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The organisation of votive production and distribution in the peak sanctuaries of state society Crete: a perspective offered by the Juktas clay animal figures

Marika Zeimbeki

The concern to determine the character of state society and statehood holds a central place in studies of Cretan polities of the Bronze Age (e.g. Cherry 1986; Warren 1987, 1994).¹ Researchers have recently given momentum to their engagement with such issues by making use of ethnographic and archaeological models of statehood and by identifying, through innovative studies of material culture, the institutional character of economic, ritual and political organisation in Minoan society (e.g. Knappett on ceramic production 1997*a*, 1997*b*, 1999*a*; Schoep 1999 on local and regional administration; Christakis 1999 on domestic food storage; Whitelaw *et al.* 1997 on local potting traditions and inter-regional economic contacts). Distancing themselves from centrist organisational models, studies of local and regional material culture (and particularly those focusing on ceramics) have altered significantly our understanding of the organisational and institutional settings relating to community-based economic activities.

The study of the peak sanctuaries' material evidence could potentially benefit greatly from similar approaches. These cult sites feature prominently in debates on the nature and form of political power in Minoan Crete; however their artefactual evidence has hardly been used as a source of information on how the symbolic and economic activities linking these cult sites with their surrounding communities were articulated materially and organisationally. Yet answers to such questions would throw light on how the economic, the ideological and the political spheres were interlinked in these central cult sites. Interest in the economic and organisational aspects of peak sanctuary ritual is timely in view of an increased emphasis on the contribution of the ideological sphere in explanations of the emergence of social and political complexity (Knappett 1999*a*, 619–20, 635–6).

THE MULTIPLE PERSPECTIVES OFFERED BY THE PEAK SANCTUARY MATERIAL EVIDENCE

In this section I suggest how a problem oriented approach to the material evidence from peak sanctuaries

might help us to gain a further insight into these sites' organisational and institutional settings.

Because of a traditional concern with the character of *political* power, attempts to identify peak sanctuaries' organisational settings have focused mainly on elaborate forms of material culture from more prestigious sanctuaries (e.g. stone offering tables and architectural investment) with a view to ascertaining whether these cult sites were, or became, institutions of state centres (Rutkowski 1971, 1986; Cherry 1986; Peatfield 1987, 1990; Simandiraki 1998). In tandem with an increased concern with regional studies, this emphasis has recently been redressed by an interest in the material culture of peak sanctuaries situated in the rural milieu (Peatfield 1992).

The contrastive, "qualitative" characterisation of peak sanctuaries' material culture and their organisational settings into either "prestigious/palatial" or "humble" is beset with problems. It focuses selectively on the elite elements of more prestigious cult sites to the detriment of their other material features; and it characterises "rural" peak sanctuaries mainly in contrast to more "prestigious" ones, rather than in terms of their specific material culture. A further repercus-

¹ I should like to express my gratitude to Alexandra Karetsou, the excavator of the peak sanctuary on Mt Juktas, for supporting me in my research and entrusting me with the publication of the animal figure assemblage from this fine sanctuary. This material was first studied for my doctoral thesis at the University of Bristol. I am grateful to Peter Warren, who supervised my research, for his constant advice and guidance. I would like to thank both him and O. Dickinson for reading and discussing this text, and P. Day, C. Knappett, K. Kopaka, A. Sarpaki, A. Simandiraki and T. Whitelaw for their comments on the paper and related matters. I should also like to thank Giannis Papadakis for the care he took in photographing the animal figurines.

The animal figure assemblage from the Juktas peak sanctuary will be published by the Archaeological Society of Athens in a volume nearing completion, entitled *The Juktas Peak Sanctuary: the Animal Figurines and Figures*. The preparation of this volume for publication has been funded by the Institute for Aegean Prehistory.

sion of this dualist approach is that it does not recognise adequately that a continuum of institutional and organisational settings might have existed between the extremes branded as elite and humble (for the wider permutations of this debate: Knappett 1999a, 635–9).² Consequently, the potential organisational variability between and even *within* peak sanctuaries is not adequately recognised.

The most serious shortcoming of this approach is that the contribution of the peak sanctuary institution itself is not utilised adequately in our understanding of the organisation of Minoan society. Peak sanctuary ritual brought about new forms of material and symbolic exchange: the cult afforded a vehicle of collective expression at a community and inter-community level; and it generated the widespread production of material culture in response to an unprecedented social demand for ritual devices used by individual participants in collective worship. Most importantly, there is a tendency to ignore the common ground between peak sanctuaries, namely the fact that, institutionally, peak sanctuary organisation and, potentially, the production of its material culture were embedded in the social and economic life of its affiliated communities. It is therefore essential to examine how the symbolic and economic activities related to this cult were organised, and to gain an insight into the material articulation of links between community and peak sanctuary.

I aim to contribute to these questions by examining the organisational and institutional setting of the MM I–LM I production and distribution of clay animal figures at Juktas. It is believed that the study of this common class of votive offering will have wider ramifications in our understanding of peak sanctuary ritual. Depending on how the production and distribution of other objects at Juktas are found to have been organised, the information derived from the animal figures can be used in either a comparative or contrastive capacity. It can however be anticipated that some of the other clay votive offerings found at Juktas were made under the same or similar organisational conditions, very likely in the same workshops.

