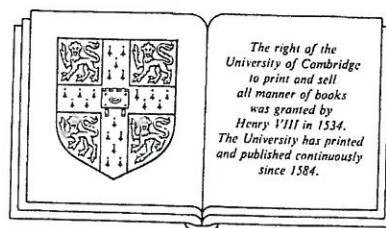


Cherry

PEER POLITY
INTERACTION
AND
SOCIO-POLITICAL
CHANGE

EDITED BY COLIN RENFREW
AND JOHN F. CHERRY

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ping upon a field which has been considered by biologists. Barnes (1969), for instance, has considered cision-making in terms of a social network approach, illustrating graph theory. Network analysis studies (Boissevain and Mitchell 1973) have the merit of applying formal and imitative techniques to the examination of specific aspects social groups. Braun (this volume: Ch. 9) and others have vocated a network approach of rather a different sort, which rhaps stands closer to that used by contemporary ographers (e.g. Haggett and Chorley 1969). Simulations of related kind have indeed been conducted in considering amplexes of morphogenesis in self-organising systems, such the development of urban structure (Allen 1982).

In a sense, of course, any pattern of interactions can be garded or defined as a network, and, as Braun indicates, to o this establishes a useful relationship with work undertaken hen the network is a relatively undifferentiated one—when e nodes, for instance, may be visualised as single individuals, r perhaps as small village communities, which stand in a rymmetrical relationship one to another. With very simple ities of this kind the network need not be too over-oweringly complicated. But when the politics themselves are ore complex, as Braun indicates, with pronounced ierarchical structures within them, the degree of ifferentiation of activities—or of subsystems of the culture ystem—is such that the linkages between individuals within he politics can no longer be represented as single edges in a mple network. They become multidimensional, and an appropriate network diagram would need to show several ifferent channels linking each pair of interested individuals. It is precisely with this differentiation in channels of munication, with the different kinds of interactions, etween individuals and between politics, that we are oncerned here. And in my own view the problem for esearch, to which the peer polity interaction approach is esigned to respond, is not so much the examination of he spatial configuration of the interactions, which the network approach is well equipped to undertake, but rather heir very nature. Who impresses whom, and how, and what ffect does that have upon the future actions of both? That uestion has already been posed by some workers within the 'ramework of the endogenous approach, and indeed answered n a rather simplistic way by others within the framework of he exogenous approach, where, for instance it has been hypothesised that petty chieftains have used imported

manufactured goods to amaze the rural populace and thereby enhance their own status. It becomes a more interesting and complex problem when considered within the context of the emerging symbolic and communication systems which are shared by a number of peer polities.

In each of the papers which follow there is a concern with what I have termed the structural homologies visible between neighbouring and autonomous polities, and in the interactions responsible for them. This emphasis on forms, and on symbolic interactions, distinguishes our approach to some extent from that of Barbara Price (1977), with whose cluster interaction model the present approach has otherwise much in common.

It could be argued that our emphasis on specific structures makes our approach a 'structuralist' one, and in a sense this is so. We are concerned with social and symbolic forms which are specific to human society, and are the product of the specifically human ability to conceptualise. Our very emphasis on structural homologies may to some evoke comparisons with French *structuralisme*. But our work differs fundamentally from that approach in its concern with diachronic processes, with specific development through time. Our observations, like those of all archaeology, are rooted in the material world and this, for all its obvious limitations, gives to them a certain concreteness not always obvious in the discussion of myth and oral tradition.

Our aim, however, is not to ascribe labels, or to define new 'isms', but to ask fruitful questions. These do indeed pertain to human beliefs and human symbolic systems, and to the way human societies have sought to conceive their world in order to shape it more effectively. The framework which we have chosen to adopt allows the same questions to be posed in relation to societies in different parts of the world, and of very differing degrees of complexity. The intention is to develop a cross-cultural approach, with the hope of obtaining general insights.

Acknowledgements

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Chapter 2

Politics and palaces: some problems in Minoan state formation John F. Cherry

same recurrent pattern. Equally important, however, is the fact that such early formative states do tend to share a number of features—political, ideological, linguistic, symbolic, and material—at a level of specificity which does not find ready explanation in terms of common descent or environmental constraint. This appears to be a valid observation even in those cases where it is possible to document considerable political, or even military, antagonism among the individual members of such a cluster of states.

Those statements, of course, are so general that they are somewhat obvious and, indeed, they lurk close to the surface in much previous writing on state origins. Moreover, just as the case with any cross-cultural generalisation, they are open to falsification in individual cases. Nonetheless, they represent a body of ideas that has not so far been put to work as a systematic framework for dealing with certain classes of sociopolitical change. In an earlier discussion of the spatial aspects of small-scale states (Cherry, J.F. 1978: 422–3), I noted: 'When combined with appropriate exchange models, this construct [sc. ESM] can provide some insight into the manner in which a cultural and ideological *koine* can develop over a wide region which has not itself yet come under political unification.' It is precisely the purpose of the peer polity interaction approach to explore that challenge.

This chapter offers a preliminary, yet fairly detailed illustration of the framework outlined by Renfrew (this volume: Ch. 1), together with some of the operational and

Introduction

The model of peer polity interaction sketched by Renfrew in the preceding chapter stems from an empirical generalisation that commands wide-spread support among archaeologists and anthropologists. In many instances of state formation (including those of the so-called 'pristine' states), the initial stages in the process do not involve the rise of a single, monolithic socio-political unit in splendid isolation; on the contrary, the normal pattern suggested by the archaeological record is one that implies a group of relatively small-scale entities in synchronic and interdependent evolution. Frequently, these political units display a strongly theocratic cast (Webster 1976b), lack the highly structured control hierarchies typical of nation states and empires (Flannery 1972; Wright 1977: 220; Johnson 1978), and are not characterised by mutual relations of dominance and subordination (as emphasised, for instance, by Haas 1982). Nascent states of this sort often (but not always (cf. Fisher 1985)) occur together within a given region in groups which exhibit a degree of equivalence in territorial size and central-place separation, implying comparable population levels, comparable settlement hierarchies, and comparable conditions of communication and transport. This aspect of modular regularity has been reaffirmed in Renfrew's (1975: 12–21; 1978a) term 'early state module' (ESM) and in Price's (1977) notion of 'cluster component'; the 'Asiatic States', as defined by Friedman and Rowlands (1977: 220), involve reference to the

oretical problems it poses, in the case of the emergence of complex societies in the prehistoric Aegean. As the first of the series of temporally and geographically wide-ranging case studies that follows, this region is of special significance, for it is with Greece and the Aegean above all in mind that the M and peer polity interaction concepts were originally formulated (Renfrew 1975: Fig. 3; 1977: 115–18; 1982a: 9–89), even though they were envisaged from the outset to be of very much wider applicability.

Odd though it may seem, considering the long history of research into Classical and pre-Classical Greece, this is an area far largely neglected by archaeologists and anthropologists. Most general studies of the formation of complex societies, several factors have no doubt contributed to this neglect. One is the relatively late appearance of states of any sort in the Aegean, at least by the standards of several other parts of the Old World; the extension of theorising about state origins to contexts other than the handful of earliest 'pristine' states surprisingly recent (e.g. Claessen and Skalnik 1978; 1981). Another factor is the small scale of the Bronze Age polities and later Classical *poleis* of Greece, whose modest populations, limited territorial extent, and lack of highly developed settlement hierarchies create difficulties for the direct application of certain modern archaeological characterisations of state societies (e.g. Wright and Johnson 1975). Yet a third factor is that many of the classic causal models of state emergence founder on the hard data from the Aegean (see, for example, the discussion in Renfrew 1982a: 283–6; Cherry 1984: 19–24), a problem considerably exacerbated by

typical ambiguities and variant opinions about the degree to which the Aegean in the formative period of the third millennium BC was influenced by, or even in direct contact with, developed states farther east. If these considerations have led anthropological archaeologists to shy away from the Aegean, then, conversely, the Classical and Art Historical training of the majority of the archaeologists actually working here has generated a disinclination to generalise, a belief in the uniqueness of Greek culture history as the fountainhead of Western civilisation, and even a failure to see the rise of states in this area as a significant problem demanding explanation (Cherry 1983a; 1984).

In this chapter, therefore, the application to the prehistoric Aegean of some of the ideas enshrined in the concept of peer polity interaction is an exploratory attempt to steer a path through some of these obstacles by emphasising some current features in the emergence of socio-political complexity which, at the same time, are not incompatible with the known or inferred facts of the Aegean case. The island of Crete is the main focus of this chapter—offers, moreover, certain advantages as a test case for ideas of this sort. In the first place, it provides the special benefits of all islands as laboratories for the study of culture change (Evans 1973; Cherry 1980): as an isolated, neatly self-defining, bounded unit, it allows—at least in principle—the separation and measurement of the types of internal and external interactions which are crucial to the approach. Secondly, since the

beginning of this century when the Bronze Age palatial centres at Knossos, Phaistos and Mallia first began to be explored, excavations and (more recently) field surveys have been accumulating information. The resultant data base is large and the prehistoric sequence well understood in outline, although it has to be admitted that nearly all this work has been directed to culture history, which requires an explanation rather than providing one (Shodgrass 1985: 5–7). Thirdly, complex societies have arisen more than once in Crete: in the early second millennium BC with the palatial polities of the Minoan (and, later, the Mycenaean) civilisation, and again after the Dark Age of Greece in the form of the many independent, historically attested city states that emerged from about the eighth century BC (this volume: Ch. 3). In searching for causal regularities in the political process, therefore, it ought to be possible to conduct a useful exercise in cross-cultural comparison by considering the effects of similar processes operating under much the same constraints, but at different times (Renfrew and Wagstaff 1982; Cherry 1984: 18–19).

Peer polities in Minoan Crete

This section presents a necessarily terse summary of relevant culture-historical background to the case study that forms the focus for this chapter. It should be understood that, even at this very general synthetic level, many ostensibly factual statements are in practice still the subject of intense archaeological debate within the field.

For the reasons just noted, the initial definition of the region encompassing the polities under consideration poses no difficulty: we are concerned with the island of Crete as a whole, a topographically highly differentiated landmass of some 8,000 sq. km separated by more than 100 km from the nearest mainland. First colonised by man no earlier than the seventh millennium BC according to the available evidence (Cherry 1981), Crete witnessed the florescence of a complex society—Minoan palatial civilisation—for more than 500 years during the second millennium BC (for recent overviews, see Hood 1973; Warren 1975: 67–110; Cadogan 1976; Hüller 1977). At its height during the *New Palace* period (c. 1700–1450 BC), Minoan civilisation encompassed, or at least was very influential upon, a larger area including many islands of the south-central Aegean and the southern Greek mainland (Fig. 2.1), although it is often unclear in individual cases whether this 'Minoanisation' reflects the stimulus of contact, the existence of strong exchange ties, the establishment of colonies or trading enclaves, or even political subjugation (Hagg and Marinatos 1984; Branigan 1981). Far-flung trade relationships, whether direct or (more often) indirect, moved Cretan objects as far as Qatna in the upper Orontes valley of Syria and Abydos or Aswan in Upper Egypt, and gave the Minoans access to materials such as tin, amber, lapis lazuli and ostrich eggshell, which were available only in very distant regions. In its earlier phases of development, however, Minoan civilisation was a very much more restricted, insular phenomenon.

There is general agreement that the foundations of

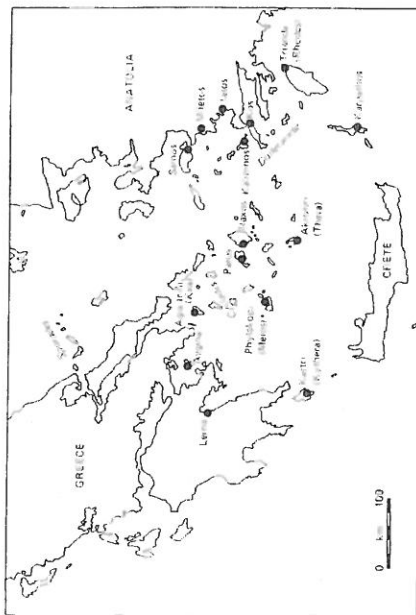


Fig. 2.1. The island of Crete in its south Aegean context. Filled circles indicate some of the most important palaces or sites with significant quantities of Minoan imports or with other strongly 'Minoanising' features; there is considerable controversy about whether they may have been under Minoan political control during the period of the New Palaces.

palatial Crete lie in the formative (*pre-palatial*) period of the third millennium BC (Branigan 1970), not least because of the high degree of continuity in Minoan material culture (and perhaps also language and ethnicity) from the inception of the Bronze Age until the collapse of the palace system near its end (Warren 1973a). A consensus does not yet exist on whether the development of social complexity there is best characterised as a protracted, progressively developing process, or rather as a swift quantum leap forward (Cherry 1983a), nor on the importance (if any) of contact with pre-existent Near Eastern states (Watrous, *in press*)—both matters of some relevance to a peer polity approach, as discussed below. What is beyond doubt, however, is that a major change in the scale and nature of socio-political integration on Crete took place in the twentieth century BC (probably c. 1950–1930 BC), a change signalled most visibly by the construction of several political/religious/economic central places, or 'palaces' (Fig. 2.2). This critical moment of transformation, in the Middle Minoan IB ceramic phase, marks the beginning of the

Old Palace period in Crete, c. 1950–1700 BC (Cadogan 1983). Unfortunately, the palaces at Knossos, Phaistos and Mallia are not yet well understood in their Old Palace phase, since they were totally remodelled and extended two centuries later (the beginning of the neo-palatial phase) following destructions probably caused by earthquakes. At Kato Zakros, in extreme eastern Crete, the excavations of the past two decades, which have uncovered a splendid palace of the neo-palatial period, have not yet indicated decisively whether there existed a proto-palatial predecessor; and the presumed palatial centre beneath the modern town of Khania in western Crete has only recently begun to be explored. The picture is further confused by the existence of sites such as Gournia, where a small provincial town has a central building complex of palatial character, albeit in microcosm. Moreover, as the discovery of Kato Zakros reminds us, it is quite possible—though a possibility that is dwindling as the pace of field surveys increases in Crete—that other palaces still remain to be discovered. Nonetheless, current evidence suggests that, in



Fig. 2.2. Map of Crete, showing places mentioned in the text and hypothetical palatial territories. Palatial centres are indicated by stars within circles, other sites by smaller filled circles.

