

Paul Halstead

Feast, Food and Fodder in Neolithic-Bronze Age
Greece: Commensality and the Construction of
Value

in Susan Pollock (ed.), *Between Feasts and Daily Meals:
Toward an Archaeology of Commensal Spaces*

Edited by Gerd Graßhoff and Michael Meyer,
Excellence Cluster Topoi, Berlin

eTopoi ISSN 2192-2608
<http://journal.topoi.org>



Except where otherwise noted,
content is licensed under a Creative Commons
Attribution 3.0 License:

<http://creativecommons.org/licenses/by/3.0>

Paul Halstead

Feast, Food and Fodder in Neolithic-Bronze Age Greece: Commensality and the Construction of Value

This paper explores the relationship between mundane domestic and more formal meals in recent rural Greece, as a prelude to a diachronic examination of the range of commensal behavior through the Neolithic and Bronze Age of the same region. Analysis of recent practices highlights the role of a hierarchy of low- to high-value foods. While Neolithic commensality beyond the household emphasizes equality and collective cohesion, formal commensality takes a strikingly and increasingly diacritical form through the Bronze Age. It is argued that Bronze Age diacritical commensality was part of a broader strategy of elite ‘choreography’ of social life. A hierarchy of foods, which linked diacritical behavior, labor mobilization and risk buffering, may have played a critical role in driving this trajectory of change.

Prehistoric archaeology; Bronze Age archaeology; Greece; feast; food; fodder; Neolithic; Bronze Age; value.

Als Vorarbeit für eine diachrone Untersuchung des Spektrums kommensaler Verhaltensweisen vom Neolithikum bis zur Bronzezeit in Griechenland beschäftigt sich dieser Beitrag mit der Beziehung zwischen einfachen, häuslichen und förmlicheren Mahlzeiten im heutigen ländlichen Griechenland. Die Analyse gegenwärtiger Praktiken unterstreicht die Rolle, die die Hierarchisierung von Nahrungsmitteln spielt, denen mehr oder weniger Wert beigemessen wird. Während im Neolithikum Kommensalität jenseits des Haushalts Gleichheit und kollektive Zusammengehörigkeit betont, nimmt formelle Kommensalität in der Bronzezeit eine in auffälligem und zunehmendem Maße diakritische Form an, die gesellschaftliche Unterschiede betont. Der Beitrag argumentiert, dass die bronzezeitliche diakritische Kommensalität Teil einer umfassenderen Strategie der Elite war, das soziale Leben zu „choreographieren“. Dabei kann eine Nahrungsmittelhierarchie, die diakritisches Verhalten, die Mobilisierung von Arbeitskraft sowie Risikoabsicherung miteinander verband, den Verlauf dieser Veränderungen entscheidend vorangetrieben haben.

Prähistorische Archäologie Griechenlands; Kommensalität; Fest; Nahrungsmittel; Futter; Neolithikum; Bronzezeit; Wert.

1 Introduction

This paper explores the relationship between mundane domestic meals and more formal commensal occasions in Neolithic and Bronze Age Greece, and the role of formal commensality in shaping inequalities of status between participants. It first outlines how

I thank Susan Pollock for the opportunity to take part in a very stimulating meeting in Berlin; Sevi Triantaphyllou for literature on stable isotope analysis in Greece; Valasia Isaakidou for comments on this paper during its gestation; and Susan and two anonymous referees for constructive criticisms of my first draft. The paper draws heavily on collaborative research in Greece with Valasia (on recent and Bronze Age commensality) and with Valasia, Kostas Kotsakis and Duska Urem-Kotsou (on Neolithic commensality).

the recent rural population of Greece used scarce ingredients and culinary elaboration to differentiate between daily meals within the household and commensality on ‘special’ occasions involving hospitality to ‘outsiders.’ A related hierarchy of value (fodder for livestock < food for the poor < food for the better-off) played an important role not only in social differentiation, but also in labor mobilisation and in buffering the uncertainties of agriculture, and thereby ensured close linkage between commensal politics and agricultural production. The paper then addresses similar issues for later prehistory, exploring the role of a hierarchy of foods and commensal occasions in legitimizing and also promoting institutionalized social inequality. It is argued that diacritical feasting, richly documented for the ‘palatial’ later Bronze Age of Greece, developed out of and elaborated on formal commensality in the Neolithic. Key to understanding the causes and significance of this development is the recursive relationship, practical and symbolic, between daily meals and ritual feasts, between low- and high-value foods, and between commensality and agricultural production.

2 Commensality in Recent Rural Greece

This study of commensality in prehistoric Greece begins with discussion of the twentieth century AD, because the recent past offers richer opportunities to investigate both subtle details of commensal provision and the dynamic interplay between the latter and household agricultural strategies. The results of this investigation are applied to the distant past *heuristically*, as a source of questions rather than ready answers about commensal politics in Neolithic and Bronze Age Greece. Some initial clarification is also necessary concerning the scope of the following discussion of commensal practices in recent rural Greece. First, *recent* refers to the mid-twentieth century, a period within living memory but before widespread domestic refrigeration, so that the range, seasonality and ‘shelf-life’ of foods were limited by preserving techniques that bear comparison with later prehistory. Secondly, and for similar reasons, the focus is *rural*, because villagers tended to consume what they produced and preserved, with limited access to the more varied foods and tastes available to some urban dwellers. Thirdly, because published folkloric and culinary sources tend to emphasize regional traditions and food for special occasions, first-hand *interviews* with (and, to some extent, participant observation of) elderly villagers are the primary source used to sketch a general model of how daily meals were differentiated from formal commensality. Finally, the focus on *Greece* reflects not imagined culinary continuity from prehistory (although the diet of recent and prehistoric farmers faced similar climatic constraints), but the author’s relative familiarity with Greek cuisine.

2.1 Family Meals and Household Hospitality in Rural Greece

The principal staple element of everyday domestic meals within the household was bread, home-baked on a roughly weekly cycle, or bread and rusks (παξιμάδια) baked at longer intervals. Depending on region, season and time of day, this was accompanied by relishes such as cooked pulses, cheese, eggs, olives, pickled vegetables, fresh salad, boiled gathered greens, or mushrooms; wine too was often consumed on a daily basis. Poorer households consumed more bread and fewer relishes, while their better-off neighbors enjoyed a more varied diet.

This simple fare was progressively elaborated on more formal occasions, when the household typically played host to a larger social group on a weekly (Sundays), annual (e. g., Easter) and generational (e. g., weddings) timescale. On Sunday, as the day of rest, the household might receive visitors—perhaps relatives from other villages. The main meal on Sunday was often differentiated from that on working days by addition of meat

(a chicken or rabbit or preserved pork) or more elaborate cereal foods (perhaps cracked wheat—[πλιγούρι = *bulgur*], Cretan [χόντρο]—served like a rice *pilaf*; or savory or sweet pies made with thin *fillo* [φύλλο = pastry]). At Easter (and some other annual festivals), households might entertain affinal or ritual kin (e. g., parents-in-law, god-parents, god-children), making a gathering of one or two dozen persons, and differentiated this social occasion by provision of fresh meat (commonly roast lamb or kid) and elaboration of cereal foods (e. g., pies with meat rather than cheese or vegetable filling; wheaten bread, if the daily staple was barley). Weddings might bring together several dozen or even a few hundred relatives, neighbors and friends, and were ideally marked by generous provision of fresh meat (typically roast or boiled sheep or goat) and very elaborate cereal products (e. g., decorated loaves, sweets).

Daily, Sunday, Easter, and wedding meals thus constitute a hierarchy of commensal occasions, of decreasing frequency and increasing number of participants and social significance. Higher-level occasions combined Goody's 'African' (abundant provision) and 'Eurasian' (*haute cuisine*, with scarce ingredients and elaborate preparation) strategies of commensal celebration.¹ The importance of abundance ('if it is not too much, it will not be enough') is highlighted in Greek commensal practice by leaving food on one's plate to indicate satiation. The most important scarce ingredient was fresh meat, usually roast but sometimes stewed, depending on species and age of animal. Some elaborate forms of preparation, such as heavily decorated wedding loaves or sweets,² may have copied urban *haute cuisine*³. Others may have been rural refinements: flour for pies passed through a finer sieve than that used in bread-making, to remove more bran; whiter *pilaf* produced by beating moistened grain to strip off the outer surface (in the manner of pearled barley); and 'split' pulses (φάβα) hand-milled to remove the outer seed coat, facilitating cooking and digestion (but reducing volume).

2.2 Inequality in Diet and Hospitality

The scale and culinary elaboration of commensality depended not only on the importance of the occasion but also on the means of the host. While better-off farmers fairly regularly ate at least preserved meat (e. g., sausages, pork sealed in fat) for weekday meals, the poorest might not have meat even for major festivals. As one informant recalled of his childhood in an almost landless household in the north Greek village of Assiros, "sometimes an uncle gave us a joint of meat at Christmas or Easter, but much of the time we waited impatiently for the weddings of the big landowners for the chance to eat a little meat." Differences in provision between richer and poorer villagers thus paralleled and cross-cut those between commensal occasions of greater and lesser significance.

As the account from Assiros makes plain, social inequalities in the quantity and variety of food available significantly affected villagers' sense of well-being, with lack of access naturally felt most by those who saw neighbors enjoying prized foods such as meat. Inequalities in the ability of households to offer hospitality also played a significant role in shaping social standing and future economic well-being. As elsewhere in the Christian Mediterranean, many Greek households slaughtered a pig or two in winter and preserved much of its carcass. Informants frequently rationalize this custom in terms of needing meat for unexpected guests: "there were no telephones, so visitors turned up without warning." Likewise, some women kept a small store of ground *bulgur*, dried *fillo* pastry or home-made pasta so as to provide hospitality to visitors without delay. The quality

1 Goody 1982.

2 e. g., Psilakis and Psilaki 2001.

3 Cf. Vardaki 2004, 200–201.

of hospitality provided was a measure of a household's economic standing and, together with indices such as the clothes worn to church by family members or the appearance of work animals, could be a form of 'credit rating' that influenced marriage, ritual kinship, or commercial alliances. Creating a good impression in hospitality was important, therefore, not only to a household's prestige and social standing, but also to its future economic success.

A well-stocked larder was also important in securing the short- and long-term hired labor essential for large-scale surplus production. Landowners frequently provided daily meals, as well as pay, to seasonal workers from other villages and to long-term farmhands who became temporary household members. Landowners and laborers alike often refer to such provision with the same term ('I feed,' τὰζω) as for giving food to children and fodder to livestock. A reputation for 'feeding' well helped secure the best workers: in north Greek Paliambela-Kolindrou, an informant recalled that "we preferred to work for someone who fed well;" a neighbor, brought up in a household that employed two hired hands continuously and others seasonally, recounted how her father "killed two pigs at Christmas and made lots of cheese because we had workers to feed." In this region, the larger landowners were known as *tsorbatzides* (τσορμπατζήδες—literally, 'soup-makers' in Turkish), because they fed workers well.

