FROM SHARING TO HOARDING: THE NEOLITHIC FOUNDATIONS OF AEGEAN BRONZE AGE SOCIETY? *

For Middle-Late Bronze Age southern Greece, textual and archaeological evidence in combination reveal the existence of 'palatial' elites controlling regional states [1]. The power of these elites was based on control of, or at least preferential access to, a range of resources [2] including ritual knowledge [3], symbols of power [4], exotic [5] and local raw materials [6], specialist craft skills [7], land [8], human labour [9] and agricultural staples [10]. For the same period in northern Greece, archaeological evidence alone provides strong hints of small-scale settlement hierarchies [11] and of elite groups with preferential access at least

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1 *E.g.* J. BENNET, "The Structure of the Linear B Administration at Knossos", *AJA* 89 (1985), 231-49; C. RENFREW, "Trade as Action at a Distance", J. SABLOFF & C. LAMBERG-KARLOVSKY eds, *Ancient Civilization and Trade* (1975), 3-59.

2 J.T. KILLEN, "The Linear B Tablets and the Mycenaean Economy", *Linear B: a 1984 Survey* (1985), 241-305.

3 *E.g.* J. CHADWICK, "What do we know about Mycenaean Religion?", *Linear B: a 1984 Survey* (1985), 191-202.

4 *E.g.* J.C. WRIGHT, "Death and Power at Mycenae: Changing Symbols in Mortuary Practice", *Thanatos*, 171-84.

5 *E.g.* A.D. KERAMOPOULLOS, "Αι Βιομηχανίαι και το Εμπόριον του Κάδμου", *AE* (1930), 29-58; S. ALEXIOU, "Ζητήματα του Προιστορικού Βίου, Κρητομυκηναικόν Εμπόριον", *AE* 1953-4 (1961), 135-45; M. WIENER, "The Nature and Control of Minoan Foreign Trade", *Bronze Age Trade*, 325-50.

6 *E.g.* P. DE FIDIO, "Fiscalita, redistribuzione, equivalenze", *SMEA* 23 (1982), 83-136; E.D. FOSTER, "The Flax Impost at Pylos and Mycenaean Landholding", *Minos* 17 (1981), 67-121; J.T. KILLEN, "The Wool Industry of Crete in the Late Bronze Age", *BSA* 59 (1964), 1-15.

7 *E.g.* A. MORPURGO DAVIES, "Terminology of Power and Terminology of Work in Greek and Linear B", *Colloquium Mycenaeum: Actes du VIe Colloque international sur les textes mycéniens et égéens tenu à Chaumont-sur-Neuchâtel, 7-13 septembre 1975* (1979), 87-108; J.F. CHERRY, "Polities and Palaces: Some Problems in Minoan State Formation", C. RENFREW & J.F. CHERRY eds, *Peer Polity Interaction and Socio-Political Change* (1986), 19-45.

8 *E.g.* Y. DUHOUX, "Les mesures mycéniennes de surface", *Kadmos* 13 (1974), 27-38; P. DE FIDIO, *I Dosmoi Pilii a Poseidon* (1977).

9 *E.g.* S. HILLER, "Dependent Personnel in Mycenaean Texts", M. HELTZER & E. LIPINSKI eds, *Society and Economy in the Eastern Mediterranean* (*Orientalia Lovaniensia Analecta* 23 [1988]), 53-68.

10 *E.g.* L. GODART, "Le grain à Cnossos", *SMEA* 5 (1968), 56-63; K. BRANIGAN, "The Economic Role of the First Palaces", *Function Palaces*, 245-8; P. HALSTEAD, "Agriculture in the Bronze Age Aegean", *Agriculture in Ancient Greece. Proceedings of the Seventh International Symposium at the Swedish Institute at Athens, 16-17 May, 1990* (1992), 105-16.

11 P. HALSTEAD, *Strategies for Survival Early Farming Communities of Thessaly, N. Greece* (Diss., University of Cambridge, 1984); K. KOTSAKIS & S. ANDREOU, "Ιεραρχική Οργάνωση στην Κεντρική Μακεδονία", *Proceedings of the Sixth International Colloquium on Aegean Prehistory. The Prehistoric Aegean and its Relations to Adjacent Areas, Athens, 30 Aug. - 5 Sept. 1987* (in press).

to human labour and, probably, agricultural staples [12]. This paper examines the neolithic background to these bronze age *politeiai* with two aims:

(1) to evaluate evidence for social inequality during the Neolithic;

(2) to consider the possible role of access to material resources in the emergence of any such inequality and, more particularly, to explore the relationship between unequal access to resources and the 'levelling mechanisms' which often characterise and maintain egalitarian society [13].

Neolithic research in Greece has been strongly concentrated in Thessaly, and any understanding of neolithic society is particularly dependent on the neighbouring Thessalian settlements of Sesklo and Dimini, which alone have been excavated on a large enough scale to afford some insight into overall settlement plan. As a result, this paper is biased towards the Thessalian evidence, though many of the observations made are of wider relevance within the Aegean. For the sake of both brevity and clarity, the distinctive pattern of extensive, non-tell settlements recently documented for neolithic Macedonia [14] is ignored here.

