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From the Foundations to the Legacy of Minoan Archaeology

SHEFFIELD STUDIES IN AEGEAN ARCHAEOLOGY

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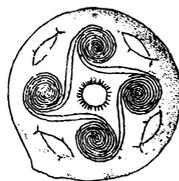
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From the Foundations to the Legacy of Minoan Archaeology

Studies in honour of Professor Keith Branigan

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edited by

Maria Relaki and Yiannis Papadatos

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Front cover: Crete, Mesara-type tomb Krasi A: alignment with midsummer dawn rising over “horns” of Khalikas mountain. Photograph © Carlos Guarita. Part of a joint long-term project with Lucy Goodison to establish a pattern of dawn alignments at significant Minoan buildings.

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Preface

It is our great privilege to produce this volume in honour of Professor Keith Branigan deriving from the 14th Sheffield Round Table in Aegean Archaeology (29–31 January 2010). As founder and principal member of the Sheffield Centre for Aegean Archaeology (SCAA), Professor Branigan has been the instigator of the Sheffield Round Tables in Aegean Archaeology, organised annually since 1995, aiming to address each time a specific topic of Aegean Prehistory in a manner that showcases new research and promotes constructive debate within the discipline. Keith is also to be credited for establishing the series of Sheffield Studies in Aegean Archaeology publications deriving from the round tables that have tackled as diverse themes as Neolithic Society, Urbanism, Landscape and Land Use, Feasting and Craft Technologies to name but a few. It seemed a very fitting way to mark Keith's retirement by organising a Round Table in his honour and dedicating it to the subject of Minoan Crete to which he has contributed so vastly over the years.

Colleagues were invited to discuss topics from four distinct areas of interest that have informed Keith's work and have helped to shape the current picture of Minoan archaeology: general frameworks for understanding Minoan society; regional analysis, survey and settlement; technology and craft activity; and funerary archaeology. Keith has contributed to all these themes through major fieldwork and especially wide-influencing publications that still constitute the cornerstone of our knowledge of Bronze Age Crete. The breadth and depth of his influence is demonstrated in the articles of this volume, benefiting from his research and the intellectual legacy he established in Minoan archaeology.

We take this opportunity to warmly thank a number of people who have contributed to the production of the Round Table and this volume. John Bennet, Paul Halstead, Sue Sherratt, Peter Day, Roger Doonan, John Barrett, Michael Parker Pearson at the Department of Archaeology in Sheffield, for being gracious hosts, offering logistical support, and facilitating the conference organisation in every possible way. In addition, John Bennet, Peter Day, Gerald Cadogan, Paul Halstead, Sue Sherratt and Peter Warren chaired the conference sessions most effectively and guided a lively and stimulating discussion. Glynis Jones, Ben Chan, Christina Tsoraki and Ioanna Moutafi kindly hosted several of the Round Table participants. Debi Harlan and Valasia Isaakidou were the driving forces behind the organisation of the magnificent customary feast to open up the proceedings on Friday night, and continued the wonderful task that Nong Branigan has been performing since the Round Table's inception in hosting the Saturday night party. They were supported by an enthusiastic army of coffee

makers, dish washers, room re-arrangers, and general helpers from the students of the Department of Archaeology as well as conference attendants. We also wish to acknowledge the contribution of colleagues who delivered oral presentations but were unable to submit an article for the publication: Cyprian Broodbank, Evangelia Kiriati, Myrto Georgakopoulou, Tim Campbell-Green, Tristan Carter, Despina Catapoti, and Roger Doonan. As always, we are grateful to the Institute of Aegean Prehistory (INSTAP) for the financial support provided for the organisation of the Round Table and for taking this opportunity to honour Professor Branigan by awarding him the Medal of the Institute for Aegean Prehistory, presented to Keith by Professor Philip Betancourt. We are indebted to the pool of reviewers who offered comments and advice on the submitted articles and we thank the authors for engaging with these suggestions to produce what we hope is a stimulating and thought-provoking volume on Minoan archaeology. Finally, we are grateful to the Editorial Team at Oxbow for their patience and support during the lengthy gestation of this volume.

Maria Relaki and Yiannis Papadatos

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Chapter 12

The relevance of survey data as evidence for settlement structure in Prepalatial Crete

Donald C. Haggis

Introduction

The results of intensive archaeological surveys published over the past decade have been slow to affect the current discourse on Prepalatial Crete. While there is some understandable reluctance by excavators to accept chronologies and attributes of sites derived principally from the distribution of surface sherds, the recent intensity of excavation, stratigraphic studies, and material analyses in Prepalatial areas has encouraged vivid site histories and social models which are used to extrapolate compelling regional generalisations. Such complexly detailed and interwoven narratives seem to find little place for survey, except as an occasional and tangential corroboration of narratives (e.g. Tomkins and Schoep 2010: 72–73). Survey results by and large have been ignored, perhaps in part because they are seen as too obtuse or imprecise to affect interpretations of site-specific data. Even so, the tendency to trust implicitly the excavation sample – even the narrow stratigraphic component, building, or assemblage – is probably because of its concreteness, vividness, and level of analytical rigour and contextual detail, in contrast to the ambivalent and discursive conclusions of most survey publications. On the one hand, the brush-strokes of survey are too broad, the resolution of the picture is too coarse, and we seem to be more wary of the uncontrolled biases of the survey sample (and the meaning of sherds on the ground), than we are of equally ambiguous data sets derived from excavation. On the other hand, even if we trust the Prepalatial survey data, we still want to link integration to a hierarchical and centrifugal expansion of settlement from a notional centre, into a hinterland whose hypothetical carrying capacity determines the extent of viable geopolitical identity and complexity. In a sense we demand of survey the identification of normative site hierarchies and primary centres that indicate degrees of structural complexity; in this line of thought, the results of survey generally show little meaningful settlement development of this sort until MM IA or later (Driessen 2001: 60–61; Tomkins and Schoep 2010: 73).

My intention here is to review recent interpretations of survey data that pertain to the visualisation of settlement structure in Prepalatial Crete, looking for recurring patterns that could inform our view of regional histories. The idea is to begin exploring the potential of macro-regional and multi-regional perspectives that might be useful to single-site contextually-focused studies derived from excavation. That is, by looking at general trends across a number of landscapes – in a sense, pasting together a number of small-scale surveys as opposed to summarising local narratives shaped from preconceived synchronic territories or hypothetical developmental trajectories – we might begin to see commonalities in the diachronic structure of settlement that could suggest some general cultural practices or processes.