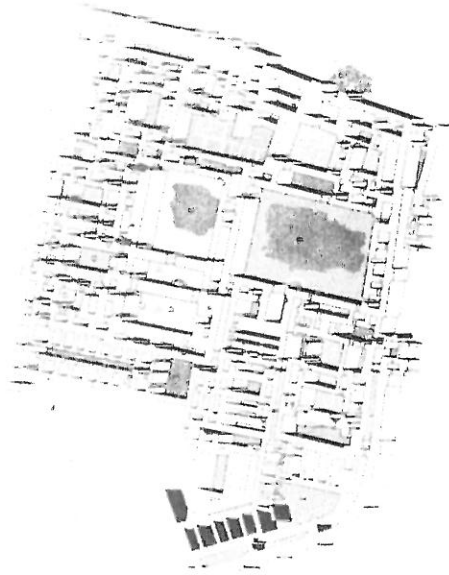
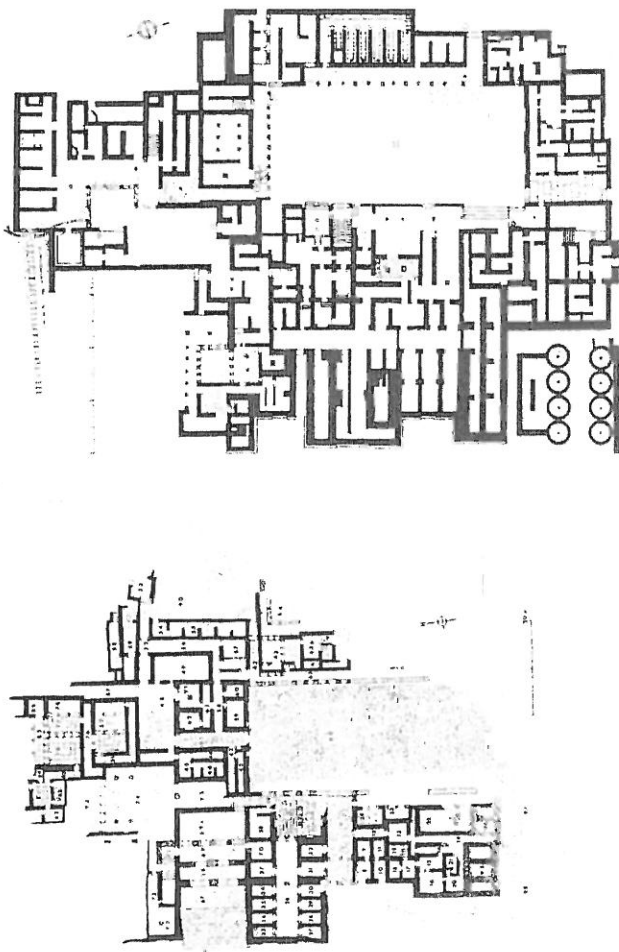


Fig. 2.3. Comparative plans of the palaces at (a) Phaistos, (b) Mallia, and (c) Mari in Syria (reproduced by permission of Princeton University Press).

the New Palace period at least, there existed no more than half a dozen such central places (Graham 1969: Fig. 1; Renfrew 1972: Fig. 14.4; 1975: 14). The average separation between adjacent palaces would thus be c. 35–40 km, with notional territories of the order of c. 1,000–1,500 sq. km (Fig. 2.2), though much land is marginal mountain country. These palatial sites, which appear in most cases to have had large residential settlements or 'towns' surrounding the palace itself, stood in the New Palace period—at the head of a settlement hierarchy that included country residences (some of which served as second-order administrative centres), non-palatial towns, small-scale rural establishments, and a variety of functionally specific sites, such as ports and locations devoted solely to religious observance. At an earlier stage in the development of the palatial system, however, it seems likely that there existed both fewer palaces and a less structured organisation of regional settlement.

The palaces differ among themselves in a number of detailed respects, including both developmental history and overall layout (Evans 1921–35; Levi 1976; Van Effenterre 1980). Yet there also exist many remarkable points of close similarity or even near-identity (see below) and these demand explanation. At a very general level, the palaces can be regarded as a type of regional centre which has parallels not only within Crete itself, but also in a range of western Asiatic palace-temples or temple-palaces of the later third and second millennia BC as far east as the Tigris-Euphrates area (Graham 1964; Fig. 2.3). This, however, does not necessarily say anything about origins, since generically similar centres may have evolved in response to the similar organisational demands of elite/ceremonial/redistributive systems in a largely non-urban context. Indeed, Bartaliff (1977: Fig. 25) has gone yet further in pointing to a number of interesting close functional similarities between the Minoan palaces and certain early medieval monastic complexes in Europe.

Whatever the case may be, there are no special difficulties involved in the normal interpretation of the Minoan palaces as multifunctional complexes serving as the highest-order centres integrating economic, political and ritual activity within the regions each of them controlled. As Halstead (1981: 201) put it: 'Apart from their role as elite residences, the "Minoan palaces" seem to have served a multiplicity of functions, combining under one roof the equivalents of Buckingham Palace, Whitehall, Westminster Abbey and, perhaps, even Wembley Stadium.' Yet it is important to bear in mind that the detailed evidence on which such a view rests often represents a conflation of data drawn from more than one stage in the history of the palaces.

Most of the palaces and other important sites in Crete were destroyed violently and/or abandoned c. 1450 BC, in the Late Minoan IB period (probably *not*, as once widely supposed, the direct result of the volcanic eruption of the island of Santorini some 60 km to the north (Doumas 1978)). There ensued a period whose duration is a matter of intense dispute (see Hooker (1977: 70–80) for a summary,

with references), during which the indications are that most or all of the island was under the control of Mycenaeans from the Greek mainland, with Knossos as the chief (perhaps sole) surviving palatial centre (Hallager 1977; Nienker 1982). Even experts in the field are baffled by the complexities of the data and its political interpretation during this so-called 'post-palatial' period; but it has considerable importance as the time at which the Linear B tablets, in an early form of the Greek language, were written both at Knossos and at various Mycenaean palaces on the mainland (Fig. 2.4), giving unrivalled insight into the organisation of administration in Late Bronze Age Aegean polities (Ventris and Chadwick 1973). It is clear, at any rate, that it is *not* appropriate to think at this stage of a number of independent centres and of interacting polities in Crete, and it is therefore with the situation in the earlier second millennium BC that we are concerned here.

Independent polities?

Before we turn to consider possible forms of interaction that may have relevance for understanding the rise of socio-political complexity in Minoan Crete, it is necessary to deal

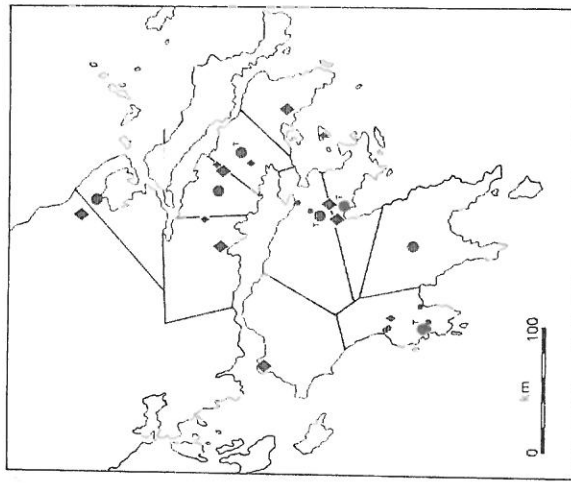


Fig. 2.4. Polities and their hypothetical territories in Mycenaean Greece. Palaces are indicated by large dots, major fortified strongholds by large diamonds; smaller dots and diamonds represent other sites with Linear B tablet archives and fortifications, respectively; sites with Linear B tablet archives are denoted by the letter T (after Renfrew 1975: Fig. 3, with additional data from Hope Simpson and Dickinson 1979: 426–7).

rely with an important operational difficulty. In the editing discussion, there is a tacit assumption that each palatial centres, with its dependent hinterland, was a state and fully independent unit, exhibiting the two values it jealously prized by Greek city states of Classical times: tactical self-determination (autonomy) and economic self-sufficiency (autarky). Is this a sound assumption to make?

Minotaur archaeologists would certainly wish to maintain the opposite: that the island was politically unified from earliest palatial times, with the other palaces attached by ties of dependency to one pre-eminent central place – Knossos. If it is impossible to document whether the palaces are politically equivalent (i.e. true 'peers') or, conversely, are affiliated to, or controlled by, some superordinate centre, naturally the application of the peer polity approach is and to be hedged with uncertainties. (Moreover, it may well be the case that the relationship between the Minoan palaces does not remain constant throughout the five or more centuries of their existence, so that it becomes important to be clear about the point(s) during their emergence and subsequent history for which the peer polity approach is claimed to be relevant.)

In the case of fully literate states with historical records, other chapters in this volume indicate, the problem scarcely arises. Rulers may be named explicitly and their promulgation law-codes, official decrees, or coinage for their domain makes its political independence a self-evident matter; its archives or exchanges of diplomatic/commercial letters likewise refer to territorial boundaries or frontier problems, thus defining the polity in relation to neighbouring polities; gravestones may declare the citizenship political affiliation of the deceased; and so on. Such types of evidence are not available for the Minoan civilisation, despite its literate status. The small corpus of written documents of Old and New Palace date involves script, hieroglyphic and Linear A, which have thus far defied complete and satisfactory decipherment. In any case, their 'evidence' and format, together with many obvious similarities to the Linear B tablets (which *can* be read), make it plain that these are laconic records of purely internal economic matters, holding out little hope of information on inter-polity relations. The Aegean civilisations, before the nineteenth century BC, are thus effectively fully prehistoric.

In the absence of political self-declaration of the sort just noted, it is tempting to infer the existence of discrete political entities from the mute data of artefact distributions and patterns of fall-off in overall similarity of cultural traits of the sort, for instance, studied by Frankel (1974) in Middle Bronze Age Cyprus. A number of cultural geographers, and some archaeologists too, have investigated the suggestion that political boundaries may act as barriers to interaction and that the edges of polities may thus be reflected in diffusion patterns (Gould 1969; Soja 1971; Hodder 1978). But here also there exist problems. Firstly, much recent work in ethnographically or historically controlled contexts has

shown that the circumstances under which political, ethnic or linguistic boundaries find clear expression in material culture are highly variable and very complex (e.g. Hodder 1977b; 1978: 199–267; 1982a; De Atley and Findlow 1984).

Secondly, it is the considerable degree of cultural homogeneity throughout Crete (and indeed beyond it), rather than marked regionalism, that is one hallmark of the Minoan civilisation at its height. Thirdly, recourse to cultural distributions carries with it the risk of circularity, by invoking the very similarities cited in a peer polity approach as evidence of interaction, in order to define the interacting units themselves. There is, after all, a paradox involved in the idea (Renfrew, this volume: Ch. 1) that interaction among peer polities accentuates the resemblances already existing among them, yet at the same time enhances their differentiation as competing units. Obviously, what is required is the development of archaeological means for detecting political or social boundaries, territoriality and ethnicity in prehistoric situations (De Atley and Findlow 1984; Green and Perlman 1985), quite independent of the 'intermediate' flows (Renfrew 1975: 18) of goods and information between hypothesised peers; historical case studies necessarily form a critical link in the development of such methods, but insufficient work has yet been done in this area (cf. Sabloff, this volume: Ch. 8).