Because relevant evidence is both sparse and patchy, the following synthesis is inevitably somewhat impressionistic. The evidence is first reviewed in terms of three broad 'stages' in the development of neolithic settlement in Greece (Pl. Ia) [15]:

(1) early agricultural settlement in long-lived 'villages';

(2) later, marginal colonisation by smaller and more short-lived 'hamlets', co-existing with earlier village foundations;

(3) aggregation of both villages and hamlets into larger 'nucleated settlements'.

For each stage, evidence is reviewed at three spatial/social scales: intra-settlement/household, settlement/local community and inter-settlement/regional population.

Early agricultural settlement: 'villages'

Early agricultural settlement was concentrated in the relatively fertile lowlands of east, particularly east-central, mainland Greece. Most Early Neolithic (EN) and Middle Neolithic (MN) settlements (7-6 millennia BC) form compact 'tell' mounds, typically covering ca 0.5-1 ha.

At the intra-settlement level, these villages are characterised by rectangular 'houses' of variable size (typically ca 20-70 m^2) and uncertain function [16]. For the Near East, Flannery has suggested a distinction between small huts (5-15 m^2), housing one or two individuals or specific functions, and larger houses (25-35 m^2), containing some form

12 K. KOTSAKIS & S. ANDREOU, "Προκαταρκτικές Παρατηρήσεις για την Οργάνωση του Χώρου στην Προιστορική Τούμπα Θεσσαλονίκης", *Το Αρχαιολογικό Έργο στη Μακεδονία και Θράκη* 1 (1988), 223-34; G. JONES, K. WARDLE, P. HALSTEAD & D. WARDLE, "Crop Storage at Assiros", *Scientific American* 254, 3 (1986), 96-103.

13 *E.g.* J. WOODBURN, "Egalitarian Societies", *Man* 17 (1982), 431-51; S. KENT, "Sharing in an Egalitarian Kalahari Community", *Man* 28 (1993), 479-514.

14 *E.g.* S. ANDREOU & K. KOTSAKIS, "Διαστάσεις του Χώρου στην Κεντρική Μακεδονία", *ΑΜΗΤΟΣ. Τιμητικός τόμος γιά τον καθ. Μανόλη Ανδρόνικο* I (1986), 57-88.

15 P. HALSTEAD, "The North-South Divide: Regional Paths to Complexity in Prehistoric Greece", C. MATHERS & S. STODDART eds, *Development and Decline in the Mediterranean Bronze Age* (*Sheffield Archaeological Monographs* 8 [1994]), 195-219.

16 S. SINOS, *Die vorklassischen Hausformen in der Ägäis* (1971); D.R. THEOCHARES, *Neolithic Greece* (1973).

of family household [17]. In terms of size, therefore, the basic architectural unit of the early Greek villages would be some sort of family house, and the discovery of a full neolithic tool kit in two hastily abandoned MN houses at Tsangli, Thessaly [18], is consistent with a family household of mixed age and gender. EN and MN 'houses' are of very variable size, but this may simply reflect variability in size of family or in the ability to attract labour assistance for building work through hospitality or exchange [19]. In other words, while domestic architecture may reflect marked inequalities in the size and success of individual households, these villages may have been technically 'egalitarian' in that inequality was achieved and transient rather than ascribed or institutionalised.

At the level of the settlement, the population of a typical village of 0.5-1.0 ha may tentatively be estimated at ca 50-300 persons [20]. This corresponds well with a variety of both empirical and theoretical estimates of the maximum size of community which can be held together on an egalitarian basis [21]. The modest size of most EN-MN villages is thus consistent with the interpretation of intra-settlement architectural evidence in terms of a broadly 'egalitarian' society. A few settlements achieved a far larger extent, including Sesklo in Thessaly, where the large and sturdy houses of the 'acropolis' may have been deliberately segregated from the smaller and flimsier structures of the outer settlement [22], and also Knossos on Crete [23]. If these unusually large settlements were characterised by the same density and stability of habitation as their smaller counterparts, internal order and cohesion may have been maintained through institutionalised inequality.

While internal conflict imposes an upper limit on the size of recent 'egalitarian' villages in S. America and New Guinea, endemic raiding between villages imposes a lower limit on community viability. Because of raiding, these villages also tend to be short-lived and widely spaced - often two to three days' walk apart [24]. At the inter-settlement level, however, early Greek villages contrast with their recent tropical counterparts in being both closely spaced and long-lived: in Thessaly, villages may have been as little as

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17 K.V. FLANNERY, "The Origins of the Village as a Settlement Type in Mesoamerica and the Near East", P.J. UCKO, R. TRINGHAM & G.W. DIMBLEBY eds, *Man, Settlement and Urbanism: Proceedings of a Meeting of the Research Seminar in Archaeology and Related Subjects Held at the Institute of Archaeology, London University* (1972), 23-53

18 A.J.B. WACE & M.S. THOMPSON, *Prehistoric Thessaly* (1912).

19 The involvement of a successful household in long-distance exchange may be reflected in the cache of blades of exotic flint found in an unusually large building (so called 'club house' or 'shrine') at Nea Nikomedeia: R. RODDEN, "Recent Discoveries from Prehistoric Macedonia", *Balkan Studies* 5 (1964), 109-24.

