

WHAT'S OURS IS MINE?
VILLAGE AND HOUSEHOLD
IN EARLY FARMING SOCIETY
IN GREECE

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(1868-1945)

The pioneering excavations of Tsountas (1908) in the first decade of the twentieth century at Sesklo and Dimini in Thessaly (Figure 1) have shaped much subsequent research into the Neolithic of Greece. His work laid the foundations of the present culture sequence, with Neolithic A at Sesklo preceding Neolithic B at Dimini. Thanks to the *horizontally* extensive scale

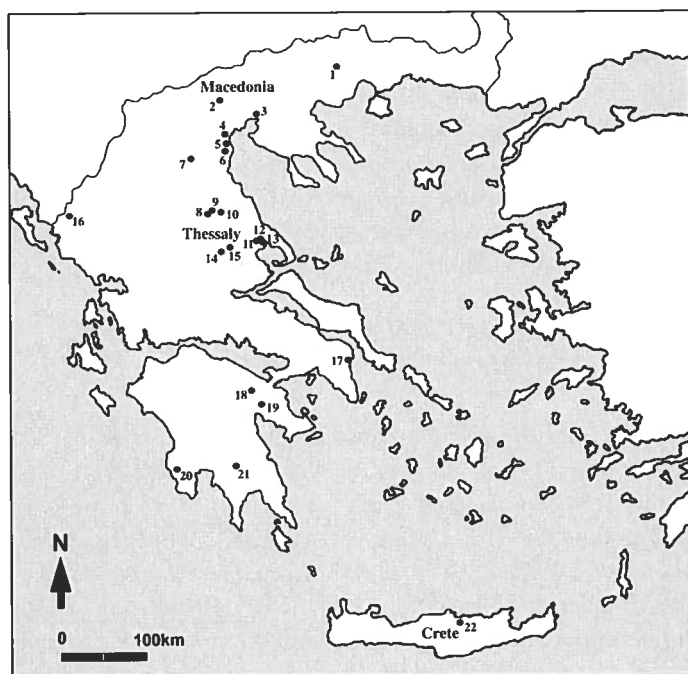


Figure 1. Map of Greece showing sites and regions mentioned
 1 Sitagroi, 2 Giannitsa B, 3 Stavroupoli, 4 Paliambela-Kolindrou,
 5 Makriyalos, 6 Revenia-Korinou, 7 Servia, 8 Argissa, 9 Otzaki,
 10 Soufli, 11 Sesklo, 12 Dimini, 13 Pevkakia, 14 Akhillion,
 15 Tsangli, 16 Doliana, 17 Nea Makri, 18 Nemea-Tsungiza,
 19 Dendra, 20 Pylos, 21 Kouphovouno, 22 Knossos

of his excavations, he also established an enduring image of Greek Neolithic settlement and society: free-standing houses were clustered into compact and long-lived villages that gradually formed small *magoules* or tells. For example, these two sites and models of society derived from them dominated Childe's treatment of the Greek Neolithic in the *Dawn of European Civilisation* (Childe 1957), were the focus of important revisions of Tsountas' work by Theocharis (1973), Hourmouziadis (1979) and Kotsakis (1982; 1983; 1999), and underpinned my own doctoral work on the Neolithic of Thessaly (Halstead 1984; 1989). This lecture begins with a brief review of how models of Greek Neolithic settlement and society based on Tsountas' work have gradually been revised in the light of subsequent discoveries and changing ideas. Attention then turns to work in progress that is attempting to explore in more detail the nature and possible context of social interactions within early farming communities in Greece.

SETTLEMENT PATTERN(S): HOUSE, VILLAGE AND TELL IN THE NEOLITHIC OF GREECE

Childe identified the Sesklo culture, with its mixed-farming rural economy, mud-brick architecture, portable material culture (e.g., stamp seals, stone 'nose plugs', pots painted with basketry designs) and domestic ideology (as reflected in female figurines), as a western outpost of a broad east Mediterranean and Near Eastern complex (Childe 1957, 61-62). The 'self-sufficing' Sesklo communities developed peacefully until the arrival, perhaps from the north, of warlike settlers who built concentric fortification walls around the settlement of Dimini (Childe 1957, 60-64). The form of both the dwellings and the settlements of early farmers in Greece was thus neatly accounted for by Childe's culture-historical and diffusionist perspective, while he saw the formation of tells as the result of building in mud-brick coupled with 'a rural economy advanced enough to maintain the fertility of the fields'

and so to enable continuous occupation over long periods (Childe 1957, 60).

As Childe prepared the last edition of the *Dawn*, renewed excavation at Sesklo by Theocharis and soundings at Argissa and Otzaki by Miløjcic were making clear that the Sesklo culture unearthed by Tsountas essentially represented the Middle Neolithic of Thessaly (Theocharis 1973; Miløjcic 1960). The preceding Early Neolithic phase was both lengthy and marked by a material culture that, at least initially, lacked some of the striking parallels with the east (notably painted pottery) that had impressed Childe (e.g., Wijnen 1982). Debate continues (e.g., Kotsakis 1992; 2001; Perlès 1988; 2001; Colledge et al. 2004) as to whether exotic elements (most notably crops and domestic animals) in the Early Neolithic culture of Thessaly and other parts of Greece were introduced by immigrant farmers or adopted by indigenous foragers from further east. Early farmers in Greece imported or adopted only selected elements from the putative parent culture, however, so neither demographic expansion nor diffusion can be regarded as a *sufficient* explanation for the form of settlement or portable material culture in the Early Neolithic of Greece.