Even if surveys generate Prepalatial data that seem to fail our preconceptions of structure (formally stratified or hierarchical interrelationships), or compress chronological and cultural variables, and conflate the complex layers of the post-processual discourse, it is perhaps not because of the quality or comparability of the data sets published by each project, but in the initial questions we are asking of that data (cf. Terrenato 2004); the effective analytical scale of fieldwork; the over-arching interpretative framework; and the assumed behavioural scales of the apparent structures. If we change the scale of analysis, stepping back momentarily from implicit functions of agricultural geography, hierarchy and proximity, as *a priori* predictors of small-scale interdependence, complexity and territoriality (cf. Relaki 2004: 172–73), looking instead more broadly at large-scale, if not island-wide, patterns, we might come closer to discerning some basic and culturally-predicated configurations in the landscape.

I am not at all suggesting that we abandon local narratives derived from excavation and survey, or questions of regional variability and diversity derived from micro-regional patterns. I do think however that it might be useful to examine the language and implications of the concluding narratives of published surveys in grappling with the meaning of macro-scalar settlement patterns and problematic incongruities of settlement structure.

Mesara, Vrokastro (Kalo Chorio-Meseleroi), and Gournia

Mesara

In 1983, John Cherry, perhaps for the first time, confronted the Prepalatial settlement data, extrapolating from Myrtos and Vasiliki to the “...scores of other EM settlements, whose small scale and autonomy clearly represent the norm at this time” (1983: 39–40). The survey data available seemed to support this view. Blackman and Branigan’s (1977) now famous Agiopharango map provided for Cherry “a clear picture of a wholly undifferentiated social landscape, comprising very small scale, autonomous, local units”. Localism, subsistence-based economies and parochial autonomy characterised the pattern, fitting well with a growing processual reaction to persistent materialist and evolutionary paradigms that showed excavated EM settlements (and individual architectural features) to be formal predecessors of palatial buildings and institutions (cf. Watrous 1982: 9–11; 2001: 175). Of course, Keith Branigan’s pioneering work in

both survey and excavation was instrumental in shaping both of these apparently opposing views of the same data.

Even though Cherry had not seen the survey data available to us now, I doubt that his view then or the picture would have really changed very much. In fact, Vance Watrous's (2001: 167) first reading of the western Mesara data in 1994, about a decade after Cherry, saw very little dynamic settlement growth throughout the Prepalatial period, with a weak three-level hierarchy remaining fairly constant. His not-so-surprising summary statement in 1994 reflected the null case, arguing that there was really no evidence for a ranked society in EM II that anticipated the apparent complexities of palatial organisation (Watrous 2001: 179, 221–22; Watrous and Hadzi-Vallianou 2004: 233).

In light of new excavation and analyses of various complex configurations of material, involving ceramic and metallurgical production, exchange, and ceremonial consumption (e.g. Day and Wilson 2002; Day and Doonan 2007); early and interregional use of sealing systems (e.g. Sbonias 1999; Schoep 1999; Relaki 2009); and the regional and social-ceremonial significance of tombs and burial practices (Branigan 1998; Murphy 1998; Relaki 2004; Papadatos 2007: 164; Legarra Herrero 2009), the picture began to change. Settlement studies kept up with the new perspectives, but a decade later, in 2004, Watrous's narrative had changed only a little with the western Mesara becoming only "more hierarchical in EM II" (Watrous and Hadzi-Vallianou 2004: 237; Watrous 2001: 221), an ambivalent view of moderate complexity shared by most (cf. Driessen 2001; Tomkins and Schoep 2010). Even so, the presumably centrifugal dispersal of lower-level sites apparently around the ridge of Hagia Triada and Phaistos had previously existed in EM I if not earlier (Todaro 2012), as did a widely dispersed and fairly even spread of settlements (Fig. 12.1). Apparently new in EM II was a tendency toward greater diversity of exploited areas by farms and field sites, especially in marginal land (Watrous and Hadzi-Vallianou 2004: 239; cf. Watrous 1982: 10–11), supporting a vivid case of differentiated agricultural dependence. The results, however subtle, indicated to Watrous an economic ranking centring on Phaistos and its privileged access to the best arable land in contrast, for example, to that of the ridge south of Kamilari or the more distant Agiopharango. New sites, even as distant as the Kommos zone, lacked tholoi and were thus conceivably part of the territory of Phaistos (Watrous and Hadzi-Vallianou 2004: 238). For Watrous, the only real central place was perhaps Phaistos itself with a vaguely drawn catchment of about two to five km radius, marked roughly by Kommos, Sivas, and Sopata Kouse (Watrous and Hadzi-Vallianou 2004: 244; cf. Relaki 2004; Todaro 2012).

In this picture of slowly growing hinterlands, there is some ambivalence about the change from EM I to II and the actual disposition of the central places and the shifting emphasis of their regional functions. Watrous visualised a group of families at Phaistos and Hagia Triada who would have controlled the territory along the ridge south of Kamilari; the sites further afield were smaller rural communities, apparently independent, and controlling their own tholoi and ceremonial centres. What is interesting in Watrous's narrative is that in order to demonstrate hierarchical