20 Cf. P. HALSTEAD, "Counting Sheep in Neolithic and Bronze Age Greece", I. HODDER, G. ISAAC & N. HAMMOND eds, *Pattern of the Past: Studies in Honor of David Clarke* (1981), 307-39.

21 A. FORGE, "Normative Factors in the Settlement Size of Neolithic Cultivators (New Guinea)", P.J. UCKO, R. TRINGHAM & G.W. DIMBLEBY eds, *Man, Settlement and Urbanism: Proceedings of a Meeting of the Research Seminar in Archaeology and Related Subjects Held at the Institute of Archaeology, London University* (1972), 363-76; N.A. CHAGNON, "Mate Competition, Favoring Close Kin, and Village Fissioning among the Yanomamo Indians", N.A. CHAGNON & W. IRONS eds, *Evolutionary Biology and Human Social Behavior: an Anthropological Perspective* (1979), 86-132; L.C. AIELLO & R.I.M. DUNBAR, "Neocortex Size, Group Size, and the Evolution of Language", *Current Anthropology* 34 (1993), 184-93.

22 THEOCHARES (*supra* n. 16); K. KOTSAKIS, "Recent Research at Sesklo", *Symposia Thracica: XI Internationales Symposium über das Spätneolithikum und die Bronzezeit, Xanthi 4.-10. Oktober 1981* (1982), 265-69.

23 See cautionary remarks in T. WHITELAW, "Lost in the Labyrinth?", *Journal of Mediterranean Archaeology* 5 (1992), 225-38.

24 CHAGNON (*supra* n. 21).

1-4 km apart [25] and often seem to have been more or less continuously occupied for centuries or even millennia. One implication is that the EN-MN norm of village settlement was maintained by some pressure other than fear of raiding (see below). A further implication is that early Greek villages invested heavily in maintaining peaceful co-existence rather than a state of 'warre' or latent hostility between communities [26]. One possible index of this investment is EN-MN fine decorated pottery, which often displays stylistic homogeneity over distances of more than 50 km [27]. Both stylistic and fabric analysis suggest that this homogeneity is not primarily a product of the physical movement of fine pottery. Moreover, stylistic unity was maintained over distances far less than those over which lithic raw materials were moved [28] and far greater than those necessary to secure marriage partners [29], and so cannot simply be explained as a by-product of such exchanges. A possible rationale for stylistic unity on this scale is considered below.

Later marginal colonisation: 'villages' and 'hamlets'

While village settlements persisted in areas colonised during EN-MN, LN (6-5 millennia BC) infilling in Thessaly and LN-EB (5-3 millennia BC) colonisation of the semi-arid southern Aegean were largely effected by smaller 'hamlets'. Both villages and hamlets continued to be characterised mainly by rectangular houses, and a family household may be represented by a model of a house interior with eight human figures and a range of domestic facilities, which was apparently deposited under a house floor at early LN Platia Magoula Zarkou in Thessaly [30]. In addition, however, Hourmouziadis has convincingly reinterpreted the 'defensive' circuit walls at LN Dimini as internal partitions, dividing the settlement into a series of domestic areas [31] or 'courtyard groups' [32]. A plethora of ditch segments at other LN sites excavated on a smaller scale, in both Thessaly and Macedonia, may be a fragmentary reflection of the same phenomenon.

At LN Dimini, each courtyard group may have contained one large house and several smaller buildings, possibly representing a dominant household and several subordinate households. A central courtyard group, with its central 'megaron' house, was clearly set apart from the remaining groups on the lower terraces of the settlement and perhaps constitutes evidence of institutionalised ranking. The central court contained more small, 'subordinate' buildings than did the courtyard groups on the surrounding terraces, possibly

25 HALSTEAD (*supra* n. 11).

26 M. MAUSS, *The Gift* (1970).

27 *E.g.* D.H. FRENCH, *Notes on Prehistoric Pottery Groups from Central Greece* (1972); V. RONDIRI, "Επιφανειακή Κεραμεική Νεολιθκών Θέσεων της Θεσσαλίας, κατανομή στο χώρο", *Ανθρωπολογικά* 8 (1985), 53-74; T. CULLEN, "Social Implications of Ceramic Style in the Neolithic Peloponnese", *Ancient Technology to Modern Science* 1 (1984), 77-100; D.K. WASHBURN, "Symmetry Analysis of Ceramic Design: Two Tests of the Method on Neolithic Material from Greece and the Aegean", D.K. WASHBURN ed, *Structure and Cognition in Art* (1983), 138-64; K.D. VITELLI, "Power to the Potters", *Journal of Mediterranean Archaeology* 6 (1993), 247-57.

28 C. PERLES, "Systems of Exchange and Organisation of Production in Neolithic Greece", *Journal of Mediterranean Archaeology* 5 (1992), 115-64.

29 Cf. H.M. WOBST, "Boundary Conditions for Palaeolithic Social Systems", *American Antiquity* 39 (1974), 147-78; with suggested village populations of 50-300 head, a viable breeding population of ca 500 could have been met by just a handful of closely neighbouring villages. Marriage partners may have been exchanged over distances of 50 km, but this could not be accounted for in purely demographic terms.