I hope that the information derived from the Juktas setting, whose exceptional architectural and material investment has been ascribed to ritual and organisational connections with the Knossian palatial centre (Evans 1928, 66, 761, 1935, 607; Karetsou 1977, 418, 1981, 151), may be usefully integrated into a wider analysis of peak sanctuary organisation because of its uniqueness, rather than despite it.

THE DATA: THE TECHNOLOGICAL PROFILE AND PRODUCTION MODES OF THE JUKTAS ANIMAL FIGURES

The Juktas evidence

My aim in this section is to infer the modes of productive organisation related to the clay animal figures de-

posited at Juktas by identifying their technological profile. I establish this by assessing the degree of standardisation, labour investment, and skill invested in the figures themselves. This approach is based on the work of Costin, Sinopoli and Hagstrum on specialisation (Costin 1991; Costin and Hagstrum, 1995; Sinopoli 1988) and on its innovative application in Minoan ceramic studies by C. Knappett (1997a, 1997b, 1999a). Once the productive modes are established, I assess how the ritual character of peak sanctuary activity and the links it generates between cult sites and communities could impact on the productive and distributive organisation of the votive animal figures.

The animal figures deposited at Juktas from MM I to LM I are made in four principal fabrics.³ The majority of these figures and fragments thereof (81%) are made in a pure, fine textured, hard fired fabric; 17% were manufactured from 3 rough textured fabrics; and the small remainder is made in other minority fabrics. Figurines in all fabrics are small, ranging from 1.4 to 9.8 cm in length, with most between 2.2 and 2.8 cm; 2.9 to 3.4 cm is also common. However, the rough textured fabrics have also been used to manufacture a far smaller proportion of medium and large figures, which make up less than 5% of the animal figure assemblage (intact figures/figurines and fragments thereof). These range between 18 and 27 cm in length. I use the terms “figurines” and “figures” to distinguish between these two clearly differentiated scales.⁴

The manufacture of the figurines, all solid and usually solid painted, requires a relatively low level of investment in time and labour. The diversity in form, scale and modelling of the figurines made with each of the three rough textured fabrics is indicative of low standardisation and low levels of skill. FIG. 30.1 shows rather extreme examples of this in one of these fabrics. At face value, the technological profile of the rough textured figurines could be related to non — centralised production, that is, production by manufacturers working independently of political/administrative authorities on a small scale in dispersed locations (Sinopoli 1988, 582). However, it is more likely that these rough textured figurines originated from a production group(s) which, when using this fabric, specialised mainly in the manufacture of clay vessels (maybe “utili-

2 This insight has been provided by the work of Knappett, who has demonstrated that such organisational and institutional variability exists in ceramics within both individual settlements and potting regions.

3 Petrographic analysis, employed to verify the fabric distinctions made on the basis of macroscopic examination, will soon be under way.

4 See French 1985 for the importance of this distinction. The term “figures” is also used in this paper when general reference is made to the entirety of animal figures and/or figurines deposited in a single site.



Fig. 30.1 (above). Juktas: examples of figurines made with rough textured fabrics, view from top.

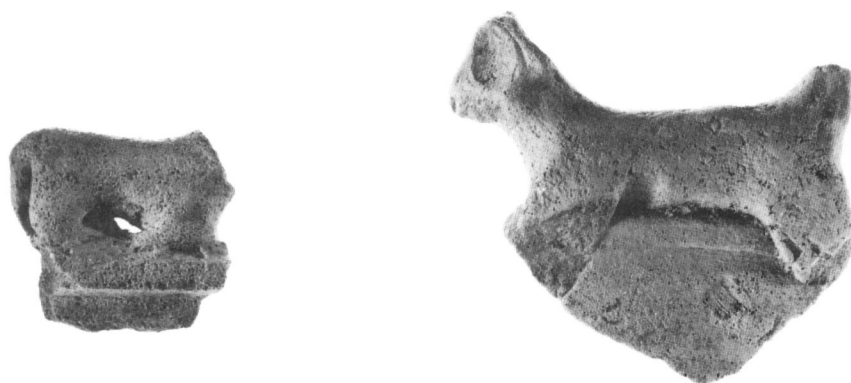


Fig. 30.2 (left). Figurines made with rough textured fabrics attached to vessel rims (top left, top right and bottom left).

tarian" rather than fine ware?) and only occasionally produced animal figures in this fabric. This hypothesis may be indirectly reflected by several factors: the addition of animal figurines on Juktas vessel rims made in the same rough textured fabrics (FIG. 30.2); the occasional production of rough textured figures (as opposed to figurines) in a scale akin to that of medium sized vessels; and the unsuitability of these fabrics for modelling in detail miniature or small scale figuration.

Like the rough textured figurines, the far greater number of their counterparts in the fine fabric reflect low investment in both time and labour. In contrast however, their fabric permits a certain degree of deliberate elaboration: they occasionally feature more individual forms of decoration (light on dark, and dark on light linear painted decoration); they have a greater range of forms (for example, naturalistic and schematic figurines can co-exist in the same contexts). They also represent a range of animal species fulfilling the symbolic requirements of the cult, in contrast to the rough textured figurines which mainly represent generic quad-

rupeds. All the above aspects of the fine fabric figurines show that the frequent use of the fine fabric is due to its suitability in forming such small representational devices.