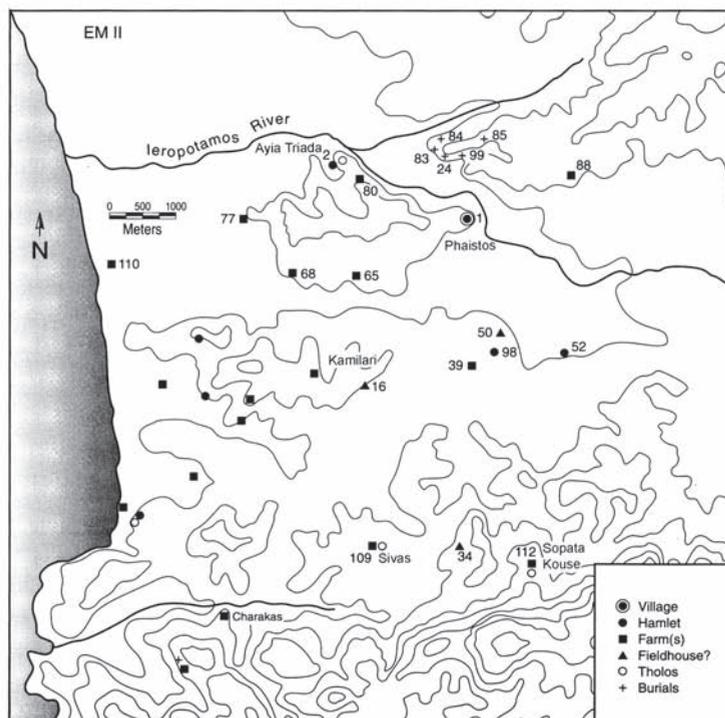
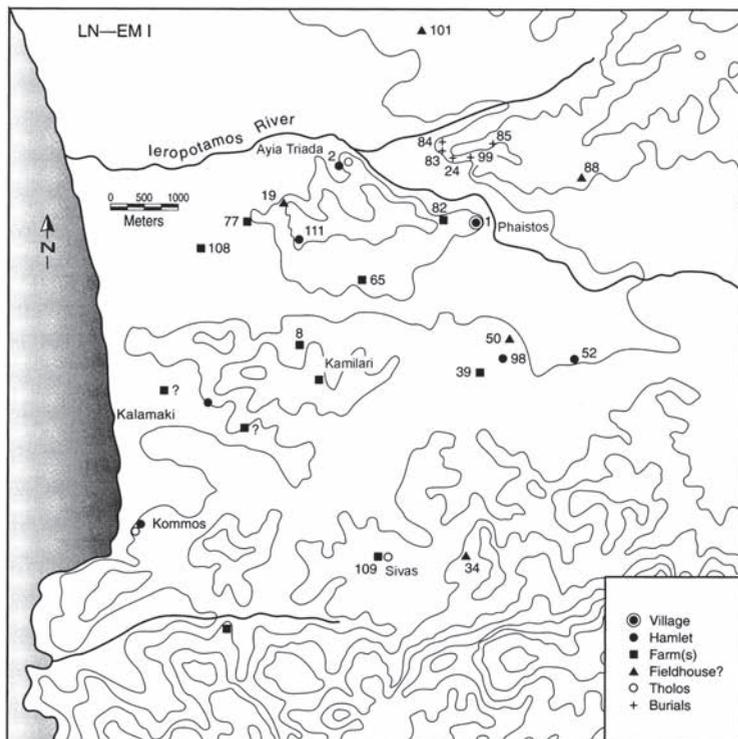


Figure 12.1: LN-EM II settlement patterns in west Mesara (after Watrous and Hadzi-Vallianou 2004).

dependence or local autonomy, he departs almost completely from discussion of the settlement structure itself, using a bilateral centre-periphery exchange model derived from excavations and the contents of individual tholos tombs (Watrous and Hadzi-Vallianou 2004: 243–45). Hagia Triada and Platanos traded agricultural products for prestige goods from the north coast; or derived specialised goods like pottery from peripheral Mesara sites in exchange for agricultural surplus, with the marginal sites collecting prestige goods down the line from the centres. Thus, a kind of typical staple/wealth finance model, rather than the form of settlement structure *per se*, determined a satisfactory hierarchical organisation, and therefore, integrated structure, in turn, predicting a ranked society. That is, he presents parallel systems rather than a disaggregation of economic and social patterns, and the picture of settlement structure, while clear enough, loses its explanatory force or even relevance to the discussion.

Vrokastro

A similar ambivalence about settlement structure exists at Vrokastro (Fig. 12.2), which was also published in 2004, where there is a doubling of sites between FN-EM I and EM II-III; the growth in my view has to do for a large part with the choice of chronological divisions, making it actually very difficult to isolate or disaggregate EM I and II patterns. Although site sizes fall into what seems an overly complex four-tiered range, it is important that Hayden (2004: 72–73) is careful to point out that size divisions might have little relationship to differentiation of status or function, though the coastal zone, and particularly Priniatikos Pyrgos, is tentatively favoured as a possible centre by EM II (Fig. 12.2). In Vrokastro, like in the western Mesara, EM II sees a tendency to expand into marginal areas of the hinterland, with remarkable stability and continuity from FN or EM I; the coastal zone and the immediate Istron river catchment actually show little significant change in settlement structure *per se*, for the better part of 1000 years (Fig. 12.2). Also like with Phaistos/Hagia Triada and Platanos in the Mesara, on a regional scale, the identification of a primary centre at Priniatikos Pyrgos does not easily map directly onto the material patterns derived from survey, which fail to reveal a coherent hierarchical structure taking us much beyond Cherry's prognostic observations of the Agiopharango two decades ago.

There are two observations that emerge from these interpretations of settlement patterns: first, there is a remarkable consistency in structure, that is distribution, sizes, and perceived chronology and longevity, if not of individual sites, of microenvironments, even if we are able through excavation or refined ceramic chronologies to demonstrate discontinuous occupation sequences (Figs. 12.1, 12.2). The second, which I think is equally significant, is that the researchers' response to the data implies a kind of ambivalence, or even vagueness, about the structure suggested by the site distributions, at least as they relate to ideas of social and economic dynamics. The dominant pattern, apparently an even spread of hamlets or small villages, in Agiopharango, Lasithi, the western Mesara and Vrokastro, is reflected also in the more recent examples from Kavousi and Gournia. In Kavousi, FN-EM sites cluster in three areas, around the modern village of Kavousi (north

