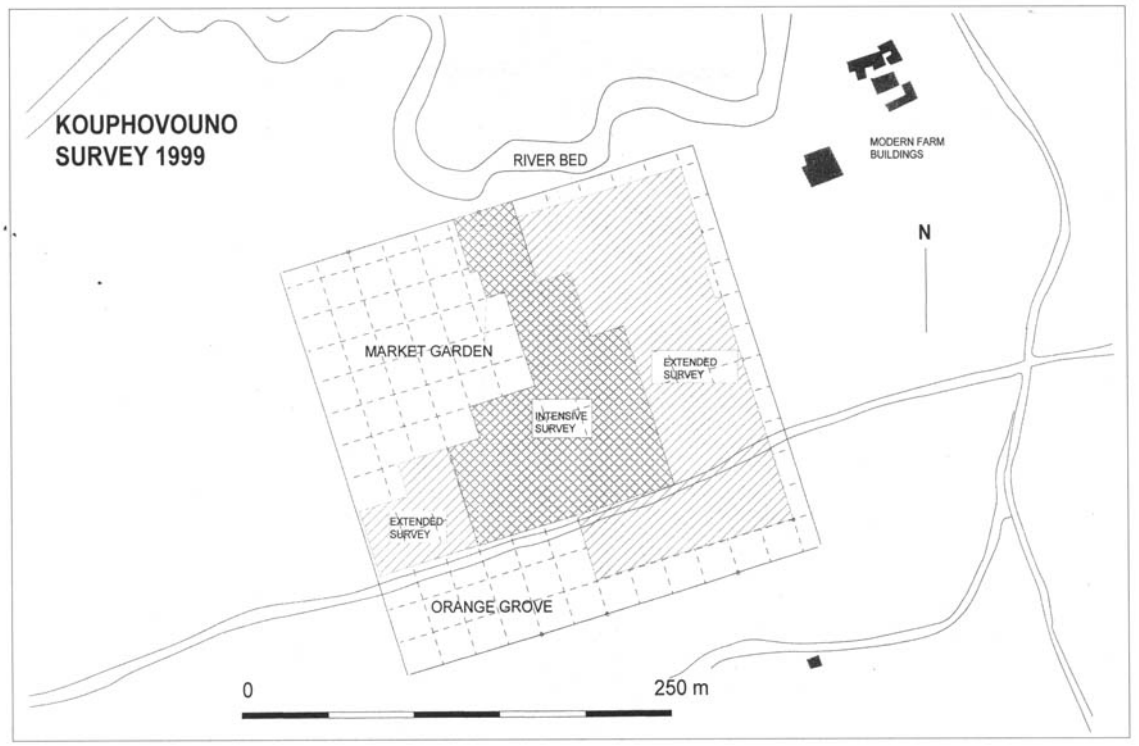


Figure 1.2 Kouphovouno: plan of site

Late–Final Neolithic and Early Helladic periods. There is also Middle Helladic and Mycenaean pottery, as well as Classical and Roman. The chipped stone artefacts have been examined by Anna Karabatsoli and Catherine Perlès. The date range indicated is Middle Neolithic–Early Helladic. We also found 147 polished stone tools—axes, adzes, hammers, querns, pounders, polishers and grinders. Obviously the extent of the site will have varied but our impression is that it covered at least 4 ha in the Neolithic and Early Helladic periods (Figures 1.3 and 1.4). It is of course possible that occupation was dispersed and shifted over time, as in the case of the enormous flat-extended Neolithic settlements in northern Greece (Kotsakis 1999: 67–9), although at the moment we do not think that this is likely because of the stratification revealed by the cores.

Neolithic Laconia

The evidence for the Neolithic period in Laconia is decidedly limited (Figure 1.5). Apart from Kouphovouno, the only other excavated sites are Diros (Shipley 1996: site 164), where the Alepotrypa cave was occupied in the Late Neolithic period, if not earlier (Papathanassopoulos 1996: 80–84) and the Kouveleiki caves at Alepochori near Geraki which have Late Neolithic and Final Neolithic deposits (Kontaxi 1994: 837–39; Kontaxi *et al.* 1989; Koumouzeli 1989; Stravopodi 1994: 835–37).