2.3 Food and Fodder, Feast and Famine: the Flexible Values of Staple Grains

Domestic production of white flour or 'pearled' bulgur was time-consuming, but also 'wasteful' of staple grains. The amount of bran removed was variable, ranging from perhaps 10% by weight of the milled grain for 'black' bread, through 20–30% for 'white' loaves, to nearly 50% for pies and sweets, so a household of five persons routinely consuming white bread might have sacrificed half or even all the grain requirement of an adult. To put this figure in context, fattening a pig is often said to require as much grain as maintaining an adult human and is also roughly comparable to the amount of grain needed to feed a draught ox engaged in heavy work (although livestock usually received grains of lower value). In practice, bran removed from refined cereal products was not wasted, but used in loaves baked for dogs that guarded livestock or mixed with by-products of the dairy, kitchen, or oil-press to fatten pigs. Routine consumption of white bread would be prohibitively costly, however, for any household not achieving significant overproduction of grain. The processing of cereals thus created a hierarchy of value: bran destined for animal fodder < unrefined grain products for routine human consumption < and refined grain products for consumption on festive occasions or by the relatively wealthy.

A similar hierarchy can be discerned among staple grain species. Of the principal cereals grown in Greece, oats were almost universally regarded as fodder; barley, maize, common millet, and rye variously as fodder or food for the poor; and free-threshing bread or durum wheat and rice as food for human consumption, if not reserved for special occasions or privileged persons. Likewise, of the pulse crops, common vetch (*Vicia sativa*) and bitter vetch (*V. ervilia*) were almost invariably fodder crops; broad bean (*V. sativa*) and grass pea (*Lathyrus sativus*) of ambiguous status; and lentil (*Lens culinaris*), pea (*Pisum sativum*), chickpea (*Cicer arietinum*), black-eyed bean (*Vigna unguiculata*), and various New World beans (*Phaseolus* spp.) normally destined for humans. This ranking varied geographically. For example, in the semi-arid southeast Aegean, including much of Crete, rainfall is at the margins of viability for growing wheat, consumption of which was often restricted to bread offered in church at Christmas or Easter and to small quantities of groats served largely on special occasions; barley was the staple cereal for much of the

rural population and was often too scarce for use as fodder. Einkorn, too, was animal fodder or food of the poor in northern Greece, among refugees from Bulgaria, before its cultivation was abandoned, but (like other glume wheats) it retains high status in a few localities around the Mediterranean through association with valued traditional dishes.⁴ Despite such regional and local variability, a hierarchy of grains seems to have been universal, and relative rankings of species were reasonably consistent. In part this reflected the diffusion of cultural preferences, such as for white 'French' bread, the modern product of urban bakers, over dark, homemade 'village' bread. On Crete, this preference extended to growing spring barley, which produced lighter-colored flour than the more reliable and higher-yielding winter barley, as a substitute for wheat in liturgical loaves for Christmas and Easter. These relative rankings also had a practical basis. Free-threshing wheat needed more favorable soil and climatic conditions and was thus harder to grow than the darker cereals; if not highly valued, it would presumably have fallen out of cultivation rapidly. Similarly, pulses primarily destined for human consumption tended to have lighter-colored, thinner, and less toxic seed-coats and so were more appealing (in appearance and digestibility) and less harmful, but also more vulnerable to field- and storage-pests, than their fodder counterparts.

While the grain hierarchy helped differentiate mundane from special meals, its flexible application had additional significance. During the hungry winter of 1941–42, when many urban dwellers died of starvation, some rural inhabitants were reduced to eating fodder crops (e. g., toxic bitter vetch) or previously discarded cereal by-products (bran, even chaff). Others, accustomed only to wheaten bread, ate barley or maize that they normally fed to livestock. Less dramatically, in peacetime, poorer farmers routinely adjusted the grain rations of working cattle, fattening pigs, or breeding and milking sheep and goats, according to availability. After a good harvest, well-fed livestock worked better, put on more fat and produced larger offspring or more milk. After a poor harvest, with ambiguous food/fodder grains diverted to humans, livestock received 'maintenance' rations of straw and pasture. The grain hierarchy made rural food supply more reliable in three ways. First, use of low-ranking grains as fodder maintained an incentive to overproduction, even after a run of good years,⁵ and thus reduced the risk of scarcity following a bad harvest. Secondly, the loss of face associated with eating low-value grains was a powerful disincentive to consuming them in good times and so undermining their role as safety net in bad times. For example, elderly villagers in Greece can still name the neighbors who resorted to demeaning ingredients for bread in the winter of 1941–42. Thirdly, households in need could exchange modest amounts of high-value grain (or livestock) for larger quantities of low-value staples. For example, in the 1930s in the Cretan village of Aloides, a farmer with a large family and limited land received news that an émigré relative had paid for a quantity of wheat to be available for collection from a merchant in the town. To the bitter disappointment of his children, who longed for white bread, he exchanged the wheat for a substantially larger amount of barley.

Recent rural communities in Greece used scarce ingredients and culinary elaboration to signal commensal occasions of varying cultural and social significance. Foods for special occasions might entail significant investment of labor and also of staple grains—whether in refining the latter (by removing bran or seed coats) or in feeding them to livestock. Generous and elaborate hospitality was thus a source of symbolic capital for the host, an index of economic well-being, and a means of mobilizing labor. A hierarchy of food values also provided a strong cultural incentive to overproduction and, for the less well-off, opportunities to 'trade down' high-value resources for larger quantities of lower-value alternatives and so compensate for any shortage of dietary staples. This

4 Ertug 2004; Papa 1996; Peña-Chocarro 1996.

5 e. g., Halstead 1990.

hierarchy was thus central to, and strengthened the linkage between, diacritical use of food, inequalities of access to human labor, and buffering of risk to staple resources (Tab. 1). The potential significance of this linkage to prehistoric farmers in Greece, as a means of both stabilising household economies in the short term and promoting social inequality in the long term, is considered at the end of this paper.

3 Food and Commensality in the Neolithic of Greece

Charred seeds and animal bones from Neolithic sites in Greece are heavily dominated by domesticates (cereal and pulse crops; sheep, goats, cattle and pigs), identifying farming as the basis of human subsistence. Known Early ('EN') and Middle ('MN') Neolithic sites of mid 7th—early 6th millennium BC date occupy fertile lowlands especially in the east-central mainland. Most were small villages (perhaps a few dozen inhabitants), often long-lived and closely spaced, apparently occupied year-round, and so sustainable by small-scale crop husbandry or by large-scale stock husbandry with an emphasis on dairying. The invisibility of these early farmers in the palynological record, however, suggests modest numbers of livestock, as does the predominance of sheep in a wooded environment to which cattle, pigs and goats were better suited. Moreover, slaughter of juvenile and subadult rather than infant males would have maximized availability of meat rather than milk from domestic ruminants, thus limiting their overall productivity in calories. With livestock managed non-intensively and on a modest scale, early Neolithic villagers must overwhelmingly have depended on grain crops.⁶ In the Late ('LN') and especially Final ('FN') Neolithic (late 6th—4th millennium BC), habitation proliferated in the semi-arid, agriculturally marginal southeast mainland and Aegean islands, mostly as small 'hamlets' housing perhaps up to two dozen persons. Although such dispersed settlement would have made reliance on livestock more feasible, available mortality evidence again indicates non-intensive 'meat' management, coupled with small-scale and stationary rather than large-scale and seasonally mobile herding, and so favors subsistence dependence primarily on crops.⁷ Pathological and stable isotope evidence from LN and FN human skeletal remains, at the village settlement of Makriyalos in the north⁸ and at 'marginal' hamlets and caves in the southeast⁹ alike, is consistent with dietary dependence on grain. Accordingly, the following discussion assumes that livestock, though important to crop *production* for manure and labor,¹⁰ were secondary to grain crops in contribution to human diet.

3.1 Daily Meals in the Neolithic

Early villages were comprised of houses and huts of variable form, construction and size,¹¹ but more suited to occupation by something like a nuclear or extended family than a larger social group or single person.¹² Rare examples of well-preserved, burnt destructions in northern Greece and the neighboring northern Balkans have yielded diverse toolkits and evidence of bulk storage compatible with these structures sheltering 'households.'¹³ Cooking pots, in small numbers from the MN and more frequent

6 Halstead 2006a; Halstead and Isaakidou (in press).

7 Halstead 2008.

8 Triantaphyllou 2001.

9 Papathanasiou 2005.

10 e. g., Halstead 2006a; Isaakidou 2006.

11 e. g., Kotsos and Urem-Kotsou 2006.

12 Cf. Flannery 1972.

13 Halstead 1995a; Marinova 2007; Crnobljnja, Simic, and Jankovic 2009.

Food 'value'	Pulse species	Cereal species	Cereal processing	Cereal product	Animal protein	Consumer status	Commensal occasion	Economic context
high	—	rice	extra-refined white flour	decorated bread, pies	fresh meat	rich	wedding	good year
	<i>pea, lentil</i>	bread wheat	refined flour	'white' bread	preserved meat	middle	Easter	average year
	broad bean	barley, maize	wholemeal flour	'black' bread, rusks	cheese	poor	Sunday	bad year
low	bitter vetch	oat	bran	bran loaves	—	animals	daily	famine

Tab. 1 | Relationship between cultural value of foodstuffs, status/wealth of consumers, importance of commensal occasion, and economic context. While relative rankings *vertically within* each column are fairly stable, correlations *horizontally between* columns are much more flexible.

thereafter, are of a size suitable for a small family,¹⁴ suggesting consumption of daily meals at a household level. Given the proposed subsistence reliance on grain, cereal- and pulse-based dishes without meat were probably the norm. Traces of ruminant milk and especially of adipose fat from both ruminants and non-ruminants (presumably pigs), in LN cooking vessels from Makriyalos and Stavroupoli,¹⁵ may represent ingredients added to enhance grain-based dishes rather than milk- or meat-based dishes. Gathered fruits and nuts were also probably added as flavorings, but seasonally, as there is scant archaeobotanical evidence for their storage (even though charring can preserve fruits dried for storage as well as cereal and pulse grains). Daily household meals may not have been memorable sensory experiences.

Although 'domestic' architecture and cooking vessels suggest the organization of much routine social life at a household level, early farmers in Greece also invested heavily in village solidarity: through collective digging of enclosure ditches;¹⁶ through burial practices emphasizing collective over individual identity;¹⁷ and probably through rituals and dress codes defining age- and gender-based social categories.¹⁸ The spatial organisation and material culture of early farming settlements thus imply a long-term and dynamic tension between collective and domestic solidarity. This in turn arguably reflects contradictions between collective responsibility for clearance, fencing, defence (if needed) and occasional redistribution of cultivable land, on the one hand, and household control of the husbandry, storage and consumption of staple crops, on the other.¹⁹ Over time, however, a broad trend is detectable towards more monumental domestic architecture and clearer definition of individual households,²⁰ and this is paralleled by changes in commensality between households.

3.2 Commensality between Households in the Neolithic

EN-MN hearths are found both inside domestic structures and in intervening open spaces, implying cooking in private and in public, respectively, with the latter more subject to peer pressure to share cooked food. Access to outdoor hearths was progressively limited

14 Vitelli 1989; Urem-Kotsou 2006; Urem-Kotsou 2009.

15 Urem-Kotsou 2006; Evershed et al. 2008.

16 e. g., Pappa and Besios 1999.