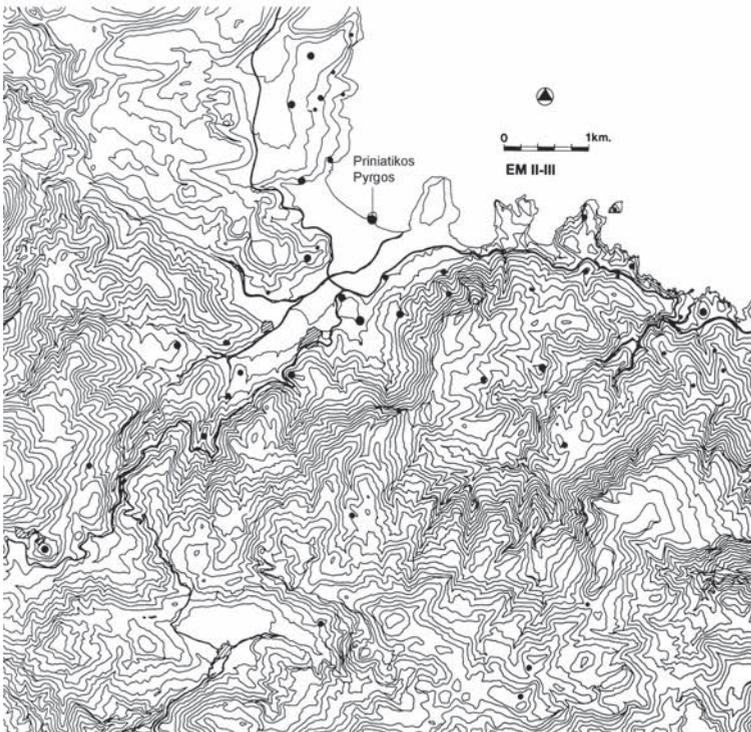
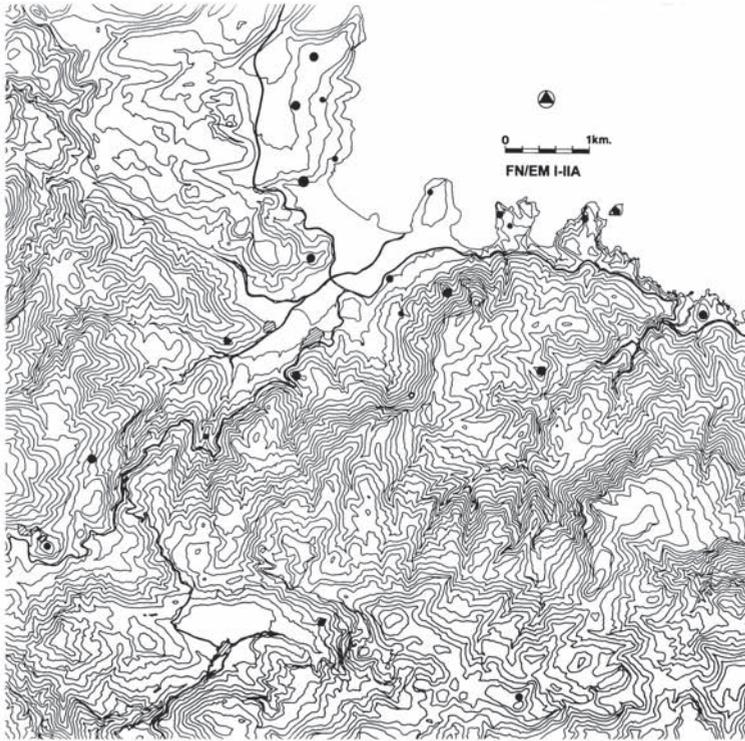
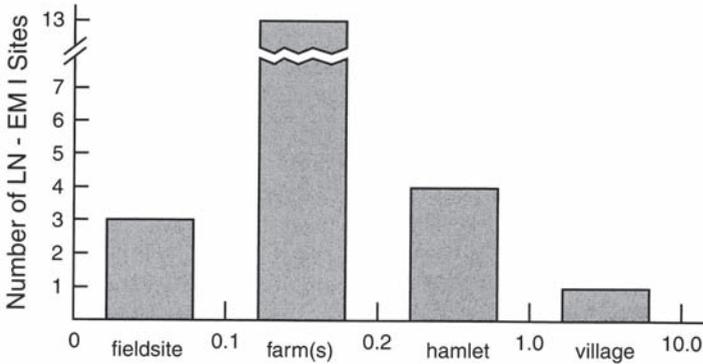
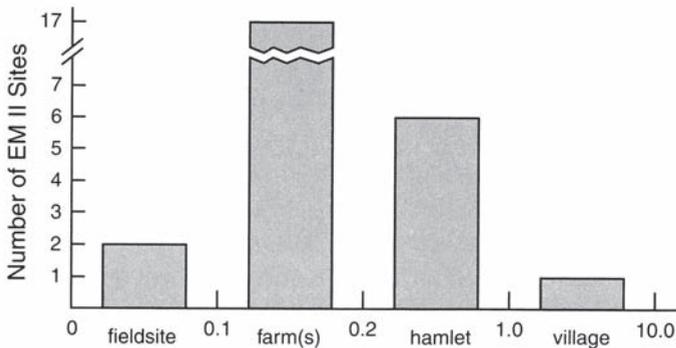


Figure 12.2: FN-EM III settlement patterns in Vrokastro (after Hayden 2004).

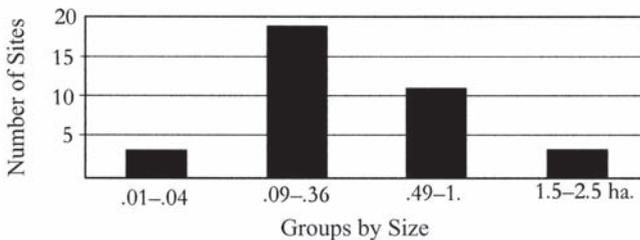
Papoura catchment), in Hagios Antonios, and in Khordakia (Chrysokamino), with one hamlet or village identifiable in each group (Haggis 2005). In the cases of Vrokastro, Gournia, and Mesara, arguably the best data we have to date, there is an unusually consistent spacing of these sites at regular intervals of about 0.5 to 2 km, and nearly identical site-size ranking with notional farms and hamlets dominating the pattern in comparable area samples (Fig. 12.3). Though I find the comparability of results



(a) Size of LN - EM I Sites in Hectares



(b) Size of EM II Sites in Hectares



(c) EM II-III: Site Size Ranking

Figure 12.3: Prepalatial site hierarchies in Mesara (a and b) (after Watrous and Hadzi-Vallianou 2004), and Vrokastro (c) (Hayden 2004) regions.

and similarity of patterns frankly surprising given the differences in geomorphology, sampling and recovery methods, and knowledge of local ceramic sequences (especially coarse wares), I remain intrigued by the consistent size ranking and the primacy of hamlets in the pattern. Continuity, longevity, and the existence of localised clusters of sites echo many of Watrous and Cherry's initial impressions of the Prepalatial landscape, though the hamlets, by their very existence and replication, suggest a highly integrated structure (Haggis 2002).

What is perhaps most interesting is the constancy of the structure and that similar or identical configurations are found in diverse contexts in different areas of the island, suggesting a strong social component, that is, motives of cultural production and social practice rather than merely agricultural dependence, environmental variability, or population growth (cf. Legarra Herrero 2009). The bulk of the sites are hamlets and so-called farms, and I would agree with Hayden (2004) that there are probably no meaningful social distinctions to be made between the first two or three levels of settlement in any area, although differences in the chronology of population growth and adaptive accommodation to diverse environments are to be expected.