30 K.J. GALLIS, "A Late Neolithic Foundation Offering from Thessaly", *Antiquity* 59 (1985), 20-24.

31 G. HOURMOUZIADIS, *Το Νεολιθικό Διμήνι* (1979).

32 K.V. FLANNERY ed., *The Early Mesoamerican Village* (1976).

reflecting preferential access to labour. In both location and orientation, the central megaron at Dimini is paralleled at Sesklo [33] and perhaps at Ayia Sofia, where a possible megaron is linked to a minority burial facility [34]. Thus the suggested 'megaron elite' seemingly stressed its links both with peer elite groups in other settlements and with local ancestors.

Some insight into the size of hamlet communities is afforded by Whitelaw's rigorous analysis of the 0.1 ha EB settlement at Fournou Korifi Myrtos in SE Crete which, by the time of its destruction, housed 5-6 family households [35]. A community of this size, which approximates to the ideal 'minimum band' of 25 hunter-gatherers, would have ensured a labour force with a balance of different ages and genders.

At an inter-settlement level, the co-existence of villages and hamlets implies significant inequalities at least in manpower, as Broodbank has recently argued with reference to the variable ability of EB settlements to man canoe expeditions in the islands [36]. In the relatively uniform topography of Thessaly, however, villages are clearly concentrated in the areas of early agricultural settlement and hamlets in the areas colonised later. Villages and hamlets thus represent alternative settlement strategies in agriculturally core and marginal areas rather than the centres and satellites of local site hierarchies. Close interaction between communities continues to be reflected in regional stylistic homogeneity, most obviously in the shapes and decoration of fine pottery, but also finds increasing expression in the physical movement of some categories of fine pottery [37].

Aggregation: 'nucleated settlements'

The aggregation of both villages and hamlets into fewer, larger 'nucleated settlements' (covering several hectares) has been widely documented at various dates between the FN (4 millennium BC) in Thessaly to Middle Bronze Age (early 2 millennium BC) in Crete and the Cyclades [38]. Architecture continues to be highly variable in both form and scale, but rectangular houses suitable for some sort of family household remain the normal residential units outside the palace complexes [39]. In Thessaly, traces of the segregation of the central part of FN and EB nucleated settlements suggest the continuing existence of the 'megaron elite' [40], while in the southern mainland relatively grand

33 THEOCHARES (*supra* n. 16).

34 V. MILOJCIC, "Die Grabung auf der Ayia Sofia-Magula", *Die Deutschen Ausgrabungen auf Magulen um Larisa in Thessalien, 1966* (1976), 4-14.

35 T.M. WHITELAW, "The Settlement at Fournou Korifi, Myrtos", *Minoan Society*, 323-45.

36 C. BROODBANK, "The Longboat and Society in the Cyclades in the Keros-Syros Culture", *AJA* 93 (1989), 319-37.

37 G. SCHNEIDER, H. KNOLL, C.J. GALLIS & J.-P. DEMOULE, "Production and Distribution of Coarse and Fine Pottery in Neolithic Thessaly, Greece", E. PERNICKA and G.A. WAGNER (eds.), *Archaeometry '90. International Symposium on Archaeometry 2-6 April 1990 Heidelberg, Germany* (1991), 513-22.

38 *E.g.* HALSTEAD (*supra* n. 15); K. BRANIGAN, "Minoan Settlements in East Crete", P.J. UCKO, R. TRINGHAM & G.W. DIMBLEBY eds, *Man, Settlement and Urbanism: Proceedings of a Meeting of the Research Seminar in Archaeology and Related Subjects Held at the Institute of Archaeology, London University* (1972), 751-59; WHITELAW (*supra* n. 35); J.F. CHERRY, "A Preliminary Definition of Site Distribution on Melos", C. RENFREW & M. WAGSTAFF eds, *An Island Polity: the Archaeology of Exploitation in Melos* (1982), 11-23.

39 SINOS (*supra* n. 16); R. TREUIL, *Le Néolithique et le Bronze ancien égéens* (1983); G. HIESEL, *Späthelladische Hausarchitektur* (1990).

40 HALSTEAD (*supra* n. 11).

structures such as the House of Tiles at Lerna may also hint at the existence of some form of central authority, at least at the level of the local community [41].

Many early 'nucleated settlements' cover 5 ha or more, suggesting communities of at least several hundred head, and implying that the emergence of institutionalised elite authority had enabled the size threshold of egalitarian organisation to be overcome. Likewise, the frequent juxtaposition of large and small Bronze Age sites suggests the development of local, and ultimately regional, inter-site hierarchy.

Social inequality in Neolithic Greece?

While inequalities in the size, status or well-being of individual households seem clear throughout Neolithic Greece, the archaeological evidence from *most* EN-MN villages is compatible with temporary achieved inequalities - that is with an 'egalitarian' society as defined by Fried [42]. In Thessaly, at least, there are indications of institutionalised (*i.e.* ascribed rather than achieved) inequality within the community from the Late Neolithic. In an attempt to understand this social change, and the subsequent development of regional-scale hierarchies, the nature of the interaction between households, both within and between individual communities, must be considered.