The fine fabric figurines are characterised by the consistent combination of fabric, forming technology and decoration. Their constant technological traits, including the dominant use of the pure, fine fabric, support significantly the contention that many of the figurines dedicated at Juktas were the products of workshop groups from the surrounding potting region, which includes Knossos and Archanes (for use of the term "technological trait" see Knappett 1997a, 309).

In morphological terms, they naturally manifest considerable diversity. This is partly but not exclusively due to the use of these votives over a wide chronological span, ranging from at least MM I to LM I. There are quite a few morphological singletons, and a low proportion of figurines evidences inconsistent and, at times, sloppy workmanship. But, in further contrast to the rough textured figurines, their fine fabric counterparts

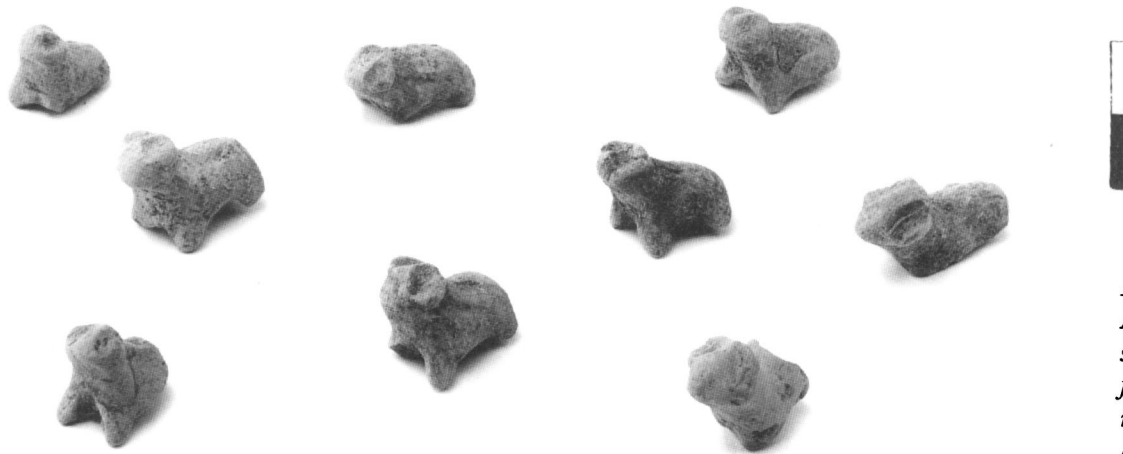


Fig. 30.3.
Morphologically
similar figurines
found in the same
microstratigraphic
context.

show considerably high patterns of standardisation. *Identical* twos and threes are rare but it is possible to group together morphologically similar figurines numbering six, eight and even 11 (e.g. FIG. 30.3). Their clustering in the same microstratigraphic context indicates that these were produced in the same workshop, very likely during the same or closely spaced production events. Other larger morphological groups of figurines, found in a greater range of stratigraphic contexts, show that these were manufactured in a single or kindred workshops, possibly attesting to a more durable manufacturing tradition.

A more difficult task than grouping together morphologically similar figurines is that of identifying the relationships between these groupings, in order to pinpoint the number of workshops represented. Differences between “sub-groups” of production units could be misinterpreted as differences between discrete production groups and vice versa (Knappett 1997b, 209–11). This problem is further compounded by the fact that variability between groups could be attributed to either chronological differences or differences between workshops. Thus, for example, it remains unknown whether the rough textured figurines and figures were produced in the same or different workshops as the fine fabric figurines.

Having said that, I feel that the identification of two large groups of closely similar figurines very likely attests to the co-existence from at least MM II to LM I of two distinct production units or groups providing the sanctuary with a considerable turnover of figurines, the sort of evidence we should expect to associate with more centralised independent production and a few dominant workshops (Sinopoli 1988, 581). The distinction of the output of two production groups (numbering at least 254, and 365 figurines) can be hypothesised because the forming procedures of each group features different sequences of physical actions and manipulation of clay, resulting in distinct and not overlapping morphological profiles. Such differences in motor habits

could be indicative of different workshops (Knappett 1997b, 215 on pottery vessels; Morris 1993 on human figurines; more generally on differences between intentional and mechanical attributes see: Costin 1991, 35; Costin and Hagstrum 1995, 622).

The figurines in question were found together in layers dated to MM I–II, MM II–III, and MM III–LM I, but it is not possible to know how many workshop units were producing them (see Knappett 1997b, 209–10 for the distinction between workshop groups and workshop units). Group 1 figures are formed with the compressing (rather than stretching) of an initial piece of clay (FIGS. 30.4–30.5). The thumbs and fingers are manipulated in a consistent manner resulting in specific formal characteristics. These slightly squat figurines frequently feature a triangular, curved outline, with an obvious fall in the area of the rump. Subsequent forming is achieved with folding and tucking rather than pulling of the clay. In the group 2 figurines, more emphasis is placed on pulling than pinching (FIGS. 30.6–30.7). They are attenuated in form and their pointed legs and horns occasionally require the addition of clay.