Neolithic is also reported from the Papayannakos caves at Goritsa-Laina (Hope-Simpson and Dickinson 1979: site C11/ Shipley 1996: site 97), at Asteri – Karaousi (C24/142), Ayios Stratigos – Glykovrisi (Papathanassopoulos 1996: 206), Apidia

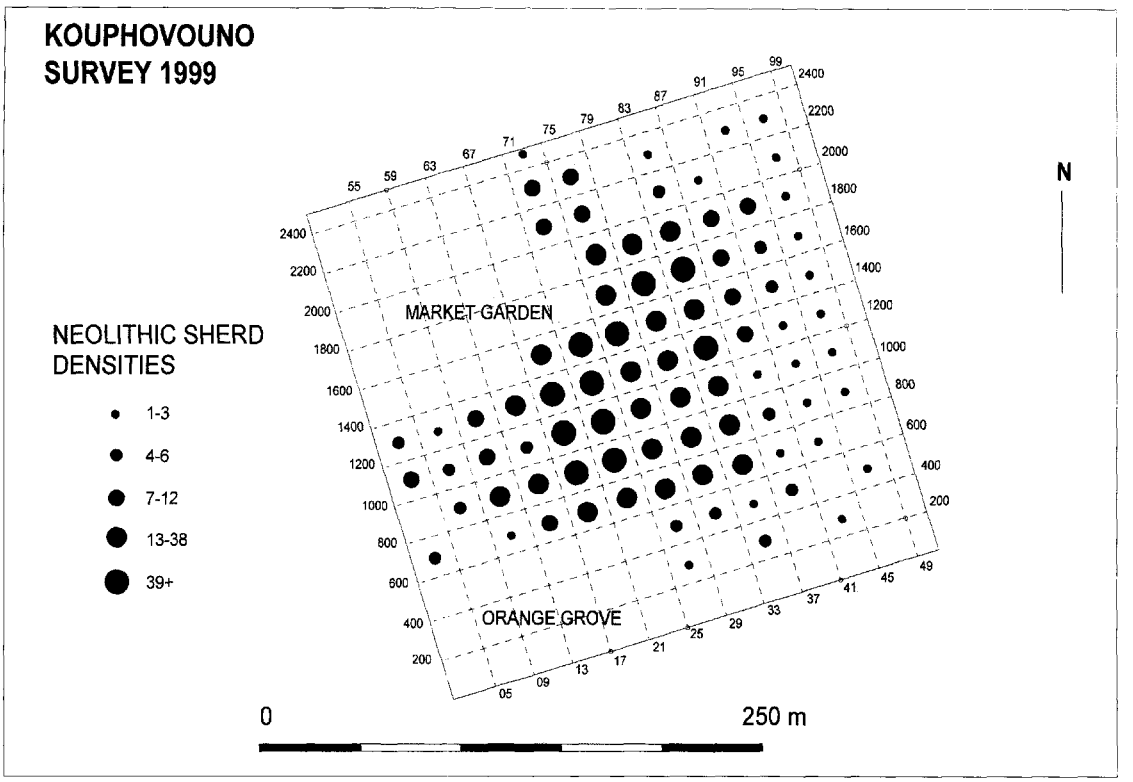


Figure 1.3 Kouphovouno: distribution of Neolithic pottery

(C29/216), Plitra – Goulas/Kastelli (C32/228), Kotronas – Skopas (C46/203) and a number of the sites identified by the Laconia Survey (Figure 1.6 and Table 1.1). In a recent paper, Cavanagh (1999: 34–7) lists twelve locations which have Final Neolithic finds but there is nothing earlier. Only E48 is an obvious settlement site with pottery, chipped stone artefacts and polished stone tools. At most of the other locations there were just chipped stone artefacts. The distribution of the sites is of interest, in that they are situated on some of the poorest soils in the region, in particular limestone outcrops which now have just a thin cover of *terra rossa*. Cavanagh (1999: 31) notes that elsewhere in the Peloponnese many Late and Final Neolithic sites are also in agriculturally marginal locations and there is an increase in the use of caves. He argues that this reflects a greater emphasis on pastoralism but not extended transhumance. To offset the risks inherent in this specialized strategy, there would have been exchange with communities which

Table 1.1 Laconia Survey: Neolithic Sites (bold indicates that Neolithic is the sole or main period of use). 10496 is a 'non-site'.