Gournia

Localisation and entrenchment characterise the pattern, which is fundamentally the same at Gournia and the north Ierapetra isthmus (Watrous and Schultz 2012) (Fig. 12.4). Here too we might reconstruct the gradual growth and dispersal of lower-order sites (again the hamlets and farms) but there is little compelling evidence to suggest a centrifugal process of concentric settlement expansion from higher-order centres, such as the first order "villages", filling out a centre-periphery model. What we see instead is entrenchment in the use of specific localities – that is a connectedness to specific places – conceivably for hundreds of years and probably discontinuously for the better part of the third millennium. A second characteristic of the pattern is the consistent ranking, with little distinction between lower-order sites, the vast majority being hamlets or clusters of houses (Fig. 12.4). This persistent lower-level expansion, continued reuse, or growth from within specific micro-regions seems structurally unrelated to, or at least spatially disconnected from the nearest primary or first order centres. The latter are frankly hard to define and show few significant changes in size or function throughout the period. In this even distribution, the field sites and villages seem to interact no differently than the fuzziest categories of farms and hamlets in between: the size-ranking in and of itself does not effectively predict the structure of settlement in the region.

Although we recognise ranking of sites as a critical material correlate for complexity (cf. Haggis 1999; Driessen 2001), the practice of ordering such units actually does little to help us model the meaning of the structure of the settlement, or to relate that structure to other forms of data, such as the distribution and character of contexts, ceramics, metals, prestige goods, and so on. Though Watrous uses rank-size distinctions to show an emerging hierarchy in the Mesara, he is hesitant to link the pattern of dispersed settlement in the broader region directly to the motivation of

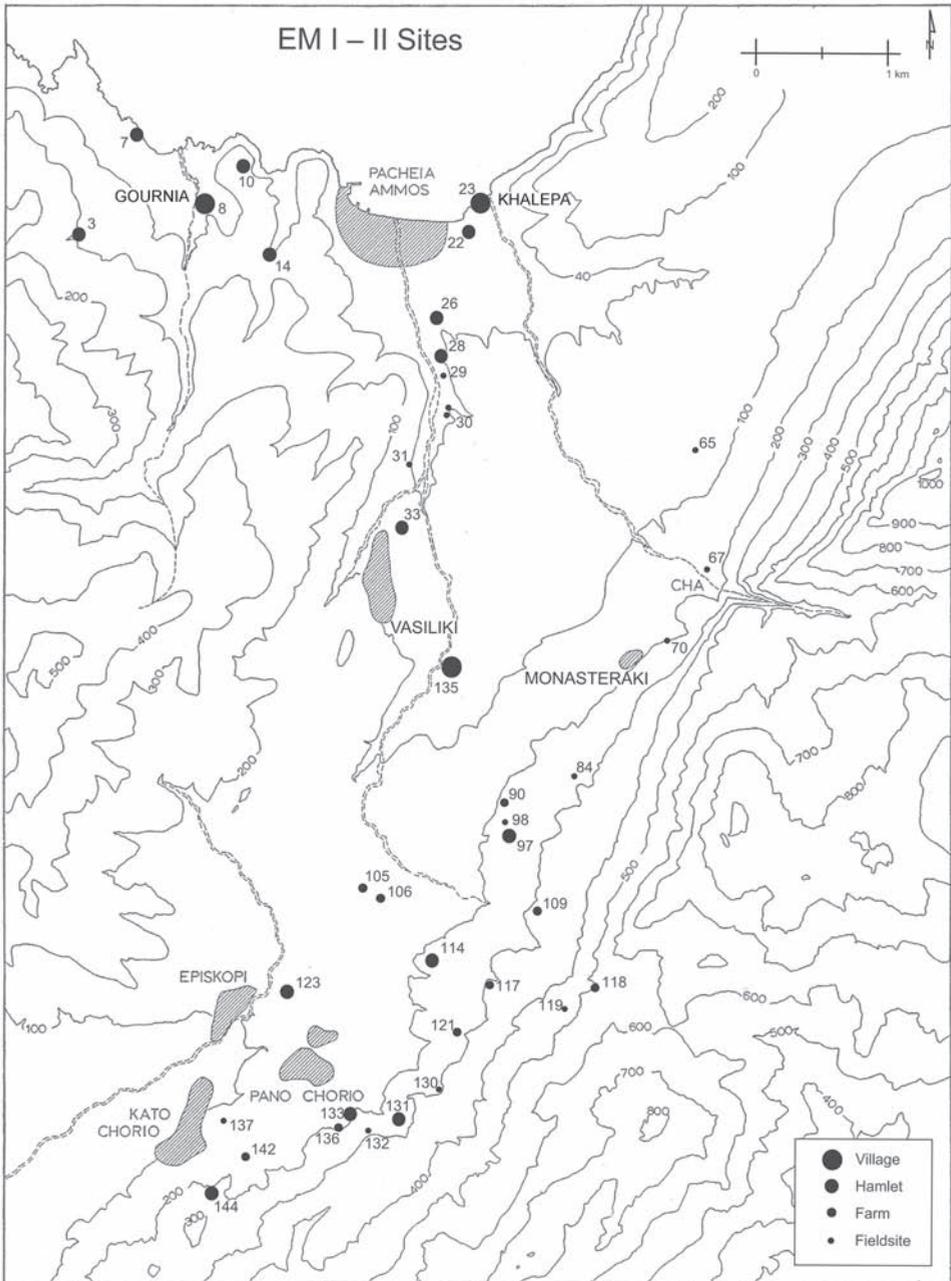


Figure 12.4: EM settlement patterns in Gournia and north Isthmus of Ierapetra (after L. V. Watrous and M. Schultz 2012).

primary centres. This is to say, Phaistos or variously Hagia Triada (cf. Relaki 2004: 181; Todaro 2012) and Platanos might be first order centres, even centres of territories, but the structure of their territories does not seem easy to visualise through a neat chronologically measurable ranking of sites in the hinterland (Fig. 12.1). Similarly, in the north Isthmus, the so-called “villages”, if this is valid or socially-distinctive term at all, seem disconnected from the distribution of hamlets and farms, operating or interacting with other sites in the same way as hamlets.

Gournia, Khalepa, and Vasiliki follow this disengaged village pattern, as does perhaps Kavousi village (Site 24) and Mochlos (Figs. 12.4, 12.5). The real regional growth (increase in sites) (Watrous and Schultz 2012) is in the category of hamlets, and localised clustering is the dominant pattern. The actual process of hierarchisation correlates apparently more to hamlets than to villages, and Watrous emphasises that the even spacing and dispersal suggest relatively independent agriculturally-based populations with little centralised control in the region (Watrous and Schultz 2012; cf. Watrous 2001: 221, 223).

