

SHEFFIELD RT 2006

Abstracts (in alphabetical order)

Cesare d'Annibale

Obsidian in Transition: The Technological Reorganization of the Industry from the Final Neolithic to Early Minoan I at Kephala Petras, Siteia.

The talk will focus on the transition between the FN and EMI in relation to the obsidian industry as exemplified by the material from the site of Kephala in east Crete. Kephala is unique in Crete since it offers uninterrupted occupation bridging the FN and EMI. The rarity and importance of this site in the understanding the reorganization of the obsidian industry cannot be underestimated. Perhaps more importantly it offers the first evidence of metallurgical activity during the Final Neolithic period. The introduction of metals at such an early stage plays a leading role in the transition of the obsidian industry as well. The industry diverges completely by the EMII period where uniformity or strict standardization becomes the norm. The reasons for this must have been the result of the use of a metal punch in conjunction with some core holding device. One of the more important events at the site of Kephala is the recovery of certain bladelet types with characteristics typical of later Minoan blades in association with these earlier larger blades in FN/EMI contexts. Although no metal tools were recovered from the site, microscopic examination of some of the obsidian artefacts exhibit impact marks that are characteristic of a metal punch. The contemporaneous use of these two techniques in the manufacture of blades at Kephala offers a rare glimpse on this seminal event that was instrumental in the reorganization of the obsidian industry.

Cyprian Broodbank

The Peopling Of Crete In Its Wider Late Glacial And Holocene Mediterranean Context

An understanding of the significance of the Knossian Neolithic requires both its internal re-evaluation and placing in its regional Cretan context, and also its location within much broader spatial frameworks. This paper focuses on the latter issue, and tries to provide a comparative perspective on the processes witnessed on Crete. Integration of the Cretan Neolithic with patterning in the broader Neolithic of the Aegean has proceeded apace, but little attention has been paid of late to its place in overall Mediterranean dynamics during the early to mid Holocene. In fact, this wider context has seen major transformations over the last 10-15 years, three of which form the focus of this paper. First, since 1990 the data concerning the earliest peopling of all the other major islands of the Mediterranean have changed dramatically, both in favour of earlier (e.g. Cyprus, probably Sardinia) and much later (e.g. the Balearics) dates, with additional implications for human - faunal endemic relations. Second, the extension of calibrated radiocarbon dating back into the late Glacial permits a finer 'real-time' appreciation of the development of seafaring, and, furthermore, draws attention to the striking associations between several maritime benchmarks and the cold snap during the Younger Dryas. Third, maritime short-hop, or 'enclave' colonisation models have recently returned to the fore as a wider means of explaining the expansion of the Neolithic not only in the eastern Mediterranean, but also in the west. By exploring these wider trends, the significance of Knossos and the likelihood of different scenarios concerning its appearance and subsequent history can be more satisfactorily addressed.

James Conolly

The Knapped-Stone Industry Of Aceramic And Early Neolithic Knossos

Knapped-stone tools were a core element of the tool-kit of the earliest inhabitants of the Aegean and provide much essential information about economic organization, subsistence, and trade and exchange. The Neolithic Knossos assemblage is no exception, and its analysis has resulted in a number of significant observations. These include: the finding that the Aceramic and Early Neolithic Knossos assemblage was very intensely worked and shows evidence of experimentation with (poor quality) local material and 'resource stress' in the imported obsidian component; that there are parallels with elements of the Aceramic Franchthi assemblages; that there is much continuity and no significant break in tradition between the AN and EN at Knossos; that EN Knossos stone tool technology diverges from approaches documented from the mainland EN sites; and that there is limited evidence for Knossos's participation in the exchange of obsidian and finished tools observed between mainland sites during the Early Neolithic.

Paul Halstead

Modelling Marginality: Assessing The Costs, Benefits And Risks Of Herding In The Later Neolithic Of Crete

The contrast between early Neolithic settlement focussed on Knossos and later Neolithic activity at a host of sites scattered across Crete (e.g., Watrous 1982; Nowicky 199x) appears to be an extreme example of a process of 'marginal colonisation' that took place at a broadly similar date in other parts of the Aegean (e.g., Johnson 1996; Cavanagh 1999). As in other parts of the Aegean, this process has been interpreted in terms of increasing reliance on mobile herding, at the expense of more sedentary crop husbandry (e.g., Watrous 1994). This model of emerging pastoralism has been countered by the argument that recent pastoralists existed within the context of a market economy, on which they were dependent for access to dietary staples derived from cultivated plants (Lewthwaite 1981; Halstead 1987; 1992; Cherry 1988). This criticism has not been addressed by proponents of the pastoral model, but nor have the model's critics explored the viability of dependence on herding in the absence of a market economy (cf. Sherratt 199x). This paper will attempt to explore this 'no-man's land' between the proponents and critics of early pastoralism.