Site Number	Size (ha)	*LS* ii Reference
B111	6.00	325–8
B116	0.01	328
E48	0.6	339–40
E77	0.12	339
E81		340
L401	0.13	379–80
R429	0.41	408–9
T480	<0.01	421
T481	0.03	421
U487	0.1	424–5
U489	0.03	425–6
10496		1

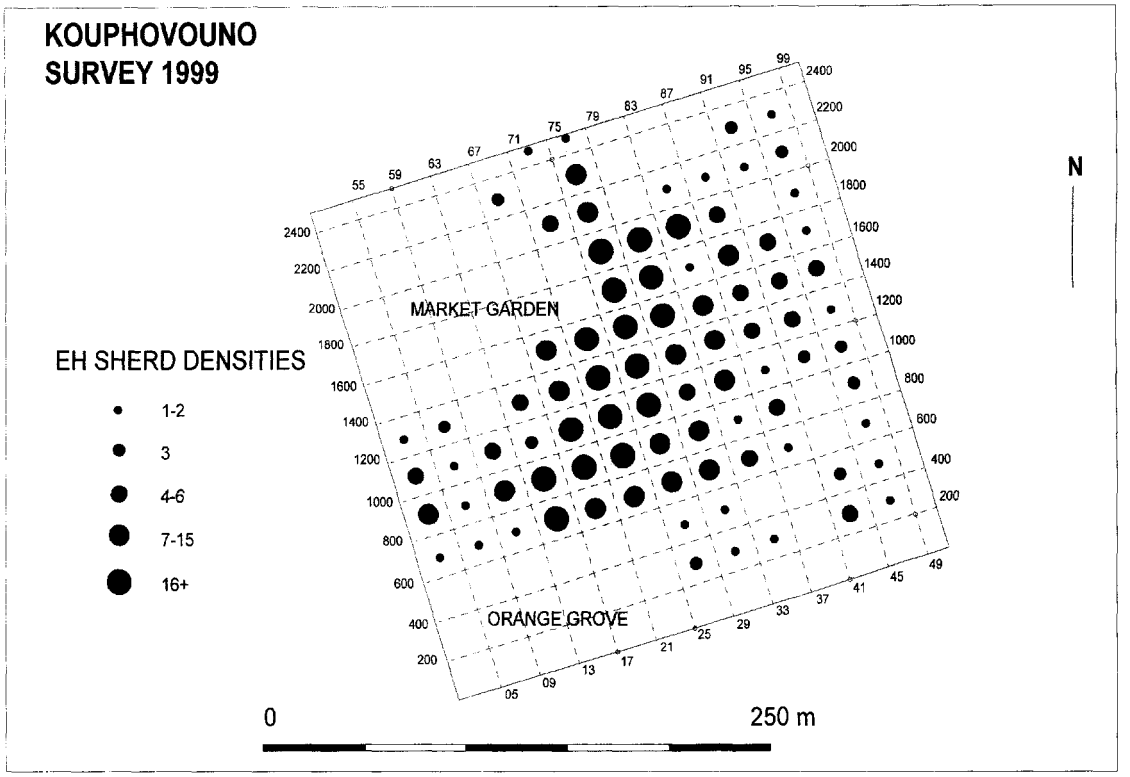


Figure 1.4 Kouphovouno: distribution of Early Helladic pottery

concentrated on crop cultivation (Cavanagh 1999: 52–8 and see also Perlès 1999a: 23–4).