A more useful approach to the problem is perhaps to be found in considering the closely related question of *Mykenian* (rather than Minoan) political geography, for here it becomes possible to draw not only on archaeology, but also on the Linear B tablets, on Homer and on later Greek tradition. It is a straightforward matter to plot the obvious highest-order central places of Mycenaean Greece, the palaces and fortified citadels (Hope Simpson and Dickinson 1979; Skoufopoulos 1971); this does not in itself assume that these sites and their territories are either autonomous or equivalent in status. If that assumption is allowed, then – with minor adjustments – each central place can be set in a national territory indicated by Thucydides' polygons (Fig. 2.4). Renfrew, who first conducted this exercise (1975: Fig. 3), noted that although this map is certainly an extremely crude approximation of Mycenaean political geography, no doubt distorted by missing data and false assumptions, it nevertheless clearly suggests a landscape of equivalent, relatively small territorial units. The Linear B tablets, disappointingly, seem to say nothing about relations with neighbouring polities. But in one or two cases – notably the territory in Messenia in the south-west Peloponnese controlled from the palace at Pylos – there exist sufficient topographic clues in the tablets to infer the size and extent of an evidently autonomous kingdom (Chadwick 1972; 1976; Cherry 1977), and this harmonises very well indeed with the hypothetical territory indicated for it in Fig. 2.4. It may therefore be the case that the other Mycenaean mainland centres, especially those with archives, controlled equivalent autonomous realms.

Further help is forthcoming from the Homeric 'Catalogue of Ships' in *Iliad* 2, a section of the epic poem that

lists the peoples or polities sending contingents to aid the Greek expedition against Troy (Hope Simpson and Lazenby 1970). Despite being set down in writing some centuries after the period to which ostensibly it refers, the 'Catalogue' yields a picture of the Mycenaean kingdoms (Page 1959; Hope Simpson and Lazenby 1970: Map 1) which, with some minor and interpretable exceptions, is strikingly similar, both in scale and relative disposition, to that of Fig. 2.4 (Renfrew 1977: 115–18). Whether this similarity arises from a direct and continuous oral tradition spanning the five or more centuries between the Mycenaean and Homeric worlds, or rather from some underlying processual regularities in the spatial organisation of segmentary, centralised societies in the Greek landscape, it is not possible to pursue here. The important point to emerge from the general conformity of these several sources of information is that it permits a measure of confidence in the main outlines of the political geography described elsewhere in the *Iliad* and *Odyssey* (and with which the 'Catalogue' is not significantly in conflict). Renfrew (1977: 115) characterised this as:

a patchwork of autonomous small states, governed by independent rulers (often related by kinship or marriage) sharing a common language and customs but united politically only on occasion and in a loose associative way, under the charismatic leadership of the ruler of Mycenae. His authority over the inhabitants of other states and their leaders was valid only while they were associated in a great military expedition, and there is no suggestion that he had any territorial jurisdiction over their own state: at home, but simply over their soldiery while on the expedition overseas.

The evidence from the epic, as might be expected, is not always internally consistent with this generalised picture: at one point, for instance, Homer describes Agamemnon (of Mycenae) as 'lord of all Argos and many islands'. But there is certainly no indication of a single, *permanently unified* Mycenaean state, nor yet of the Near Eastern style 'Mycenaean empire' some modern scholars have wished to imagine (cf. discussion in Betancourt 1984).

What, then, of palatial Crete? Is it appropriate to think in terms of a similar regional breakdown of the island into separate principalities? Its central places are as large and impressive as those on the mainland, and their inferred territories of comparable scale. Moreover, just as Homeric and later tradition associated specific rulers with individual sites or kingdoms (Atreus and Agamemnon at Mycenae, Heracles and Diomedes at Tiryns, Akrisios at Argos, Menelaos at Sparta, Nestor at Pylos, Odysseus at Ithaca, etc.), so too in Crete, Minos, Rhadamanthos and Sarpedon are mythical dynastic figures (also, admittedly, brothers) associated with Knossos, Phaistos and (perhaps) Khania or Mallia (Strabo X.4.8; Diodorus Siculus 5.78–9). Are there, then, any convincing arguments *against* the assertion of political independence, even if their élites were perhaps closely linked by ties of kinship or

dynastic intermarriage, as, for instance, with the Aztec or Mayan ruling lineages in Mesoamerica (Adams 1977a: 35–6, 282; Mollay and Rathje 1974)?

Some scholars have written in terms that presuppose that Knossos had control over Crete as a whole, at least at the height of the New Palace period in Late Minoan I. It is worth enumerating briefly the types of evidence that have encouraged this supposition:

- 1 The lack of city walls or other defensive works protecting rich palaces, together with the existence of undefended luxurious 'country houses' (Hood 1983), has suggested to some (including Thucydides) a *pax Minica*, possible only with political unification and centralisation; this is all the more striking in an island notorious in later times for its endemic inter-state warfare and separatist rebellions (Llewellyn Smith 1965). While there is a real contrast with the mainland, where the scale and pace of citadel fortification in the later thirteenth century BC might almost allow one to speak in terms of an 'arms race', it should be remembered that there were also major Mycenaean centres (Pylos, Orchomenos, Iolkos) apparently without fortifications.

- 2 The 'Minoanisation' of a number of islands and coastal settlements in the southern Aegean during palatial times, and especially in Late Minoan I, has been taken to imply colonisation and control from Crete; moreover, numerous Classical writers speak of Minoan naval power and colonial rule of the islands, specifically by Minos from Knossos (Starr 1955; Branigan 1981).

This tradition of a Knossian island empire, if its historicity were unquestioned, would constitute useful support for a politically unified Crete. However, the 'thalassocracy of Minos' is a concept first set down in writing many centuries later, partly to make political capital, and there are many obvious distortions and exaggerations (see papers in Hägg and Marinatos 1984). In any case, Minoanisation itself in no way necessarily implies colonisation or any form of political intervention, and either could have involved more than a single palace or polity in Crete.

- 3 In the neo-palatial period, Knossos grew to become one of the largest settlements in the Late Bronze Age Aegean, with a built-up residential area of perhaps 50 hectares including élite tombs, and residences such as the 'Little Palace', the 'Royal Villa' and the 'Unexplored Mansion'; the palace itself at this stage was almost double the size of that at Mallia and two-and-a-half times that at Phaistos (Cadogan 1976: 50–91; Hood and Smyth 1981; Hood and Taylor 1981). Such a differential might indeed imply a more than purely regional significance for Knossos. Yet Knossos, partly as a function of its exceptionally long settlement history (Evans 1971), was a precociously large site *before* any of the palaces were built (indeed, even in the Neolithic),

when there can be no question of island-wide domination (Whitelaw 1983).

4 The discovery of neo-palatial clay sealings, impressed by the same or very nearly identical seal-stones, at Knossos and at sites scattered throughout central and eastern Crete (Tylosos, Agia Triada, Sklavokampos, Gournia, Kato Zakros: Fig. 2.2), has been regarded as evidence of Knossian bureaucratic activity in the provinces on the part of officials travelling from the centre (Bettis 1967). Hood (1983: 132) goes yet further in proposing that such evidence would be unsurprising if a single Cretan ruler owned several palaces, as did pharaohs like Ramesses III or Amenhotep III in Egypt. But, obviously, links between different palaces or country houses in various parts of the island, indicated by sealings or indeed any other artefact type, could as well arise from commercial or gift-exchange relationships between wholly autonomous polities and do not *ipso facto* imply central rule.

5 For much of the palace era, Knossos can reasonably be regarded as pre-eminent in many cultural and artistic areas, such as fine pottery production, wall painting or architecture: this is understandable, given the size of the palace and the scale on which it was able to support specialised artisans and provide craft workshops. However, our chronology is insufficiently precise in most cases to be able to say with confidence whether an innovation spread from Knossos to other centres and lower-order sites, or arose simultaneously in different places. It is equally dangerous to take the finds of Knossian fine-ware pottery at other major sites both on Crete (e.g. at Agia Triada, Phaistos, Kommos, Kato Zakros) and on other islands (e.g. Kythera, Kea, Melos, Thera, Rhodes) as an instance of cultural imperialism which implies political domination: not only were transactions in many cases two-way, but styles formerly thought to be exclusively of Knossian production (e.g. the Late Minoan IB Marine Style) are now being shown to have been manufactured at other Minoan centres too (e.g. Niemeier 1979) and even abroad (e.g. Mountjoy *et al.* 1978).

It thus appears that none of these lines of argument, which have mostly been applied to the New Palace period, provides decisive indications that Minoan Crete was politically unified or that one or more large sites dominated other large sites, militarily or politically. One reason why scholars have attached special significance to Knossos is that in the late fifteenth and fourteenth centuries BC, to judge from the opoynoms in the Knossian Linear B archives (Wilson 1977), it probably *did* control a large proportion of the island and certainly seems to have been the only site functioning as a true palace at that time (Hallager 1977; Bennett, in prep). This observation, however, must be set in the more general context of the Mycenaean polities discussed above. Mycenaean Crete is a whole, with its central place at Knossos, was merely one

member of this larger group of interacting polities. On the mainland, the distribution of written documents correlates with the central places of independent principalities (Fig. 2.4), so that the occurrence of a Linear B archive at Knossos alone goes some way towards confirming that the island was organised as a single political unit at that time. In contrast, the multiplicity of Minoan sites that have produced Linear A documents (Fig. 2.9b) should imply multiple autonomous centres (although obviously not every site with tablet finds can properly be considered as the administrative centre of an independent kingdom). A similar argument could be deployed with regard to the finds of documents written in the Hieroglyphic script at each of the three Old Palaces (Fig. 2.9a).

At present, therefore, given our very limited interpretative controls, the most conservative hypothesis remains that consistently favoured by Renfrew (1972: 366–70; 1975: 14; 1977: 114; 1978b: 419–20; 1982a: 279–89), namely that each palace centre with a written archive functioned within an autonomous polity of the sort also seen on the Greek mainland a little later in Mycenaean times. The suggestion could also be extended to certain smaller-scale Minoanising island polities (Renfrew 1978b; Renfrew and Wagstaff 1982), in which the use of writing may likewise suggest the existence of an institutionalised central authority, albeit of much smaller scale (e.g. Thera, Melos, Kea, Kythera). This, of course, is not to overlook the *carver* sounded by Wiener (in press):

Whatever the case regarding central rule in LM I, it is highly unlikely that the relationship between the Minoan palaces remained constant for 500 years. If the palaces were independent at the outset, then differing effects of plague, of drought and of malaria, the accidents of individual longevity affecting rule and succession, rivalry between the palaces, and the consequences of dynastic intermarriage would likely have resulted in shifting alliances and borders and differing degrees of central authority. Palatial rule from MM IB to LM IB must have reflected not only patterns of continuity but also processes of change.

Even were it accepted that at some stage in Minoan civilisation the island as a whole were politically united, it is inherently unlikely that this came about immediately in the Old Palace era, since such a supposition would involve an implausibly massive transformation of the small-scale and relatively non-complex socio-political systems of the Cretan Early Bronze Age.

Inter-polity homologies

The preceding excursus has been necessary to demonstrate, if not the certainty, then at least the likelihood, that close cultural similarities or homologies of the sort to be discussed below did indeed arise and coexist simultaneously in more than one Minoan ESM. This is an important assumption whose validity will be accepted in the argument that follows. Much confusion in understanding the nature of political organisation in Minoan Crete has resulted from an apparent

Polities and palaces

'problem': that a number of highest-order social units in the island not only form a cultural *koine* or unified civilisation, but have some remarkably specific features in common. For this reason, indeed, most writing about Minoan archaeology is pitched at the level of the civilisation as a whole, rather than of individual polities within it. Yet it is clearly incorrect to suppose that an area of homogeneous culture reflects, or correlates exactly with, some overarching, consolidated political system. It is precisely on the existence of such exact parallels in related, but distinct, socio-political units that the peer polity approach seeks to lay emphasis. This section provides a few examples.

Two preliminary comments are necessary. Firstly, it should be remembered that, for the reasons mentioned earlier, our best evidence comes from the New Palace, rather than the Old Palace, period. In some cases, therefore, it can at present only be inferred that features seen in neo-palatial times (and the types of structures and interaction which they may be taken to imply) also existed, in the same form or to the same degree, at an earlier stage in the history of the palatial systems; this is a problem to which I shall return later.

Secondly, it is noteworthy that while instances of imitation and emulation, competition, and exchange of material goods and information can readily be seen, one class of interchange noted by Renfrew in his introductory statement (this volume: Ch. 1) and discussed more fully by Freidel in the case of the Maya (this volume: Ch. 7) is conspicuous by its absence: warfare. To some extent, the allegedly peace-loving nature of Minoan society can be seen as an instance of modern myth-making (Bintliff 1984), comparable to Rousseau's conception of the 'noble savage' or Gauguin's reaction to the cultures of Polynesia; some understandable reaction to this view has now begun (e.g. Alexiou 1979; Walberg 1983: 151–2). Yet it remains true that the sorts of hostilities between rival warring city states, so characteristic in later Greek history, are hard to see in the Minoan world—no walled cities or fortified citadels with provision for siege warfare, no defensive earthworks or border fortifications, little military equipment or evidence for standing armies, few burials with traumatic injuries, and so on. This contrasts sharply with the militaristic character of the Mycenaean kingdoms. In Crete, one can speak in terms of 'warrior aristocracies' (Renfrew 1972: 390–9; Hood and de Jong 1952) only in the later phase of the Late Bronze Age when the island was under strong Mycenaean influence/ control. The naval power of King Minos, remembered in later tradition, may well have deterred enemies elsewhere in the Aegean, but it cannot account for the lack of *internal* evidence for the military expansionism and exercise of naked force seen in nearly all early states (Clausen and Skalnik 1978). It may be suspected that the archaeological record has more to reveal here.