17 Triantaphyllou 2008.

18 Mina 2008.

19 Kotsakis 1999; Kotsakis 2006; Isaakidou 2008; Halstead 2011.

20 e. g., Halstead 1995a; Halstead 2006b; Pappa 2008; Tomkins 2007.

over time, however, as walls or ditches subdivided some LN villages into small groups of neighboring households and the cooking facilities of some FN and Early Bronze Age ('EB'—3rd millennium BC) houses were placed in the privacy of closed domestic yards or even indoor 'kitchen extensions.'²¹ The implication that peer pressure to share cooked food was progressively suppressed is consistent with LN evidence for dietary inequality between households and individuals: the former reflected in variation in the types of fat residues (milk, ruminant adipose fat, non-ruminant adipose fat) found in cooking vessels at Makriyalos and Stavroupoli;²² the latter in indications, from isotopic analysis of human skeletons, of variable animal and plant protein intake at LN Makriyalos.²³ Unfortunately, similar evidence is not yet available for the earlier Neolithic.

Despite the suggested trends toward greater household independence and suppression of food sharing, individual households are inviable in the medium and long term²⁴ and, throughout the Neolithic, must periodically have depended on neighbors for food, labor, and other forms of support. Commensality widely plays a central role in forging and affirming the bonds of kinship and neighborliness that are mobilized to provide mutual help, so the observed trends in domestic architecture and in the location of cooking facilities should reflect not the curtailment of commensality between households but a change in the basis on which it took place. Diachronic changes in ceramic tableware support this suggestion.

Ceramic vessels were absent at the beginning of the Neolithic, at least at Knossos on Crete, and were scarce through the EN.²⁵ The main function of these earliest vessels, few (if any) of which were used for cooking or bulk storage, was the presentation and consumption of food and drink.²⁶ In form and surface finish, many early vessels imitated wooden prototypes,²⁷ which may have been used for everyday meals, while the scarce ceramic skeuomorphs serviced more formal commensal occasions.²⁸ Given the greater obligation to share cooked than uncooked (stored) food, it may be significant that 'cooked' (ceramic) rather than 'raw' (wooden) vessels were used in formal commensality. Either way, EN tableware is strikingly uniform in appearance, underlining the equality or collective identity of those bound by commensality.²⁹

From the MN onwards, the volume of ceramics discarded was strikingly greater, while cooking and bulk storage vessels progressively made up a significant proportion of the repertoire. Tableware was also much more frequent, however, perhaps now being used also for everyday meals, while a minority of fine and decorated vessels was reserved for more formal commensality. In addition, increasing diversity in the shapes³⁰ and surface treatments of tableware suggests increasing differentiation of commensal occasions, as perhaps does the diversity of culinary methods implied by LN cooking vessels.³¹ MN jars with interiors corroded by storage or transport of an acidic liquid are found widely in Greece and the north Balkans and suggest an important social role for some form of fruit-based or fermented beverage(s).³² From the early LN in northern Greece, drinking sets, comprising similarly decorated jugs and bowls, suggest that at least some commensal

21 Halstead 1995a.

22 Urem-Kotsou and Kotsakis 2007, 239; Kotsakis et al. 2008.

23 Triantaphyllou 2001, 137–138.

24 Sahlins 1974.

25 e. g., Evans 1973; Vitelli 1989; Tomkins 2007.

26 Vitelli 1989; Urem-Kotsou 2009.

27 Childe 1957; Tomkins 2007.

28 Urem-Kotsou 2009.

29 Kotsakis 2006; Tomkins 2007.

30 Papathanassopoulos 1996, 110–111 fig. 36.

31 Urem-Kotsou 2006.

32 Loughlin 2010; Urem-Kotsou pers. comm.

acts involved ceremonial drinking that perhaps took a standardized form,³³ while grape pressings from Dikili Tash identify wine or grape juice as one of the beverages consumed.³⁴ A few early LN jars coated on the inside with birch tar imply that some liquids were highly valued.³⁵ Specific beverages cannot be linked to particular vessel types or contexts of consumption, but vessels similar in shape and surface treatment at sites located dozens of kilometers or more apart indicate replication of drinking ceremonies among communities using different forms of tableware for everyday consumption. Such shared customs in turn imply that drinking ceremonies played a role, *inter alia*, in *inter-communal* social intercourse.

If the carcasses of domestic animals were not a major component of Neolithic diet (see above), then meat, like prestigious beverages, may have helped to differentiate important commensal occasions from daily meals. Faunal evidence for timing of slaughter and subsequent carcass processing supports this expectation and adds some important detail. First, most surviving and ageable remains of domestic animals indicate slaughter from the latter part of the first year onwards, with high proportions of sub-adult and young adult deaths;³⁶ Knossos on Crete illustrates this pattern for all four principal domesticates over the entire Neolithic.³⁷ The overwhelming majority of animals for which we have evidence was thus killed at an age and carcass size too large for consumption fresh by individual households. Slaughter apparently throughout the year, however, argues against large-scale preservation and storage of meat (only really practicable in the winter months), while traces of butchery and bone fragmentation normally preclude significant wastage of carcasses. By default, carcasses must have been distributed for consumption between multiple households,³⁸ as bone dispersal at EN-FN Knossos also implies. Here, several excavation units yielded pairs or larger groups of articulating bones that presumably had not been disturbed since discard, but these were exclusively sets of bones not normally separated during butchery (e. g., radius-ulna, phalanx 1–2). Articulating bones routinely separated for cooking or consumption, such as humerus and radius, were not found together, implying that carcasses had been divided and dispersed *before* bone discard.³⁹ A similar pattern can be inferred on a smaller scale at Revenia-Korinou and Paliambela-Kolindrou, in northern Greece, where EN pit fills have yielded restorable ceramic vessels, again implying low levels of post-depositional disturbance, but no examples of articulating meat-bearing bones. These examples of pre-discard dispersal of carcasses are widely distributed in space and time and arguably represent a fairly general pattern. Moreover, most of the male (and some of the female) domestic animals represented on Neolithic sites could have been slaughtered younger, without significant sacrifice of secondary products, at a size of carcass more amenable to rapid consumption by a single household. Most Neolithic livestock were not only distributed between households for consumption, therefore, but were probably also reared for this purpose.

3.3 Neolithic Commensality: Communal or Regional Feasting?

While consumption of domestic animal carcasses beyond the household was seemingly the norm in the Neolithic, it sometimes involved commensality on a very large scale indeed as at LN Makriyalos I in northern Greece. Unlike the compact ‘tell’ villages

33 Urem-Kotsou and Kotsakis (in press).

34 Valamoti et al. 2007.

35 Urem-Kotsou et al. 2002.

36 e. g., Halstead 1996; Halstead and Isaakidou (in press).

37 Isaakidou 2006.

38 Halstead 2007.

39 Isaakidou 2004.

with substantial houses,⁴⁰ Makriyalos is a ‘flat-extended’ settlement, covering 28 ha and characterized by insubstantial domestic architecture (semi-subterranean huts) but heavy collective investment in an enclosure ditch nearly 2 km long.⁴¹ Use of this ditch for initial burial of subsequently scattered human remains highlighted collective identity,⁴² while two large quarry pits were refilled with exceptional quantities of commensal debris. Pit 212, the richer of these pits in faunal remains, is discussed here.

The culturally rich basal fill of Pit 212 formed rapidly and, judging from numerous ceramic joins within individual excavation units, did not gradually accumulate elsewhere before secondary deposition in the pit. Accordingly, although the basal fill probably represents consumption over several months (based on ages at death of young livestock), this period is unlikely to exceed a year or two. The pit yielded remains of hundreds of animals (mainly pigs, sheep, cattle and goats) that would have provided a few tens of tons of meat; traces of butchery and of fragmentation for marrow do not suggest significant wastage. Slaughter on this scale, albeit over several months, implies both provision and consumption of animals by a very large social group—perhaps the entire resident community at Makriyalos (the size of which is unknown) or a gathering of the regional population.⁴³ An appropriate analogy for the commensal activity represented by Pit 212 may be the periodic, inter-communal goat and pig feasts that punctuate multi-annual cycles of herd growth in the highlands of Pakistan⁴⁴ and New Guinea⁴⁵.

While standardized cooking and serving vessels ostensibly confirm the collective nature of the Pit 212 ‘feasting cycle,’ several hundred unique small cups, many with zoomorphic handles perhaps signalling the symbolic importance of meat, highlight a contrasting dimension to such commensality. Likewise, the size of these cooking and serving vessels implies both that food was prepared and consumed in family-sized groups and that most carcasses were distributed between several such groups for cooking and serving.⁴⁶ Despite the massive scale of commensality that it represents, therefore, Pit 212 reveals simultaneous appeals to collective and domestic solidarity that exemplify the tensions inherent to Neolithic society.

3.4 Neolithic Commensality: Hosts and Guests

Commensality beyond the household was important enough to Neolithic society in Greece to play a significant role in shaping the development of ceramic tableware and, arguably, the management of livestock. Tableware highlights the role of such social occasions in reinforcing collective solidarity, but also hints at a more divisive dimension. The possibility that commensality promoted competition and inequality between households receives some support from the treatment of domestic animal carcasses.

Analysis of butchery marks on domestic animal bones at several sites, using the same recording and quantification protocols, indicates far less frequent traces of dismembering and filleting in Neolithic than Bronze Age assemblages, even though the switch from stone to metal cutting tools probably favored the opposite outcome.⁴⁷ Experiments (and common sense) suggest that butchery marks are more likely to be inflicted in cutting raw than cooked meat. At least in an uncooked state, therefore, Neolithic carcasses seem

40 Kotsakis 1999.

41 Pappa and Besios 1999.

42 Triantaphyllou 2008.

43 Pappa et al. 2004.

44 Parkes 1992.

45 e. g., Rappaport 1968; Sillitoe 2007.

46 Pappa et al. 2004; Urem-Kotsou 2006; Urem-Kotsou and Kotsakis 2007.

47 Halstead 2007; Isaakidou 2007.

initially to have been butchered into large parcels of meat. In many if not most cases, these parcels were too big for available cooking pots and were presumably roasted in ovens or pits or next to open fires, incidentally implying that residues of adipose fat found in ceramics indeed result from subsequent use of fat or marrow as flavoring for grain-based dishes. It also implies that much of the distribution of meat, inferred from bone dispersal, took place in cooked form.

The terms under which cooked meat was distributed are difficult, but perhaps not impossible, to disentangle. Differential use of skeletal material as raw materials for tools and ornaments confirms a conceptual distinction in the Neolithic of Greece⁴⁸ and the northern Balkans⁴⁹ between domestic and wild animals and also, probably, between *small* game (exploited like domesticates) and *large* game.⁵⁰ This recalls Ingold's contention⁵¹ that the key distinction between domestic and wild animals is that the former belong to someone. The distribution of *domestic* animal carcasses between households, therefore, probably did not take place on the basis of a generalized obligation to share, as among non-storing foragers,⁵² but earned prestige for the households or individuals who owned them and imposed an obligation to reciprocate.

In this context, the 'delayed' slaughter of male livestock may have been driven by competitive hospitality between households, with larger carcasses conferring greater prestige. A similar motive probably underlies the fattening of livestock, implied by dental microwear evidence that sheep and goats consumed in the 'feasting cycles' at LN Makriyalos had enjoyed an unusually soft diet in the days preceding slaughter.⁵³ LN animal dung also indicates consumption by livestock of figs and perhaps cereal grain,⁵⁴ although this evidence cannot be related to any particular commensal context. That individual households commemorated large commensal events is implied by *bucrania* (cattle skulls) that had probably adorned house facades⁵⁵ at LN Promachon in northern Greece. At MN Paliambela-Kolindrou, however, selective deposition of animal skulls in (or perhaps their display on the edge of) a MN circuit ditch,⁵⁶ together with scattered human cranial fragments,⁵⁷ suggests emphasis, at least overtly, on a collective rather than domestic social context.