It would appear that, for much of the Neolithic period, Kouphovouno was the only substantial settlement in central Laconia. Of course we must take into account the possible effects of erosion and alluviation, although the postglacial rise in sea-level is not a factor here (Jameson *et al.* 1994: 228–46; Zangger 1993: 65–67). Bintliff (1985: 212–15) has suggested that we might expect to find no more than 20% of the Neolithic sites which once existed. The assumption that there has been progressive site loss must be correct but how accurately this can be calculated is open to question. Moreover, it should be noted that there is a dramatic increase in the number of sites in the Early Helladic period, a development which I will discuss in due course. This disparity cannot easily be explained in terms of post-depositional processes. Why would so many Early Helladic sites have survived and so few Neolithic? Bintliff *et al.* (1999) believe that surveys may have overlooked prehistoric sites because much of the pottery is coarse and has not survived or has been missed. This may be true but it seems that a high proportion of the pottery produced in the Middle Neolithic period was in fact fine ware (Vitelli 1989; Perlès and Vitelli 1999: 98) which is more resilient and also quite distinctive.

The Neolithic Peloponnese

Across the Peloponnese Early and Middle Neolithic sites have proved remarkably elusive but an expansion in settlement is reported in the Late and/or Final Neolithic periods by the Pylos Regional Archaeological

Project, the Asea Valley Survey, the Berbati-Limnes Archaeological Survey and the Southern Argolid Exploration Project, although not in the case of the Nemea Valley Archaeological Project where there were fewer Late/Final Neolithic sites (Table 1.2). Nucleated Middle Neolithic settlements, like Kouphovouno, include Asea (Forsén 1996), Asea Valley site S16 (Forsén *et al.* 1996: 85), Ayioryitika (Petrakis 1992: 341), Lerna (Johnson 1996a: 276–77), Berbati-Limnes site FS400 (Johnson 1996b: 44–57), Tsoungiza (Wright *et al.* 1990: 624–25), and Corinth (Alram-Stern 1996: 222–29). Franchthi may have had a similar role (Alram-Stern 1996: 244–61) but it is difficult to estimate the original size of the site because of the rise in sea-level (Johnson 1996a: 280).

Johnson (1996a) has claimed that it was the need for a reliable water supply which determined site location in the north-east Peloponnese in the Early and Middle Neolithic periods. Early farmers, who were dependent on the use of the hoe until the introduction of the ard in the Final Neolithic or Early Helladic period, favoured 'well-watered alluvial soils of high potential for arable agriculture' which 'have a strictly limited distribution in southern Greece' (Johnson 1996a: 282–83). Van Andel and Runnels (1987: 70–73) have also stressed the importance of spring-fed agriculture at this time. If these communities were in fact environmentally circumscribed or constrained because of their reliance on restricted water resources and consequently could not split into smaller units, this would surely have led to the institution of some form of centralized organization to regulate access to resources.