Palatial design and layout

The twentieth century BC saw the appearance, in several

regions of Crete, of complex monumental buildings (i.e. palaces) of closely similar form (Fig. 2.3), the material embodiment of radically new institutional features and major changes in the organisational basis of Minoan society (Graham 1969; Cadogan 1976; Shaw 1973a). Precise parallels exist between them not only in terms of overall conception (as large, multi-storied blocks of rooms ranged around an open, central, porticoed courtyard, with a further courtyard to the west), but also in technical innovations (e.g. the extensive use of large sawn ashlar blocks, downward-tapering columns), in characteristic architectural design features (e.g. pier-and-door partitions, light wells, lustral basins, monumental stairways, major public rooms on upper floors, etc.), and in functional arrangements (e.g. substantial provision for storage, craft workshops, ritual areas along the west side of the central court, archive rooms, etc.). Some of these features can be seen as a response to a mixture of functional requirements which also find expression in other Near Eastern palaces of the second millennium BC (Graham 1964; Hagg and Marinatos, in press), although strenuous efforts have been made—with some success—to find a purely Minoan pre-palatial ancestry for certain elements (e.g. Branigan 1970; Press 1973; Zois 1982; Warren, in press).

Such similarities in *individual elements* appear all the more impressive when one considers the very considerable differences, from site to site, in the detailed treatment of the *overall design* of the palaces, which show sprawling structures revolved about the central court in a manner quite distinct from the highly regular plans of many Egyptian and Mesopotamian palaces, such as Tell el Amarna or Mari (Graham 1969: Figs 148–9). Moreover, recent improvements in knowledge of the form of the first palaces have shown that each developed architecturally in its own locally distinct way, although much is still conjecture. For instance, the earliest monumental construction at Knossos, at the end of MM IA, includes features such as the original outer walls and the deep pits of the north-west area (Pendlebury 1939: 36–7), which, together with earlier features, partially define the size, shape and orientation of the palace in its later form; this includes the central court, itself an Old Palace feature, as also at Phaistos (Levi 1976: Pls B and C), Mallia (Pelon 1982–3) and Kato Zakros (Platon 1974: 222–6), though in this last case it forms part of a substantial complex aligned quite differently from the later palace. Phaistos has revealed a complex sequence (Fiandra 1961–2), indicating the development during MM IB–II of a central court with blocks of storage and cult rooms in the west wing, which has a most impressive west façade against another paved court; elements such as storage magazines and rooms for cult purposes are early features, better understood here than elsewhere. Mallia is very different again. The earlier palace is poorly understood, although recent excavations have revealed monumental architecture and cult areas beneath the later Quarters III and IV. Elsewhere at the site there are impressive houses of MM IA–B date, and further to the west there existed separate major 'public' buildings such

the 'agora', the 'hypostyle crypt' and Quartier Mu—the latter a large, multi-storied complex of MM II date containing lateral features such as a paved court, a shrine, lustral basins, storerooms, craft workshops, and written clay documents. One is the impression that at Mallia all the functions of a palace were served from an early stage in scattered blocks of buildings which were not brought within a unified architectural frame until rather later. All the palaces, moreover, seem to have developed as central features in what were already relatively large and complex settlements (Whitlaw 1983).

Several general points emerge from these data. Each palace followed its own distinctive developmental course: they are not repetitions of some formal design copied from (or imposed by) some single centre on Crete, or derived directly from Near Eastern prototypes. Given our present coarse chronological control, monumental architectural expression is the concept of the palace appears at essentially the same time in several sites spread widely throughout the island. This in turn applies with equal force to individual elements within a unit: at overall concept—the Minoan column, for instance, was present by MM II at Knossos, Phaistos and Mallia (Warren, in *ess.* n. 13). Nevertheless, there exists such a multitude of tailored points of similarity linking the palaces in separate sites that it becomes very difficult to imagine how such a 'cumstance might have arisen, except under conditions of sustained and intensive interaction between them throughout a period of their emergence. Such homologies, moreover, are not only of a generic kind, but extend also to parallels of extraordinarily precise nature. Two examples will illustrate the point.

Casual inspection of the plans of the new palaces shows that their central courts are in each case of rectangular shape, with the long axis oriented approximately north-south. This strikingly similar orientation has been studied by Marinatos (1934) and, more recently, by Shaw (1973b), whose careful measurements show that the three larger palaces are aligned within 15° of each other and slightly east of true (Polaris) north (Fig. 2.5). Kato Zakros, a smaller, and for the most part later, foundation, has a rather more easterly alignment. These parallels take on added significance, as Shaw (1973b: 3) notes, because the Old Palaces (or fragments of their plans) have exactly similar orientations, while earlier non-palatial buildings on the same sites are laid out quite differently from the later palatial establishments superimposed on them. The use of such a uniform convention is immediately reminiscent of the extremely accurate orientation, to the cardinal points, of the corners or sides of many religious buildings in Mesopotamia and Egypt, where later texts reveal the ritual importance of astronomical sightings in laying-out ceremonies (e.g. Edwards 1961: 254–96). Shaw prefers to see the east-west, rather than north-south, alignment of the Minoan palaces as significant and possibly connected with



Fig. 2.6. View of the central court at the palace of Phaistos looking north to the twin peaks of Mount Ida, immediately below which lies the Kamarias Cave (reproduced by permission of H. M. Verlaque).

in both the Old and New Palace periods. Graham (1960: 1969: 222–9) advanced the suggestion that the palaces reflected the use of a foot, valued at 30.36 cm, as the unit of linear measure. His careful measurements of certain symmetrically arranged architectural details (e.g. the exterior west façade at Phaistos in both its Old and New Palace versions) convinced him that both they and many of the longer dimensions of palace layout were regularly planned around a system of proportional whole numbers of 'Minoan feet' (Fig. 2.7). The evidence for the existence of some such latent unit of mensuration appeared to be placed on a firmer basis with the discovery that the principal dimensions of the central court at Kato Zakros (excavated after Graham's proposal was first published) could be interpreted as 100 × 40 Minoan feet (Graham 1969: xi–xii). A recent 'quantum-hunting' computer study (Cherry 1983b) has shown that the strictly statistical support for a 30.36 cm foot is weaker than Graham supposed, although there is good evidence for some latent unit. Moreover, even if there were no highly accurate unit in use throughout Minoan Crete, but rather some inherently variable standard (for instance one related to a measure taken from

the human body), there remain unambiguous signs of a widespread concern for measured symmetry and proportionality in both minor and major aspects of palatial design from the very beginning in all the palaces. This is not merely 'the archaeological evidence for deliberate action carried out to a preconceived design' (Renfrew 1982b: 21), with all the cognitive implications that carries with it, but a developed symbolic system shared by several polities. Once again, our chronology does not permit a clear view on whether or not such a system did develop in one centre first, from which it was subsequently transmitted to others, perhaps by the process which Renfrew has termed 'symbolic entrainment'; still, one may readily imagine how the prestige and efficiency of the successful development and application of such a system in one palatial polity might facilitate or even sanction its acceptance in others.

The ideology of peak sanctuaries

One of the most striking features of the archaeology of the Old Palace period is the sudden proliferation in MM I of a new class of site: the so-called 'peak-top sanctuary'. These

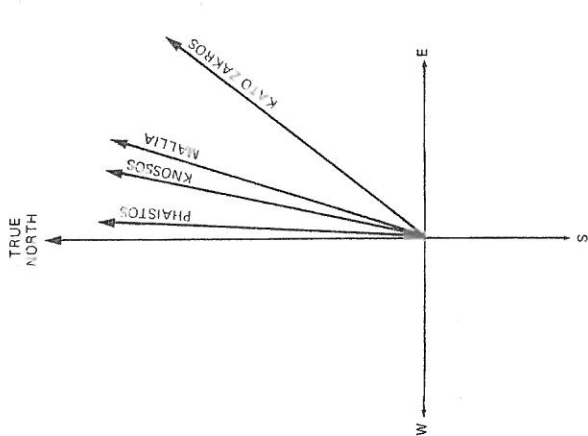


Fig. 2.5. Comparison of the orientations of the central courts of the palaces at Knossos, Phaistos, Mallia and Kato Zakros (after Shaw 1973b: Fig. 1).

illumination by the rising sun of the east-facing ritual rooms along the west side of the central court. There is the further factor (discussed below) that the palace orientations, certainly at Knossos and Phaistos (Fig. 2.6), and possibly at the other palaces and some non-palatial sites, too, are to be associated in a general way with sacred mountains on the island, north or south (Mt Iuktas, Mt Ida). All these interpretations stress the role of architectural forms and their placement in space as an embodiment of a particular world view, of some ideational system—architectural design, that is, as shared information. A growing literature on the symmetrical and cosmological ordering of site plans or site distributions, seen as complex symbolic systems, provides examples as scattered as the Maya (Marcus 1973; 1976), the prehistoric pueblos of the American Southwest (Fritz 1978; Lekson 1981), and early historic Chinese cities (Wheatley 1971). What is significant in the present context, of course, is the inference that the same ideational system or belief structure found simultaneous expression in several discrete Minoan polities, and from the earliest stage in their existence.

The second example also concerns an aspect of palatial design and, once again, the evidence relates to all the palaces



Fig. 2.8. The distribution in Crete of sites claimed to be peak sanctuaries. The larger dots indicate those sites which are definite or very probable (after Peatfield 1983: Fig. 1).

worshipped by animals or humans on mountain peaks; and, in the miniature frescoes at Akrotiri on Thera, an apparent depiction of worshippers ascending to a Minivan-type mountain shrine (Nilsson 1950: 358–62, Marinatos 1974: Colour Pl. 9).

suggested that this peak–palace nexus reflects a deliberate attempt by the political and economic special interest groups in Miaoan politics to consolidate their power by the communal performance of ritual activities revolving around unverifiable sacred propositions. Other writers too (e.g. Bantliff 1977), noting parallels of more recent date in Greek Orthodox religion, have stressed the integrative role of peak sanctuaries and discussed the ways in which common symbols made visible in ritual might serve to unify an increasingly hierarchically organised society. As Wheatley (1971: 315–16), writing of early Chinese history, puts the matter:

own social position, but also as a primary instrument for the achievement of autonomous political goals beyond the ethical conceptions of an ascriptively organized society, and for the validation of a concentration of power beyond that sanctioned by the moral order of a folk community . . . Palaces and tombs, and many more besides, are eloquent testimony to the massive concentrations of social and political power commanded by monarchs invoking sacrally sanctioned authority in the pursuit of essentially secular goals.

There can be no doubt, as for instance Coe (1981) and Keatinge (1981) have recently emphasised, that religious sanctions and ideology, in the absence of naked coercive force in early state societies, offered a primary means for the development of political centralisation—what Claessen and Skalnik (1978: 615) have termed 'the Functional Principle of Legitimation'. What is important here, however, is that *a number* of centralised polities emerged simultaneously in Minoan Crete, and that they were united by participation in a belief structure existing at a scale *larger than any one of them* (and not obviously emanating from any single religious centre). It is difficult to understand how such a circumstance

the ritual areas, located on or near the summits of mountain hill-tops with commanding views, in which are regularly placed, and thick layers of greasy ash from sacrificial bonfires, large numbers of whole or fragmentary small-scale votive objects, and a relatively rare and late feature – the remains of stone-built structures ranging from enclosure walls to elaborate multi-roomed structures (Rutkowski 1972: 132–133; Peatfield 1983; in press). Fieldwork, especially since the 1950s, has produced an island-wide distribution of over fifty certain or probable sanctuaries (Fig. 2.8). Only a small proportion of these has been excavated, but surface material indicates clearly that most were established in MM I, remained in use throughout the MM period, and came to an end soon after the close of the Middle Bronze Age. Late Mincoan finds are scarce and mostly of LM I date (Cherry J.F. 1978: 429 and Fig. 1; Peatfield, in press). There is thus a chronological

An important aspect of the archaeology of Minoan peak sanctuaries is the close correspondence in the types of objects found at widely separated sites. Clay figurines form by far the commonest class of object, both miniature and large in size, whole and fragmentary (with representations of parts of bodies, such as heads, arms and legs). Both humans and animals are represented, the latter including not only the full range of domesticates (especially bovids and ovicaprids), but also tortoises, fish, birds, beetles, lions and other less readily identifiable creatures. Clay or stone vases, particularly cups or miniatures, occur frequently, together with objects such as bronze tools or weapons, whetstones, lamps, small clay balls, altars or offering tables, double axes, horns of consecration.

might have arisen in the absence of sustained and intensive interaction among them.