Even if a wholly diffusionist perspective is rejected, the superficial similarity between Neolithic villages and early modern rural settlements in Greece can easily lead to the former being treated as a more or less 'natural' adjustment to local conditions. Theocharis drew widely on his familiarity with the recent villages of the Thessalian plains in interpreting the Neolithic settlement record of the same region and his classic *Neolithic Greece* (Theocharis 1973) is lavishly illustrated with photographs of the former, as well as plans and reconstructions of the latter. As a temporary student resident of traditional village houses in the 1970s, I was impressed by the insulating properties of mud-brick, which provided cool

accommodation in summer and warm shelter in winter. I read or heard other environmental rationales for Neolithic building techniques in my undergraduate years: Neolithic houses in Thessaly and the north Balkans were free-standing (unlike those on Crete and in Turkey) because higher rainfall favoured a pitched rather than flat roof; mud-brick was used in northern Greece, because deforestation had made timber-frame structures impracticable; and use of sun-dried mud-brick was restricted to southern Europe, because it was ill-suited to the wetter conditions of temperate Europe. The weakness of the last of these arguments was brought home to me, 20 years later, when I found myself driving a minibus full of students past standing mud-brick buildings in rural East Anglia in southern England.

My own early attempts to write about the Neolithic of Greece offered broadly processualist 'explanations' for settlement form. Following Flannery's model (1972) for early farming settlements in the Near East and Mesoamerica, free-standing 'houses' were interpreted as the dwellings of (family?) households, that were in turn seen as efficient units of production and consumption in the context of a delayed-return farming economy (Halstead 1989). Loosely following Sahlins (1974), the aggregation of such houses into village settlements was seen as facilitating mutual assistance and thus as providing a safety net against the inherent instability of the single household (Halstead 1989), while the apparently modest size of early villages was attributed, following Forge (1972), to the tendency of egalitarian communities to fission as group membership and average kinship distance grew (Halstead 1981). Demonstration of a positive correlation between settlement longevity and height of *magoula* served as the basis of an argument that archaeological reconnaissance of uneven intensity had tended to locate the most long-lived and thus most successful settlements (Halstead 1984). Finally, a model of intensive Neolithic garden cultivation was put forward that might account

for Childe's 'rural economy advanced enough to maintain the fertility of the fields' (Halstead 1981; also Bogaard 2005). These interpretations of buildings, settlements and site formation may each be more or less correct (at least they have not yet been demonstrated to be incorrect), but they unquestionably emphasize regularity and play down variability in the archaeological record - as will soon become clear. This emphasis was arguably necessary in order to develop models of long-term social and economic processes and I would still defend such simplification of reality as a legitimate and productive research strategy. Other colleagues, however, have shown that much can also be learned by focusing on the variability of the archaeological record of Neolithic settlement in Greece (e.g., Kotsakis 1982; 1983; 1999; Andreou and Kotsakis 1994; Andreou et al. 1996).

Hodder's Domestication of Europe (Hodder 1990) offers an explicitly post-processual interpretation of the Neolithic of Anatolia and the Balkans, largely ignoring the broadly similar archaeological record from Greece. In common with Childe, he sees the elaborate 'domestic' material culture of these regions as expressing an ideology, but regards this *domus* ideology, with the associated development of larger and more sedentary human communities, as the catalyst for domestication of plants and animals. Hodder thus reverses the processual tendency (e.g., Flannery 1972) to interpret the classic Neolithic grouping of houses into a compact village as a consequence of the adoption of farming. As regards the Neolithic of Greece, this radical assertion is empirically flawed: the bioarchaeological record is most heavily dominated by domestic animals and crops in the Early Neolithic; remains of wild animals, at least, are more abundant in the later Neolithic, when the *domus* material culture is more elaborately developed (Halstead 1999). Also interesting, in the present context, is that, in arguing for a widely shared ideology as the driving force behind culture change, Hodder largely ignores the considerable variabil-

ity in the form of Neolithic 'houses' and villages across Anatolia and southeast Europe.

FROM CONSENSUS TO CONTENTION: ADJUSTING SETTLEMENT MODELS TO REALITY?

Evidence has been accumulating for a long time that the settlement record of the Greek Neolithic is more diverse than the simple picture outlined above. At Early Neolithic Otzaki, Miløjčić (1960) found evidence for both mud-brick and wattle-and-daub rectangular buildings. Excavated free-standing rectangular buildings vary considerably in size (from less than 20 to more than 100 square metres) (e.g., Sinos 1971) and clusters of adjoining 'rooms' are now well documented at Sesklo (Kotsakis 1981) and Dimini (Hourmouziadis 1979), as well as at Knossos on Crete (Evans 1964). More radically, circular semi-subterranean huts with a post-frame superstructure have been recorded at LN Makriyalos (Pappa and Besios 1999, 116; Figure 2) and



Figure 2. Circular semi-subterranean hut at late LN Makriyalos phase II during excavation, with postholes marking position of external wall (courtesy of Maria Pappa)

Stavroupoli (Grammenos and Kotsos 2004) and at EN Giannitsa B (Chrysostomou 1994) in Macedonia, while smaller possible pit houses with flimsy superstructure have been uncovered in EN levels at Argissa, Sesklo and Soufli in Thessaly (Theocharis 1973), at Dendra in the southern mainland (Protonariou-Deilaki 1992), and at Revenia-Korinou (Besios and Adaktylou 2006) and Paliambela-Kolindrou in Macedonia. Neolithic 'houses' from Greece thus vary greatly in form, size, building materials and methods of construction (also Kotsos and Urem-Kotsou forthcoming).