Neolithic households: isolation versus dependence

It has been suggested that the typical rectangular house of neolithic Greece served to wall off some form of family household, and the burnt MN settlement at Servia in West Macedonia shows that at least some storage of agricultural staples took place within the house [43]. Flannery has argued that the isolation of a family unit of production and consumption is highly advantageous, if not essential, in the context of a labour-intensive, food-producing economy characterised by delayed and markedly seasonal returns: the shift from foraging to farming requires a shift from sharing to hoarding [44]. At first sight, neolithic Greek architecture does emphasise domestic isolation rather than interaction between households but, as Sahlins has stressed, such a strict 'domestic mode of production' is not viable in the long term, because of the fluctuations in manpower, food production and stored resources which inevitably afflict individual households [45].

In practice, EN-MN households apparently took a number of measures to counteract the tendency to domestic isolation introduced by neolithic architecture. First, at an intra-community level, the location of many cooking facilities in the open spaces between houses (Pl. Ib, A) [46] suggests social pressure to share cooked food: it is a convention in many societies (including our own) that cooked food is subject to far greater obligations to

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41 *E.g.* D.J. PULLEN, "A 'House of Tiles' at Zygouries? The Function of Monumental Early Helladic Architecture", *Early Helladic Architecture and Urbanization. Proceedings of a Seminar Held at the Swedish Institute in Athens, June 8, 1985* (1986), 79-84; also K. KILIAN, "The Circular Building at Tiryns", *ibid.*, 65-71.

42 M.H. FRIED, *The Evolution of Political Society* (1967).

43 C. RIDLEY & K.A. WARDLE, "Rescue excavations at Servia 1971-1973", *BSA* 74 (1979), 185-230.

44 FLANNERY (*supra* n. 17).

45 M. SAHLINS, *Stone Age Economics* (1974); also P. HALSTEAD, "The Economy has a Normal Surplus", P. HALSTEAD & J. O'SHEA eds, *Bad Year Economics: Cultural Responses to Risk and Uncertainty* (1989), 68-80.

46 D.R. THEOCHARES, "Το νεολιθικό σπίτι", *Ανθρωπολογικά* 1 (1980), 12-14; HALSTEAD (*supra* n. 45), 74; S. WINN & D. SHIMABUKU, "Architecture and Sequence of Building Remains", *Achilleion: a Neolithic Settlement in Thessaly, Greece, 6400-5600 BC* (*UCLA Institute of Archaeology: Monumenta Archaeologica* 14 [1989]), 32-68.

share than raw food [47]. The sharing of cooked food, in many societies an index of kinship, will have contributed to the maintenance of village solidarity and so perhaps goes some way to explaining the remarkably long survival of many early Greek village communities. Sharing will thus have served both to enhance the economic viability of villages and, in the absence of pressure from inter-communal raiding, to favour social cohesion over internal conflict and fission. Secondly, at an inter-community level, pottery styles emphasise social ties over considerable distances. The fact that these stylistic messages were carried on fine 'table ware' suitable for eating and drinking, and more particularly on the relatively rare decorated table ware, suggests that considerable social significance may have been accorded to hospitality between distant households [48].

Both intra-communal sharing and inter-communal hospitality would have reduced the risk of domestic economic failure, and would also have served as levelling mechanisms, counteracting any tendency for short-term economic success or failure to be translated into longer-term economic or social inequality. Social norms are open to reinterpretation, however, and the widespread prescription on generosity with cooked food is no exception. Among the Bemba of East Africa, a relative is someone to whom you give food, but someone who enters your house and reminds you of this obligation is a witch! A Maori saying from New Zealand advises the unwilling host to disguise the preparation of cooked food: 'broil your rat with its fur on, let you be disturbed by someone'. Early farmers in Greece will have faced similar dilemmas over the use of available food resources: to share freely with neighbours who might reciprocate in the future, to keep food back for more formal displays of hospitality designed to cultivate more distant social relationships, or to hoard for eventual household consumption? Humans are extremely adept at such games of 'social chess' [49].

The tension between sharing and hoarding will have been heightened with widespread LN-EB colonisation of agriculturally marginal areas characterised by a relatively high risk of subsistence failure and by relatively sharp inequality between farmers in favourable and unfavourable locations. Perhaps partly for this reason, there are numerous indications of a shift in emphasis at this time from intra-communal sharing to hoarding and inter-communal exchange. First, the division of previously open village settlements into separate courtyard groups presumably restricted sharing between households (Pl. Ib, B) and, incidentally, perhaps constituted some form of social pre-adaptation to widespread marginal colonisation by small hamlet settlements. Secondly, the proliferation of deep pits, suitable particularly for long-term storage of agricultural surplus, suggests increased hoarding or at least careful use of higher levels of overproduction [50]. Thirdly, increased inter-communal exchange of decorated fine pottery implies more intensive maintenance of long-distance social ties, and perhaps reflects a shift from obligations of hospitality to the use of valuable craft goods as exchangeable tokens in 'social storage' [51]. Although the exchange of food for valuables is widely

47 *E.g.* SAHLINS (*supra* n. 45), 125.

48 Early fine pottery was apparently not used in cooking. Vitelli suggests use as receptacles for incense or narcotics as well as in the serving and consumption of food and drink. On either interpretation, the rarity of decorated fine ware, and the skill and effort invested in its manufacture, implies use in a ceremonial context: K.D. VITELLI, *Excavations at Franchthi Cave* 8, *Franchthi Neolithic Pottery, 1: Classification and Ceramic Phases 1 and 2* (1993), esp. 213-17; VITELLI (*supra* n. 27).