It would be rash to read too much into the apparent contrast between MN Paliambela-Kolindrou and LN Promachon, but a diachronic shift from covert to overt competition would be compatible with indications of growing household independence through the Neolithic (above). Admittedly, there are also indications that asymmetries between provider and recipient of food were played down throughout the Neolithic. First, if cooked meat was indeed dispersed for consumption, this would have limited display by the host to the phase of carcass distribution, without opportunities for further choreography of the host-guest relationship during commensality in the strict sense of both parties eating together. Secondly, ceramic assemblages play down this asymmetry, as is perhaps most evident in the absence of spouts for pouring on Neolithic jugs.⁵⁸ Nonetheless, two related aspects of carcass processing may reveal a significant change in commensal politics during the Neolithic. First, EN and perhaps MN faunal assemblages seemingly underwent much heavier *pre-depositional* fragmentation (including fracturing of small

48 Isaakidou 2003 .

49 Choyke 2007.

50 Halstead and Isaakidou (in press).

51 Ingold 1986, 113.

52 Barnard and Woodburn 1991.

53 Mainland and Halstead 2005.

54 Valamoti and Charles 2005.

55 Trantalidou and Gkioni 2008.

56 Halstead and Isaakidou 2011.

57 Triantaphyllou 2008.

58 e. g., Urem-Kotsou 2006.

sheep and goat phalanges) than those of LN and Bronze Age date. As well as enabling more thorough extraction of within-bone nutrients, this also arguably served to homogenize or mask differences between body parts in nutritional or symbolic value.⁵⁹ Secondly, in contrast with wholesale and uniform processing of carcasses at EN Revenia-Korinou and Paliambela-Kolindrou, there is evidence from LN Makriyalos for initial dressing of the carcass, involving removal and separate discard of the feet, and from LN Toumba Kremastis-Koiladas for structured deposition of dressed carcasses.⁶⁰ Selective treatment of particular body parts and structured deposition of faunal remains are relatively commonplace in FN and Bronze Age assemblages and may have played a significant role in the diacritical use of commensal occasions (see below).

Hints of a shift in the nature of commensal politics, from the earlier to the later Neolithic, are by no means unambiguous, thanks partly to the recent growth of research interest in this subject, and the consequent scarcity of relevant data, and perhaps partly to the ‘noisy’ and disputed nature of the development of household economies and the related tendency for architecture, portable material culture, and commensal debris to present mixed messages. Nonetheless, three temporal trends, admittedly of varying clarity, arguably point in the same direction. First, architecture and the spatial organisation of settlements suggest that the balance between collective and domestic solidarity shifted gradually through the Neolithic in favor of the latter. Secondly, ceramic tableware indicates progressive differentiation of commensal occasions and so, arguably, a tendency for hospitality to become increasingly *conditional* on social context and the relationship between the parties involved. Thirdly, faunal evidence for carcass processing and discard hints that consumption of animals was attended by greater formality or ceremony in the later Neolithic, with earlier emphasis on equality between consumers giving way to restrained highlighting of inequality among providers.

4 Bronze Age Commensality

A combination of archaeobotanical, palynological, zooarchaeological, and textual evidence shows that the Neolithic repertoire of domesticates was enlarged in the Bronze Age, most strikingly by tree crops (olive, fig, probably walnut, and chestnut), spices, and horses, donkeys, and mules, although there is no evidence that any of these additions made a *quantitatively* significant contribution to Bronze Age diet. The range of securely attested cereal and pulse crops also expanded,⁶¹ with firm archaeobotanical evidence for cultivation of spelt wheat and free-threshing bread wheat particularly notable (see below) given that these displaced the Neolithic glume wheats across much of Europe during the Iron Age. Plant and animal remains from Bronze Age settlements again suggest grain crops and the initial suite of livestock species as the main sources of human nutrition, while the number and size of settlements and lack of specialized ‘milk’ mortality in domestic ruminants again leave little doubt that grain crops were the dietary mainstay.⁶² There is Bronze Age archaeobotanical evidence for preparation of split pulses and of both coarsely ground groats and finely ground flour from cereals.⁶³ The Neolithic record is too sparse for archaeobotanical demonstration (or rejection) of changes in food preparation techniques. In contrast with bread wheat (first securely documented, if not introduced, in the Bronze Age), however, the staple Neolithic glume wheats (emmer, einkorn, ‘new’ type) are usually considered better suited for making groats than bread. Stable isotope

59 Halstead and Isaakidou (in press).

60 Tzevelekidi 2011.

61 Valamoti 2007.

62 Halstead 1996.

63 Jones and Halstead 1993a; Sarpaki 2001; Valamoti et al. 2008.

analyses of human skeletons of Early ('EB'), Middle ('MB') and Late ('LB') Bronze Age date are compatible with higher levels of animal protein intake than in the Neolithic.⁶⁴ On present evidence, however, this could equally reflect reduced dietary importance of pulses relative to cereals⁶⁵ or increased manuring of staple grain crops⁶⁶ or heavier skewing of surviving human remains to a privileged minority.

While collective efforts to assert equality and solidarity perhaps obscured the degree of inequality in Neolithic society, hierarchical distinctions within and between local communities were prominently displayed especially in the 'palatial' later Bronze Age of southern Greece. Macroscopic study of LB human skeletons from the Pylos region has revealed differences between individuals in physical well-being that seem correlated with mortuary evidence (grave type and associated goods) for social status,⁶⁷ while stable isotope analysis suggests that elite individuals in Grave Circle A at Mycenae enjoyed very privileged access to animal (including marine) protein.⁶⁸ At the other end of the spectrum, palatial texts listing rations to dependent workers suggest a tedious diet of grain, sometimes supplemented with figs and perhaps olives.⁶⁹ Overall, however, a strong research bias towards elite contexts means that the diet and daily meals of the many have received far less attention than the ceremonial commensality of the few. Accordingly, this section begins with later Bronze Age 'palatial' banqueting, before attempting to set this in a wider social and chronological context.

4.1 Diacritical Feasting: Palatial Banquets in Late Bronze Age Greece

One function of the architectural complexes known as 'palaces,' in later Bronze Age southern Greece, was as a venue for formal commensality. The evidence is richest and most diverse for the LB (later 2nd millennium BC) Mycenaean 'palaces.' For example, structured deposits of cattle bones at the 'Palace of Nestor,' Pylos, suggest simultaneous slaughter of several large cattle that probably provided sufficient meat to entertain hundreds—if not thousands—of guests.⁷⁰ Linear B texts administering palace-organized banquets also indicate slaughter of multiple domestic animals, some fattened for the purpose, and provision of wine and a range of both staple and uncommon foodstuffs,⁷¹ while stores of ceramic tableware confirm that some large-scale commensal events took place at the 'palaces' themselves.⁷² The palaces provided a built setting for commensal events that was extremely grand, but with access closely controlled by courtyards, doorways, corridors and partitions,⁷³ and different categories of guests probably penetrated the complex to different degrees.⁷⁴ Inlaid dining furniture was provided probably for a small minority of guests,⁷⁵ and rank-specific garments, woven in palatial workshops, may have been distributed as gifts on such occasions.⁷⁶ Iconography reveals a 'toasting' etiquette,

64 Ingvarsson-Sundström, Richards, and Voutsaki 2009; Lagia, Petrousa, and Manolis 2007; Petrousa, Richards, and Manolis 2007; Petrousa et al. 2009; Petrousa and Manolis 2010; Richards and Hedges 2008; Richards and Vika 2008; Triantaphyllou 2001; Triantaphyllou et al. 2008; Vika 2011.

65 Triantaphyllou 2001.

66 Bogaard et al. 2007.

67 Schepartz, Miller-Antonio, and Murphy 2009.

68 Richards and Hedges 2008.

69 Killen 2004.

70 Halstead and Isaakidou 2004; Stocker and Davis 2004.

71 Killen 1994; Bendall 2008.

72 e.g., Whitelaw 2001.

73 e.g., Palaima and Wright 1985; Thaler 2006.

74 e.g., Bendall 2004.

75 Killen 1998.

76 Killen 1994.

perhaps known only to higher-status guests,⁷⁷ while texts record not only scarce food ingredients but also culinary specialists, who presumably produced elaborate dishes for the few rather than the many.⁷⁸ The evidence from MB-early LB (early-mid 2nd millennium BC) Minoan palaces is sparser, but numbers and varieties of drinking vessels again imply provision for differential hospitality to the many and the few,⁷⁹ while architecture again provided a grand built setting with intensely graded access. Moreover, intensive and highly distinctive butchery of animal carcasses at the Minoan ‘Palace of Minos,’ Knossos, may reflect production of elaborate meat dishes, taking advantage of the variety of cooking methods implied by ceramics and iconography.⁸⁰

In short, palatial banquets were carefully choreographed occasions, with built setting, furniture, dinner services, and probably clothing, etiquette and *haute cuisine* playing an active diacritical role. Moreover, the structured deposits of cattle bone at Pylos reflect ‘sacrifice’ of selected body parts stripped of meat, but (most unusually) not broken to extract marrow, before being burnt. If this ritual treatment represents ‘sacrifice,’ *sensu stricto*, it implies divine participation in these commensal events and thus divine approval of the highly inegalitarian social relationships that they perform.⁸¹

4.2 Bronze Age Diacritical Feasting: Beyond and Before the Palaces

Some of the commensal events recorded in Linear B texts, and thus involving some administrative role for the palace, took place in the modest settings of outlying shrines or settlements. The graded access characteristic of palaces was also replicated on a smaller scale in lower-order settlements,⁸² hinting that diacritical commensality was quite widespread in LB society, while Linear B texts account for consumption of only a small minority of the animals that must have been culled annually from recorded livestock, implying slaughter on a large scale in non-palatial contexts.⁸³ Graded access is also evident in a few earlier monumental buildings, notably at EB Lerna⁸⁴ but also at FN Mikrothives⁸⁵ and perhaps in the LN ‘megaron’ buildings at Dimini, Sesklo, and Visviki.⁸⁶ EB commensality may, as in the palatial context, have highlighted distinctions between different categories of participants, if widespread ceramic skeuomorphs of metal vessels mean that the latter too were used,⁸⁷ while jugs with exaggerated spouts that drew attention to the act of pouring arguably emphasized the distinction between host and guest,⁸⁸ in stark contrast with Neolithic drinking ceremonies.

The Pylos burnt bone deposits exemplify two aspects of carcass processing—anatomically selective treatment and structured deposition—that are fairly common in the Bronze Age and perhaps FN, but almost unknown in the Neolithic, especially EN and MN (see above, 3.4). *Anatomical selection* ranged from burnt sacrifice of mandible, humerus and femur at LB Pylos, through retention of femurs in domestic or culinary contexts at LB Pevkakia and Mitrou, to use of femurs and metatarsals as raw material for personal items found in funerary contexts in the EB southern Aegean.⁸⁹ In sharp contrast with the

77 Wright 1996.

78 Isaakidou 2007.

79 Hamilakis 1996; Macdonald and Knappett 2007, 164 fig. 6.1.

80 Isaakidou 2007.

81 Isaakidou et al. 2002; Isaakidou and Halstead (in press).

82 e. g., Bendall 2004, 124–126; Thaler 2002.