The production modes of the Juktas animal figures

The evidence permits us firmly to ascribe the production of the majority of clay animal votives offered at Juktas between MM I and LM I to specialist manufacturers. The production by small manufacturing units with a low turnover should not be discounted in view of the considerable quantity of figures that are singletons or cannot be neatly classified into larger groupings. However the technological profile of the majority of figurines and figures shows that a production mode characterised by predominantly centralising tendencies was very likely in place from at least MM II to LM I.⁵

5 This production mode is commensurate with demand levels related to ritual participation during communal feast days.

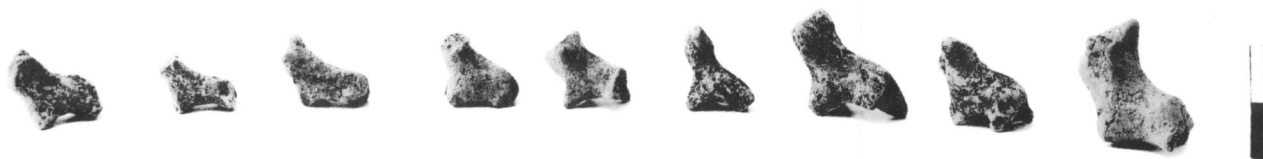
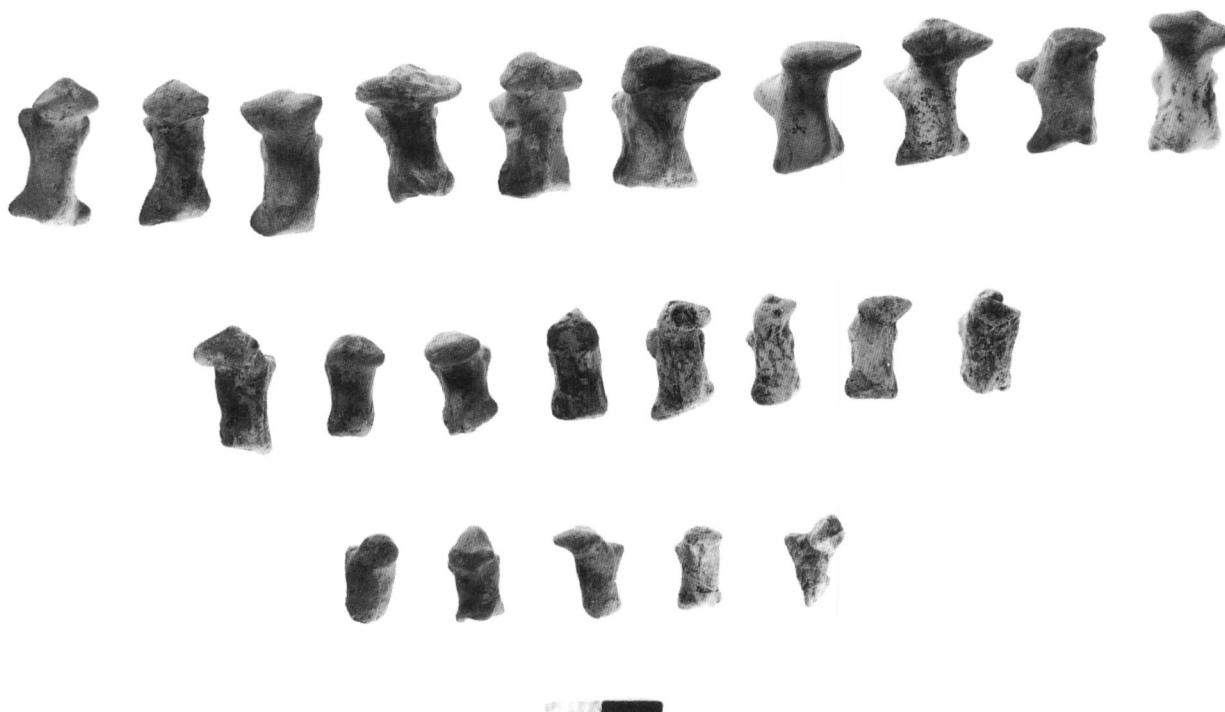


Fig. 30.4 (above). Group 1 figurines, side view.

Fig. 30.5 (below). Group 1 figurines, view from top.



The projected variability of the productive modes of animal figures deposited at peak sanctuaries

Because of the virtual absence of comparanda from other sites, we cannot show how typical or not the centralised productive mode was; however it should not be taken as the norm for all peak sanctuaries. It is also evidenced in the animal figures from the prestigious peak sanctuary of Kofinas (see below). The only other site from which the systematic study of the evidence affords a potential insight into the productive systems of human (not animal) figures is from the Atsipades peak sanctuary. In her stylistic analysis of this assemblage, C. Morris groups together these figurines on the basis of primarily morphological features and provides valuable information on the range and frequency of figurine types and their contexts of deposition (Morris 1993). In comparison with the Juktas animal figure assemblage,

the Atsipades human figurines exhibit greater variability with fewer numbers of figurines in each grouping. While groups of twos and threes are common (Morris 1993, 58–66), they are rarer at Juktas where groupings of animal figurines have more members. The large groups amounting to hundreds do not seem to be attested at Atsipades. These differences may indicate that, in contrast to Juktas, the Atsipades votive material was mainly produced in smaller scale workshops with lower turnovers (Costin and Hagstrum 1995, 624; Sinopoli 1988, 582), a profile characteristic of non-centralised production.