Valasia Isaakidou

Livestock Under The Labyrinth: Changes In Management And Consumption Of Domestic Animals at Neolithic Knossos

Early study of the large faunal assemblage from Neolithic Knossos focussed primarily on the earliest levels and on questions relating to the origins of agriculture in Europe (Jarman and Jarman 1968) and to the role of humans in enriching or impoverishing the indigenous fauna of Crete (Jarman 1999). Consideration of changes, through the Neolithic at Knossos, in the management of domestic animals (e.g., Broodbank 1992) has been undermined by concern that an apparent increase in the frequency of cattle might be an artefact of taphonomic processes (Whitelaw 1992, following Winder 1991). This paper attempts to eliminate the effects of taphonomic and analytical biases on the composition of this assemblage, as a basis for identifying real changes in species frequency, in mortality patterns and in carcass processing. The implications of these changes are considered for such issues as the growth of the settlement at Knossos, the possible emergence of household units and the eventual expansion of human activity to the rest of Crete.

Maria Mina

Figurin' Out The Cretan Neolithic Society: Anthropomorphic Figurines, Symbolisms And Gender Dialectics

Anthropomorphic figurines are present from the earliest levels of Neolithic Knossos and represent an unbroken tradition throughout the Cretan Neolithic period which affords us a unique chance to detect changing patterns of symbolic and, in turn, social performance. Because these figurines constitute a powerful expression of material symbolism, a number of valuable insights can be gained regarding aspects of social symbolism and organisation that were active throughout the Cretan Neolithic. In particular, along with useful information regarding the contextual use of the Neolithic anthropomorphic figurines, as well as their formal attributes, a productive avenue of research for their study is afforded in the framework of gender archaeology. This paper explores on one level the ideas regarding gender as a structural principle in the Cretan Neolithic as

revealed through the ‘embodied’ gender symbolism of the anthropomorphic figurines, while at the same time ideas concerning the articulation of social behaviour through the circulation of symbolic objects at the level of household and community are also discussed. The results from Crete are finally placed in the wider Aegean context which allow a comparison with parallel social developments and modes of organisation in adjacent regions. The implications resulting from such comparisons have significant implications for our understanding not only of the Neolithic of Crete, but also of the wider Aegean Neolithic society.

Krzysztof Nowicki

The Final Neolithic (Late Chalcolithic) To Early Bronze Age Transition In Crete And The South-East Aegean Islands: Changes In Settlement Patterns And Pottery

The fourth millennium BC in the Aegean was a period of changes interpreted often as being the result of continuous indigenous development, only slightly stimulated by increasing contacts with the areas to the East.¹ Even if the native population (if such a “native element” can be differentiated in the Aegean islands at all) played a main role in this process during the first half of the fourth millennium, the situation changed dramatically in the second half, as is suggested by archaeological evidence. New settlement patterns, which characterize this period in Crete and other Aegean islands, cannot be seen as a simple development of the Neolithic use of landscape and natural resources. Do these changes justify, however, interpretation as directly related to substantial shifts of population, and do these patterns reflect a movement of people from the East to the West, and more precisely from the Anatolian littoral and the East Aegean islands to the Cyclades, Greek mainland and Crete?

The most striking phenomenon of the period in these regions is an unprecedented increase of settlement numbers, mainly along the coastal zone of Crete, but also in the Dodecanese and Cyclades. The settlements were founded at new locations, having no or only insignificant traces of earlier activity. The sites ranged from small (4-5 families) to very large (over 50 families): the latter category is a new phenomenon in the settlement pattern of Crete. Although many of these latest Final Neolithic sites (the last centuries of the fourth millennium BC) were abandoned after a short period of occupation, their appearance initiated a new process which shaped the map of habitation places in the EBA I and II periods. Most of the Cretan coastal settlements dating to the last Final Neolithic phase were located on defensible promontories and hills. At the same time, however, there were extensive sites on the small islands of Koufonisi and Chrisinissi (only a few miles away from the Cretan coast) and Kasos (the last island on the way to Crete from Anatolia, via the Dodecanese), scattered on low coastal plains and terraces, showing no concern with security. How did these different geographical locations relate to the topographical characteristics of settlement? Where these small, perhaps uninhabited, islands the ‘bridgehead’ settlements for immigrants on their way to Crete? Did the use of defensible topography in Crete arise out of the conflicts between the natives and the newcomers or between the newcomers themselves, considering that they may have arrived in several successive waves and represented different groups of people coming not only from western, but also south-western and perhaps southern coast of Anatolia?