83 Halstead 1999a.

84 Peperaki 2004.

85 Adrymi-Sismani 2007.

86 Theocharis 1973.

87 Nakou 2007.

88 e. g., Catapoti (in press); Peperaki 2004; Day and Wilson 2004.

89 Isaakidou and Halstead (in press).

apparently uniform processing of carcasses in the earlier Neolithic, therefore, anatomically selective treatment played a diacritical role in distinguishing between consumers or contexts of consumption, although the beginnings of such selective treatment may be discernible in carcass dressing and separate discard of feet at LN Makriyalos and Toumba Kremastis-Koiladas. *Structured deposition* included the collection and burial both of selected body parts from several animals, as at LB Pylos, and of the butchered and consumed parts of individual animals, as at LB Knossos, EB Proskynas, and FN Mikrothives. Both forms of structured deposition stand out from the mixed bone refuse that makes up the overwhelming majority of faunal assemblages throughout the Neolithic and Bronze Age in the Aegean and served to highlight the significance of certain acts of consumption. In common with the distinction, evident from LN onwards, between primary carcass dressing and butchery for cooking and consumption, structured deposition helped to emphasize distinct stages in the cycle of slaughter, butchery, cooking, consumption, and discard. Such temporal and perhaps spatial segregation served to ritualize or formalize this cycle, while also enhancing the diacritical potential for restricted categories of people to participate in different stages.

4.3 Later Bronze Age Palatial Economies: Feasting and Mobilisation

While Mycenaean palace-sponsored feasting doubtless legitimized elite authority and attracted followers,⁹⁰ the palace was not the sole contributor of what was eaten and drunk on such occasions. ‘Palatial’ feasting consumed a lot of high-value resources provided by outsiders, as indicated by Linear B records of banquet supplies such as fattened livestock from high- and low-ranking individuals and groups or from local administrative entities,⁹¹ and perhaps also reflected in iconographic representations of processions of people bearing gifts or tribute.⁹² Even when texts do not specify an outside source, it is not clear whether the palace provided or merely collated and distributed banquet supplies.⁹³ The contribution of the palace to ‘palatial’ feasts apparently lay more in the provision of a prestigious venue or celebrity guests than of large quantities of luxury food and drink or high-quality tableware. Guests at the Pylos ‘Palace of Nestor’ were doubtless impressed by the elite ambience, but most were served in plain, mass-produced *kylikes*, the disposable equivalents of modern plastic cups. Even the grain that the palace allocated for feasts or festivals partly represented rations or payments to persons responsible for preparatory tasks⁹⁴ and anyway was overwhelmingly that represented by ideogram *121 (conventionally ‘barley’), in the production of which the palace apparently played no part.⁹⁵ In sum, although the balance of palatial versus external contributions is difficult to quantify with such a fragmentary and enigmatic textual record, it is likely that the palaces were heavy net beneficiaries of the feasts and associated gift giving that they sponsored. Indeed, as has been argued elsewhere from combined analysis of Linear B texts and other archaeological evidence, ‘gift’ giving in feasting contexts may have played a major role in palatial resource mobilisation.⁹⁶

The terminology of banquet provision texts implies that at least some such contributions were obligatory, and a broad correlation between status of contributor and size of contribution⁹⁷ suggests that such obligations accompanied high status. While contributions

90 e. g., Bennet and Davis 1999.

91 Killen 1994; Bendall 2004; Shelmerdine 2008.

92 e. g., Wright 2004.

93 Shelmerdine 2008.

94 Killen 2001; Shelmerdine 2008.

95 Killen 2004.

96 Halstead 1999b; Bennet and Halstead (in press).

97 Shelmerdine 2008, 404.

from low-ranking individuals perhaps sought palatial favor,⁹⁸ rank-specific textiles⁹⁹ made by palatial weavers may, if distributed at feasts (there is almost no direct evidence for their disbursement¹⁰⁰), have conferred or reaffirmed high status. The capacity of the palace for resource mobilisation thus rested partly on its ability to define and confer status positions—with attendant obligations of contributions to palatial feasting. That palatial control of the value of people and things played a central role in mobilisation is underlined by the output of palace-sponsored craft production. While many such goods used scarce or exotic raw materials and skilled craftsmanship, high levels of labor specialisation and product standardisation created distinctive value-added artefacts¹⁰¹ with a ‘Palace™’¹⁰² akin to modern ‘designer labels.’ The capacity of the palace to create value is perhaps clearest in textual evidence for selective use of cereals: *120 ‘wheat’ was normally assigned as rations to groups of female workers; *121 ‘barley’ for banquets, as religious offerings, in rations/payments for festival preparation and as rations to men; and *129 ‘flour’ (of bread wheat?) for banquets, religious offerings and perhaps festivals.¹⁰³ Detailed interpretation is obscured by uncertainty as to whether the conventional identifications of *120 and *121 should be reversed¹⁰⁴ and, in either case, whether the wheat in question was free-threshing bread wheat or glume wheat(s) such as emmer and einkorn.¹⁰⁵ The selective use of different cereals, however, in mundane versus elite/religious contexts and in rations to women versus rations to men, recalls the hierarchy of grain values of the recent past and makes clear the potential for contexts of use and exchange to shape the value of things and people. This potential, in turn, was greatly enhanced by the use of material (e. g., graded-access architecture, elaborate décor, specialist craft goods) and non-material (e. g., religious ritual, etiquette, culinary knowledge) culture to distinguish practically and symbolically between different places, times, forms, and cultural contexts of social encounter.

5 Conclusion: Commensality, Inequality, and the Creation of Value

Palatial feasting in the later Bronze Age southern Aegean was highly diacritical, using a variety of material and non-material means to affirm or confer striking differences of status in an ostentatiously hierarchical society. Conversely, surviving evidence of Neolithic (and especially earlier Neolithic) commensality lacks obvious signs of diacritical behavior. As a corollary of this contrast (which somewhat recalls Goody’s distinction between ‘Eurasian’ diacritical *haute cuisine* and ‘African’ quantitative emphasis on abundant provision), later Bronze Age feasting was arguably an important mechanism for elite mobilization of resources upwards from those of lower rank, whereas Neolithic commensality could involve massive expenditure of food resources, as at LN Makriyalos, with limited evidence that this was transformed into long-term or salient inequalities of status or rights to resources. The basis of later Bronze Age commensal mobilization, it is argued, was the added value that accrued to commensal events and craft goods by association with the palace and ostentatiously elite material culture; Bronze Age elites exploited their ability to define value regimes as a means of mobilising the material resources and

98 Shelmerdine 2008, 405.

99 Killen 1985, 288 n 47.

100 Killen 1994.

101 Killen 1985.

102 Bennet 2008.

103 Killen 2004.

104 Palmer 1992.

105 Halstead 1995b.

labor on which their privileged position depended. Conversely, Neolithic communities invested considerable food resources in commensal acts of collective solidarity that were orchestrated so as to blur rather than highlight inequalities.

This begs two questions. How were commensal practices transformed from a Neolithic force for collective solidarity and equality to a Bronze Age diacritical arena for upwards mobilization? And did commensality play an active part in this transformation or simply project changing cultural values and social relationships? Part of the answer to both questions is that Neolithic material culture, including that associated with commensality, simultaneously highlighted collective and domestic solidarity, reflecting the tension between these two social scales.¹⁰⁶ The transformation from cohesive Neolithic to divisive Bronze Age commensal practices was thus one of degree rather than kind—although the difference was considerable and had radical political, economic, and ideological consequences.

A second part of the answer is that the LB palaces manipulated value regimes by an elaborate choreography of social life, using material and non-material culture to differentiate the contexts of social encounters, consumption, and exchange. Significantly, architecture (e. g., graded access), tableware (e. g., elaborate spouts), and faunal remains (e. g., structured deposition, anatomically selective treatment) also point to clearly compartmentalized EB and perhaps FN social life, with commensal and other social encounters divided into temporally and spatially distinct stages, perhaps with different groups of participants. Moreover, although evidence for such social engineering is much richer for the Bronze Age and perhaps FN, it is not entirely absent for earlier periods. Scarce EN ceramic tableware imitating wooden prototypes probably identified some commensal occasions as unusually important, while increasing diversity of MN and especially LN tableware and the emergence of ‘drinking sets’ suggest growing differentiation of commensal occasions, and probably participants, such that obligations of hospitality became increasingly context-specific and thus conditional. LN spatial or temporal segregation of initial carcass dressing from subsequent dismembering and filleting implies modest scope for the differential participation in successive stages of animal consumption that was greatly elaborated in the Bronze Age, while the highlighting of some commensal episodes at LN Toumba Kremastis-Koiladas, by structured deposition of dressed carcasses, presages a practice more widespread in FN and Bronze Age contexts. Finally, there are early hints of differential value of food and drink: LN jars lined with birch tar presumably held a beverage of some value; and the importance of animal symbolism in LN zoomorphic cups, LN display of *bucrania* on house fronts, and perhaps earlier Neolithic zoomorphic figurines (most probably representing cattle) offer emic support for earlier arguments regarding the high cultural importance of meat. Whether or not early cereal and pulse crops were valued differentially is more difficult to judge. It seems unlikely that consumers were indifferent to differences between crops in ease of growing and processing or to the contrast between toxic bitter vetch and non-toxic lentil, but such practically based variation in the attractiveness of different grains falls well short of the strong cultural connotations prevalent in the recent (and historical¹⁰⁷) past and also apparent in the LB texts. Archaeobotanical studies of storage contexts and animal dung are too sparse (and associated methodological problems too great¹⁰⁸) to determine systematically whether (and when) some grain crops were normally used as human food and others as animal fodder. Nonetheless, a cache of split and perhaps boiled seeds at EB Agios Athanasios¹⁰⁹ and widespread finds of fully cleaned grain in storage contexts at later

106 e. g., Kotsakis 2006; Halstead 2006b; Halstead 2011.

107 Garnsey 1999, 119–122.

108 Jones 1998; Valamoti and Charles 2005.

109 Valamoti, Moniaki, and Karathanou 2011.

Neolithic and EB Platia Magoula Zarkou¹¹⁰ and Mandalo¹¹¹ and at LB Mycenae¹¹² and Assiros Toumba¹¹³ suggest that bitter vetch, an unambiguous *fodder* crop in the recent past, was regarded more favorably in later prehistory. On *present evidence*, therefore, the sharp cultural distinctions between different staple grains, that are evident in the Linear B record, may tentatively be seen as a very ‘economical’ palatial innovation on the more ‘costly’ Neolithic strategy of differentiating commensal occasions and perhaps participants by provision of meat and rare beverages.