We should not expect the productive modes represented by Atsipades on the one hand and Kofinas and especially Juktas on the other (sites used to exemplify the contrast between “rural” and more “sophisticated” sanctuaries) to comprise the only manifestations of the productive organisation of animal figures dedicated at



Fig. 30.6 (above). Group 2 figurines, side view.

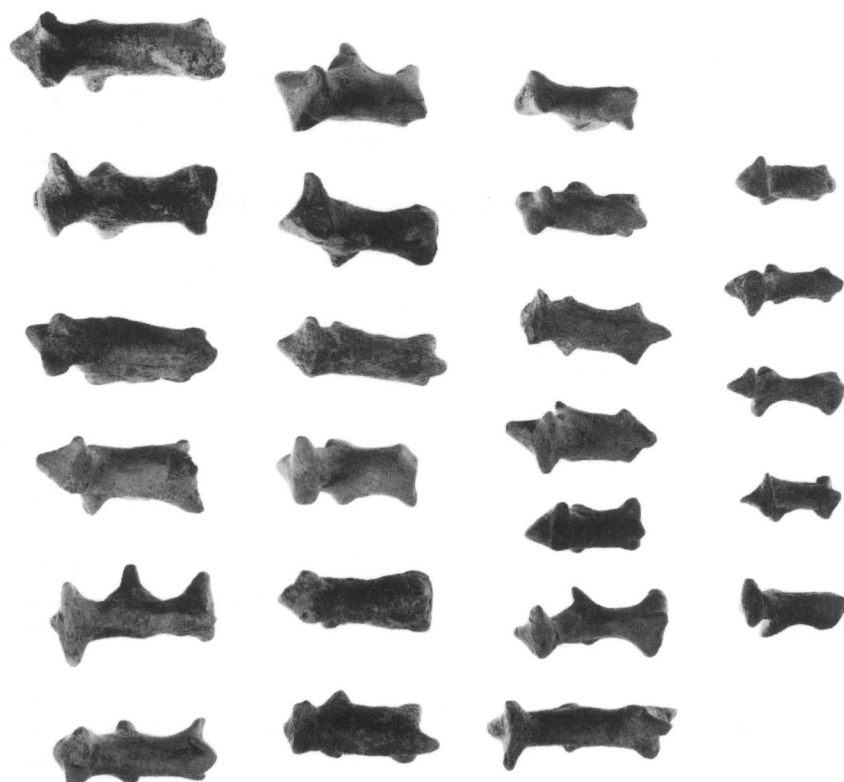


Fig. 30.7 (left). Group 2 figurines, view from top.

other peak sanctuaries. They could have ranged within a continuum from non-centralised to centralised mode (Costin 1991, 33)

THE ORGANISATIONAL AND INSTITUTIONAL CHARACTER OF ANIMAL FIGURE PRODUCTION

In this section I consider how the use of animal figures in the public ritual sphere, the articulation of the material links between communities and cult sites, and the organisational character and socio-political settings of peak sanctuaries could affect the institutional and organisational character of the production and distribution of these figures. I try to account for the organisational variability attested by the different productive modes and, more specifically, to assess how centralising tendencies in the production of animal figures might be viewed within the organisational context of the Juktas sanctuary, evidencing as it does the intervention of an elite priesthood.

The production context of the animal figures

In theory we can envisage a range of organisational systems of production and distribution for the votive animal figures dedicated at peak sanctuaries. Each corresponds with different sources and forms of organisational initiative, producer relations, and material relations between communities and peak sanctuaries. One such scenario is the production of clay votive animals in installations either within or close to the sanctuary, exclusively serving the productive requirements of the cult. Should animal figure production have occurred in such a context, we might expect to find waste material or debris related to manufacture⁶ but not necessarily a complex manufacturing installation since the fig-

6 For an example of the remains of evidence of Aztec figurine manufacture but no kiln production, see Charlton *et al.* 1991, 106.

ures could be fired in an open space rather than a built kiln.⁷

While on-site production of animal figures may eventually be shown to have taken place in other peak sanctuaries, its occurrence in Juktas cannot be positively attested. I therefore proceed, by default, on the premise that the figures dedicated at Juktas (and some other peak sanctuaries) were made in workshops not exclusively serving the ritual needs of sanctuaries. This second scenario would have entailed different organisational logistics since it would have involved the movement of votives (as well as worshippers) to the peak sanctuary and since makers would not have been affiliated to central ritual places subject to regulation by religious authorities.

The economic scale of production

Now that we have decided upon the extra-sanctuary productive context of the Juktas figures, we might be in a better position to situate certain aspects of the economics of their production, i.e. the scale of both demand and productive output, within their wider economic setting.

The turnover of the community-based workshop groups manufacturing the Juktas animal figures is compatible with the levels and forms of demand generated by the urban settlements in the sanctuary's catchment area. For example, large-scale workshops accommodating a centralised productive system and servicing the urban centres of Knossos and Archanes may well have existed alongside smaller scale workshops with a smaller turnover. It is also to be expected that figures dedicated in peak sanctuaries with catchment areas encompassing smaller scale, rural communities might represent the output of a less centralised, even non-centralised, productive mode commensurate with the lower levels of demand and the productive scale of organisation generated by these settlements. This hypothesis is not contradicted by the preliminary information derived from the Atsipades human figurines, provided their production was carried out in an extra-sanctuary context. These correlations between scale of demand, scale of productive modes and their wider socio-economic settings are commensurate with those projected by Knappett for community based production of utilitarian wares (Knappett 1997a, 309–11).⁸ This is not surprising since both utilitarian and ritual objects may have been produced by the same workshop groups and thus be subject to the same production conditions. However it remains to be seen whether the production and distribution of the animal figures were subject to the same source and form of organisational regulation as the utilitarian wares produced in the same productive mode.