Variability has also increasingly become evident in the horizontal extent and spatial organisation of Neolithic settlements. Known Neolithic settlement mounds are particularly dense in Thessaly and many cover an area of only 1 ha or less (Halstead 1989; Gallis 1992), representing small and compact villages – or even 'hamlets' as Childe described them. Neolithic Knossos grew to cover perhaps 5 ha (Evans 1971) and it has recently been suggested that the Neolithic population of southern mainland Greece may have been nucleated into fewer and larger settlements (such as Kouphovouno, near modern Sparta) than its counterpart in Thessaly (Mee 2001). Settlement mounds formed at both Knossos and Kouphovouno during the Neolithic, but Theocharis drew attention to the existence of horizontally extensive Neolithic settlements that did not form mounds. Examples of such sites included Nea Makri, in central mainland Greece, and the lower *polis* of Sesklo B adjoining Tsountas' *acropolis* of Sesklo A (Theocharis 1973). Theocharis interpreted the extensive occupation of Sesklo B as evidence for a large nucleated Neolithic settlement. Numerous such 'flat-extended' settlements have since been located, and investigated by rescue excavation (e.g., Chrysostomou 1997; Grammenos 1997; Pappa and Besios 1999; Hondrogianni-Metoki 2001; Grammenos and Kotsos 2004; Besios and Adaktylou 2006) or surface survey (Andreou and Kotsakis 1994), espe-

cially in central and western Macedonia, revealing that Neolithic occupation was short-lived, was spatially patchy or drifted horizontally through time. Whether flat-extended settlements were occupied by more or by fewer people than mound settlements is unknown, but the two types plainly represent radically different forms of spatial organisation (Andreou and Kotsakis 1986; Andreou et al. 1996; Kotsakis 1999).

Inevitably, with great variability in methods of 'house' building and with successive re-buildings extending either horizontally or vertically, a simple relationship between height of mound and duration of occupation is also no longer tenable. At a finer degree of temporal resolution, Childe's equation of Greek Neolithic tell sites with permanent occupation (and of thinner EN deposits, in the north Balkans and central Europe, with more short-lived habitation) has been questioned. Whittle (1996) has argued that thin deposits and flimsy buildings at EN *magoules* in Thessaly represent short-lived occupation episodes, with seasonal habitation of some sites enforced by regular flooding. Available evidence, however, for seasons of habitation (or, more strictly, for seasons of slaughter of young domestic animals) is more compatible with year-round occupation of Neolithic settlements of both flat-extended and mound type (Halstead 2005). There are thus no grounds as yet for attributing differences in 'house' size or construction methods to habitation of greater or lesser permanence.

Over several decades, therefore, established stereotypes of Greek Neolithic settlement and society have been blurred by new discoveries and, more tardily, subjected to critical evaluation. A number of complementary lines of argument have contributed to the model, espoused here, that foregrounds the heterogeneity of the settlement record as the key issue for discussion. To begin with Neolithic 'houses', Hourmouziadis' (1979) resumed excavations at Dimini documented a wealth of both in-door and out-door

storage and food preparation facilities and persuasively reinterpreted Tsountas' 'defensive' circuit walls as part of a system of built boundaries between neighbouring 'domestic activity areas'. Drawing heavily on this work, the present author put forward a rather impressionistic model of the gradually progressive architectural isolation of the 'household' during the course of the Greek Neolithic and Early Bronze Age (Halstead 1995):

Stage 1: rectangular houses with hearths located both indoors and in the open spaces between houses, as at EN Akhillion and MN Otzaki, and with evidence of indoor storage, at least in the case of the MN settlement at Servia destroyed by fire;

Stage 2: bounded groups of buildings with associated storage and food preparation facilities, as at late LN Dimini;

Stage 3: houses with hearths located in 'kitchen extensions', as at EB Sitagroi, or within fenced or walled yards, as at EB Argissa and Pevkakia.

To accommodate recent discoveries, especially in Macedonia (e.g., Kotsos and Urem-Kotsou forthcoming), an initial Stage 0 should be added, characterised by round pits with light superstructure as at EN Giannitsa B, Revenia-Korinou and Paliambela-Kolindrou (Figure 3). Nonetheless, the chronological framework of the model is both impressionistic and easily contradicted – for example, the late LN round huts with external hearths and storage pits at Makriyalos II would fall into Stage 0 (although, encouragingly, pit-dwellings are superseded by rectangular, above-ground structures at Makriyalos II and also at early LN Stavroupoli). The use of the term 'household' is also contentious (cf. Tomkins 2004), especially for Stages 0 and 1 when the location of some cooking facilities in open spaces between houses implies public preparation of food that would have invited pressures to share. What the model attempts to argue is that small 'household' groups, that stored and cooked and presumably ate together, can be detected with growing clarity through the Neolithic (as Tomkins also argues for Knossos on Crete) and that

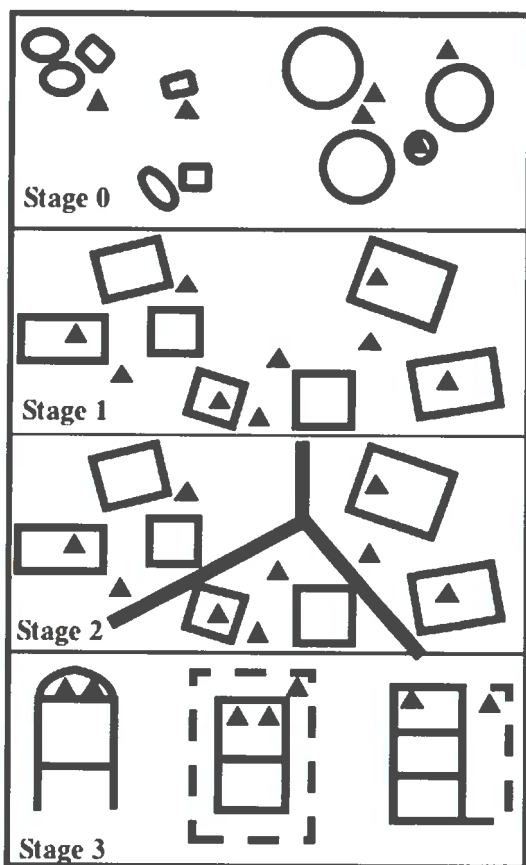


Figure 3. A model of the development of the 'household' in Neolithic-EB Greece (adapted from Halstead 1995)

Filled triangles – cooking facilities

Open circles and ellipses – semi-subterranean huts

Open rectangles – built houses

Broken lines – yard walls

Thick lines – boundaries between 'courtyard' groups of houses (or 'domestic activity areas')

this tendency is not merely an artefact of an increasingly well-preserved archaeological record. Rather, tensions between domestic and communal control of production and consumption were gradually resolved in favour of the former over a period of three or four millennia. Such tensions of course also imply conflict between competing domestic groups, an issue highlighted in Kotsakis' research at Sesklo (Kotsakis 1981; 1982; 1983) and briefly discussed further below.