49 N. HUMPHREY, "The Social Function of Intellect", P.P.G. BATESON & R.A. HINDE eds, *Growing Points in Ethology* (1976), 303-17.

50 HALSTEAD (*supra* n. 45), 75-76

51 J. O'SHEA, "Coping with Scarcity: Exchange and Social Storage", A. SHERIDAN & G. BAILEY eds, *Economic Archaeology: towards an Integration of Ecological and Social Approaches* (1981), 167-83.

proscribed, it commonly occurs in bad years [52] and over large social distances [53] and is easily disguised under conditions of delayed reciprocity [54] or when both food and valuables are exchanged for labour [55]. The distinction between gifts and commodities should not be overemphasised [56], therefore, and the use of valuables in social storage may represent a shift in emphasis rather than a wholly new role for craft goods.

Such a development would have facilitated the unequal accumulation of wealth, and so potentially of status, and this expectation is apparently met by the distribution of Spondylus shell ornaments and manufacturing waste at LN Dimini [57]: while manufacturing waste is more or less ubiquitously distributed, suggesting universal production, finished bracelets, beads and buttons are concentrated in two courtyard groups, suggesting unequal accumulation of the finished artefact. Moreover most of these finished ornaments seem to have been deliberately destroyed by burning, a strategy frequently employed in competitions over status [58]. Finally, it may be significant that households at LN Dimini competed through the destruction of shell ornaments which, though produced locally, were exchanged widely - perhaps even into temperate Europe. Households may have been competing, *inter alia*, for access to exchange partners in other communities and, in this context, it may also be significant that, through the similar location, orientation and form of the central 'megaron' at Dimini, Sesklo and Ayia Sofia, emerging elite groups in LN Thessaly apparently chose to emphasise their mutual links.

If LN households were competing over external exchange partners and if emerging elite status was at least partly legitimised in terms of distant alliances, access to successful elite groups is likely to have become increasingly critical to ordinary households - not least for 'banking' agricultural surplus or making up food shortage through social storage [59]. The process of FN-EB settlement aggregation, therefore, may reflect the ability of successful elite groups not only to maintain order in communities exceeding the limits of egalitarian organisation, but also to secure followers or dependents [60]. Again the archaeological record provides several hints of significant social and economic change. First, in many FN or EB aggregated settlements, the placing of cooking facilities in internal 'kitchen extensions' or in closed yards will have further restricted social pressure for the sharing of cooked food (Pl. Ib, C) [61]. Secondly, the decline in decorated fine table ware suggests reduced social significance for hospitality, or possibly that the significance of hospitality was now marked by metal vessels accessible to only a minority of households [62]. Individual households will still have been economically inviable in isolation and, if anything, settlement aggregation will have further undermined the domestic mode of production by reducing the opportunities for foraging in the event of

52 O' SHEA (*supra* n. 51)
53 SAHLINS (*supra* n. 45), 185-230.
54 P. BOURDIEU, *Outline of a Theory of Practice* (1977), 171.
55 *E.g.* HALSTEAD (*supra* n. 45).
56 A. APPADURAI, "Introduction: Commodities and the Politics of Value", A. APPADURAI ed, *The Social Life of Things* (1986), 3-63.
57 A. TSUNEKI, "The Manufacture of *Spondylus* Shell Objects at Neolithic Dimini, Greece", *Orient* 25 (1989), 1-21; P. HALSTEAD, "*Spondylus* Shell Ornaments from Late Neolithic Thessaly, Greece", *Antiquity* 67 (1993), 603-9.
58 C. GREGORY, "Gifts to Men and Gifts to God", *Man* 15 (1980), 626-52.
59 HALSTEAD (*supra* n. 45).
60 G. WEBSTER, "Labor Control and Emergent Stratification in Prehistoric Europe", *Current Anthropology* 31 (1990), 337-66.
61 Cf. HALSTEAD (*supra* n. 15).
62 THEOCHARES (*supra* n. 16), 103 and pl. 128-29.

agricultural failure [63]. In other words, despite architectural and artefactual evidence that the progressive isolation of the domestic economy was finally completed in the nucleated settlements, households must still have depended for their survival on periodic exchanges of food or labour both within and between communities. The conclusion seems almost inescapable that such exchanges continued to take place, but that they were now channeled through the elite groups; reciprocal exchanges between households had given way to centrally organised redistribution. In Fried's terms, 'ranking' or unequal access to status, evident in the LN Thessalian megara, had given way to 'stratification' or unequal access to basic resources. At the same time, competition between elite groups to secure both exchange partners and followers or dependents may have laid the foundations of regional-scale hierarchy.

Conclusions

It is not intended here to argue for unilinear development from LN Thessaly to the MB and LB palaces of southern Greece: interruptions, reversals and local variation in 'social evolution' are to be expected and, to some extent, are evident in the archaeological record [64]. It is clear, however, that the origins of social complexity in Greece are to be traced back to the Neolithic. Inequalities between EN-MN households may have been of a transient nature, but there are indications of institutionalised ranking in LN Thessaly and perhaps of stratification in FN-EB Thessaly.