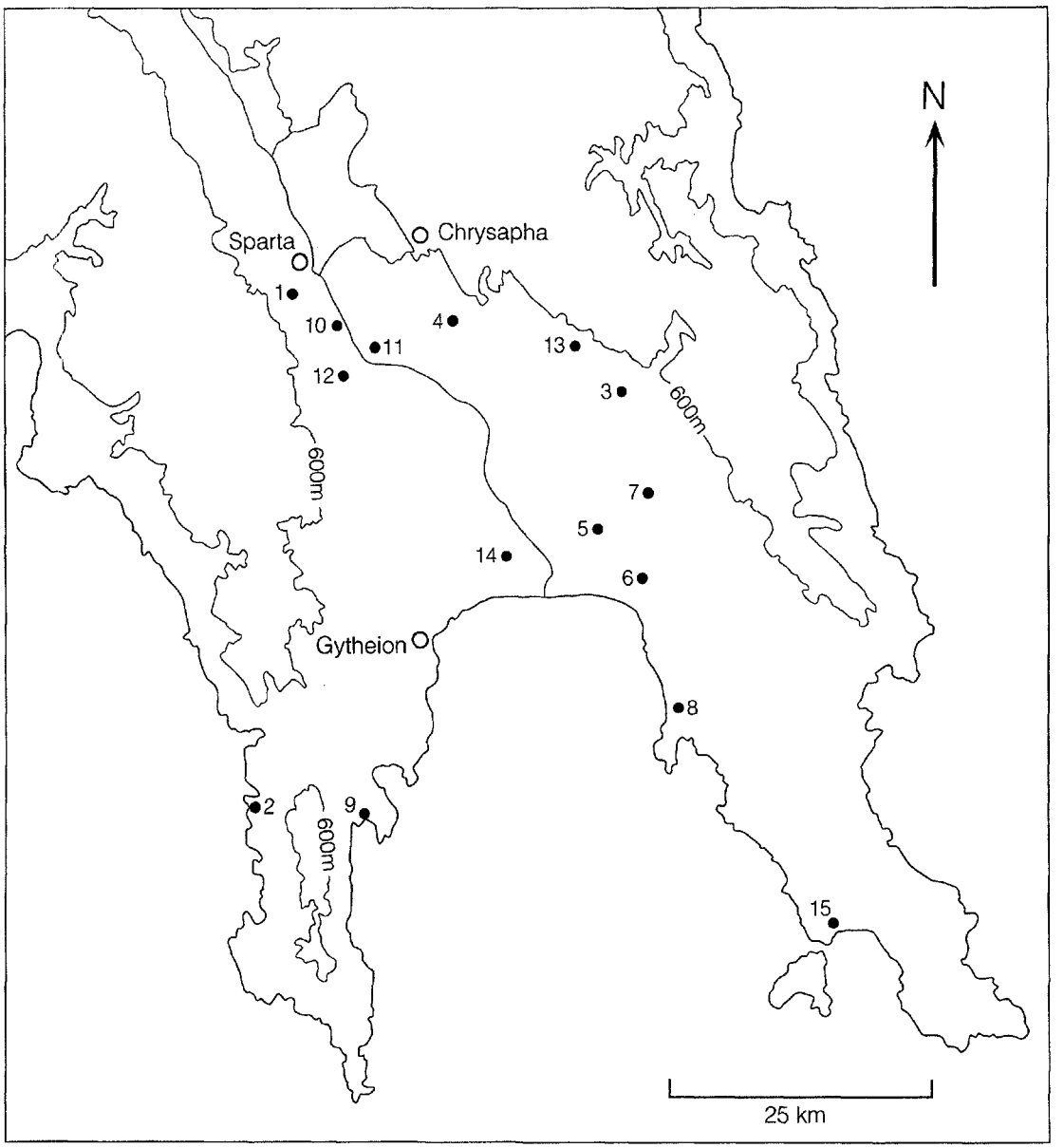
It is not in fact necessary to invoke environmental circumscription as an explanation for the Early and Middle Neolithic settlement pattern in the Peloponnese. Perlès (1999b) has analyzed the distribution of EN2 sites in eastern Thessaly and finds that 'no positive relationship can be established between settlement choice or settlement density and natural features'. She concludes that the 'main factor in settlement foundation was socio-economic' (Perlès 1999b: 53). However, Thessaly is rather different in that the settlements are typically just 1–4 km apart (Halstead 1995: 13–14)—Perlès (1999b: 46) reckons that the mean distance is 2.3 km. At least in the Early Neolithic period, villages may have periodically split up when the population reached a critical level (Perlès 1999b: 53–54), although there were no doubt integrative mechanisms to control this tendency towards fission (Halstead 1999: 89).

The size of the communities in the Peloponnese presumably ensured their demographic viability and generated a pool of labour and surplus agricultural resources

Table 1.2 Neolithic and Early Helladic sites in the Peloponnese identified by surface survey. Some of the figures are approximate.