Potential sources of organisational regulation of the animal figures' production and distribution systems.

According to models defining the character of production systems manufacturing utilitarian wares for com-

munity use, both centralised and non-centralised (and presumably intermediary) forms of production organisation are institutionally and organisationally independent of political/religious authorities (Sinopoli 1988, 581; Costin and Hagstrum 1995, 620). However, one must ask whether the production/distribution of ritual objects like votives might be subject to regulation of this sort. Such a caveat is recognised by Sinopoli. She contends that regulation might occur if goods manufactured with a centralised production mode are used in a sphere of consumption that provides an institutional setting for the elite display of ideological power and the consolidation of its political power (Sinopoli 1988, 581). Therefore such objects could be subject to a form of intervention akin to (if not identical with) that related to administered production. In this respect, it is worth mentioning Knappett's suggestion that the Malia elite may have been involved in the provision of plain drinking vessels for public feasting from as early as the Protopalatial period (Knappett 1997a, 309, 1997b, 213–14 where the term "partially administered" productive mode is used). It is imperative therefore to consider whether the production and distribution of the animal figures was linked to some form of higher intervention by religious/political authorities, possibly emanating from the institution of the peak sanctuary itself.

Evidence of regulatory intervention is already known to us from the peak sanctuary's ritual context. A. Karetsou has identified the unique architectural investment at Juktas (Karetsou 1976, 408–14, 1978, 232–46, 1979, 281, 1980, 344–51, 1981, 141, 147–51). This shows that, even prior to MM III–LM I, the ritual and material organisation of this cult site was regulated by the elite and grounded in the political economy of, very likely, the Knossian palatial centre (Karetsou 1977, 418, 1981, 151). This architectural articulation of physical space offers a good indication that religious authorities officiated over ceremonies enacted at the site. Juktas is unique among peak sanctuaries in that its architecture projects forcefully the religious and political authority emanating from the cult site itself.

However, another physical manifestation of involvement by the religious/political authorities in peak sanctuaries is not restricted to Juktas. The MM III–LM I stone offering tables dedicated at several prestigious

7 Evidence for such simple but effective installations for firing large animal figures can be found in the village of Lambadia, north Gujarat. They are circular depressions in the ground that have been used for generations. The figures are covered by a mound of twigs and cowdung cakes: Shah 1985, 41, 52–3.

8 These patterns emerge from Knappett's study of ceramic production in the Protopalatial Malia "state". He has shown that the centralised production mode is evidenced by utilitarian wares in the town of Malia, whereas the smaller community of Myrtos-Pyrgos evidences a non-centralised production mode.

peak sanctuaries, which bear the physical characteristics of products made by an administered productive system, were most likely manufactured by specialists attached to (low-lying?) elite institutions with which the priesthood was linked.⁹

In the absence of reported evidence of sanctuary-based production of stone offering tables, their manufacture in habitations sites cannot be excluded. In the case of Kato Symi, which is not a peak sanctuary, the excavator reports that there is clear proof that the stone offering tables were manufactured at the cult site itself (Lebessi 2000, 175). A factor contributing to this productive context might be the physical distance of Symi from the urban centre of origin of the priesthood officiating at it.

Most of the physically identifiable evidence of priestly involvement in the material means of production relates to the administered production system (be it the Juktas architecture or the stone offering tables), and is restricted to more prestigious sanctuaries. However we still need to determine who organised the production/distribution of ritual objects used widely by community participants, and dedicated at all peak sanctuaries. They are undoubtedly related to a different sphere of production and consumption from the offerings bearing the characteristics of administered production. It has been suggested above, at least in relation to the rough textured figurines and figures, that they were made in workshops which also supplied surrounding settlements with ceramic wares used in both ritual and (mainly?) utilitarian contexts, and this very likely also applies to the fine fabric figurines. However the question must still be asked whether their production/distribution was the prerogative of independent producers, or whether this aspect of the material culture may offer an otherwise elusive insight into the involvement by local religious authorities in the organisation of these public, extra-community sanctuaries.

The material articulation of links between community and peak sanctuary

To resolve this matter, it is necessary to reconstruct in greater detail the material articulation of the links between peak sanctuary and community evidenced by these votive offerings. Ideally, we need to know the provenance(s) of the worshippers visiting Juktas; the provenance(s) of the votives, pottery and other ritual paraphernalia deposited there; where the worshippers acquired the figures, at the sanctuary itself or in their community/ies; and whether or not the distribution pattern of dedicators and votives coincides.

One must ask whether there is an organisational link between the predominantly centralised production system of the Juktas animal figures and the (at least in some respects) centralised elite organisation of the sanctuary. It is however difficult to comprehend the potential organisational links between the economic and ritual spheres because of the problems in reconstructing the

spatial and logistical dimensions of the figures' production and distribution systems.