Bronze Age choreography of social life thus represents an intensification of Neolithic practices. Commensality seemingly played a significant role in *negotiating* the transition from covert to overt social inequality, but may also have actively *promoted* this change. The trend through the Neolithic to clearer household definition will have increased the potential to hoard surplus from good years rather than sharing it with neighbors, but the ‘shelf-life’ of grain is too short for storage alone to ensure the long-term livelihood of individual households. There will thus have been strong incentives to transform unused surplus: by feeding it to working cattle or adding indigent relatives and neighbors to the domestic workforce, and so securing additional labor for future production; or by hosting a feast that imposed an obligation on participants to reciprocate in kind, with labor or with other forms of support.¹¹⁴ In bad years, neighbors in need probably welcomed the opportunity to work for a diet of staple grains, but in good times a feast that imposed obligations is more likely to have been attractive if surplus grain had been converted to a higher-value form, such as beer or a fattened carcass. Hints from dental microwear, that livestock slaughtered for major commensal episodes at LN Makriyalos had been fattened on a soft diet, offer support for such conversion of staple grain to a more prestigious form. Attempts by individual households to enhance domestic food security and mobilize labor would thus have provided an important practical rationale for the increasingly competitive and conditional commensality that can be discerned in the later Neolithic of Greece and would arguably have contributed to the transformation of the overtly egalitarian societies of the Neolithic into the strikingly inegalitarian polities of the later Bronze Age. Underpinning this argument is the observation that, in recent rural Greece (see above), a hierarchy of food values was common to, and a source of linkage between, household strategies of diacritical commensality, labor mobilisation, investment of surplus, and risk buffering. This in turn highlights the need for an approach to commensal *politics* that avoids a false opposition between ‘cultural’ and ‘practical’ reasoning,¹¹⁵ but rather situates the *social* stratagems and *cultural* values of eating and drinking in company within the *economic* practicalities of food production and commensal provisioning.

110 Jones and Halstead 1993b.

111 Valamoti and Jones 2003.

112 Hillmann 2011.

113 Jones 1987.

114 e. g., Allan 1965; Dietler 2001.

115 Cf. Dietler and Hayden 2001, 12–16.

Bibliography

Adrymi-Sismani 2007

V. Adrymi-Sismani. "Le site chalcolithique de Microthèbes au carrefour du monde égéen et des Balkans du Nord". In *Between the Aegean and Baltic Seas: Prehistory across Borders*. Ed. by I. Galanaki et al. Aegaeum 27. Liège: Université de Liège, 2007, 73–79.

Allan 1965

W. Allan. *The African Husbandman*. Edinburgh: Oliver and Boyd, 1965.

Barnard and Woodburn 1991

A. Barnard and J. Woodburn. "Property, Power and Ideology in Hunting and Gathering Societies: an Introduction". In *Hunters and Gatherers, 2: Property, Power and Ideology*. Ed. by T. Ingold, D. Riches, and J. Woodburn. Oxford: Berg, 1991, 4–31.

Bendall 2004

L. Bendall. "Fit for a King? Hierarchy, Exclusion, Aspiration and Desire in the Social Structure of Mycenaean Banqueting". In *Food, Cuisine and Society in Prehistoric Greece*. Ed. by P. Halstead and J.C. Barrett. Sheffield Studies in Aegean Archaeology 5. Oxford: Oxbow, 2004, 105–135.

Bendall 2008

L. Bendall. "How Much Makes a Feast? Amounts of Banqueting Foodstuffs in the Linear B Records of Pylos". In *Colloquium romanum: Atti del XII colloquio internazionale di micenologia*. Ed. by A. Sacconi et al. Pisa and Rome: Fabrizio Serra, 2008, 77–101.

Bennet 2008

J. Bennet. "Palace™: Speculations on Palatial Production in Mycenaean Greece with (Some) Reference to Glass". In *Vitreous Materials in the Late Bronze Age Aegean*. Ed. by C.M. Jackson and E.C. Wager. Sheffield Studies in Aegean Archaeology 9. Oxford: Oxbow, 2008, 151–172.

Bennet and Davis 1999

J. Bennet and J. Davis. "Making Mycenaeans: Warfare, Territorial Expansion, and Representations of the Other in the Pylian Kingdom". In *Polemos: le contexte guerrier en Égée à l'Âge du Bronze*. Ed. by R. Laffineur. Aegaeum 19. Liège: Université de Liège, 1999, 105–120.

Bennet and Halstead (in press)

J. Bennet and P. Halstead. "O-no! Writing and Righting Redistribution". In *KE-RA-ME-JA*. Ed. by D. Nakassis, J. Gulizio, and S.A. James. Philadelphia: INSTAP Academic Press. In press.

Bogaard et al. 2007

A. Bogaard et al. "The Impact of Manuring on Nitrogen Isotope Ratios in Cereals: Archaeological Implications for Reconstruction of Diet and Crop Management Practices". *Journal of Archaeological Science* 34 (2007), 335–343.

Catapoti (in press)

D. Catapoti. "Rise to the Occasion: an Insight into the 'Politics of Drinking' at the Prepalatial Settlement of Myrtos-Phournou Koryfi, South Crete". In *Pepragmena tou I'Diethmi Kretologikou Synedriou*. Chania: Filologikos Syllogos 'Chrysostomos'. In press.

Childe 1957

G. Childe. *The Dawn of European Civilisation*. London: Routledge and Kegan Paul, 1957.

Choyke 2007

A.M. Choyke. "Objects for a Lifetime – Tools for a Season: the Bone Tools from Ecsefalva 23". In *The Early Neolithic on the Great Hungarian Plain: Investigations of the Körös Culture Site of Ecsefalva 23, Co. Békés*. Ed. by A. Whittle. Budapest: Institute of Archaeology, Hungarian Academy of Sciences, 2007, 641–666.

Crnobrnja, Simic, and Jankovic 2009

A. Crnobrnja, Z. Simic, and M. Jankovic. "Late Vinca Culture Settlement at Crkvine in Stubline". *Starinar* 59 (2009), 9–25.

Day and Wilson 2004

P.M. Day and D.E. Wilson. "Ceramic Change and the Practice of Eating and Drinking in Early Bronze Age Crete". In *Food, Cuisine and Society in Prehistoric Greece*. Ed. by P. Halstead and J.C. Barrett. Sheffield Studies in Aegean Archaeology 5. Oxford: Oxbow, 2004, 45–62.

Dietler 2001

M. Dietler. "Theorizing the Feast: Rituals of Consumption, Commensal Politics, and Power in African Contexts". In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power*. Ed. by M. Dietler and B. Hayden. Washington: Smithsonian Institution Press, 2001, 65–114.

Dietler and Hayden 2001

M. Dietler and B. Hayden. "Digesting the Feast: Good to Eat, Good to Drink, Good to Think: an Introduction". In *Feasts: Archaeological and Ethnographic Perspectives on Food, Politics and Power*. Ed. by M. Dietler and B. Hayden. Washington: Smithsonian Institution Press, 2001, 1–20.

Ertug 2004

F. Ertug. "Recipes of Old Tastes with Einkorn and Emmer Wheat". *Tüba-Ar* 7 (2004), 177–188.

Evans 1973

J.D. Evans. "Sherd Weights and Sherd Counts – a Contribution to the Problem of Quantifying Pottery Studies". In *Archaeological Theory and Practice*. Ed. by D.E. Strong. New York: Seminar Press, 1973, 131–149.

Evershed et al. 2008

R.P. Evershed et al. "Earliest Date for Milk Use in the Near East and Southeastern Europe Linked to Cattle Herding". *Nature* 455 (2008), 528–531.

Flannery 1972

K.V. Flannery. "The Origins of the Village as a Settlement Type in Mesoamerica and the Near East: a Comparative Study". In *Man, Settlement and Urbanism*. Ed. by P.J. Ucko, R. Tringham, and G.W. Dimbleby. London: Duckworth, 1972, 25–53.

Garnsey 1999

P. Garnsey. *Food and Society in Classical Antiquity*. Cambridge: Cambridge University Press, 1999.

Goody 1982

J. Goody. *Cooking, Cuisine and Class*. Cambridge: Cambridge University Press, 1982.

Halstead 1990

P. Halstead. "Waste Not, Want Not: Traditional Responses to Crop Failure in Greece". *Rural History* 1 (1990), 147–164.

Halstead 1995a

P. Halstead. "From Sharing to Hoarding: the Neolithic Foundations of Aegean Bronze Age Society?". In *Politeia: Society and State in the Aegean Bronze Age*. Ed. by R. Lafineur and W.-D. Niemeier. Aegaeum 12. Liège: Université de Liège, 1995, 11–20.

Halstead 1995b

P. Halstead. "Late Bronze Age Grain Crops and Linear B Ideograms *65, *120 and *121". *Annual of the British School at Athens* 90 (1995), 229–234.

Halstead 1996

P. Halstead. "Pastoralism or Household Herding? Problems of Scale and Specialisation in Early Greek Animal Husbandry". *World Archaeology* 28 (1996), 20–42.

Halstead 1999a

P. Halstead. "Missing Sheep: on the Meaning and Wider Significance of *o* in Knossos SHEEP Records". *Annual of the British School at Athens* 94 (1999), 145–166.

Halstead 1999b

P. Halstead. "Towards a Model of Mycenaean Palatial Mobilization". In *Rethinking Mycenaean Palaces*. Ed. by M.L. Galaty and W.A. Parkinson. Los Angeles: Cotsen Institute of Archaeology, 1999, 35–41.

Halstead 2006a

P. Halstead. "Sheep in the Garden: the Integration of Crop and Livestock Husbandry in Early Farming Regimes of Greece and Southern Europe". In *Animals in the Neolithic of Britain and Europe*. Ed. by D. Serjeantson and D. Field. Oxford: Oxbow, 2006, 42–55.

Halstead 2006b

P. Halstead. *What's Ours is Mine? Village and Household in Early Farming Society in Greece*. Kroon-Voordracht 28. Amsterdam: University of Amsterdam, 2006.

Halstead 2007

P. Halstead. "Carcasses and Commensality: Investigating the Social Context of Meat Consumption in Neolithic and Early Bronze Age Greece". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 25–48.

Halstead 2008

P. Halstead. "Between a Rock and a Hard Place: Coping with Marginal Colonisation in the Later Neolithic and Early Bronze Age of Crete and the Aegean". In *Escaping the Labyrinth: the Cretan Neolithic in Context*. Ed. by V. Isaakidou and P. Tomkins. Oxford: Oxbow, 2008, 229–257.

Halstead 2011

P. Halstead. "Farming, Material Culture and Ideology: Repackaging the Neolithic of Greece (and Europe)". In *The Dynamics of Neolithisation in Europe: Studies in Honour of Andrew Sherratt*. Ed. by A. Hadjikoymis, E. Robinson, and S. Viner. Oxford: Oxbow, 2011, 131–151.

Halstead and Isaakidou (in press)

P. Halstead and V. Isaakidou. "Early Stock-keeping in Greece". In *The Origins and Spread of Stock-keeping in the Near East and Europe*. Ed. by S. Colledge et al. Walnut Creek: Left Coast Press. In press.

Halstead and Isaakidou 2004

P. Halstead and V. Isaakidou. "Faunal Evidence for Feasting: Burnt Offerings from the Palace of Nestor at Pylos". In *Food, Cuisine and Society in Prehistoric Greece*. Ed. by P. Halstead and J.C. Barrett. Sheffield Studies in Aegean Archaeology 5. Oxford: Oxbow, 2004, 136–154.

Halstead and Isaakidou 2011

P. Halstead and V. Isaakidou. "Political Cuisine: Rituals of Commensality in the Neolithic and Bronze Age Aegean". In *Guess Who's Coming to Dinner. Feasting Rituals in the Prehistoric Societies of Europe and the Near East*. Ed. by G. Aranda, S. Monton, and M. Sánchez. Oxford: Oxbow, 2011, 91–108.

Hamilakis 1996

Y. Hamilakis. "Wine, Oil and the Dialectics of Power in Bronze Age Crete: a Review of the Evidence". *Oxford Journal of Archaeology* 15 (1996), 1–32.

Hillmann 2011

G. Hillmann. "The Grain from the Granary". In *Well Built Mycenae, 16/17: the Post-Palatial Levels*. Ed. by E.B. French. Oxford: Oxbow, 2011, 748–781.