Writing systems

The development of literacy in early states allowed humans to share and transmit information over space and rough time, independent of an oral context. Despite the fact that only a tiny percentage of the population was literate, literacy nonetheless effected radical transformations, since those few who could read and write were primarily responsible for programming the activity of their societies. The relationship between state formation and the development of written script is not coincidental: access to large bodies of information lengthens the focal position of central persons, increases their powers of organisational control, and may imbue those who can write with a certain mystical power.

As with other significant technological changes, such as agricultural or metallurgical 'revolutions', the widespread adoption of an organised and accepted system of writing is

often preceded by a significant period of invention,

experimentation and development (Renfrew 1978c): such is certainly the case in the Aegean and southern Balkans. A wide variety of incised or impressed marks or signs on third-millennium-BC sealstones, clay sealings, spindle whorls and pottery vessels testifies to the local use of idiosyncratic systems of signification, if not of writing proper (Renfrew 1972: 411–12). Pottery marks have not received the attention they deserve, but the best recent studies (e.g. Bikaki 1984) confirm earlier suggestions that they have a long history leading to an apogee in the Middle Bronze Age, at just the time when true writing was developing in Crete.

In Crete itself, there is considerable evidence (Brannigan 1969) for the use of meaningful notations during the pre-traced pre-palatial period, some of them clearly ancestral to ideograms employed in the more systematic writing systems of the Middle and Late Bronze Age (Brannigan 1965). However, the written documents of the Old Palace period are themselves a complex matter, since they are short in length, few in



Fig. 2.9. The distribution in Crete of inscriptions in (a) the Hieroglyphic script, and (b) Linear A. In (b), filled circles denote finds of archival material, stars finds of non-archival material, stars within circle finds of both types at a single site, the larger symbols represent sites where major archives have come to light.

number, undeciphered, and evidently represent several systems in simultaneous use. Despite these overwhelming difficulties, it is quite clear that writing was extremely limited in extent (being confined almost entirely to palace contexts) and restricted in its use to three main areas: (i) recording economic data for administrative purposes, (ii) marking commodities with an indication of their origin, nature, destination or ownership, and (iii) brief ritual or religious inscriptions. The confinement of literacy to the palaces and its use as part of a bureaucratic system of palatial economic organisation puts Minoan practice in generic relationship with that of the Near East (Fiandra 1975). But the specific sequence of development in the Minoan polities is worth further attention.

The earliest true script, the Hieroglyphic, is found only at Knossos, Phaistos and Mallia (Fig. 2.9a) and is characterised—as the name implies—by very short texts (Fig. 2.10) employing pictorial signs and a decimal system of numerals inscribed on three- or four-sided seals and their sealings, as well as a few clay tablets and labels (Evans 1909). Notwithstanding its extreme simplicity, it had a long history, beginning early in MM I and continuing in use until MM IIB (i.e. about half a millennium), although the first group of what might be called texts—the Hieroglyphic Deposit from Knossos—is dated towards the end of the Middle Minoan

period, when it is possible to detect a more developed version of the script. As Fig. 2.10 shows, there are some precise parallels in the forms of signs used in each of the palaces. During the period of the script's use, however, there were clearly other systems in operation. The most famous, but also the most puzzling, is the 'Phaistos disc', found in the north part of the palace in a MM IIB context; its clay, as well as the unique arrangement of 45 different stamped signs arranged in a retrograde spiraliform pattern, indicate that the piece is almost certainly an import, although similar signs, possibly evidence of the same script, have been found on a bronze axe from the Arkalohori Cave in east-central Crete. Earlier, and more useful, evidence is provided by the huge series of nearly 3,000 clay sealings of MM IB/IIA date from Phaistos (Levi 1958; Fiandra 1968), which reveals a notational system which is not only distinctive and coherent, but whose signs display affinities with the early Hieroglyphic script, with Early Minoan sealstones, and with Linear A itself.

The majority of the Linear A documents (Figs. 2.9b, 2.11) are of New Palace date, but the discovery of early Linear A texts in the ruins of the first palace at Phaistos has pushed back the date of this script's first appearance to MM IIA, or even MM IB. This means that it may be almost as old as

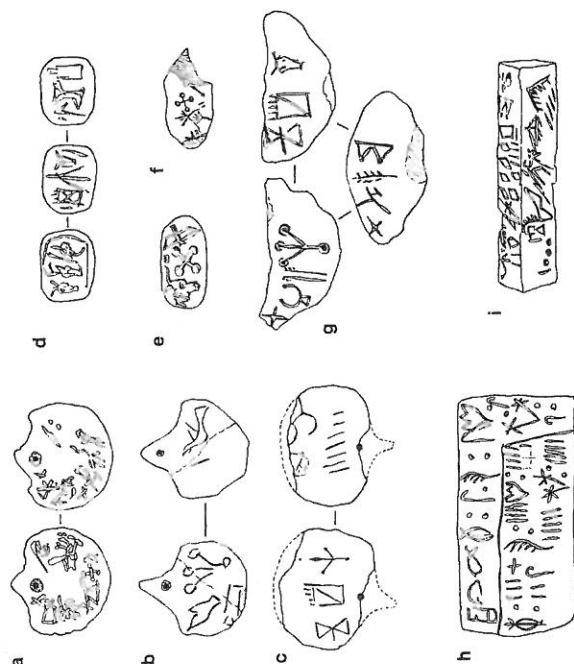
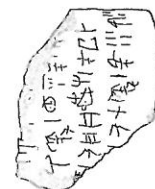


Fig. 2.10. Hieroglyphic inscriptions from proto-palatial Knossos, Phaistos and Mallia: (a)–(c) clay labels or 'roundels'; (d) and (e) sealstones; (f) and (g) clay sealings; (h) clay tablet; (i) clay bar; (a), (d), (g) and (i) are from Knossos; (b)–(e) from Mallia; (h) from Phaistos. Note the close similarity of pictorial signs used on different media and at different sites (after Evans 1921: Fig. 208; Chuppoutier 1930: 18, 20; Evans 1909: 164; Ventris and Chadwick 1973: Fig. 5).



eroglyphic itself and did not develop from it, despite the resemblance of almost a third of the Linear A sign forms to those occurring in Hieroglyphic; certainly the two systems are in use concurrently. Linear A, however, is more enveloped, in that it uses a syllabary of c. 85 signs with extensive use of ligatures; it is graphic in character, is read formally from left to right, and never appears on sealstones. Texts on clay tablets have now been found at 13 sites (including two outside Crete), with major archives at Agia Triada, Kania, Phaistos and Kato Zakros, and, when other sites of inscription are taken into account, the total number of find-spots stands at almost 30 (Fig. 2.9b). What might readily be described as 'archival' inscriptions (i.e. those on tablets, nodules, roundels, or sealings) occur at all the palaces except at a few second-order sites, such as villas (e.g. Agia Triada, Agos and Tyllisso) or towns with quasi-palatial features (e.g. Chania, Gournia, and Palaikastro), indicating the extension of bureaucratic procedures a little way beyond the confines of the palaces themselves. The remaining inscriptions exist on a startlingly wide range of materials: on libation tables, a door-bell, and spoon-shaped ladles of stone; on a gold ring, silver gold pins, and a miniature gold axe; on a bowl, a tablet, several ingots of bronze; on lead weights; incised on pottery vessels and on stucco; and written in cursive ink on the inside of a clay cup. Such non-archival inscriptions are usually very short and occur on objects or in contexts of a domestic nature, such as peak sanctuaries, sacred caves or tombs. Even from such a sketchy summary of the data, several

A related example will serve to emphasise this point.

	MALLIA	PHALISTOS	
i			10, 6
ii			11
iii			5, 27, 2
iv/v			13, 14, 22, 23, 28
vi			8
vii			32, 33, 34
viii			7, 26
ix			29, 30, 19
x			16, 17, 1

Scattered throughout the four excavated palaces, and also within at least a dozen other sites, are found signs cut into the surfaces of architectural blocks (Fig. 2.12). By analogy with the practice in later Classical times, these are known as 'mason's marks', although there is no real evidence that their function was as guides for the placement and orientation of the blocks on which they are cut. In fact their interpretation is problematic (Shaw 1973a: 109–11; Sakellarakis 1967), since for the most part there seems to be no logic governing the frequency and distribution of different symbols on a single block, within a room, or even within an entire palace, and in some cases the marks could not have been visible at all once the building was complete. The marks themselves, of which some 600 are known at Knossos and 300 at Phaistos, are quite simple—star, cross, trident, double axe, branch, thunderbolt and other less easily describable forms—and cannot be considered as writing in the true sense of the word, despite some resemblances to Linear A and B (Ventris and Chadwick 1973: 29). Nonetheless, they have a history equally as long as the writing systems discussed above (MM 1–LM 1) and a comparable pattern of distribution. For present purposes, therefore, their function (probably religious, but likely to remain enigmatic) is a side issue. The important point is that, despite the greater popularity of some marks at certain sites, or the obvious inconsistencies in their size and shape even within the same site, mason's marks are consistently the same wherever they occur. Thus, it can be asserted confidently that they reflect a system of signification to which *several* polities subscribed, apparently from the very outset of the palatial era.

Many recent archaeological studies serve to illustrate the mutually reinforcing relationship between an increased flow in the exchange of goods and information on the one hand, and

An excellent example is afforded by pottery production in the Old Palaces, which has been the subject of recent detailed study (Andreou 1978; Walberg 1976; 1978; 1983). Distinctive, wheel-thrown pottery with polychrome, curvilinear decorative motifs was first discovered in quantity before the turn of the century at the sacred cave called Kamares, just below the horn-like twin peaks of Mt Ida, which are clearly visible from the central court at Phaistos; shortly thereafter, it was realised that this 'Kamares ware' is the quintessential fine ceramic type throughout the Old Palace period (Fig. 2.13). Andreou's careful study of closed pottery deposits from a number of central and east Cretan sites has

elucidated the development of several local traditions, in the context of which Kamares pottery represents the special development of certain features whose origins go back to the (pre-palatial) EM III and MM IA periods. In MM IA (Walberg's pre-Kamare phase), there begins the use of white and red/orange polychrome in a light-on-dark style, experimentation with a peculiar form of relief decoration known as 'barbotine', an increase in curvilinear motifs, and a greater degree of regionalisation of ceramic style. Some MM IA pottery, or imitations of it, occurs at coastal sites of the eastern Greek mainland—virtually the first Minoan material discovered abroad.

It is in MM IB, however, contemporary with the establishment of the first certain palaces, that decisive developments took place. Of these, the most significant is the introduction, after more than four millennia of hand-made pottery, of the fast wheel, allowing the creation of sophisticated shapes, standardisation and mass production. Marginally later, in the early eighteenth century BC, comes the development of 'egg-shell' Kamares, a ware with walls so thin that it was probably mould- rather than wheel-made, perhaps in imitation of precious metal vessels (as other features such as crinkled rims, central bosses, clay 'rivets' and a high black-gloss finish also imply). Polychrome decoration becomes more complex, as also does the syntax of motifs, which include spirals, curves, trifolys, penicils and other stylised plant designs (Walberg 1978). New shapes were introduced, for instance the hemispherical and carinated bowls, the Keftria cup and the bridge-spouted jar, which retained their popularity throughout the remainder of the Minoan civilisation. In short, ceramics became a major art form, attaining a level of technical and artistic excellence scarcely equalled at any later stage in the Aegean Bronze Age. Such may also have been the opinion at the time, for finest-quality Kamares ware pottery is found from the MM IB period as imports at a number of sites in the Cyclades, the Dodecanese, coastal western Anatolia, Cyprus, the Levant and Egypt (Kemp and Merrillees 1980): 'It was the finest pottery of its time in the whole East Mediterranean' (Cadogan 1976: 31).

It was also an exclusively elite style, extremely rare in Crete outside the palaces, except in certain cult contexts such as the Kamarets Cave itself. As Walberg (1976: 126) notes: 'The Kamarets style is a sophisticated palatial style and could only have been produced in the social surroundings of the palaces. Their organisation and economy could give the potters and painters opportunities of specialising and experimenting and relieved them of the need to devote themselves to dull mass production.'

Indeed, she remarks (1976: 21) that there are far more individual variations of shape and decoration than in other classes of pottery, so that it is practically impossible to find two exactly identical specimens. Furthermore, although few scientific provenance analyses have been carried out and other ceramic production centres of 'palatial' character may have existed, it seems quite clear on present evidence that true

Kamarets pottery was an exclusive product of workshops at Knossos and Phaistos. Very significantly, neither site can be regarded as the originator of the style: it emerged with the palaces themselves *in more than one polity*.