Even the task of identifying how many (not even *which*) topographic locations they were made in seems problematic. The figures have been interpreted as the products of two production units or groups manufacturing on a large scale and very likely several smaller ones with a lower turnover. Because of the predominance of the fine fabric, the spatial provenance of the figures cannot be distinguished on the basis of fabric differentiation. Furthermore, because of the additional similarity in firing conditions and formal attributes like their mean length, it is virtually impossible to know whether the smaller production units were located in the same or different areas from the larger ones and also whether the two large workshop units/groups were associated with provisioning of the same or different communities. So it remains unknown whether the centralised production system was responding to local (urban?) community requirements or also meeting the demands of neighbouring communities.

It has already been suggested that significant degrees of centralisation in the votive productive system could be indicative of the region's economic scale of activities. Even if such a system could be shown to evidence the *spatial* centralisation of votive production, this does not constitute proof that it was subject to the centralised regulation of a priestly authority. It is possible that one or two independent workshops producing utilitarian wares might have had a specialist tradition in making representational votives and other ritual objects. By the same token, an independent workshop could be supplying more than one community with utilitarian and ritual wares, particularly if it is situated at some distance from its surrounding habitation sites. Pertinent here is Karetsou's suggestion that one of the workshops providing Juktas worshippers with pottery may be located at the foot of Juktas between Vathypetro and Archanes (Karetsou 1976, 415, 1978, 253–4).¹⁰

The one logistical requirement that might have necessitated an overarching organisational input extending beyond the producers' remit may be related to the post-production stage of the proceedings. If the cult sites functioned as central locations not only for the dedication but also for the *acquisition* of the figures, cult organisers could have forged loose organisational relations with the figures' makers through mediating in their relationship with the dedicators. It is conceivable that such a conjectured relationship between producers and cult officials might have been more formal if a few, or even one, workshop unit produced the preponderance of votives used in the peak sanctuary. The ac-

9 For the stone offering tables found at Juktas, see Karetsou 1974, 236, 1976, 415, 1977, 419–20, 1978, 257–8, 1980, 347–8, 1984, 113–14, 1985, 86–7, 1988, 162–3; Karetsou *et al.* 1985.

10 Karetsou considers that this workshop produced ceramics found at Juktas, Archanes and the "villa" at Vathypetro.

quisition of figures at the peak sanctuary would have made logistical sense if the workshop was located at some distance from the habitation sites of the worshippers, or if a workshop(s) were supplying worshippers from several communities. However, it would be incorrect to ascribe this hypothetical function of the cult site as an acquisition centre of votives only in the case of more centralised production systems.

This post-production involvement would comply with the form of intervention by religious/political authorities envisaged by Sinopoli (1988, 581).¹¹ Unfortunately it remains a hypothesis, since the figures themselves cannot serve as indices of whether they were acquired at the cult site or in the workshop. The deposition of similar figures in a microstratigraphic context could indicate that dedicators from the same locality visited the sanctuary together bringing their figures with them (Shah 1985, 26–7). While a more in-depth study of the ethnographic data is necessary, these seem to show that the production of clay votives occurred commonly in communities rather than sanctuaries located close to settlements, and that these votives could have been acquired either at the sanctuary or the workshop.¹² If it could be shown that the figures were acquired by the worshippers in their communities, we should expect that they were made independently by producers, irrespective of the degree of centralisation of the productive system.

Conclusions

Although the animal figures were used in a public ritual context, their physical setting of production in workshops that were very likely manufacturing utilitarian wares suggests that they were manufactured by independent producers. It is surely significant that this is the case with the figures dedicated at Juktas, a site evidencing in other respects a considerable degree of centralised ritual organisation. The specialised production modes of animal figures will probably be shown to vary from site to site and will need to be considered within the socio-political setting of each sanctuary's catchment area.

We must evaluate each sanctuary's material evidence separately. In order to gain a comprehensive understanding of how the economic, ritual and political spheres were related in these cult sites we need to locate topographically the workshops and the provenance of both worshippers and cult officiants. This will enable us to qualify with greater confidence the characterisation of peak sanctuaries as "community" or "inter-community" shrines.

One must stress that this analysis is based on evidence from one site, and that we must be prepared to recognise in future different patterns of evidence from those discussed above. Variability seems to be the key to understanding the productive modes of animal figures, but without enough comparanda we cannot yet use it to its full interpretational potential.

THE IDENTIFICATION OF THE JUKTAS FIGURES' PRODUCTIVE TRADITION

I should like to end by comparing the Kofinas and Juktas animal figure assemblages, with a view to defining better the specific temporal and cultural circumstances surrounding the local production tradition evidenced by the Juktas figuration. This comparison shows that the organisational and institutional setting of the figures' manufacture/distribution can enhance our understanding of the *local* form of their production and consumption.

The presence of many figurines at Juktas is inversely linked with the low presence of figures, while the reverse applies to Kofinas where the animal figures dominate.¹³ Commensurate with the prominence of differently sized figurational devices at each site is the dominance of different manufacturing techniques. The solid figurines are simply made whereas figures combining hollow and solid parts require a specialised and more elaborate formation process. The hollow portions of the Kofinas figures, formed with slab building, provide evidence of rolling, patting and possibly further drawing of the clay after the initial slab was formed.¹⁴

Although the Juktas and Kofinas animal figure assemblages manifest considerable differences in the degrees of skill and labour investment, they were both the products of a manufacturing mode with centralising tendencies.¹⁵ While a detailed technological profile has not yet been established for the Kofinas assemblage, a non-centralised productive mode seems unlikely: the

11 In the case of centralised productive systems, Sinopoli envisages the "political elite intervening primarily at the final stages of the production-distribution process" (Sinopoli 1988, 581).