Survey Project	EN Sites	MN Sites	LN/FN Sites	EH Sites	Reference
Asea Valley		1	3	1	Forsén *et al.*1996
Berbati-Limnes	1	1	19	13	Wells 1996
Laconia			12	33	Cavanagh *et al.* 1996
Methana		1		21	Mee & Forbes 1997
Nemea Valley	2	2	1	21	Cherry *et al.* 1988 Wright *et al.* 1990
Pylos*				6	Davis *et al.* 1997
Southern Argolid		2	7	37	Jameson *et al.* 1994

* four sites have pottery which may be Late Neolithic or Middle Helladic



1 = Kouphovouno
2 = Diros
3 = Alepochori
4 = Goritsa
5 = Asteri
6 = A. Stratigos
7 = Apidia
8 = Plitra
9 = Kotronas
10 = Palaiopyrgi
11 = Skoura
12 = A.Vasileios
13 = Geraki
14 = A. Stephanos
15 = Pavlopetri

area covered by Laconia Survey

Figure 1.5 Laconia: location of major Neolithic and Early Helladic sites and of the area covered by the Laconia Survey

Table 1.3 Laconia Survey: Early Helladic Sites (bold indicates that Early Helladic is the sole or main period of use). R3012, U3001, U3005 and U3006 are 'out-of-area' sites.

Site Number	Size (ha)	*LS* ii Reference
C126	0.01	331
C128	0.01	331
C131	0.01	331
G154	0.04	350
K414	0.03	374
L400	0.03	379
M357	0.03	383
N191	0.07	397
N333	0.29	394
P262	0.05	399
P263	0.01	398
P267	0.31	400
P269	0.10	400
P284	1.00	399
P285	0.20	397
Q360	25	403–5
R280	0.05	411
R287	0.18	409
R289	0.19	407
R428	0.47	410
R462	<0.01	414
R529	<0.01	410
R3012	0.71	409
S448	<0.01	416
S459	0.05	417
S478	0.02	418
U490	0.20	428–9
U500	0.70	435–6
U504	0.05	437
U520	0.11	436–7
U3001	0.71	432–4
U3005	0.13	438
U3006	0.56	438

which could be mobilized in the event of a crisis. Nucleated settlement would clearly have had major benefits but would also have created a complex web of affiliations and alliances which may have been exploited by some households. The distribution of Urfirnis pottery indicates that, as expected, there were also supra-regional contacts (Cullen 1985; Perlès 1999a: 20–21) and consequently access to raw materials such as obsidian and exotic flints. The various exchange networks (Perlès 1992: 148–55) will have operated in tandem with social compacts which provided a further safeguard against the risk of crop failure and consequently the threat of starvation (Talalay 1987: 167–69).

Crete apparently presents us with an even more extreme example of nucleation. It seems that Knossos was the only major Neolithic settlement (although doubts were expressed about this by Peter Tomkins at the Round Table) and possibly covered more than 5 ha in the LN period (Evans 1994: 19 but Whitelaw 1992: 226–27 is not so sure). There has of course been some debate about what this implies (Broodbank 1992; Whitelaw 1992; Manning 1999). Nevertheless, it is assumed that Knossos had exceeded the size threshold for a simple family-based community.

A higher level of social organization, marked by institutionalized inequality, will have been almost inevitable once the population of these settlements exceeded 500 (Halstead 1995: 13–14; Manning 1999: 470–71). It is of course notoriously difficult to estimate population size but, in a typically rigorous analysis of the evidence from the prehistoric Aegean, Whitelaw (this volume) proposes a figure of 200–225 per hectare, so we may need to revise our perception of Middle Neolithic society as relatively egalitarian.