There is also growing evidence for heavy investment in the creation of collective identity at the level of the 'village' or settlement. Traces of a boundary wall or ditch have been found at several Neolithic mound settlements (Kotsakis 1999), including MN Sesklo, and EN Soufli and, in the last of these, cremation burials were found (Gallis 1982). More impressive, and also more thoroughly investigated, are the two early LN ditches enclosing an area of 28 ha at the flat-extended site of Makriyalos I (Pappa and Besios 1999; Figure 4). The larger of these ditches began life as a chain of pits of variable breadth and depth, each pit perhaps representing the labour of a different social group, while the fill of the ditch included numerous human remains, mostly disarticulated – perhaps to emphasise the collective over the individual (Triantaphyllou 1999). A wall built on the *external* lip of this ditch suggests that its practical function, if any, was to enclose the internal area rather than to prevent intrusion from outside. For example, at any one time, most of the enclosed area of 28 ha was probably uninhabited and so perhaps occupied by crops and/or livestock (cf. Andreou and Kotsakis 1994). The enclosure wall and ditch could thus have been intended to prevent livestock from escaping, but a smaller outer ditch might have been a trench for a palisade to deter intrusion by crop pests or wild carnivores. Either way, the ditch may have been intended to serve as a boundary as much as a barrier.

A similar impression is given at Paliambela-Kolindrou, where geophysical survey has revealed a series of ditches and walls encircling a low Neolithic mound settlement and parts of what, from surface finds, appears to be a surrounding flat-extended site. Excavation by a joint team from the Universities of Thessaloniki and Sheffield (directed by Prof. K. Kotsakis and the author) and also by M. Besios of the local state inspectorate has dated several of the ditches to the MN period and the circuit walls to the LN. At least some of the MN ditches seem to have filled in rapidly, suggesting that they were dug as either *short-term* barriers or as symbolic boundary features. As at Makriyalos, heavy use of one of these ditches for mortuary deposition arguably supports interpretation in terms of the maintenance of collective identity rather than of defence or enclosure. A plausible interpretation of circuit ditches and walls at both mound and flat-extended settlements is thus that, *inter alia*, they represent a concern with the reinforcement of some collective 'village' identity. In this respect, both house and village were architectural distinctions that were continuously negotiated and reinforced through the Neolithic, arguably representing a dynamic tension between the conflicting ideals of household self-sufficiency and communal interdependence.

Reconsideration of the third element in the traditional stereotype – tell formation – begins with a rather broader geographical scale of analysis. Sherratt (1990) has drawn attention to the striking contrast between the Neolithic archaeological record of southeast Europe, rich in settlement mounds, and that of northwest Europe, rich in burial and other ceremonial monuments. Moreover, as Andreou and Kotsakis (1986) have stressed, there is evidence from excavation and surface reconnaissance in central Macedonia that the height of some Bronze Age sites was deliberately enhanced by building massive earthworks. Chapman (1994) has further argued that 'monumental' mound settlements in the

northern Balkans served to make fixed points or 'places' in the new social landscape that developed with the shift from mobile foraging to more sedentary farming. In the long term, there can be little doubt that settlement mounds did come to mark significant places in the cultural landscape, as for example in Bronze Age re-use of Neolithic mounds (including Sesklo and Dimini) for burial (Kotsakis 1999, 74). Chapman's model does not account, however, for the *initial* decision of some early farming communities to rebuild their houses vertically rather than horizontally: several generations of rebuilding in mud-brick on the same spot would be needed before a settlement mound was as visible in the landscape as the massive ditches encircling flat-extended sites. The beginnings of tell formation must be understood, therefore, in terms of more local and shorter-term processes than the creation of places in the landscape.

The key to resolving this issue arguably lies in Kotsakis' observation (1999) that mound settlements tend to be associated with more monumental houses than flat-extended sites. For example, the MN houses on the mound or *acropolis* of Sesklo A are large and free-standing, while their counterparts on the flat-extended polis of Sesklo B are smaller and grouped in clusters with shared walls. Similarly, other Thessalian mounds such as Otzaki (Miløjčić 1960) or Tsangli (Wace and Thompson 1912) have yielded more or less substantial rectangular structures of mud-brick or wattle and daub, while flat-extended settlements such as late LN Makriyalos II are largely characterised by round, semi-subterranean huts. The latter had a roofed area of up to about 20 square meters (5m diameter) at Makriyalos II (Pappa and Besios 1999), comparable with that of the smaller rectangular houses on the mound settlements, and so perhaps sheltered some sort of family household. Given that the size of such hypothetical family groups must have fluctuated both within and between generations, it is perhaps more parsimonious to interpret houses of varying size

and construction as representing accommodation of variable ostentation rather than households of variable size. Some support for this view is provided by the observation that the inhabitants of the monumental buildings of Sesklo A consumed more MN fine pottery than their more modestly housed neighbours in Sesklo B (Kotsakis 1982).