Of more importance than the identification of social evolutionary stages such as 'ranked' or 'stratified' is understanding of the basis of inequality. There are hints from LN-EB Greece of elite control of agricultural surplus, labour and exchange - all features of the developed LB palatial economy. Though harder to substantiate archaeologically, access to ritual and social knowledge is likely to have been a corollary of elite success in agricultural production and exchange respectively. This paper, however, has emphasised the archaeological evidence for a more materialist aspect of the process of social differentiation. Over the four millennia of the Neolithic, a combination of artefactual and architectural evidence charts the gradual isolation of the domestic economy, and progressive circumscription of levelling mechanisms. EN-MN emphasis on reciprocal sharing and hospitality gives way in LN to hoarding and exchange, accompanied by evidence for the unequal accumulation of valuables. This shift is to be understood in terms of the tension, inherent in the domestic mode of production [65], between household autonomy and dependence on a larger society. The long-term shift from sharing to hoarding, from village cohesion to household isolation, may have been critical to social change in prehistoric Greece in two respects: directly, by enabling the unequal accumulation by individual households of wealth, status and power; and indirectly, by facilitating the proliferation of small hamlet settlements and thereby enabling the colonisation of the agriculturally marginal areas where palatial civilization was to develop.

Paul HALSTEAD

63 P. HALSTEAD, "Like Rising Damp? The Spread of Farming in Southeast and Central Europe", A. MILLES, D. WILLIAMS & N. GARDNER eds, *The Beginnings of Agriculture* (*Symposia of the Association for Environmental Archaeology* 8 [1989]), 23-53.

64 *E.g.* O.T.P.K. DICKINSON, *The Origins of Mycenaean Civilisation* (1977); "Parallels and Contrasts in the Bronze Age of the Peloponnese", *OJA* 1 (1982), 125-38.

65 SAHLINS (*supra* n. 45).

LIST OF ILLUSTRATIONS

DISCUSSION

R. Palmer: In your discussion of the Final Neolithic to Early Bronze Age you mentioned that there is evidence in the houses pointing to a system of redistribution. My question would be: how much and how frequently?

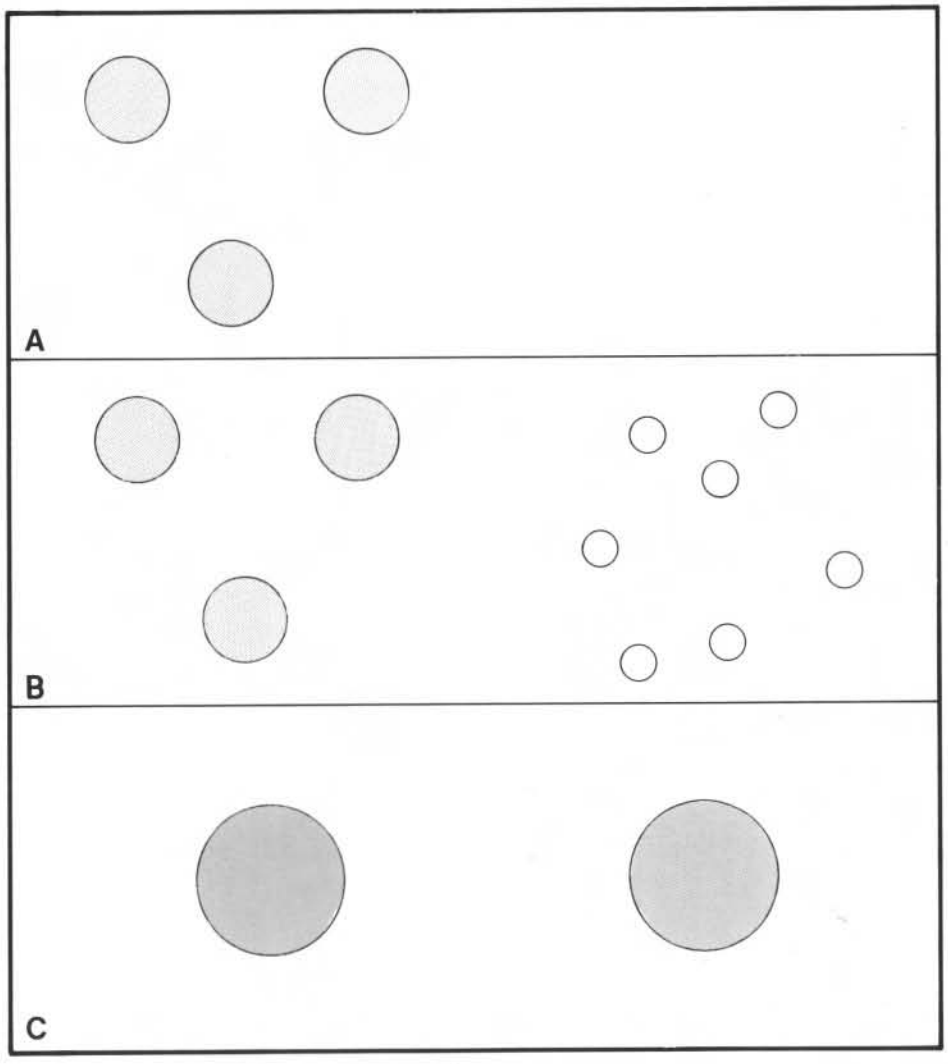
P. Halstead: I think that is a very difficult question to answer. I imagine the significance of an architectural pattern which emphasises the isolation of the household is that the household was intended normally to be self sufficient and so we are looking at redistribution in the event of household failure rather than every year dependence of the household on central distribution.