The interpretation of the historical background of settlement changes in the second half of the fourth millennium BC is supported by analysis of pottery from the sites in question. The Cretan latest Final Neolithic material can be in general divided into two groups: one showing direct links with the local Neolithic tradition and the second having many similarities with the pottery from Dodecanese and western coast of Anatolia. The second group is not homogenous (although there

are many common characteristics) and this may suggest different regions for the origin of the possible newcomers. The most intriguing is the group which is well recorded in eastern Crete and along the southern and western coast (at least between Palaikastro, to the east, and Falasarna, to the west) characterised by a distinctive red or reddish-brown fabric. Although it shares some similarities with the Dodecanesian Chalcolithic it also has features rare or unknown in that area. More similarities with the Dodecanesian Late Chalcolithic 3-4 pottery, as well as the Pelos group of the Cyclades, can be observed along the northern coast of Crete. This geographical distribution of the latest FN pottery groups may have influenced the EM I development of pottery styles.

Yannis Papadatos

The FN-EM I Transition In East Crete: New Evidence From Kephala Petras, Siteia

The FN-EM I transition in Crete is dominated by theories about population movements and migrations. Such historical events are traditionally deployed in order to explain archaeological evidence for population increase, changes in the settlement patterns and discontinuities in the material culture. The use of archaeological evidence for the reconstruction of such historical events is not without problems, but in the case of FN Crete the situation becomes more perplexed since the various theories are based on rather fragmentary evidence. First, the division between the two phases is not stratigraphically attested or rather problematic all over Crete. Second, the available evidence is fragmentary and comes from sites either poorly preserved, or heavily disturbed due to later occupation, or from isolated finds. Third, a large part of the evidence concerns material from surface surveys, with the corresponding pros and cons of this category of material evidence.

Recent excavations at Kephala Petras, Siteia revealed a settlement of the FN/EM I transition that is expected to add significant new evidence on the above issues. Being exceptional in the fact that it has a distinctive and clear stratigraphic sequence from FN to EM I, the Kephala settlement offers a unique opportunity to distinguish between the two phases. The study of the material is currently in progress and this paper presents the available archaeological evidence as well as some preliminary ideas about its importance and implications for the understanding of this transition. The continuities and discontinuities in several categories of material culture, from architecture to pottery manufacture and obsidian working are used to test previous ideas concerning population movements and migrations and provide a firmer ground for the discussion of these issues.

Tom Strasser

Axe Types And 'Hidden' Landscapes On Neolithic Crete

The Cretan Celt Project is an island-wide study of Neolithic stones axes or celts that focuses on production and trade. Approximately five hundred and fifty tools have been analyzed and petrographic identifications have been made with the assistance of geologists. The majority of the tools are from Knossos, but several smaller assemblages from regional Cretan museums (e.g., Magasa, Palaikastro) and the Ashmolean in Oxford have supplemented the sample. It is now possible to recognize some regional types, as well as an import.

Early in the project, two axes were identified as grano-diorite from the Mirabello bay region. They date to the Early and Middle/Late Neolithic strata. This discovery demonstrates the exploitation of a stone resource where presently there are no known contemporary settlements. This observation has more recently been reinforced by the recognition of Middle and Late

Neolithic axes at Knossos that are made from a metamorphosed volcanic stone, most likely andesite. This rock outcrops primarily around the Siteia region, and the working hypothesis is that it is confined to the region east of the Ierapetra isthmus. When found in central Crete these axes should be considered imports from the east of the island. Like its grano-diorite counterpart, archaeological surveys have found any sites quite that early in the region.

Of great interest was the petrographic identification of a previously enigmatic stone, now recognized as imported bauxite. The source is unknown because this mineral occurs in the Cyclades and the mainland. They have been found in Palaikastro, Knossos and the Akrotiri peninsula. At Knossos, they occur in Late and Final Neolithic strata. These represent the first off island imports found in the Cretan axes. Future research will hopefully clarify this source of these axes.

Since celts are second in quantity only to ceramics as indicators of Neolithic activity on Crete, the axe types help archaeologists identify regionalism of production that is observed on the mainland. This is especially important because Knossos is the only site with a full Neolithic sequence, and settlement evidence on Crete is scant for pre-Final Neolithic sites. The axes present a burgeoning image of regional production on Crete where no contemporary Neolithic sites have been found. This begs the question as to why so few pre-Final Neolithic sites are being found by surveys, especially in light of the diagnostic nature of Early and Middle Neolithic pottery. Either the settlement patterns are much different than those observed in, say, Thessaly; or, much of the Neolithic landscape on Crete has been destroyed.