While the contrasting ostentation of construction contributed to the differential development of Sesklo A and B, a second pre-requisite for the development of a settlement mound in Sesklo A was continuous re-occupation throughout the Neolithic, while habitation in Sesklo B drifted laterally, forming much thinner archaeological deposits (Kotsakis 1999). Kotsakis' argument that such vertical rebuilding sought to establish genealogical legitimation for the claims of the household is supported by the rebuilding of houses more or less exactly on the foundations of their predecessors, as at MN Otzaki and Sesklo A (Kotsakis 1999, 70). The initial development of Neolithic settlement mounds may thus be understood in terms of two related aspects of the dynamics of household formation: the construction of 'monumental' houses, presumably intended to assert domestic rights over those of neighbouring households and of the wider community; and rebuilding on top of earlier houses, to establish genealogical support for such rights.

Not surprisingly, a century of fieldwork since Tsountas' excavations at Sesklo and Dimini has created a much more heterogeneous and complex picture of Neolithic settlement in Greece. It is fashionable to conclude from such enrichment of the archaeological record that the processual penchant for generalisation (magnificently exemplified, ironically, by Hodder's *Domestication of Europe*) is illegitimate. The preceding discussion has sought to be more constructive in arguing that the heterogeneity of the Neolithic settlement record from Greece reflects the gradual and

contested isolation of household units, the gradual and regionally variable dominance of the compact village over the looser flat-extended settlement, and the role of monumental building and genealogical claims in furthering these processes and the related competition between emerging households. The remarkable emphasis on domestic material culture (houses, table ware, etc.) that so impressed Childe and Hodder may then be seen not as a passive obedience to an overarching *domus* ideology, but as an active attempt to manage the social tensions arising from the contradictions between domestic and collective rights and obligations. The following section explores the dialectic between domestic and collective in the Neolithic of Greece from the perspective of consumption.

EATING TOGETHER: COMMENSAL POLITICS IN THE NEOLITHIC OF GREECE

Human social relations are routinely defined and negotiated by eating and drinking together. In Britain, 'getting your feet under the table' (i.e., being invited to eat) is a sign of acceptance into a family. Among the Bemba, a relative is someone you give food to, while a witch is someone who asks you for food (Richards 1939). And in rural Greece, the intimate relations between two neighbouring villages in the Pindos Mountains were summed up in the phrase 'you eat, so that we eat'. Commensality thus takes place at many social scales, with small groups, such as individual households, tending to eat together on a regular (perhaps daily basis) and larger groups, such as distant kin or village communities, eating or drinking together more rarely and often consuming less common and more valued substances, such as meat or alcohol. For example, in early twentieth century rural Greece, much of the population ate meat rarely: at important religious festivals, such as Easter and Christmas; at major rites of passage, such as weddings; and when honoured guests visited. One of the principal

rationales offered for preserving as much as possible of the pig slaughtered by many households during winter was to have a ready source of meat with which to entertain unexpected guests.

In the case of the Neolithic of Greece, the prominence of fine 'table ware' (Sherratt 1991) especially within MN and LN material culture suggests that commensality was of considerable social importance, although the changing spatial distribution of hearths may, as mentioned above, indicate a gradual erosion of *obligations* to share cooked food among close neighbours. If, as has been argued elsewhere (e.g., Halstead 1981), the compact village communities, at least, of Neolithic Greece were nutritionally dependent primarily on staple cereal and pulse grain crops, meat may have played a similar role as in early twentieth century rural communities - as a prestige food consumed on special occasions in supra-domestic commensality. One way in which the social scale and significance of commensality may be explored, therefore, is by examining faunal evidence for meat consumption in Neolithic Greece and a useful starting point for this exercise is to consider the sizes of the animals consumed (Halstead in press).

In the recent past, chickens, rabbits, and young lambs or kids were often consumed fresh by individual households, but yearling sheep or goats were likely to be shared with neighbours. Adult sheep or goats and fattened yearling pigs were often slaughtered in winter and preserved (by various combinations of salting, pickling, smoking and sealing in fat or oil), while cattle were occasionally slaughtered for community-wide festivals (e.g., Georgoudi 1989) but more usually sold to urban butchers. While quantities of meat consumed were usually dictated by availability rather than appetite, the short shelf-life of fresh meat, especially during the hotter summer months, was frequently cited as the factor determining the size of animal consumed by individual households. Neolithic faunal assemblages from both mound and

flat-extended settlements are usually dominated by sheep or pigs, with cattle, goats and wild animals less well represented. Although very young animals are probably under-represented for taphonomic reasons, a high proportion of pigs was killed in their later first or second year, while high proportions of sheep and goats died at a similar or greater age (e.g., Halstead 1996; Isaakidou 2006; Collins and Halstead 1999). Thus many, perhaps most, carcasses of domestic animals (most sheep, goats and pigs; all cattle, with the possible exception of rare newborn calves) were substantially larger than those eaten fresh by recent households. Mortality patterns do not suggest that sheep or goats, at least, were reared primarily for their secondary products; available evidence for season(s) of death (consistent with gradual slaughter through the year) does not suggest large-scale preservation of meat; and traces of butchery and marrow extraction suggest that carcasses were consumed thoroughly rather than wasted (Halstead in press; Isaakidou 2004). By default, it seems likely that a high proportion of domestic animals was consumed by a social group considerably larger than even an extended family household. Moreover, since most pigs, sheep and goats *could* instead have been killed younger, at a size more suited to domestic consumption, Neolithic livestock were perhaps reared, in large measure, *for* consumption by large groups.