Identifiable exports of Knossian/Phaistian Kamarets ware, other than those found abroad (as noted above), are extremely rare, occurring at present on no more than a handful of sites (Walberg 1983: 90, 96, 112, 130–1). On the other hand, provincial Minoan sites, particularly in south and east Crete, yield plentiful imitations of Kamarets pottery, although this influence is mostly apparent in specific motifs (e.g. at Mallia, radiating and whirling patterns, antithetic J-spirals (Walberg 1983: 68)) or in details of shape and design, and it does not change the character of the various local styles. This is a point of great interest in itself. In MM IIA/B, there is a strong contrast between the uniformity of Classical Kamarets pottery from Knossos and Phaistos and the regional heterogeneity of close provincial imitations of it, from Khamla in the west to Palaikastro in the east. This applies even to another of the palaces, Mallia, where pottery from MM II Quarter Mu

is similar to Classical Kamarets pottery from Knossos and Phaistos, but has at the same time a clearly different character. The style could only have been created in a workshop where the Kamarets style from Knossos and Phaistos was known. It is, however, not merely an imitation, but an independent creation, which has to be analysed and distinguished from Kamarets' (Walberg 1983: 2).

At Kato Zakros, in the extreme east, it is apparently not until a late stage (MM IIB) that there occurs pottery in styles recalling Kamarets. Indeed, Walberg (1983: 151) comments that there is a marked progression from considerable regional differentiation of pottery styles in MM I to great stylistic uniformity at the end of the Middle Minoan period, as purely provincial production came increasingly under the influence of Kamarets-inspired shapes, motifs and decorative syntax: by MM III, it is 'not necessary to distinguish between palatial and provincial pottery' (ibid.).

These data are complex and not yet fully worked out, but several important conclusions emerge. At the time of the construction of the palaces at Knossos and Phaistos, a distinct palatial pottery style was developed, drawing extensively on existing features traceable back to the Early Minoan period, but exploiting the opportunities for experimentation possible in palace workshops and exploring new technological devices such as the fast wheel, polychrome, moulding and relief. That Kamarets ware was a truly elite style is indicated in several ways: by the restriction of its production to palace workshops, by its relationships to precious metal vessels (known to have had significance as prestige gifts and items of standardised value in Near Eastern societies), by its very limited distribution at other Minoan sites, and by its widespread occurrence as luxury exchange items abroad. The style was one to be emulated: elements of it were rapidly copied in other production

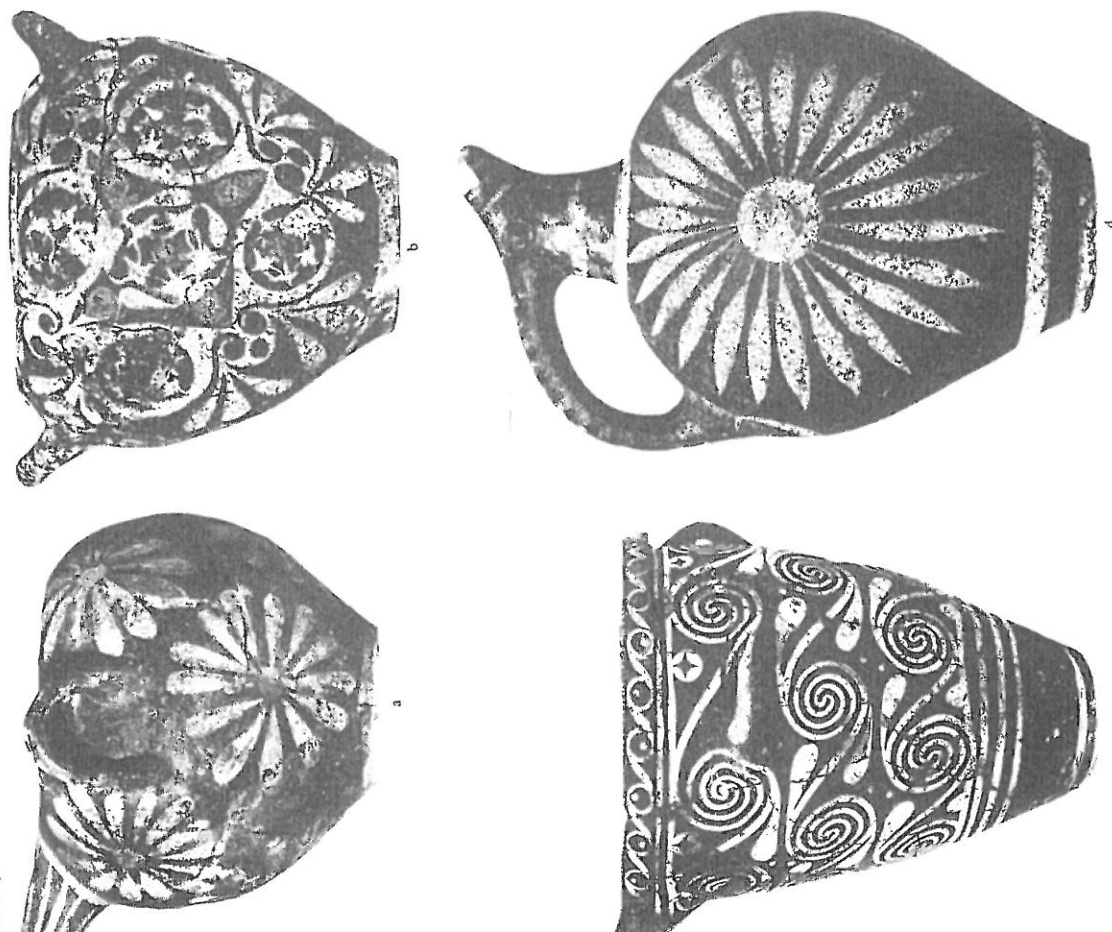


Fig. 2.13. Examples of Kamarets pottery from various sites in Crete: (a) Kamarets Cave, bridge-spouted jar; (b) Knossos, bridge-spouted jar; (c) Phaistos, pithos; (d) Phaistos, beaked jug (photographs courtesy of the Museum of Classical Archaeology, Cambridge University).

centres, including palatial ones, so that by the end of the Old Palaces the saturating inspiration of Kamares had largely broken down the regional distinctions visible in the pottery of two or three centuries earlier, a change which resulted in the stylistic *zoïre* we think of as so characteristic of the Minoan civilisation. Much the same pattern, incidentally, can be observed at later stages of Aegean culture history, for instance with the LM IB Marine Style or the LM II Palace Style. And by the developed Mycenaean Age (Late Helladic IIIA/B), similar processes of stylistic interaction between independent polities spread over a far wider geographical range led to a quite extraordinary uniformity in pottery production from southern Italy to the Levant (even when allowance is made for regional variability in the relative popularity of shapes and decorative motifs).

External interactions and the Near Eastern connection

The main thrust of this paper so far has been to present detailed arguments in support of two main propositions. The first is that there coexisted in Minoan Crete—probably during the Old Palace, and possibly also in the New Palace period—a number of regional political units of the sort Renfrew has termed 'early state modules'. These seem to have emerged at approximately the same time and to reflect closely comparable organisational systems (although the detailed trajectories of local political development in each case may well have been rather different, as contrasts in the patterns and rates of development of the palatial centres themselves perhaps imply). As we lack good evidence for the existence of any overarching political control or for relations of dominance and subordination among these regional units, it is appropriate to examine them as 'peer polities'. The second proposition is that they were bound together and developed in a nexus of mutual interaction, since they exhibit a number of extremely specific homologous features in areas as diverse as architectural design, mensuration, writing and other notational devices, ceramic style, and ritual systems. This list by no means exhausts the cases where an analysis in these terms could be possible: the manufacture of sealstones, fine stone vessels, or human and animal figurines; craftsmanship in materials such as ivory, faience and metal; the use of a common system of weight measurement; mortuary practice and especially the development and spread of the chamber tomb; domestic architecture; the regional structure and hierarchical organisation of settlement systems; details of bureaucratic procedure; many aspects of religious ideology and the material provision for ritual practice, both in palatial and non-palatial contexts—these are just some of the further instances in which it is possible to document striking commonalities at a scale greater than the individual polity. The examples discussed in the previous section have been chosen particularly clear-cut cases, where the homologies in question can, for the most part, be referred to the earliest ages in the history of palatial culture and where no individual polity can be singled out as the originator.

Taken together, these two propositions provide strong empirical support for the sorts of process argued, at a theoretical level, by Renfrew in the preceding chapter. If it can be accepted that several autonomous polities existed in Minoan Crete, then the shared elements among them, at various levels of specificity, scarcely allow their development in splendid isolation as a realistic idea. It has to be supposed that their nature—indeed, their very emergence—was conditioned by intermediate-scale symbolic interchanges and by flows of information between them, even though evidence for the inter-regional movement of material commodities among polities is thin on the ground. As Renfrew (this volume: Ch. 1) has emphasised, the appropriate locus of analysis and explanation is the cultural emulation and political competition taking place beyond the polity level within the larger unit comprising loosely related yet politically independent interacting groups.

The sceptical reader may well see this as unsurprising. After all, has not most previous analysis been conducted at the level of Minoan civilisation as a whole? And who has seriously sought to maintain that different parts of Crete controlled from palatial centres were *not* in sustained contact and that such contacts helped determine the overall nature of Minoan culture? These are perfectly valid points, of course. Much of the literature on Minoan archaeology, however, readily assumes that Crete was ethnically, linguistically and, to a large extent, culturally differentiated from its neighbours for centuries or millennia before the palatial era: it therefore often tries to interpret palatial civilisation itself as governed by these pre-existing ethnic and linguistic affiliations, seeing it as the product of distinctively Minoan ways of doing things or of 'the Minoan genius'. The present approach reverses the analysis by seeking to identify some specific, archaeologically visible processes of interaction, within the area of Minoan civilisation, which could have generated such a homogeneous culture and fostered an ethnicity which transcended political divisions. In other words, it lays emphasis not on some quasi-psychological appeal to the *uniqueness* of the Minoan personality, but rather on a specific class of interactions *generalisable to other comparable contexts*.

To this our sceptic might respond that it is merely an assumption that the structural homologies and organisational transformations in question resulted from interaction between polities within Crete: why could they not be the outcome of repeated and analogous responses to a single outside stimulus? Specifically, what about the influence of the Near East? Renfrew has already commented, in the previous chapter, on the general weaknesses of both purely endogenous and purely exogenous models of change. There is no need to dwell here on the problems associated with the former—that is, with an interaction model at the scale of the isolated, individual polity, emphasising microecological diversity and focusing on transformations brought about by interchanges between a

central place and its hinterland and by the dynamics of feedback within the system (Renfrew 1972). Such voluntaristic benefit models have received much critical comment, both in an Aegean context (Renfrew and Wagstaff 1982: 279–89; Cherry 1984) and more widely (e.g. Gilman 1981), and seem unlikely to be able to explain the sorts of phenomena we have in view here at the multi-polity level. External contacts, however, merit closer consideration, since they have formed such an important component in accounts of the rise of palatial civilisation on Crete for most of this century. Does the adoption of a peer polity approach entail denying the importance, or even the existence, of any stimulus from abroad on local Cretan political intensification?

So far as connections between Crete and the rest of the Aegean in the later Early Bronze Age and the Old Palace period are concerned, the situation depicted by Renfrew in *The Emergence of Civilisation* (1972: 89, 94, 449–60) has not been much modified by subsequent discoveries and analysis (see Rutter and Zerner (1984) and Stucynski (1982) for more recent listings). Significant quantities of Minoan material (mostly pottery) outside Crete begin to be found from the MM IB period, although the pervasive Minoanisation of the south Aegean, reflecting the cultural dominance of palatial societies, is largely a New Palace phenomenon; only relatively slight amounts of MM IA pottery have turned up, at sites on the east Greek mainland and in the east Aegean islands. For the third millennium BC, the evidence is much more exiguous and does not indicate any sustained strong influence on Crete from any other part of the Aegean. Cretan interaction with the Greek mainland in pre-palatial times, for instance, is documented at present merely by three sealstones and a few fragments of painted pottery, themselves quite possibly exchanged via intermediaries in the Cycladic islands. Not surprisingly, it is with the culture area closest to hand, namely the Cyclades, that the closest links seem to have existed: Cretan imitations or imports of Grotta-Pelos bottles (Renfrew 1972: Pl. 5) take the relationship as far as the Early Bronze I period, while later in the third millennium BC the quantity of finds of Cycladic character at sites on the north coast of central and eastern Crete has even led some scholars to propose the presence of Cycladic settlers on the island. Such evidence, however, must be considered in the larger context of the Aegean-wide interactions in the mid-third millennium BC, reflecting what Renfrew (1972: 454 and Fig. 20.5 (cf. this volume: Fig. 1.13)) has termed the 'international spirit' of the time. The complex web of short-haul sea-routes linking different regions of the Aegean coasts and islands certainly resulted in the vigorous adoption at many small and independent sites of new technologies, materials and styles, with important consequences for economic and socio-political development. This is clearly one aspect of the background to state formation in Crete. Yet no single region—and certainly not Crete—was pre-eminent economically or more complex than the others in institutional terms. Nor is there anything specifically Cycladic in the character of the Old Palaces. And,

most important of all, it is Crete, and Crete alone, among these regions which had earlier been in interaction, that forged ahead in the first centuries of the second millennium. There is, in short, no reason to consider the parallel developments in the early palaces as a common response to the stimulus of external contacts with other parts of the Aegean.