Ingold 1986

T. Ingold. *The Appropriation of Nature: Essays on Human Ecology and Social Relations*. Manchester: Manchester University Press, 1986.

Ingvarsson-Sundström, Richards, and Voutsaki 2009

A. Ingvarsson-Sundström, M. P. Richards, and S. Voutsaki. "Stable Isotope Analysis of the Middle Helladic Population from Two Cemeteries at Asine: Barbouna and the East Cemetery". *Mediterranean Archaeology and Archaeometry* 9 (2009), 1–14.

Isaakidou 2003

V. Isaakidou. "Worked and Utilised Bone and Antler: Practical and Cultural Rationales for the Selection of Raw Materials". In *Zooarchaeology in Greece: Recent Advances*. Ed. by E. Kotjabopoulou et al. London: British School at Athens, 2003, 233–238.

Isaakidou 2004

V. Isaakidou. *Bones from the Labyrinth: Faunal Evidence for the Management and Consumption of Animals at Neolithic and Bronze Age Knossos, Crete*. PhD thesis. University College London, 2004.

Isaakidou 2006

V. Isaakidou. "Ploughing with Cows: Knossos and the 'Secondary Products Revolution'". In *Animals in the Neolithic of Britain and Europe*. Ed. by D. Serjeantson and D. Field. Oxford: Oxbow, 2006, 95–112.

Isaakidou 2007

V. Isaakidou. "Cooking in the Labyrinth: Exploring 'Cuisine' at Bronze Age Knossos". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 5–24.

Isaakidou 2008

V. Isaakidou. "The Fauna and Economy of Neolithic Knossos Revisited". In *Escaping the Labyrinth: the Cretan Neolithic in Context*. Ed. by V. Isaakidou and P. Tomkins. Sheffield Studies in Aegean Archaeology 8. Oxford: Oxbow, 2008, 90–114.

Isaakidou and Halstead (in press)

V. Isaakidou and P. Halstead. "Bones and the Body Politic? A Diachronic Analysis of Structured Deposition in the Neolithic-Early Iron Age Aegean". In *Bones, Behaviour and Belief: the Osteological Evidence as a Source for Greek Ritual Practice*. Ed. by G. Ekroth and J. Wallensten. Stockholm: Swedish Institute at Athens. In press.

Isaakidou et al. 2002

V. Isaakidou et al. "Burnt Animal Sacrifice at the Mycenaean 'Palace of Nestor', Pylos". *Antiquity* 76 (2002), 86–92.

Jones 1987

G. Jones. "Agricultural Practice in Greek Prehistory". *Annual of the British School at Athens* 82 (1987), 115–123.

Jones 1998

G. Jones. "Distinguishing Food from Fodder in the Archaeobotanical Record". *Environmental Archaeology* 1 (1998), 95–98.

Jones and Halstead 1993a

G. Jones and P. Halstead. "An Early Find of 'Fava' from Thebes". *Annual of the British School at Athens* 88 (1993), 103–104.

Jones and Halstead 1993b

G. Jones and P. Halstead. "Charred Plant Remains from Neolithic-Bronze Age Platia Magoula Zarkou, Thessaly". *Annual of the British School at Athens* 88 (1993), 1–3.

Killen 1985

J.T. Killen. "The Linear B Tablets and the Mycenaean Economy". In *Linear B: a 1984 Survey*. Ed. by A.M. Davies and Y. Duhoux. Louvain: Louvain University Press, 1985, 241–305.

Killen 1994

J.T. Killen. "Thebes Sealings, Knossos Tablets and Mycenaean State Banquets". *Bulletin of the Institute of Classical Studies* 39 (1994), 67–84.

Killen 1998

J.T. Killen. "The Pylos Ta Tablets Revisited". *Bulletin de Correspondance Hellénique* 122 (1998), 421–422.

Killen 2001

J.T. Killen. "Religion at Pylos: the Evidence of the Fn Tablets". In *Potnia: Deities and Religion in the Aegean Bronze Age*. Ed. by R. Laffineur and R. Hägg. Aegaeum 22. Liège: Université de Liège, 2001, 435–443.

Killen 2004

J.T. Killen. "Wheat, Barley, Flour, Olives and Figs on Linear B Tablets". In *Food, Cuisine and Society in Prehistoric Greece*. Ed. by P. Halstead and J.C. Barrett. Sheffield Studies in Aegean Archaeology 5. Oxford: Oxbow, 2004, 155–173.

Kotsakis 1999

K. Kotsakis. "What Tells Can Tell: Social Space and Settlement in the Greek Neolithic". In *Neolithic Society in Greece*. Ed. by P. Halstead. Sheffield Studies in Aegean Archaeology 2. Sheffield: Sheffield Academic Press, 1999, 66–76.

Kotsakis 2006

K. Kotsakis. "Settlement of Discord: Sesklo and the Emerging Household". In *Homage to Milutin Garasanin*. Ed. by N. Tasic and C. Grozdanov. Belgrade: Serbian Academy of Sciences and Arts and Macedonian Academy of Sciences and Arts, 2006, 207–220.

Kotsakis et al. 2008

K. Kotsakis et al. "Epinan oi neolithikoi georgoktinotrofoi gala? I marturia gia tin arkhaioteri katanalosi galaktos stin Ellada". In *I Istoría tou Ellinikou Galaktos kai ton Proionton tou*. Ed. by E. Beneki. Xanthi: Politistiko Idrima Omilou Peiraios, 2008, 83–88.

Kotsos and Urem-Kotsou 2006

S. Kotsos and D. Urem-Kotsou. "Filling in the Neolithic Landscape". In *Homage to Milutin Garasanin*. Ed. by N. Tasic and C. Grozdanov. Belgrade: Serbian Academy of Sciences and Arts and Macedonian Academy of Sciences and Arts, 2006, 193–207.

Lagia, Petroutsas, and Manolis 2007

A. Lagia, E.I. Petroutsas, and S. Manolis. "Health and Diet during the Middle Bronze Age in the Peloponnese: the Site of Kouphovouno". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 313–328.

Loughlin 2010

T. Loughlin. *Middle Neolithic Ceramics in the Peloponnese: the View from Koufouvouno in Laconia*. PhD thesis. University of Liverpool, 2010.

Macdonald and Knappett 2007

C.F. Macdonald and C. Knappett. *Knossos: Protopalatial Deposits in Early Magazine A and the South-west Houses*. London: British School at Athens, 2007.

Mainland and Halstead 2005

I.L. Mainland and P. Halstead. "The Diet and Management of Domestic Sheep and Goats at Neolithic Makriyalos". In *Diet and Health in Past Animal Populations: Current Research and Future Directions*. Ed. by J. Davies et al. Oxford: Oxbow, 2005, 104–112.

Marinova 2007

E. Marinova. "Archaeobotanical Data from the Early Neolithic of Bulgaria". In *The Origins and Spread of Domestic Plants in Southwest Asia and Europe*. Ed. by S. Colledge and J. Conolly. Walnut Creek: Left Coast Press, 2007, 93–109.

Mina 2008

M. Mina. "Figurin' out Cretan Neolithic Society: Anthropomorphic Figurines, Symbolism and Gender Dialectics". In *Escaping the Labyrinth: the Cretan Neolithic in Context*. Ed. by V. Isaakidou and P. Tomkins. Sheffield Studies in Aegean Archaeology 8. Oxford: Oxbow, 2008, 115–135.

Nakou 2007

G. Nakou. "Absent Presences: Metal Vessels in the Aegean at the End of the Third Millennium". In *Metallurgy in the Early Bronze Age Aegean*. Ed. by P.M. Day and R.C.P. Doonan. Sheffield Studies in Aegean Archaeology 7. Oxford: Oxbow, 2007, 224–244.

Palaima and Wright 1985

T.G. Palaima and J.C. Wright. "Ins and Outs of the Archive Rooms at Pylos: Form and Function in a Mycenaean Palace". *American Journal of Archaeology* 89 (1985), 251–262.

Palmer 1992

R. Palmer. "Wheat and Barley in Mycenaean Society". In *Mykenaiika. Actes du 9e colloque internationale sur les textes mycéniens et égéens*. Ed. by J.-P. Olivier. BCH supplementary volume 25. Paris: École française d' Athènes, 1992, 475–491.

Papa 1996

C. Papa. "The 'farre de Montelione': Landrace and Representation". In *Hulled Wheats: Promoting the Conservation and Use of Underutilized and Neglected Crops 4*. Ed. by S. Padulosi, K. Hammer, and J. Heller. Rome: International Plant Genetic Resources Institute, 1996, 154–171.

Papathanasiou 2005

A. Papathanasiou. "Health Status of the Neolithic Population of Alepotrypa, Greece". *American Journal of Physical Anthropology* 126 (2005), 377–390.

Papathanassopoulos 1996

G. Papathanassopoulos, ed. *Neolithic Culture in Greece*. Athens: N.P. Goulandris Foundation, 1996.

Pappa 2008

M. Pappa. *Organosi tou Khorou kai Oikistika Stoikhia stous Neolithikous Oikismous tis Kentrikis Makedonias: D. E. Th – Thermi – Makriyalos*. PhD thesis. Aristotle University of Thessaloniki, 2008.

Pappa and Besios 1999

M. Pappa and M. Besios. "The Neolithic Settlement at Makriyalos, Northern Greece: Preliminary Report on the 1993–1995 Excavations". *Journal of Field Archaeology* 26 (1999), 177–195.

Pappa et al. 2004

M. Pappa et al. "Evidence for Large-scale Feasting at Late Neolithic Makriyalos, N Greece". In *Food, Cuisine and Society in Prehistoric Greece*. Ed. by P. Halstead and J.C. Barrett. Sheffield Studies in Aegean Prehistory 5. Oxford: Oxbow, 2004, 16–44.

Parkes 1992

P. Parkes. "Reciprocity and Redistribution in Kalasha Prestige Feasts". *Anthropozoologica* 16 (1992), 37–46.

Peña-Chocarro 1996

L. Peña-Chocarro. "In Situ Conservation of Hulled Wheat Species: the Case of Spain". In *Hulled Wheats: Promoting the Conservation and Use of Underutilized and Neglected Crops 4*. Ed. by S. Padulosi, K. Hammer, and J. Heller. Rome: International Plant Genetic Resources Institute, 1996, 129–146.

Peperaki 2004

O. Peperaki. "The House of the Tiles at Lerna: Dimensions of 'Social Complexity'". In *The Emergence of Civilisation Revisited*. Ed. by J.C. Barrett and P. Halstead. Sheffield Studies in Aegean Archaeology 6. Oxford: Oxbow, 2004, 214–231.

Petroutsas and Manolis 2010

E.I. Petroutsas and S.K. Manolis. "Reconstructing Late Bronze Age Diet in Mainland Greece Using Stable Isotope Analysis". *Journal of Archaeological Science* 37 (2010), 614–620.

Petroutsas, Richards, and Manolis 2007

E.I. Petroutsas, M.P. Richards, and S.K. Manolis. "Stable Isotope Analysis of Human Remains from the Early Helladic Site of Perachora, Corinth, Greece". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 290–296.

Petroutsas et al. 2009

E.I. Petroutsas et al. "Isotope Paleodietary Analysis of Humans and Fauna from the Late Bronze Age Site of Voudeni". In *New Directions in the Skeletal Biology of Greece*. Ed. by L.A. Schepartz, S.C. Fox, and Ch. Bourbou. Princeton: American School of Classical Studies at Athens, 2009, 237–243.