In support of this suggestion, there is some faunal evidence that individual carcasses were indeed widely dispersed *before* deposition. At Neolithic Knossos (Isaakidou 2004), articulating bones found together in the same excavation unit were almost invariably those that 'ride' together (in the terminology of Binford 1978), such as the radius and ulna, rather than those (such as humerus and radius) that are often treated as separate units in butchery and consumption. Isaakidou persuasively interpreted this observation as an indication that individual carcasses were dispersed primarily before rather than after deposition. On a smaller scale, the bones

found in two of the EN pits at Paliambela-Kolindrou were well preserved and associated with mendable ceramic fragments, suggesting rapid deposition. These two contexts contained remains of several individual animals, each represented by only a few bone fragments, again implying that carcasses had been dispersed, in large measure, prior to discard.

The practical and social context of such dispersal is more interesting and more difficult to discern. For example, carcasses might be shared out during primary butchery, as in foraging groups such as the !Kung (Kent 1993) and likewise among modern Greek hunters. Alternatively, a carcass might be cooked and then distributed, as at pig feasts in highland New Guinea (e.g., Rappaport 1968; Brown 1978) and at a range of carnivorous social occasions in modern Greece. Although both raw and cooked meat are distributed among both foragers (e.g., Yellen 1977) and farmers (e.g., Richards 1939), the distribution of raw meat often serves as a statement of common rights to consumption, while the distribution of cooked meat often marks a clear distinction between host and guest. At the risk of placing too much weight on the opposition between raw meat/sharing and cooked meat/hospitality, there is some evidence that Neolithic carcasses were to a large extent distributed as cooked meat. In a series of faunal assemblages recorded according to the same methodology, the incidence of butchery marks is lower at EN-LN Knossos, LN Makriyalos and FN Doliana than at MB-LB Knossos and EB Nemea-Tsougiza (Isaakidou in press; Halstead in press). It might be argued that this contrast is an artefact of differences in visibility between Neolithic stone and Bronze Age metal tools, but the quality of cutting edges doubtless varied within as well as between the two categories of raw material. Conversely, both dismembering and filleting are far easier (and so much less likely to inflict visible cut marks) with cooked than with raw meat. A plausible interpretation, therefore, is that Neolithic carcasses were

butchered into fewer and larger pieces of raw meat and that much of the further subdivision into edible portions took place after cooking. At early LN Makriyalos, most cooking vessels were probably too small (Urem-Kotsou 2006) to have accommodated many dismembered joints, suggesting that whole or part carcasses may have been cooked in pits or temporary clay ovens.

If carcasses were, at least sometimes, cooked in pits or ovens and then distributed widely as cooked meat, could this indicate that consumption of meat was subject to generalised obligations of sharing? Such an interpretation would somewhat undermine the persuasive argument that the difference between a wild and a domestic animal is that the latter belongs to someone (Ingold 1986, 113). Ownership of animals is particularly difficult to establish archaeologically, but again there are indications that the Neolithic human population of Greece did not enjoy the same rights over wild and domestic animals. Wild animals are very scarce in EN and MN assemblages, but often more abundant in the LN and Bronze Age (Halstead 1999). Intriguingly, initial results of analysis of the EN assemblages from Paliambela-Kolindrou and Revenia-Korinou indicate a wide range of *small* wild mammals (roe deer, badger, hare, etc.), birds and fish, but very few remains of the larger game (notably red deer and boar) that dominate the wild fauna on LN (e.g., Halstead 1992; Mylona 1999) and Bronze Age sites (e.g., von den Driesch 1987). There is no reason to imagine that large wild mammals were unavailable during the earlier Neolithic and one possible interpretation is that these species were avoided as prey (or were not brought back to the settlement for consumption) because they were subject to strong collective rights of consumption. A further hint that wild and domestic animal carcasses were subject to different rules of access is the almost wholesale avoidance of wild animals for manufacture of bone tools at LN Makriyalos, even though wild animals (especially boar and red deer) are well represented. The bone

of large wild mammals is much more robust than that of their domestic counterparts (and, perhaps for that reason, is preferentially used for manufacture of bone tools at nearby Bronze Age sites) and red deer antler (some, at least, shed) was worked. Bones of wild animals, therefore, were available and suitable (practically and probably symbolically) for manufacture of bone tools, so their avoidance may be a by-product of collective rights to consumption of these carcasses (Isaakidou 2003). These indirect arguments suggest that Ingold's distinction between wild and domestic animals does hold for the Neolithic of Greece and that the inferred distribution of cooked carcasses took place in the context of hospitality (which guests were obliged to reciprocate) rather than under an ethos of collective rights to consumption.

Nonetheless, by comparison with 'feasting' deposits from Bronze Age sites including Knossos (Isaakidou in press), Pylos (Isaakidou et al. 2002), and Nemea-Tsougiza (Dabney et al. 2004), Neolithic hospitality seems to have played down the inherent asymmetries between host and guest (cf. Ingold 1980, 172-176; Barnard and Woodburn 1991). In Bronze Age contexts, the formality of mass consumption is sometimes underlined by burial or curation of the skeletal by-products (Knossos and Pylos); distinctions between host and guests may be underlined by spatial or temporal segregation of primary butchery and consumption (Knossos and Nemea-Tsougiza); and a sacred dimension of commensal events may be highlighted by ritualised treatment of selected body parts (Pylos). In Neolithic assemblages, by contrast, such 'special deposits' of animal bones seem to be very rare. Even the exceptionally large 'feasting' deposit in early LN Pit 212 at Makriyalos (Figure 4), representing the consumption of many hundreds of animals over a period probably spanning only several months, lacks such indications; all stages of carcass processing, from skinning through dismembering and filleting to marrow extraction and gnawing by dogs, are represented by disarticulated