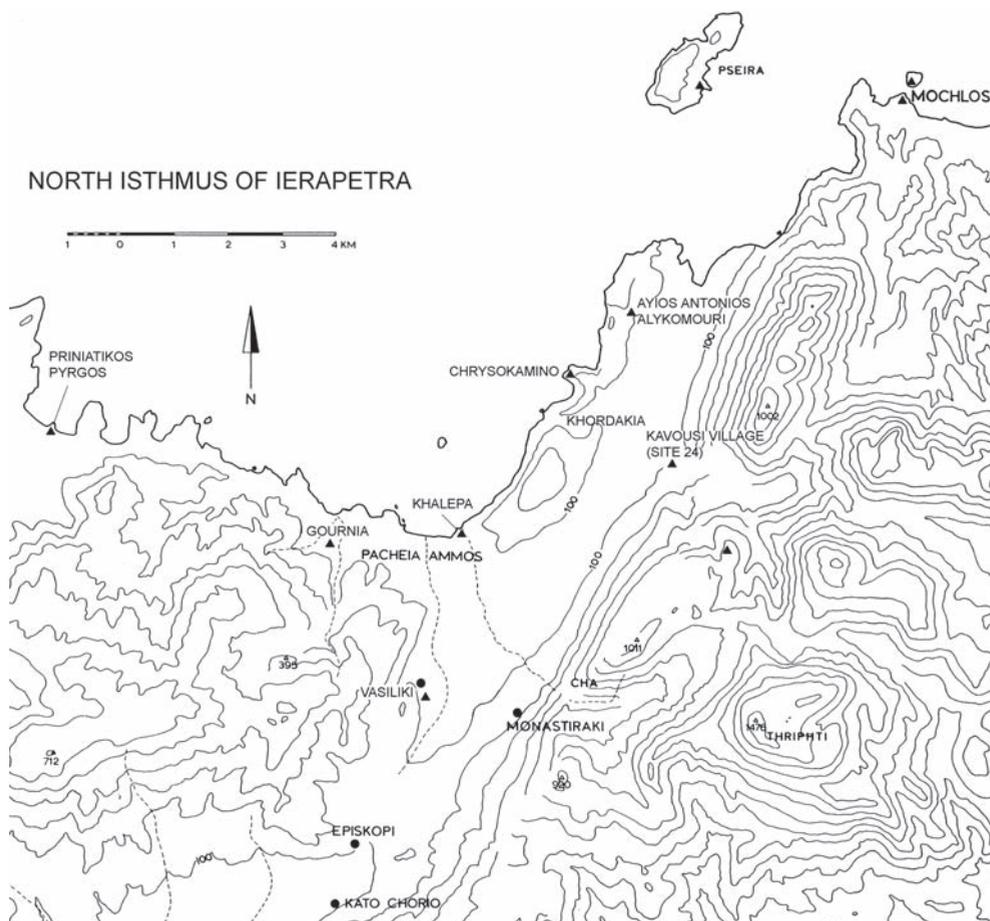


Figure 12.5: North Isthmus of Ierapetra (courtesy, Gournia Project).

Although Vasiliki could be the base of a chiefdom in EM IIB (Watrous 2001: 223), better exceptions might be Gournia itself, which, like Hayden's view of Priniatikos Pyrgos, shows evidence of centrifugal hierarchy, but we need to understand the meaning of the sizes of Gournia or Priniatikos Pyrgos, and their relationship to similarly large hamlets in the immediate vicinity (within 0.5 to 2 km distance) (Fig. 12.4). The coastal orientation of sites like Priniatikos Pyrgos, Khalepa, Gournia, and Mochlos, exchange patterns, and differentiation of grave goods from known excavated contexts (Watrous and Schultz 2012) seem dissociated from the settlement structure in the hinterland. Thus, I am not saying that Phaistos, Hagia Triada, Platanos, Gournia and Priniatikos Pyrgos are not different from the hamlets, or important special-function sites; I just do not think that they all functioned in the same way at the same time (Tomkins and Schoep 2010: esp. 72–74), or that there is a meaningful rural pattern of concentric or systemic dependence of the smaller sites, that points to a clear territorial interdependence. While they might have sociopolitical or economic importance in the region, the apparent structure of settlement in the hinterland is probably not a result of their function; although for the Mesara, Todaro (2012) has suggested that at the end of EM I the substantial Prepalatial buildings at Phaistos were abandoned presumably for hamlets in the vicinity, only to be revisited for ceremonial purposes. In east Crete, however, the coastal sites (Khalepa, Mochlos, Gournia, Priniatikos Pyrgos) look like examples of Branigan's (1991) gateway communities (Fig. 12.5), or transshipment, trading, or industrial centres, Poros-like towns, operating with a degree of independence of in-land centres (cf. Day and Wilson 2002; Tomkins and Schoep 2010: 72).

As in the western Mesara, none of the assumed primary centres in the north Isthmus shows significant diachronic settlement development in a spatially-ordered hierarchy of emerging centrifugal dispersal and dependence. Even in the Gournia valley itself, the difference in the pattern looks more like a matter of scale: the individual units are bigger, operating in a proportionately larger micro-region (Fig. 12.4). The socioeconomic patterns of trade, differentiation of wealth in excavated cemeteries (Mochlos and Gournia), and even the position of villages (Vasiliki, Alykomouri, or Kavousi) do not map easily onto the settlement structure in a way that suggests regional integration that we associate with linear hierarchies (Fig. 12.5). So what do the patterns tell us?

They strongly suggest highly localised and internal centripetal developments; entrenched and static structures exploiting micro-regions, and remarkably long-term adherence to local social landscapes that are reproduced or replicated, almost identically, across the sample areas. This kind of long-lived localisation might be reflected in the patterns of tomb use as well, perhaps mirroring aspects of settlement development.

Other relevant material patterns

Lack of clear hierarchies, as well as consistent and homogeneous mortuary behaviour, characterise the distribution of tombs in the Mesara (Relaki 2004; Legarra Herrero

2009). Branigan has pointed out not only the close relationship between settlement sites and cemeteries, but also the stability and integrity of the local communities maintaining funerary cults (Branigan 1998: 21). Joanne Murphy (1998: 28–31) goes a step further in stressing the longevity and continuity of tomb use, as well as its relationship to a physical locale. Though she recognises evidence of chronological discontinuity, she argues convincingly for a continuous ideology of community, a consciousness of the place itself, which must take into account the development of lineage groups and real social relationships on variable scales (cf. Relaki 2004: 172–73; Legarra Herrero 2009: 33–34). Such modes of interaction are complicated and are harder to measure or identify archaeologically, than, for example, predictive models of normal bilateral population growth of nuclear families within hypothetical agricultural catchment areas, or the assumed, but yet weakly modelled, social implications of topographic proximity and hierarchy of settlement sizes.