S. Voutsaki: I will ask a question about the Early Bronze Age rather then the Neolithic. You have outlined the process of the emergence of inequality both within the settlement and between settlements. The link that I am missing is the centralisation of resources (which is the precondition for their redistribution), that is the way resources will be brought together at one central point which is presumably what we see in Lerna.

P. Halstead: You are quite right that I evaded that issue, because I was attempting to concentrate on the Neolithic background. I would suggest that we have a hint perhaps of the central collation of resources. I think the most direct hint is the coincidence of large aggregated settlements from the Final Neolithic onwards, certainly in areas like Thessaly, with the enclosure of cooking facilities within houses or within closed yards. Since it is inevitable that houses have frequent domestic failures and are therefore dependent on some form of exchange between households, I presume that once you remove the social mechanisms like external cooking facilities, fine painted pottery which maintain pressures towards sharing between households, that at that point the distribution of food must move through a different route. And I presume that is the point at which it moves through a central elite. I think I cannot offer more direct evidence from the communities that I was looking at for this redistribution, although obviously Lerna would be one possible example of the mechanisms which are in play.

G. Kopcke: You are speaking about ranking in Late Neolithic and stratification in Final Neolithic. Would you please elaborate on the evidence for the stratification. Is it adequately supported? I fail so far to see the material that really distinguishes stratification from ranking.

P. Halstead: Firstly, I am using ranking as meaning institutionalised inequality of status, stratification as indicating unequal access to staple resources like labour or food, in other words as being something over and above ranking. I argue that the architectural segregation of the central megaron in the Late Neolithic is evidence for ranking, but I see no evidence that this involves unequal access to basic resources. The argument for placing stratification in the Final Neolithic and Early Bronze Age is essentially that it is at this point that, as I was just arguing in my answer to S. Voutsaki, that I believe the central household plays a role in distributing food to dependent households. In other words exchanges which would previously have taken place between households now, I think, on the basis of default, must go through the central household. That would mean that the central household must have preferential access to basic resources in order to be able to function as a redistributor.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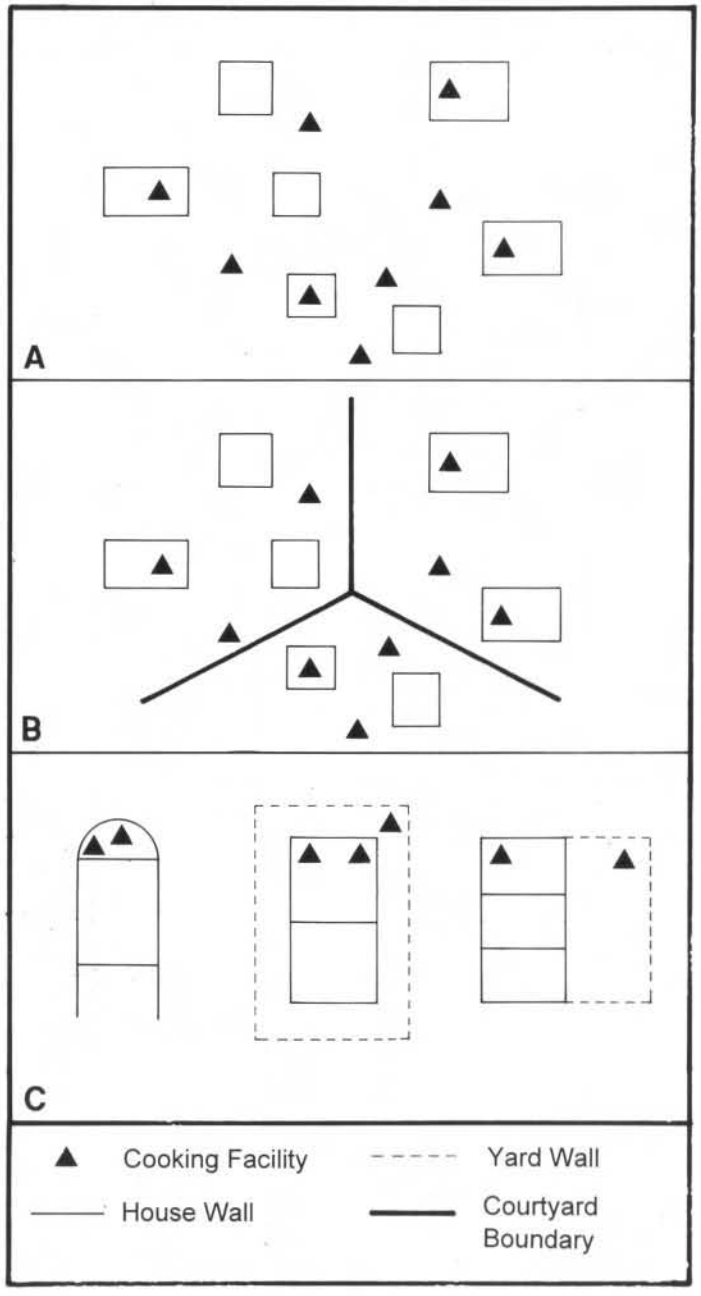
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