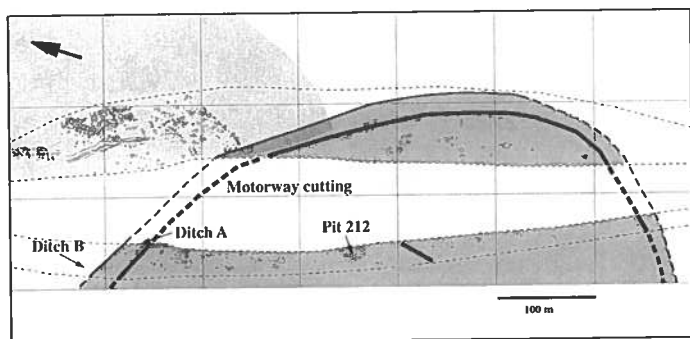


Figure 4. Plan of excavated area of LN Makriyalos, showing areas of early LN (dark shading) and late LN (light shading) occupation. The early LN settlement is enclosed by a deep inner ditch (A) and shallow outer ditch (B) (adapted from plans provided by Maria Pappa). The course of Ditch A outside the excavated area has been confirmed by geophysical survey. Parts of both settlements have been destroyed by the Athens-Thessaloniki motorway.

fragments, deposited without obvious ceremony. The pottery from this same deposit tells a similar story. Cooking and serving vessels are very standardised, highlighting a common identity, but are of a size suggesting that the preparation and consumption of food took place in small 'family'-sized groups, while the small cups presumably used for consumption are highly individualised, to the extent that every cup is obviously unique (Pappa et al. 2004; Urem-Kotsou 2006). At least at LN Makriyalos, therefore, commensality seems simultaneously to have reinforced individual, household and collective identities.

LN Makriyalos cannot, of course, be taken as representative of the Neolithic of Greece. In particular, it is expected that similar studies (to some extent, ongoing) of LN compact mound settlements

and of EN-MN assemblages will reveal contrasting social scales and contexts of consumption. At this stage, it is encouraging that the complex and ambiguous commensal politics of LN Makriyalos seem consistent with the earlier interpretation of the spatial organization of flat-extended settlements as representing communities in which both domestic and collective identities were contentious and subject to renegotiation.

WHAT'S OURS IS MINE: COLLABORATION AND COMPETITION IN PRE-MECHANISED FARMING COMMUNITIES

The *practical* advantage of household organization in the context of farming has been set out with clarity by Flannery (1972): the requirement for periods of sustained manual labour, the returns on which are realized only several months later, is most reliably met if consumption is the right of those who have contributed to production. Especially in strongly seasonal environments such as the Near East and Mesoamerica (and likewise Greece), dependence on farmed staples is arguably incompatible with the more generalized rights to consumption characteristic of immediate-return foragers. It is plausible, following Flannery, to interpret the association of early farming with 'houses' in the Near East, Mesoamerica, Greece and many other parts of Europe as evidence that generalized rights of consumption were indeed restricted to some form of small 'family'-size household.

Residence in spatially isolated households minimizes distances to fields or gardens and pasture, but individual households are conversely very vulnerable to periodic shortages of labour and food and also depend on others (kin and neighbours) for access to mates, exotic raw materials, and support in the event of conflict (Sahlins 1974). Likewise in the strongly family-oriented society of rural Greece, elderly people look back to the 'old days, when

we were very loving of our neighbours' – unlike today, when everyone is concerned only for his or her immediate family. Such tales are undoubtedly coloured by nostalgia (anecdotal accounts abound of exceptions to the rule of loving one's neighbour), but the practicalities of non-mechanised farming probably did impose a much higher level of inter-household collaboration than occurs today (e.g., Petropoulos 1943-4). Such collaboration is worth examining here, because non-mechanised Greek farmers of the recent past grew similar crops under broadly similar climatic conditions as their Neolithic counterparts.

Harvest was a particularly time-stressed phase of the traditional Greek agricultural year, because dead-ripe grain crops were vulnerable to scattering of their seed by birds, by wind and by harvesting. Neighbours and kin often joined forces to complete the task more promptly and so minimize loss of grain. For example, if one woman cooked for several households and one grandmother minded several sets of children, more hands were available for the harvest. A larger team also reduced the tedium of long hours in the sun. Moreover, especially in hilly areas, collaboration allowed more advantage to be taken of any local variation in ripening time. Reaping was almost certainly significantly slower with Neolithic chipped-stone sickles (Russell 1988, 116 table 20) and this should have accentuated the benefits of collaboration.

The window for sowing grain crops is longer than that for harvest, but yields are normally higher and more reliable for early- than for late-sown crops. Non-mechanised farmers were also anxious to complete this task promptly, because bad weather occasionally curtailed sowing prematurely. A field can be ploughed with a pair of cattle more quickly (in fewer man-days) and with less physical stress than it can be reaped by hand, but manual tillage is considerably slower and more arduous than reaping. In the recent past, farmers in hilly regions often tilled by hand plots that were too

small, steep or boulder-strewn to be ploughed. Elsewhere, however, households owning only a single cow usually preferred to join forces with a neighbour in the same situation to make up a plough team, while those lacking any plough animal often exchanged manual labour (e.g., reaping or breaking clods after the plough) for the services of a neighbour's team. New evidence suggests that draught cattle contributed to tillage, at least in the later Neolithic on Crete (Isaakidou 2006), and access to trained work animals is likely to have been uneven, if only because cows sometimes fall ill, get injured or give birth during the sowing season. Under these circumstances, exchanges of bovine labour for human labour or food are likely to have taken place, allowing borrowers of cattle to avoid the risks as well as drudgery of slower manual tillage and enabling lenders of cattle to recruit additional labour for time-stressed tasks such as harvesting. If tillage was entirely manual in the earliest Neolithic or in other regions of Greece, early farmers will have sowed under greater time stress, but mutual collaboration was probably still attractive, both to reduce the tedium of this arduous task and to take advantage of local differences in how rapidly after rain plots dried out enough to be worked. Clearance of new fields is more labour-intensive even than manual tillage and recent farmers describe taking weeks or months (depending on the type of vegetation) to clear, with iron axes and picks, an area that might be dug by hand in a few days or ploughed by a pair of strong draught cattle in a single day. Farmers dependent on household labour opened up new land slowly, therefore, often on rainy days when work in existing fields was impossible, while those with the means to do so hired outside workers or, on a smaller scale (e.g., in digging a new vineyard) mobilized volunteer labour from relatives and neighbours in return for food.