When we turn to the Near East, the picture is rather different and more complicated. On the basis of present evidence, it can be stated flatly that there is no early Bronze Age Minoan material—indeed, no Aegean material at all—from Sumner, the Levant or Egypt, nor have undoubted Near Eastern or Egyptian finds yet come to light in Early Bronze Age contexts in mainland Greece or the islands. Only in Crete are objects of certain or possible Near Eastern manufacture and third millennium BC date found, but these are beset with interpretative and chronological difficulties. They include Pre-dynastic to First Intermediate period Egyptian stone bowls (it is not certain that any of them were imported to Crete at the time of their flouting in Egypt); ivory seals and amulets (some of them have proved to be of bone, antler, or boat's tusk); beads and a bowl of faience (the date of the inception of Minoan faience manufacture is unclear); and exotic stones such as amethyst or Cappadocian obsidian (not necessarily obtained direct from their sources). Quantitatively, this material is slight. Moreover, much of it comes from contexts either chronologically confused or still receiving deposits of materials well into the Old Palace period.

Even if we ignore these difficulties, it remains the case that the evidence for Minoan interaction with the Near East before the Old Palaces came into existence is minimal. Branigan (1973), in a striking revision of his earlier (1970) views, has argued convincingly that there were no definite contacts between Early Minoan Crete and Old Kingdom Egypt. Some links between Crete, Cyprus and coastal Syria are hinted at by the identification of Minoan dagger types from Laphthos and Vounous in Cyprus (Branigan 1968: 61), probable Byblite metalwork in Cyprus and Crete (Branigan 1966), two EM III/MM I vases in Cyprus (Catling and Karageorghis 1960), and an Early Cypriot III vase in an EM III/MM IA context at Knossos (Catling and MacGillivray 1984); but these are merely straws in the wind. For those unfamiliar with the history of Minoan scholarship, it is worth stressing how much current views of the matter—including some which in my view are inflated (e.g. Warren 1981)—differ from the diffusionist ideas of earlier generations, who regarded it as almost self-evident that the rise of palatial civilisation on Crete was attributable to intense foreign influence from Egypt and the Levant during pre-palatial times, and even wrote of Egyptian colonists and Minoan ambassadors in foreign ports (e.g. Evans 1921: 14–20, 75–93, 122–6, 286–300; Xanthoudides 1924: 128–32; Pendlebury 1939; Childe 1957).

On the other hand, enough evidence exists to be reasonably confident about the existence of sustained long-distance exchange in high value/low bulk goods between Crete and the Near East throughout the Old Palace period. In the

ear East, the data consist mostly of central Cretan fine material pottery exports at such sites as Karmi in Cyprus, Ras Hamra, Qatna, Beirut, Byblos and Hazor in the Levant, and Asht, Harageh, Kahun, Abydos and Aswan in Egypt (Cadogan 1983: 514). In Crete, there is an increasing flow of exotic imports: a good many scarabs, Egyptian faience, (probably) the first Egyptian stone vases, north African ostrich eggshell, and even objects bearing the name of an Egyptian pharaoh or official. Near Eastern palace archives, such as those at Mari in Syria, begin to make explicit reference to Cretans as participants in this sort of elite exchange network. The result was a growing internationalism of style. For instance, a highly specific vase shape, the 'crinkle-rimmed kantharos' (Fig. 2.14), particularly common in the later Old Palace pottery at Mallia and other east-central Cretan sites (Andreou 1978: 134–63), occurs in both clay and silver (Davis 1979), is imitated in the Minoanising pottery at Harageh and Kahun in Egypt, and appears to be modelled on metal vases of similar shape at Kultepe and other sites in eastern and central Anatolia c. 1850–1750 BC. This example, incidentally, suggests that by this time centres such as Mallia were successfully emulating the example of Knossos and Phaistos in establishing their own imprint in eastern exchange systems. Phaistos itself, moreover, provides evidence of stylistic links pointing in the same direction but in a different medium altogether, to judge from the several seal impressions there which have exact counterparts at Middle Bronze Age Karahöyük (Levi 1969).

For the critical intervening 'formative' period (EM III–MM IA), the data are frustratingly sparse, consisting at present merely of some poorly defined links in metalworking, a single north-central Cretan vase in Cyprus, and half a dozen Egyptian scarabs from central Cretan sites (Cadogan 1983: 513). The political instability of the Levant in the late third millennium BC may have been a factor here. The masthead plank-built sailing ship first appears on Minoan sealstones of just this date, and the motive for its introduction must surely have been a greater interest in overseas contact. Certainly, a coherent pattern of interaction with the Near Eastern seaboard in general can only be documented after the first Minoan palaces had come into existence. But, on the whole, it has to be admitted frankly that for Minoan Crete, just as for so many other early instances of state formation, the quantity and chronological resolution of the evidence is simply insufficient to discriminate adequately between external trade as a contributory cause or as a consequence of increased political complexity; to put it very crudely, whether trade follows the flag, or vice versa (Webb 1975).

In a very recent paper, however, Watrous (in press) has rightly cautioned against the deterministic assumption that 'a certain amount and type of material goods in trade is a prerequisite for a flow of ideas' and that a more quantitative listing of imports/exports can allow an adequate assessment of the significance of interactions between politically distinct regions. This understandable reaction is entirely in harmony with the approach adopted here, in which the emphasis is not primarily upon interaction in terms of the exchange of material commodities, but rather in the flow of information of various kinds between polities . . . and . . . the importance of such symbolic exchange even in the absence of trade in material goods' (Renfrew, this volume: 8; emphasis added).

Watrous considers a number of radically new features (including some of those discussed in the previous section of this paper) which he ascribes to EM III–MM IA Cretan society and regards as reflections of the adoption of Near Eastern religious and political institutions. Among them are several

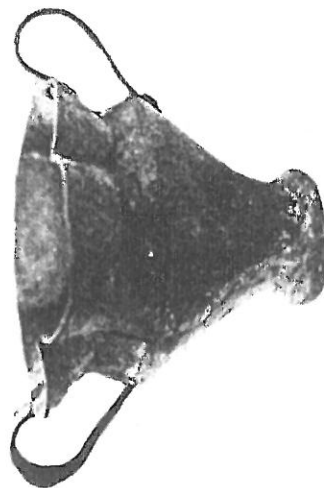


Fig. 2.14. The crinkle-rimmed kantharos in silver from Gournia (Heraklion Museum 201; height 8.1 cm, maximum diameter 10.1 cm; from House Tomb II, Gournia).

wheel-made, specialised new vase shapes imitative of Near Eastern vessels; worship at peak sanctuaries and other details of cult and divine iconography; and many of the distinguishing aspects of palatial complexes, such as their monumentality, the presence of writing, a complex administrative system of sealings, specialised production, etc. Rightly noting that these innovations are not random traits, Watrous argues that they should be understood as elements of a single administrative system 'introduced together into Crete from the Near East as part of the institution of kingship'.

There exist objections of various kinds to this proposal. Several of the features adduced are attested in Crete no earlier than MM IB, at which time we know that the socio-political institutions supported by the apparatus of the palaces had already evolved in two or three Minoan polities. In at least one case—worship and cult sacrifice at peak-top sanctuaries—the Minoan instances are of substantially greater antiquity than those in the Near East, from which they are alleged to have been derived; the existence of Hittite, Canaanite and other Near Eastern cults of mountain gods does not, of itself, constitute a compelling argument. Similarly, the use of seals and sealings reaches back to the Neolithic period in the Aegean and there is nothing specifically Near Eastern about their use in Minoan palace bureaucratic procedures (even if such devices are in fact nearly ubiquitous in palace-temple institutions all the way from the Aegean to the Indus valley). The introduction of the fast potter's wheel is likewise understandable as a common and repeated response to the increased demand for specialised and/or mass-produced ceramics in a centralised, redistributive economy. Too many of Watrous's claims involve the uncritical adoption of the standard diffusionist position that any features known earlier in area A than in area B must therefore have been introduced from A to B. Yet there are also insights here on which we may profitably build.

First of all, it would be both counterintuitive and counterproductive to deny the existence of contact, however indirect and however scanty the tangible material evidence for it, between the urban societies and small royal kingdoms with palace centres in Anatolia, the Levant and the Near East on the one hand, and Crete in the later centuries of the pre-palatial period on the other. With the genesis of the Minoan palaces, however, there was a marked stepping-up of the scope and regularity of such long-distance, directional trade, which probably involved both gift exchanges between elite centres and merchant trade, conducted under treaty, for basic resources such as metals. This was a general development in the Near East at this time (Sherratt n.d.; Cherry 1984: 36), but in the Aegean, Crete alone was involved, at least initially—no doubt partly a function of its obvious advantages as a jumping-off point for voyages from the Aegean which linked up with east Mediterranean coastal routes. Secondly, for all the gaps in the data base, it seems certain that already in EM III—MM IA some Cretan sites, notably those later to develop as palace centres, experienced major growth in

settlement extent and population size (Whitlaw 1983: Fig. 72; for Knossos, see Hood and Smyth 1981: 8). As Whitlaw has argued, such demographic concentration (which approaches the lower range for some of the smaller city states of the Classical world) must imply some degree of complexity in societal organisation; it may well be the rise of powerful individuals (or families or lineage groups) that lies behind the appearance at this time of individualising, rather than communal, burials, some of them with clear wealth disparities suggestive of differential status within the community (Cherry 1984: 31). Increasing competition between emergent élites of this sort could well be reflected in the progressive regionalisation of late pre-palatial culture, and even in site destructions late in EM II (Alexiou 1979).

While these are somewhat speculative suggestions, it nonetheless appears entirely reasonable to think of Minoan society on the threshold of the palatial era as incipiently stratified and also aware, to some extent, of the nature of royal authority and its legitimisation in the Near Eastern kingdoms. If this is so, then, as Watrous has suggested, one natural way for Cretan rulers to consolidate their own authority and power-base would be by emulation of certain characteristics of Near Eastern royal institutions. Exchanges of prestige goods between foreign élites can confer higher status at home and lead to further inequalities by way of the development of monopolies over long-distance trade in other classes of commodities; they can also convey information and conceptual constructs of special interest to the limited group of persons at the highest level in a decision-making hierarchy, as Renfrew (1975; this volume: Ch. 1) has emphasised. To assert this, is not to relapse into out-and-out diffusionism of the Childean sort, whereby the Minoan polities are regarded as straightforward instances of secondary state formation resulting from exchange contacts with pre-existing states (Childe 1936: 169–70); nor is it to embrace a macro-regional, core-periphery perspective (e.g. Sherratt n.d.). The important point is not so much that Crete engaged in interactions with altogether different regions, but rather that several Minoan polities did so. In this view, exposure to the institutions and apparatus of Near Eastern states did not cause the rise of state-level polities in Crete, but it did provide some, at least, of the 'currency' of competition, in which élites in neighbouring Minoan polities sought to secure higher inter-polity status for their own system—a sort of 'symbolic intensification', paralleling (and also encouraging) the more material forms of intensification of production seen in most early states. A specific example may help to illustrate this idea.

As discussed briefly earlier in this chapter, the Minoan palaces were multi-purpose buildings serving many of the same functions as their contemporary or earlier equivalents further east. Not surprisingly, therefore, there are many generalised points of similarity; but attempts to see the Minoan palaces as direct copies of Near Eastern ones have not been successful (Graham 1964) and there are elements which clearly derive from local architectural traditions. In Cretan terms, what

nally makes the construction of the palaces such a local new departure in their very size (far greater than any previous single building or building complex) and their monumentality; these were edifices to impress, expensive structures on a grand scale. One way in which their monumental character finds expression is in the extensive use of ashlar masonry, especially in elaborate ashlar orthostate façades (Hult 1983: 46–7; Shaw 1973a: 83–92; 1983). Good Old Age examples survive at Phaistos (Fig. 2.7c; Levi 1976; at Mallia (e.g. van Effenterre 1980: 241–7), and at Ysolakkos (Shaw 1973c), an elaborate, probably élite, masonry complex a few hundred metres north of the palace of Mallia. Such masonry, often cut with great bronze saws, is highly labour-intensive and would no doubt have been truly impressive as something quite new on the Aegean (Fig. 2.15). But as Hult's (1983) recent comprehensive survey of the evidence has shown, ashlar masonry became widespread in the Levant at this same time; the specific orthostate construction technique seen at Mallia finds close parallel in the Middle Bronze I palace and city at Lachish in Syria, as also in palaces of Middle Bronze Age date at Alalakh, Tilmen Hüyük and Ras Shamra, so the technique may have been developed in that country (Hult 1983: 66–7). While there is nothing inherently Near Eastern about monumental architecture, at least one technical device (namely, ashlar masonry) for building this way in Crete seems likely to have been in imitation of Near Eastern prototypes, trying with it, one supposes, some of their symbolic overtones. The point at issue is that not just one, but all the

palaces followed suit: indeed, ashlar masonry rapidly became a common feature in Minoan Crete, but one reserved for more important buildings (primarily palaces, but also luxurious residences, some sanctuaries, and a few tombs). Renfrew has commented that if status is achieved, for instance, by erecting a particular sort of grand building, then there must exist some scale for measuring its grandeur, one to which all subscribe; the competitive temple-building of Archaic Greece, discussed by Snodgrass in Chapter 3, offers a striking instance.