Early Helladic Laconia

After the initial phase of colonization in the Final Neolithic period, settlement expanded across much of the hinterland of Laconia. There is an Early Helladic component on 33 of the sites identified by the Laconia Survey (Figure 1.7 and Table 1.3) and 26 more have some EH pottery (Cavanagh 1996: 6). The densest concentration is around Chrysapha, quite a distance away from the Eurotas. Two of these sites were surveyed in the course of

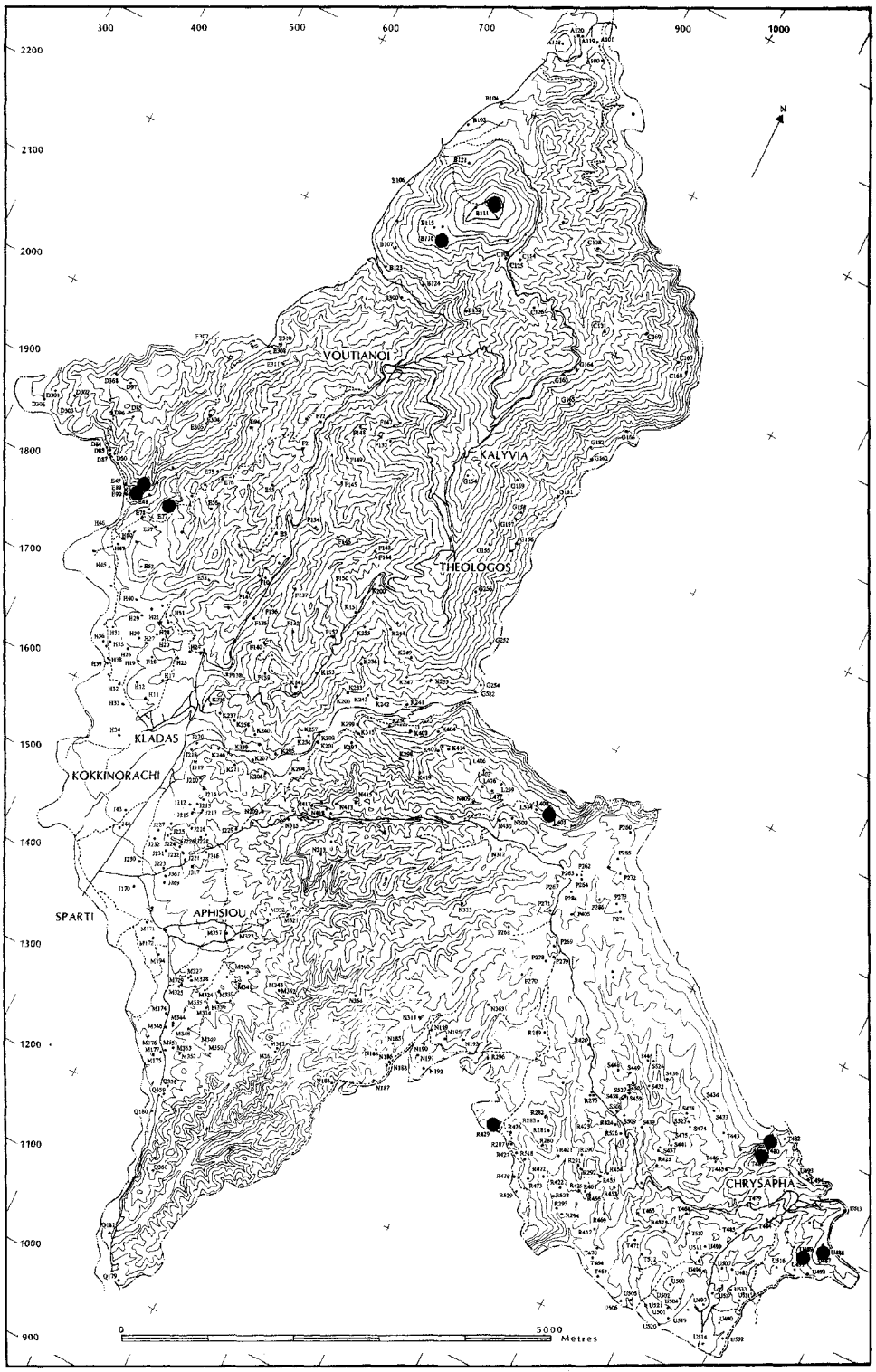


Figure 1.6 Laconia Survey: Neolithic sites