12 The inhabitants of Mitla in Mexico buy and sell miniature replicas of what they desire (fields, animals, houses) when they gather at the cult site at which they celebrate their communal ritual (Wolf 1966, 99 and n. 2). In contrast, at Chhota Udaipur in central Gujarat the dedicators acquire the animal votives and carry them off to the open air sanctuary (Shah 1985, 85). I hope to look more systematically, for comparative purposes, at the archaeological and ethnographic literature relating to the production/distribution of clay votives dedicated at both community shrines located close to settlements and urban temples.

13 The sheer quantity of large figures found at Kofinas transforms our understanding of Minoan animal figuration.

14 These figures are hand built. Neither wheel throwing nor combination methods like coiling and wheel throwing or wheel shaping (Knappett 1999b) have been attested so far in the study of the assemblage.

15 Note that while some categories of votives like faience beads and votive stone plaques were produced within temple compounds of New Kingdom Hathor temples, the clay fertility figures were very likely produced in community workshops, with the implication that they were brought to the cult site by the dedicator (Pinch 1993, 329–30, has a useful review of ethnographic material, especially Indian, on the production and distribution of votives).

manifestly high levels of skill and the considerable investment in expertise and labour time show that the figures were produced in a centralised manner. They are also different from the MM III–LM I mould made figures bearing the characteristics of administered production, used primarily in low lying contexts of ritual use. Peak sanctuaries rarely feature the MM III–LM I mould made figures produced in administered contexts. This reinforces the point that in MM III–LM I several spheres of production and consumption existed for animal figures, and that these very rarely intersected. This is corroborated by the sparse occurrence at Juktas and Kofinas of hollow, hand formed figures emulating mould made ones.

The distinct formal attributes of each site's figures can best be explained in terms of the temporally and spatially determined social circumstances surrounding local traditions of production and consumption. The production of small (in fact miniature) figurines dedicated at Juktas from MM I to LM I is the hallmark of a local manufacturing tradition in figurational representation. Its tenacity is evidenced by the low presence of large figures that were increasingly made across Crete during MM III–LM I (Kourou and Karetsou 1997, 113). This conservatism can be ascribed to the fact that *figurines* served well the site's ritual and ideological requirements. The Kofinas material, with its shorter and (significantly) later chronological span in MM III–LM I, shows that the widespread adoption of innovative forming techniques in producing figures is more likely to be embraced, even initiated, within the context of a recently established cult site and its attendant ritual and social requirements.

The formal similarity of the zoomorphs *within* each site served to reinforce the group identity of ritual participants. However, the formal differences of contemporary (MM III–LM I) figures *between* these two sites show that in each sanctuary animal figuration embodies different social values relating to the display potential of the figures and the projection of the group's social/ritual status. The small, inconspicuous Juktas figurines projected egalitarian access to ritual by retaining a form established in MM I–II while the more conspicuous Kofinas figures, reflecting a contemporary concern for social display, perhaps attested to inegalitarian access due to the social and/or ritual identity of the cult participants.

The local Juktas and Kofinas traditions evidence an adherence to an "optimal mode of production" (Costin 1991, 13) determined by specific sets of social and ritual requirements. However by establishing the physical attributes of figuration, these productive traditions are instrumental in dictating how the local dedicator is materially projected in the group ritual. It remains to be seen to what degree this formal consistency, and the way it impacts on the individual's choice of votive offering, manifests itself in less centralised forms of production organisation.

Had we not used the technological profile of the Juktas figures as an independent source of evidence regarding their production mode, we might have made incorrect assumptions about the character of the organisational/institutional setting of their production organisation by relying on their obvious physical attributes. Thus, by simply contrasting the formal characteristics of the Juktas and Kofinas figures, we might have incorrectly characterised their respective production modes (e.g. as non-centralised and centralised; or centralised and administered), not realising that both sets of figures were the products of similar production modes.

Similarly, by simply contrasting "qualitatively" the figures as "humble" and "sophisticated", the relative rarity of figures and the prominence of figurines at Juktas, the most prestigious sanctuary of its kind, would have seemed perplexing. Yet by situating historically and chronologically both sites' local production traditions and the social values they projected, we are prevented from making contrasts of this order. The term "crude" is often employed with pejorative connotations in the literature to describe figurines very like those deposited at Juktas. This misguided term far from reflects the specialised productive systems that have given them form.¹⁶

Finally, it becomes clear that the physical location and institutional context of the production and acquisition of symbolic devices like the animal figures are essential in understanding the setting within which the formation of ideologies and the display of social norms were projected through the peak sanctuary ritual. The challenge which lies ahead is the explanation of the meaning and diversity of these ideologies.

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16 The opinion has been voiced by archaeologists themselves that simply made clay figures characterised as "crude" cannot be the work of specialists. This for example is implied in Lesure 1999, 210–11. "Random" samples of the use of the term for clay animal and human votives can be found in Postgate (1994, 176: Mesopotamia), and Pinch (1993, 329–30: Egypt), who suggests that crude figures may have been made by poor dedicators or unskilled craftsmen.

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