Food played a recurring but varied role in these interactions between households. Commensality often defined or cemented the social relationships that were mobilized in reciprocal assis-

tance. A party might be thrown to attract and reward volunteer labour (as noted above). Hospitality was also provided frequently to hired workers and the richer landowners in Macedonia were known as *tsorbatzides* because they could feed workers relatively generously (Karakasidou 1997). Children of poor households were sometimes sent to live with a wealthier relative and were expected to provide their labour to the new household in return for their maintenance. Finally, it was not uncommon for hired workers to be paid in grain (or, in the case of herding labour, in livestock or cheese).

Farmers thus depended frequently on their neighbours both for mutual collaborative assistance and for exchange of one form of labour (e.g., reaping) for another (e.g., ploughing with cattle) or for food. A farmer with a good reputation who fell ill at sowing or harvest time might well be helped by relatives and neighbours, working on Sundays, and even the exchange of bovine for human labour usually took place at the charitable rate of one day's ploughing (by two cattle and one ploughman) for three days' manual labour. Nonetheless, households with a pair of draught cattle or with surplus grain could secure additional human labour to clear new fields, to till and harvest larger areas, to herd more animals on better pasture, and so to create further surplus. In the recent past, therefore, assistance between neighbours was essential to the viability of individual households and was a source as well as outcome of collective solidarity, but it was also a means of creating and accentuating inequalities between households. Moreover, small village communities offer restricted opportunities for investing surplus in external labour and land or, conversely, for making up for shortages of staple foods by working for surplus producers. As a result, individual households find themselves competing for scarce opportunities to exchange surplus food for land and labour (cf. Halstead 2004).

Neolithic farmers were surely similarly dependent on mutual exchanges of labour to complete time-stressed (e.g., harvesting) or arduous (e.g., clearance) tasks and it is a reasonable inference that commensality will have served to establish social relationships that carried obligations of mutual assistance. It also seems likely that food was used to 'hire' labour and that, with growing isolation of the household, hospitality imposed firmer obligations of reciprocal generosity or labour. Farming thus created powerful incentives for both domestic isolation and collective cohesion. It should be no surprise that Neolithic material culture emphasizes both scales of identity and that the inherent tensions between domestic and collective seem to have remained contentious for several millennia.

Thus far, this discussion has focused on rights to food and labour, but there are some grounds for extending this model of Neolithic 'property' to land. There is growing archaeobotanical evidence that Neolithic cultivation in Europe involved the sustained application of intensive tillage and fertilising (e.g., Bogaard 2004a). This in turn suggests that individual cultivators enjoyed medium- to long-term rights to individual plots of land (Bogaard 2004b), although such rights often co-existed in the recent past with collective ownership of uncultivated land (e.g., pasture and woodland) and even with periodic collective redistribution of cultivated plots. Examples from mound settlements, of houses rebuilt more or less precisely over a preceding building, are consistent with 'private' (i.e., non-collective) ownership of building plots (Kotsakis 1999, 73-4). Conversely, the lateral displacement of habitation on flat-extended settlements does not suggest long-term claims to individual building plots. The ditches encircling the early LN flat-extended settlement of Makriyalos I enclose an area of 28 ha, most of which was apparently unencumbered by habitation. The enclosure seems implausibly large as an animal pen (it could have held thousands of head of livestock) and rather

small as pasture (for example, it could have supported a tiny flock of sheep year-round), but it could plausibly represent the cultivated land of as many as a hundred persons. In a landscape stocked with potential crop pests (from badgers and hares to deer, boar and aurochs), it would not be surprising if fields were protected by fences or ditches and a single collective enclosure would have required far less labour than independent enclosure by individual households (Fleming 1985). If the circuit ditches of Makriyalos I did enclose cultivated land (cf. Andreou and Kotsakis 1994), lateral displacement of occupation would entail periodic reallocation of arable plots. Conversely, stable mound settlements are compatible with longer-term rights to surrounding cultivation plots and the emphasis on genealogy, that arguably lay behind the formation of such mounds, may have been concerned with asserting claims to particular plots (Kotsakis 1999). The contrasting forms of housing, settlement and site formation observed in the Neolithic of Greece may thus be related to negotiation of rights to food, labour and land.

CONCLUSION

The reassuringly familiar picture, of early farmers in Greece inhabiting long-lived compact villages comprised of rectangular houses, has evaporated in the face of accumulating evidence for a more heterogeneous settlement record. It has been argued here that this heterogeneity reflects a long-term tension between household and village scales of identity. Current research is beginning to explore the negotiation of this contradiction in patterns of consumption, as well as in the spatial organization of settlements. While emphasis has been placed here on the fluidity of social formations and on the active manipulation of material culture in negotiating social relationships and identities, it is argued that this broadly 'post-processual' approach can fruitfully be combined (following the lead of Hourmouziadis and Kotsakis) with the kind of 'practical reasoning' exemplified by Flannery's classic

study of early farming villages. The practicalities of grain production in the Greek landscape are likely to have faced Neolithic farmers with strong incentives for both domestic isolation and collective solidarity (also Tomkins 2004). The emerging archaeological record from the Neolithic of Greece can fruitfully be considered in terms of tensions between domestic and collective rights and obligations in relation to food, labour and perhaps land.

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