Psilakis and Psilaki 2001

N. Psilakis and M. Psilaki. *To Psomi ton Ellinon kai ta Glikismata tis Laikis Mas Paradosis: Laografiki, Gastronomiki kai Istoriki Peridiavasi me Vasi ta Zimomata tis Kritis*. Iraklio: Karmanor, 2001.

Rappaport 1968

R.A. Rappaport. *Pigs for the Ancestors*. London: Yale University Press, 1968.

Richards and Hedges 2008

M.P. Richards and R.E.M. Hedges. "Stable Isotope Evidence of Past Human Diet at the Sites of the Neolithic Cave of Gerani; the Late Minoan III Cemetery of Armenoi; Grave Circles A and B at the Palace Site of Mycenae; and Late Helladic Chamber Tombs". In *Archaeology Meets Science, Biomolecular Investigations in Bronze Age Greece: the Primary Scientific Evidence 1997–2003*. Ed. by Y. Tzedakis, H. Martlew, and M.K. Jones. Oxford: Oxbow, 2008, 220–230.

Richards and Vika 2008

M.P. Richards and E. Vika. "Stable Isotope Results from New Sites in the Peloponnese: Cemeteries at Sykia, Kalamaki and Spaliareika". In *Archaeology Meets Science, Biomolecular Investigations in Bronze Age Greece: the Primary Scientific Evidence 1997-2003*. Ed. by Y. Tzedakis, H. Martlew, and M.K. Jones. Oxford: Oxbow, 2008, 231-234.

Sahlins 1974

M. Sahlins. *Stone Age Economics*. London: Tavistock Publications, 1974.

Sarpaki 2001

A. Sarpaki. "Processed Cereals and Pulses from the Late Bronze Age Site of Akrotiri, Thera; Preparations Prior to Consumption: a Preliminary Approach to Their Study". *Annual of the British School at Athens* 96 (2001), 27-40.

Schepartz, Miller-Antonio, and Murphy 2009

L.A. Schepartz, S. Miller-Antonio, and J.M.A. Murphy. "Differential Health among the Mycenaeans of Messenia: Status, Sex, and Dental Health at Pylos". In *New Directions in the Skeletal Biology of Greece*. Ed. by L.A. Schepartz, S.C. Fox, and C. Bourbou. Princeton: American School of Classical Studies at Athens, 2009, 155-174.

Shelmerdine 2008

C.W. Shelmerdine. "Host and Guest at a Mycenaean Feast". In *DAIS: the Aegean Feast*. Ed. by L.A. Hitchcock, R. Laffineur, and J. Crowley. Aegaeum 29. Liège: Université de Liège, 2008, 401-410.

Sillitoe 2007

P. Sillitoe. "Pigs in the New Guinea Highlands: an Ethnographic Example". In *Pigs and Humans, 10,000 Years of Interaction*. Ed. by U. Albarella et al. Oxford: Oxford University Press, 2007, 330-356.

Stocker and Davis 2004

S.R. Stocker and J.L. Davis. "Animal Sacrifice, Archives, and Feasting at the Palace of Nestor". In *The Mycenaean Feast*. Ed. by J.C. Wright. Princeton: American School of Classical Studies at Athens, 2004, 59-75.

Thaler 2002

U. Thaler. "Open Door Policies? A Spatial Analysis of Neopalatial Domestic Architecture with Special Reference to the Minoan 'villa'". In *SOMA 2001 - Symposium on Mediterranean Archaeology*. Ed. by G. Muskett, A. Koltsida, and M. Georgiadis. Oxford: Archaeopress, 2002, 112-122.

Thaler 2006

U. Thaler. "Constructing and Reconstructing Power: the Palace of Pylos". In *Constructing Power - Architecture, Ideology and Social Practice*. Ed. by J. Maran et al. Hamburg: LIT Verlag, 2006, 93-116.

Theocharis 1973

D.R. Theocharis. *Neolithic Greece*. Athens: National Bank of Greece, 1973.

Tomkins 2007

P. Tomkins. "Communality and Competition. The Social Life of Food and Containers at Aceramic and Early Neolithic Knossos, Crete". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 174–199.

Trantalidou and Gkioni 2008

K. Trantalidou and G. Gkioni. "Promachon-Topolnica. Ta voukrana tou megalou oposkafou khorou: zoologikos prosdiorismos kai politismika parallila apo tin anatoliki Mesogeio". *To Arkhaiologiko Ergo sti Makedonia kai Thraki* 20 (2008), 217–228.

Triantaphyllou 2001

S. Triantaphyllou. *A Bioarchaeological Approach to Prehistoric Cemetery Populations from Central and Western Greek Macedonia*. BAR International Series 976. Oxford: British Archaeological Reports, 2001.

Triantaphyllou 2008

S. Triantaphyllou. "Living with the Dead: a Re-Consideration of Mortuary Practices in the Greek Neolithic". In *Escaping the Labyrinth: the Cretan Neolithic in Context*. Ed. by V. Isaakidou and P. Tomkins. Sheffield Studies in Aegean Archaeology 8. Oxford: Oxbow, 2008, 136–154.

Triantaphyllou et al. 2008

S. Triantaphyllou et al. "Isotopic Dietary Reconstruction of Humans from Middle Bronze Age Lerna, Argolid, Greece". *Journal of Archaeological Science* 35 (2008), 3028–3034.

Tzevelekidi 2011

V. Tzevelekidi. *Dressing for Dinner: Butchery and Bone Deposition at Late Neolithic Toumba Kremastis-Koiladas, Northern Greece*. PhD thesis. University of Sheffield, 2011.

Urem-Kotsou 2006

D. Urem-Kotsou. *Neolithiki Keramiki tou Makrighialou: Diatrofikes Sunithies kai oi Koinonikes Diastasis tis Keramikis*. PhD thesis. Aristotle University of Thessaloniki, 2006.

Urem-Kotsou 2009

D. Urem-Kotsou. "Neolithic Communities through Vessels: Central Macedonia from Early Neolithic to Late Neolithic". Paper presented to workshop 'Recent Approaches to Pottery Studies: from Prehistory to Byzantine Times'. Thessaloniki: Aristotle University of Thessaloniki. 2009.

Urem-Kotsou and Kotsakis 2007

D. Urem-Kotsou and K. Kotsakis. "Pottery, Cuisine and Community in the Neolithic of North Greece". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 225–246.

Urem-Kotsou and Kotsakis (in press)

D. Urem-Kotsou and K. Kotsakis. "Cups of Conversion: Drinking Sets in Social Context in Late Neolithic Northern Greece". In *Wine Confessions: Production, Trade and Social Significance of Wine in Ancient Greece and Cyprus*. Ed. by E. Margariti, J. Renfrew, and M. Jones. Princeton: American School of Classical Studies at Athens. In press.

Urem-Kotsou et al. 2002

D. Urem-Kotsou et al. "Birch-bark tar at Neolithic Makriyalos, Greece". *Antiquity* 76 (2002), 962–967.

Valamoti 2007

S.-M. Valamoti. "Traditional Foods and Culinary Novelties in Neolithic and Bronze Age Northern Greece: an Overview of the Archaeobotanical Evidence". In *Cooking Up the Past: Food and Culinary Practices in the Neolithic and Bronze Age Aegean*. Ed. by C. Mee and J. Renard. Oxford: Oxbow, 2007, 89–108.

Valamoti and Charles 2005

S.-M. Valamoti and M. Charles. "Distinguishing Food from Fodder through the Study of Charred Plant Remains: an Experimental Approach to Dung-derived Chaff". *Vegetation History and Archaeobotany* 14 (2005), 528–533.

Valamoti and Jones 2003

S.-M. Valamoti and G. Jones. "Plant Diversity and Storage at Mandalo, Macedonia, Greece: Archaeobotanical Evidence from the Final Neolithic and Early Bronze Age". *Annual of the British School at Athens* 98 (2003), 1–35.

Valamoti, Moniaki, and Karathanou 2011

S.-M. Valamoti, A. Moniaki, and A. Karathanou. "An Investigation of Processing and Consumption of Pulses among Prehistoric Societies: Archaeobotanical, Experimental and Ethnographic Evidence from Greece". *Vegetation History and Archaeobotany* 20 (2011), 1–16.

Valamoti et al. 2007

S.-M. Valamoti et al. "Grape-pressings from Northern Greece: the Earliest Wine in the Aegean?". *Antiquity* 81 (2007), 54–61.

Valamoti et al. 2008

S.-M. Valamoti et al. "Prehistoric Cereal Foods from Greece and Bulgaria: Investigation of Starch Microstructure in Experimental and Archaeological Charred Remains". *Vegetation History and Archaeobotany* 17 (2008), 265–276.

Vardaki 2004

E. Vardaki. "Animal Husbandry Revisited: the Social Significance of Meat Consumption in a Highland Village of Mt. Psiloritis, Central Crete". In *Food, Cuisine and Society in Prehistoric Greece*. Ed. by P. Halstead and J.C. Barrett. Sheffield Studies in Aegean Archaeology 5. Oxford: Oxbow, 2004, 196–205.

Vika 2011

E. Vika. "Diachronic Dietary Reconstructions in Ancient Thebes, Greece: Results from Stable Isotope Analyses". *Journal of Archaeological Science* 38 (2011), 1157–1163.

Vitelli 1989

K.D. Vitelli. "Were Pots First Made for Food? Doubts from Franchthi". *World Archaeology* 21 (1989), 17–29.

Whitelaw 2001

T. Whitelaw. "Reading between the Tablets: Assessing Mycenaean Palatial Involvement in Ceramic Production and Consumption". In *Economy and Politics in the Mycenaean Palace States*. Ed. by S. Voutsaki and J. Killen. CPS supplementary volume 27. Cambridge: Cambridge Philological Society, 2001, 51–79.

Wright 1996

J.C. Wright. "Empty Cups and Empty Jugs: the Social Role of Wine in Minoan and Mycenaean Societies". In *The Origins and History of Wine*. Ed. by P.E. McGovern, S.J. Fleming, and S.H. Katz. Philadelphia: Gordon and Breach, 1996, 287–309.

Wright 2004

J.C. Wright. "A Survey of Evidence for Feasting in Mycenaean Society". In *The Mycenaean Feast*. Ed. by J.C. Wright. Princeton: American School of Classical Studies at Athens, 2004, 13–58.

Paul Halstead

Professor of Archaeology, University of Sheffield, UK. Prehistorian and zooarchaeologist. Research interests: interaction between 'economy' and 'society' in the later prehistory of Greece. Participation in ethnoarchaeological and oral history projects, e.g. in Greece, devoted to various aspects of crop husbandry, herding, woodland management and rural foodways.

Professor für Archäologie, University of Sheffield, UK. Prähistoriker und Archäozoologe. Forschungsschwerpunkte: Interaktion zwischen Wirtschaft und Gesellschaft in vorgeschichtlicher Zeit in Griechenland. Beteiligung an ethnoarchäologischen und 'oral history'-Projekten (u. a. in Griechenland), die sich mit verschiedenen Aspekten von Ackerbau, Tierhaltung, Waldwirtschaft und Landwirtschaft auseinandersetzen.

Dept of Archaeology
University of Sheffield
Northgate House
West St.
Sheffield S1 4ET, UK
p.halstead@shef.ac.uk