More recently, Maria Relaki (2004:181–183) has emphasised this localised pattern in the Mesara, seeing collective identities marked by increased competition and factionalism in EM II. While I do not disagree with the potential importance of the proliferation of tombs and increased elaboration of social competition, I am not convinced of the lack of post-funerary or extra-funerary rituals at tomb sites in EM I, nor that the trend (if we are really comfortable with the chronology of tomb use) necessarily indicates a new pattern of fragmentation *per se* or lack of regional integration in EM II. The developed EM II pattern could, to the contrary, emphasise the continuity, importance, and perhaps enhanced articulation of local identities on an expanding regional scale, which might correspond to intensified social contacts and regional interaction, perhaps a growing complexity of regional or supra-local social bonds, connections, and of course kinship ties that would lead to increased formalisation and expression of local cult practices and social rituals. Similarly, Legarra Herrero's (2009) analysis of regional mortuary cultures in the Prepalatial presents the Mesara as a coherent and homogeneous cultural landscape, in which intraregional links would have formed integrated structures.

This ambivalence or incongruity of interpretations of settlement data discussed above is I think essential to the inherent structures demonstrated by the patterns. So while Watrous wants to see greater integration in EM II based on a slightly more developed settlement hierarchy and economic differentiation of primary centres, Relaki paints a picture of increased localism and fragmentation of community identities. While I have argued before that a way of getting around the incongruity is to radically reshape our definition and rethink the nature of integration (Haggis 2002), Relaki's picture of the Mesara is nevertheless compelling; the pattern of both settlement and cemeteries could tell us however that there was increased interaction between pre-existing social regions or communities. That is we might visualise the pattern as resulting from competitive emulation, a kind of peer-polity interaction, but on multiple and replicated small scales. A proliferation of tholoi in the Mesara in EM IIA would then mean less a formation or consolidation of a new structure,

than an intensification of inter- and intra-regional interaction. But even in those instances where we can define new settlement development and tomb construction, and discontinuous re-use of settlements and tombs, we are probably seeing a re-articulation of long-established identities in the landscape (in Murphy's terms an "ideology of community"), a reassertion of local claims to the landscape, its history and resources, in response to an intensification of wider concentric but variable social interactions.

The question still remains as to the meaning of the dispersed pattern, if the functional relationships between small settlement groups are not likely to have been an economically-ranked centrifugal dispersal of sites dependent on primary centres. This notion of primary centres is formed from presumed redistributive functions of staple-finance and surplus management; the centralisation of power hierarchies that mobilised resources and population, developed and monopolised wealth finance, and redirected labour toward strategies of various kinds of economic specialisation and intensification. In the cases discussed here, such a system would centre on sites poised for access to external exchange, like in east Crete (Figs. 12.4, 12.5); or in the Mesara (Fig. 12.1), sites located to control the best arable. The weakness of the model (and the ultimate effectiveness of the interpretations derived from survey) is perhaps that the resultant settlement patterns in the hinterlands are very similar if not identical throughout the island, and do little to inflect a dominant top-down hierarchical model.

The main problem is that the pattern is static, and growth, if it is really significant at all, is local and localised, centring on hamlets, about 0.2 to 0.5 ha in size, which in my view are probably functionally indistinguishable from some of the farms and even many of the so-called villages. It may be that, in survey, we do not really know how to deal with such small-scale and localised configurations or to model regional or interregional integration without evidence of larger-scale differentiation of units that is, to model real complexity, integrated and multilateral social/cultic, and political/economic interactions on multiple scales.

In spite of nearly a half century of intensive survey we still tend to look at the site itself, the partially excavated site or individual building, as a basic diagnostic unit, whose definition becomes an analytical template with an exclusive identity (and explanatory force), normally functioning in our narratives without specific social models. That is to say, the problem may not be in the identification of the basic social unit, but in modelling the relationships between basic units on variable organisational and spatial scales. The other problem is of course the notion of hierarchy (Haggis 2002). In the diachronically static structures at Gournia, Vrokastro, and Mesara, ranking suggests spatial relationships between sites with very little dependency beyond two levels at any scale. This is not to say that definition of domestic units on the local scale, and analyses of hierarchical relationships on a regional scale are not without value. I just think that we lack a developed body of theory or realm of analogy to expose the real social complexities of the patterns and therefore the structure.

The essential static pattern may also appear in other effective scales of analysis. Similar to the problem of hierarchy in the region, we have long struggled with the lack of clear distinctions in the differentiation of social units within Prepalatial settlements. What we normally see in the excavated sample is a kind of integrated built environment with a vaguely-defined communal character that finds parallel expression in collective burials in the mortuary sphere. Early on Branigan pictured Myrtos Phournou Koriphi, like Vasiliki, as a “mansion” of sorts, an architecturally unified household of a leader (1970: 48–49). A decade or so later, following Todd Whitelaw’s articulation of individual domestic units in 1983 (cf. Whitelaw 2007), the excavator Peter Warren (1987: 52) remained surprisingly steadfast in his view that Phournou Koriphi represented a collective of interrelated groups, “an extended family or clan”, emphasising the “close knit, interdependent, communal character...” of the settlement. Although Branigan, Warren and Whitelaw’s very different impressions of the site, and indeed of Vasiliki, were never necessarily mutually exclusive, – at least without a scale-dependent and reductive social model to predict material correlates of our notional terms village, hamlet, mansion, or house – what was compelling about the site to the excavator was its essential agglomerative form, its tightly constructed cellular structure, indeed the lack of freestanding houses. Warren’s point is interesting and emphasises the essential static nature of Prepalatial settlement; in the landscape this could then manifest itself in various scales and sizes of individual kinship-corporate groups, notional households or broadly conceptual *oikoi*. The few excavated Prepalatial settlements that we have seem to reflect the same kind of slow growth and static – in my view constant, long-lived, entrenched, and integrated – structure that is apparent in the regional patterns. Archaeological and ethnographic analogies present diverse and complex potentially valid models, such as “established houses”, and “multilocal house-groups” (Driessen 2010), or similarly-structured agglomerative compounds indicating the corporate exploitation of land that is reflected in both the structure of settlement and the palaeobotanical and landscape data for Early Iron Age and Archaic Greece, where we are perhaps on firmer ground (Foxhall 2003: esp. 83–85).