Simona Todaro & Serena di Tonto

The Neolithic settlement of Phaistos revisited: evidence for ceremonial activity on the eve of the Bronze Age

The chronological reassessment of the FN period at Phaistos, one of the principal outcomes of a new cycle of stratigraphic excavations conducted in the site between 2000 and 2004, has led to the re-distribution of the architectural features identified on the hill between the several stages of the FN period and, in some circumstances, to the very beginning of the Early Bronze Age. The new discoveries, together with a systematic re-evaluation of the use context of some of the previously excavated deposits, are questioning the nature and extension of the earliest phases of human occupation of the hill. This paper, while identifying and acknowledging all of the different activities that are attested in the various parts of the site, will focus on those deposits and associated features that testify to a ceremonial and ritual frequentation of the hill, and thus allow a new reading of some of the most distinctive peculiarities of the Phaistian assemblages (from intramural burials to the high concentrations of pouring vessels that seem to involve the consumption of a new beverage).

Peter Tomkins

Worlds Apart? Mobility, Interaction And Change In The Neolithic Southern Aegean From A Knossian Perspective

In the last couple of decades there has been trend towards emphasising local and regional differences in development in the Aegean during the Neolithic. The reasons for this are varied: theoretical shifts in emphasis, regional specialisation of research, multiple chronologies that are increasing region-specific rather than supra-regional, data sets that vary greatly in completeness and coherence from region to region etc.. While the identification of inter-site variation, regional patterns of interaction and divergent trajectories of development remain important research

emphases, there is the risk that we will produce an overly-fragmented picture of the Neolithic Aegean, where the connections and structural similarities between regions are obscured and the narrative focus falls on the histories of individual sites and regions. This is especially true for the southern Aegean where the number of excavated open-air sites is small, particularly during the earlier Neolithic, and where the distances between these sites is frequently very great. Knossos is an extreme example of this pattern: long considered to have developed in isolation, the true extent of its changing relationship with the wider world of the southern Aegean is only now beginning to emerge. Building on a recent reassessment of chronology, phasing and ceramic development at Knossos, this paper will explore the nature and significance of some of the connections that can now be drawn between Knossos and other sites in the southern Aegean. How do they change during the course of the Neolithic, what mechanisms lie behind them, and what do they allow us to say about the changing aspirations, desires and strategies of the community at Knossos?

Such connections have an importance that transcends the purely local and goes to the heart of how we understand social life and social transformation in the Neolithic communities of the Aegean. In the last four decades we have gone from a point of view that sees exchange and external contacts as epiphenomenal to a deeper understanding of the nature and significance of the material and social links between different communities. What we still lack, however, is a full appreciation of the shifting supra-regional networks of relationships which connected the regions of the Aegean with each other after the initial transfer of agriculture that signals the start of the Neolithic. During the course of the Neolithic a series of major material and social transformations occur whose timing and substance in one region of the Aegean is closely paralleled in all the others, Crete included. How should we model the spread of these changes? Is it useful or legitimate to think in terms of a Neolithic Aegean world system?

Sevi Triantaphyllou

Living With The Dead: A Consideration Of Mortuary Practices In The Greek Neolithic

Until a decade ago, Neolithic mortuary practices in the Aegean were reflected in scanty intramural burials (e.g. Knossos, *Crete*, Mandalo, *Macedonia*, Frachthi cave, *Peloponnese* etc.) and occasional organized cemeteries in close proximity to the settlement (e.g. Soufli Magoula, *Thessaly*, Tharrounia, *Euvoia* etc.), the latter associated with poor grave goods and giving an emphasis on the *nuclear family* as the basic unit of the household. More recently, however, systematic collection and study of bones has revealed another dimension in the manipulation of human remains. Human bones in a semi-articulated or disarticulated form, often fragmented, are now routinely identified at a number of Neolithic sites (e.g. Makrigialos, Paliampela *Macedonia*, Frachthi cave, *Peloponnese*, Knossos, *Crete*), among animal bones and scattered in a variety of settlement contexts. Such evidence suggests a different treatment of the deceased, perhaps emphasizing the *communal* against the *individual* as represented by articulated intramural burials.

This presentation will attempt to explore these different mortuary habits of the Greek Neolithic within the context of intra-settlement organization (i.e., visibility and proximity of disposal to habitation areas), the different types of settlement attested (i.e., tell versus extended), while exploring ageing evidence for demographic composition of the population, which may be associated with the differential manipulation of the deceased.

Todd Whitelaw

Beyond The Tell: Neolithic Knossos In Long-Term, Demographic Perspective

Following JD Evans' innovative peripheral soundings to define the development of Neolithic

Knossos through time, there have been various attempts to relate the spatial and presumed demographic development of the community to long-term social evolutionary reconstructions. Viewed in detail, the relevant data is actually extremely problematic, particularly for the later phases of the Neolithic. However, taking a wider chronological and spatial perspective can sidestep some of these problems of detail, and allows a focus on larger-scale questions of the demographic and social development of the community, during the Neolithic and through most of the Early Bronze Age. This suggests that the most challenging question may not be 'why was Neolithic Knossos so large?' but 'why did it stabilise until the end of the Early Bronze Age?'.