A few years ago in the Langford Conference, Jan Driessen (2010), applied the idea of the “established house” to Minoan Crete as a social-conceptual term, arguing that Minoan agglutinative compounds could represent intergenerational and locus-bound groups; he stressed the continuity and permanence suggested by the architectural forms; the localisation of the social group, continuity of place, and the connection between the physical locus of building and the surrounding landscape as a condition engendering and sustaining ideas of kinship and social identities. Relevant to our discussion here is that Driessen visualised Vasiliki as representing two or three such houses, and Myrtos, a single house. Along very similar lines, Knappett (2009) understood different Minoan house sizes to reflect different effective scales of kinship structure; that is, different levels of similarly-structured units within regional hierarchies. The fractal-like replication of structures in the Prepalatial patterns echoes Knappett’s developed palatial landscape, but on smaller scale, or perhaps earlier stage;

palatial integration, if we continue to use this term (Haggis 2002), might be seen as a continuous and gradual scaling up of basic organisational units that manifest initially in the hamlets and villages of early Prepalatial.

I am not suggesting that Prepalatial settlements do not grow or contract in size, go out of use or be re-used and rebuilt, but they adhere to regular patterns of agglomerative and integrated structuring of space, and the orientation and juxtaposition of units over long periods of time. While wall abutment and bonding are wholly unreliable indicators of long-term phasing of settlement development, if lacking stratigraphic corroboration (cf. Whitelaw 1983; restated in 2007), the use of contiguous construction, superimposed orientation of wall lines, and even respect for common spaces, such as the paved courts at Vasiliki, suggest a consciousness of space and perhaps continuity of use of space, and an awareness of the community as a historically constant and unified built environment. As an aside, I would contrast the Minoan *static* form with mainland “prepalatial” patterns (such as Lerna, Eutresis, Hagios Stephanos, or Asine) which are distinctly *dynamic* in character, chronologically variable, if not perpetually interrupted, emphasising a constant and inter-generational transmission and negotiation of social space by intramural burial, and the placement and demarcation of individual freestanding houses, courtyards, and household units in a kind of emphatic and strategic reassertion and articulation of social barriers of different nuclear households within the settlement.

On Crete, the static installations in the landscape are the hamlets and villages of the dispersed regional patterns derived through survey, and maybe our real problem is first in attributing social, economic, or political significance to such small-scale social units (Whitelaw’s [1983] five or six families), sites that normally, in a top-down approach, appear to us as the lower- (if not lowest-) level in-filling of the countryside; residual symptoms of the political and economic centralisation, that we imagine for large sites like Knossos, Hagia Triada or Phaistos; or the villages in east Crete that seem to be the top of the replicated hierarchies in the survey data presented here. In diachronic analyses, we insist that smaller sites should be an outgrowth of bigger sites, and the result of settlement dispersal, rather than a form of primary settlement development.

Conclusions

In order to understand settlement structure as a long-term social process, rather than a result of economic expansion or sociopolitical centralisation, we need to sort out what constitutes distinctive assemblages that could help to explain regional functions, comparing or contrasting them with that of communal tombs, and putative scaled-up, regional, or ceremonial centres (Tomkins and Schoep 2010; Tomkins, this volume; Todaro 2009; 2012). Indeed we may be faced with evidence of the replication of activities in hamlets, centres, and cemeteries, showing considerable fluidity of social behaviour; and differences in the scale or type of the occasion, rather than

clearly or neatly differentiated functions. At this juncture, it is important to keep in mind that assemblages that we associate with communal or diacritical ceremonial activities, such as pottery and special drinking vessels (Day and Wilson 2002; Catapoti 2011); kernoi; seals and sealings (Relaki 2009; 2012); copper implements, and objects with presumably necrotaphic contexts of consumption and meanings (cf. Papadatos 2007; Dimopoulou-Rethemiotaki, Wilson and Day 2007) appear in diverse contexts in settlement sites as well, including the smallest hamlet-sized communities.

For one example, Relaki (2009: 361–62; 2012) has shown that seal iconography in Prepalatial has both emblematic and assertive functions in multiple ritualised venues. As both group and individual emblems, seals were deposited in tombs as a form of ritual rationing, impeding the diffusion of symbolic value away from corporate groups and their connections to specific locales in the landscape; that is, the process of deposition was an active process of cultural localisation. The localising tendency of iconographic clusters in the Mesara (Sbonias 1999), where seals are connected with specific social groups and their claims to land and resources (Relaki 2009), accords well with the conservatism and longevity of the dispersed pattern of small-scale settlement. The social dynamics of interaction (competition, *vel sim*) on a regional scale could be visualised as a deliberate process of displaying and reaffirming connections to places, perhaps a local dynamic that was replicated by peer communities on various scales. If the essential group was the household, then we might expect that it would establish modes of interaction and create patterns of behaviour around and between such units, catalysing and reinforcing the entrenchment, continuity, and replication of local social groups through time and space, resulting in the apparently durable, stable and undifferentiated settlement patterns observable in the survey data.

What we will probably find in the first instance is repeated kinds of assemblages suggesting activities operating in different scales of participation, with social meanings that are recreated in various forms across the landscape. I would like to see them centring at the most basic level, perhaps the smallest social unit, at these hamlets, with their tombs and dependent farms and field sites. That is, we will need to remodel the social identity and political and economic significance of these hamlet-sized settlements and their farms, and their relationship with the wider region.

On the regional scale, the uniform spacing and clustering of lower-level sites, indeed even the proliferation of so-called farm and field sites, suggest a localised development of social groups of various sizes, probably kinship groups, over long periods time; these are not necessarily unbroken contiguous lineages, but interrelated configurations with common connections to specific real or reinvented lineages centring on specific locales in the landscape. The process of growth, if we could measure it, would probably have been centripetal, internal, and internalising, in a sense accruing population within a vast number of micro-regions. Growth and dispersal, such as the continual creation and reproduction of hamlets, farms and field sites, would have happened irrespective of primary centres, but in direct response to social interaction with similarly-configured groups across the regions. Such

interactions, even competitive negotiations, would have shaped, maintained, and perhaps even contained the spatial boundaries of the EM community.

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