What this example serves to illustrate is the considerable care that is called for in interpreting the impact of contacts between developed states and a group of peer polities at the time of their emergence or early development. The material evidence of such contact can indeed be a primary feature of the archaeological record at the time in question (see, for example, the exotic finds from the Mediterranean world in late Hallstatt and early La Tène Europe (discussed by the Champions in Chapter 4)). But it is inadequate either to assume, on the one hand, that the transmission of information and commodities in this way directly 'caused' change, or, on the other, simply to assert that the importance of such external contacts was minimal in comparison to inter-polity processes themselves. Both, of course, are quite legitimate ideas, but they require careful specification as hypotheses which carry with them testable implications for the archaeological record, and this the peer polity approach seeks to do. My own reading of the Minoan case suggests that the Near Eastern exemplars emulated by different Minoan polities provided a *medium* for competitive display and self-aggrandisement, yet they were not the *cause* either of such competition or of the rise of the competing political entities themselves. Whatever the circumstances that led objects to be exchanged, traits to be borrowed, or technologies and even institutions to be adopted, the focus must remain firmly on their roles within internal processes—internal, that is to say, to the group of polities, rather than to any individual member. In this sense, it could prove to be the case that the peer polity approach is better suited for explaining why the institutions and symbolic structures of the Minoan polities took the forms they did and why they look so strikingly similar from one polity to the next, rather than for giving an account of why they came into being at all.

Further problems

In this final section I wish briefly to discuss three theoretical or operational issues raised by the Aegean case considered in the present chapter.

(1) The first of these is a matter posed squarely by Renfrew in the preceding chapter. Asserting that our aim is the explanation of changes over time in the degree of complexity in organisational aspects of society, he asked (this volume: 5): 'To what extent were these peer polity interactions an indispensable and necessary element in the emergence of such systems, whatever their specific form?' Likewise, we can ask here in what way the peer polity approach helps explain

Fig. 2.15. An example of the Minoan ashlar orthostate building technique: the façade flanking the Minoan road at Kommos, looking south-east; probably Late Minoan I (Shaw 1983: Fig. 2); photograph reproduced by permission of Professor J.W. Shaw.



Polities and palaces

the rise of palatial civilisation on Crete and, if it does not, whether this seriously reduces the validity and usefulness of the approach. Renfrew demands as necessary conditions for a successful *causal* peer polity explanation (i) that a number of autonomous highest-order polities can be recognised within a defined area; (ii) that there is evidence of contact between them (whether movements of goods or flows of information) prior to the change in question; and (iii) that there can be specified some mechanism which relates such interactions to the observed changes.

As the discussion earlier in this paper has indicated, it is certainly possible to define a number of putative highest-order polities within Crete, although to demonstrate that they were wholly autonomous, particularly later in their history, is very much more difficult. These, however, are the ESMs or polities which existed *after* the process of state emergence in Crete and, indeed, which help to define that process. So where and what were the political entities whose interactions are asserted to have helped generate the palatial organisations themselves? Here we encounter severe difficulties because our understanding of the society of pre-palatial Crete in the late third millennium BC is so poor. Yet it is scarcely possible to speak of large central places dominating entire regions, even allowing for the enigmatic large EM II buildings at Palaikastro (Brannigan 1970: Fig. 6), Agia Triada (Laviosa 1973) and Knossos (Evans 1972). On the contrary, all the evidence points to the extended family as the likely maximal social unit, living in many small communities of a few dozen (or at most a few hundred) individuals, and burying their dead in communal tombs without marking obvious status distinctions (Whitelaw 1983). Nor are there signs of the actions of central persons, for instance in regulating and administering the institutionalised circulation of foodstuffs or other commodities on an intra- or inter-regional basis. Naturally, such small residential groups are likely to have been in communication with each other, at least on a local basis; indeed, widespread correspondences in features such as metallurgical techniques or mortuary practices, as well as actual instances of exchange in commodities such as ceramics, assure us that this was the case. One could argue, with Renfrew, that the village is in this case the highest-order socio-political unit in the region in question. But generalised patterns of interaction between such units existed throughout the one-and-a-half millennia of the Cretan Early Bronze Age and even earlier during the Neolithic period. Why then was it only in the two or three centuries immediately preceding palace emergence that there began to be seen the first signs of incipient stratification and regional differentiation (Cherry 1983a)? What mechanisms link the development of complexity with the existence of local contacts of the sort to be seen in almost any early agricultural society? And how can we account for other 'null cases' (Cherry 1984: 21) in the Aegean—that is, the *failure* of other regions with highly developed networks of interaction among similar village farming communities (e.g. Halstead 1985, for Thessaly) to follow the Cretan path of increasing socio-

political elaboration? To base the argument on interactions among small-scale autonomous villages is not, it seems, a promising line of attack.

In his book, *The Emergence of Civilisation* (1972), Renfrew proposed the argument in a rather different form when he stressed the interactions that took place within the Aegean at large during the formative period of the middle third millennium BC and indicated, using a systems framework, how positive feedbacks would lead to growth. In this view, the interacting polities that provide the explanatory focus would be cultural regions, i.e. much larger entities, defined primarily by the distribution of specific material features, but whose socio-political coherence is debatable (as, for instance, in the cases studies of Braun, Bradley and Chapman, and Shennan in this volume). But again there are difficulties. One is that the types of object used to define this so-called 'international spirit' (Fig. 1.13) are either very generalised (e.g. one-handled cups) or tend to be artefacts more at home in the Cyclades (e.g. marble folded-arm figurines, 'frying pans', chlorite schist vases, bronze tweezers, etc.) than in any of the other regions. Another is that, in purely qualitative terms, Crete's participation in this inter-regional network seems slight and restricted to imports found at a few sites on or near the north coast, from the immediately adjacent Cycladic islands. Lastly, if each of the several regions of the Aegean is regarded as having developed *pari passu* as a result of such interaction, then the 'null case' problem arises again: Crete alone advanced rapidly to statehood at the beginning of the second millennium. One is forced to assume either that similar processes led to different end results, or that special factors operated in the case of Minoan Crete.

It thus appears extraordinarily difficult to detect either in Crete or the Aegean during the pre-palatial period a group of polities and a set of circumstances that meets Renfrew's necessary conditions for a non-circular explanation in peer polity terms. This may, of course, simply be a function of the inadequacy of the archaeological record, or of our present knowledge of it. Nor does it imply that more satisfactory causal applications of the approach are not possible in other cases, as papers elsewhere in this volume perhaps suggest. It may be, nonetheless, that the chief insights provided by this framework relate to the understanding of the mutual dynamics of clusters of early states *already in existence*, rather than of state formation in general. Here it certainly has considerable explanatory power, as the instance of Minoan Crete illustrates rather well: it not only accounts for the existence of structural homologies and symbolic convergence, but also provides a model for the further political growth of the system. Once the balloon (i.e. a state system of organisation) is launched, as it were, the processes of peer polity interaction do not simply help keep it aloft, but actively encourage its further inflation and elevation. Indeed, those who posit the existence of independent states in Old Palace Crete and their unification as a nation state under

cesses in neo-palatial times (e.g. Hood 1983: 131–2)—a factually reasonable, if unproven, scenario with plentiful parallels in other ESM clusters—might gain much from considering the steps in this process in terms of peer polity interaction.

(2) The institutional changes for which explanation is sought in the case of Crete and the Aegean in the later third to early second millennia BC constitute a specific instance of the general problem of state formation. In any such case there is the need to provide a satisfactory account of the processes whereby the natural fissioning tendencies of small-scale political units came to be overridden by fusion and integration within larger institutional structures, despite the various inequalities of access to power and resources that inevitably entails. Naturally enough, therefore, most state formation studies concentrate on the attempt to isolate one or more new or altered factors or conditions that have changed the structure of the system, or shifted the balance of power between competing components or groups. (This, it need hardly be emphasised, is not to suggest that we should revert to a search for some mystical prime mover to explain all instances of state formation, nor indeed to insist on exogenous gains for all change in socio-cultural systems.) At an even more general level, there is the problem not merely of why states evolved at all, but why states or state-like forms of institutionalised central government evolved in so many parts of the world within such a relatively short period.

In Minoan Crete, this last problem is especially acute since major organisational change seems to have occurred there relatively rapidly, following several millennia of relative stability under non-state modes of organisation. The pace of change is perhaps partly a matter of perspective (compare Cherry 1983a and 1984 with Warren, in press). We are dealing, certainly, with change over several centuries either side of c. 2000 BC, a sufficiently long period perhaps for political consolidation of the rise of powerful élites not to be patently obvious to any single generation (though the implications of a material transition such as the building of a palace must have been clear enough). Nevertheless, these three or four critical centuries present a ferment of change when we set them beside the four or five millennia during which settled agricultural communities had existed on the island.

The normal sense of a satisfying explanation in archaeology is that it makes a set of facts in some sense intelligible by demonstrating that they seem 'natural' when viewed from the perspective of a certain framework of thought. In practice, this is often taken to mean that it is some possible to 'predict', retrospectively, that certain events would occur. This the peer polity approach claims to attempt by proposing a number of testable predictions, as set out very clearly in the section of Renfrew's discussion in his volume: 7–8) entitled 'Using the concept'. Yet very often an explanation of this sort will simply take the form of an assertion that—given some specified processes, appropriate initial conditions, and sufficient elapsed time—certain

transformations will take place. It can hardly be denied that such a formulation, if it found adequate empirical support, would constitute a major step forward. It would, however, remain a loose explanation, in the sense that it offers no immediate insight on the questions of *when* and *how fast* such transformations might take place—important aspects, surely, of explanation couched in an historical framework.

The question, then, is whether the concept of peer polity interaction, as an implicitly gradualist approach, can deal adequately with sharp discontinuities in the rate and scale of change. My feeling is that it cannot and that some further theory-building is called for. I would suggest, tentatively, that evolutionary ideas—by which I mean the fundamental concepts of variation and selection in Darwinian terms, rather than teleological, cultural evolutionism—might have some role to play.

The basic problem tackled by the peer polity approach is the causes underlying the widespread evidence of 'selection for' centralised polities (whether in clusters of ESMs or not). Selection in evolutionary theory may stem not only from physical, environmental pressures, but also from competition between or within species, especially in a social species like man for whom social behaviour is an integral component of adaptive strategy. There is thus no conflict between the role of intra-specific competition in evolutionary theory and the emphasis on ranking, domination, power and exploitation seen in most archaeological discussions of change during the past 10,000 years or so (Halstead 1982); moreover, there is much in common with the peer polity interaction framework which, again, is largely about competition. Often, however, archaeologists writing about change under circumstances of competition between individuals or between groups, invoke unjustifiable and untestable additional assumptions about man's inherently acquisitive, ambitious or aggressive nature (the models of systems growth in the Aegean proposed by Renfrew (1972: 479–85) provide a good example). A more appropriate approach would be to treat such characteristics not as *universal*, but as *recurrent*, features of human behaviour, and then to consider the circumstances in which that kind of behaviour might be favoured by selection (Halstead 1982). This would go some way towards strengthening one aspect of the peer polity concept by making concrete the links between the sorts of interaction and competitive behaviour so important to the concept and the types of change they are assumed to have engendered and encouraged. It would have the further function of clarifying the general problem (raised above) of understanding the temporal context of socio-political change by specifying clearly where, in time and space, the selective advantage of such behaviour is likely to be significant. The heuristic value of the approach can only be reduced if it relates into a general interaction model applicable to all times and places.

(3) The final problem is closely related to the previous one, in that it also concerns chronological matters. It will already be apparent from earlier sections in this chapter that

the chronological framework for Crete in the third and early second millennia BC is far from precise. Radiocarbon dates are relatively few in number, are associated with standard deviations of the order of 50 to 100 years either way, and present various problems of interpretation, although they do provide a firm understanding of sequence and relative duration. Dates based on external cross-links, involving stylistic comparanda or exports, are even fewer and shakier as a result of problems of time-lag and contextual disturbance, and usually give only a *terminus*. Consequently, Cadogan (1983: 507), in the latest review of Early and Middle Minoan chronology, felt compelled to warn at the outset: 'I am skeptical of chronologies or, rather, chronologists, who venture beyond half-centuries to suggesting decades . . . To suggest anything else for these early times implies a precision we do not have.' Yet more recently, Snodgrass (1985: 7) rightly pointed out: 'It is surely clear that any kind of "historical" narrative, for a culture in which any of the dates may be even fifty years out, let alone two hundred, in either direction, is an impossibility'.

This degree of chronological imprecision presents a real impediment to the application of the peer polity framework, in the Minoan case, in the detail that is really necessary. The core of the concept, after all is interaction between living individuals or societies. As Renfrew put it (this volume: 18): 'Who impresses whom, and how, and what effect does that have upon the future actions of both?' While resolution to the level of the individual is scarcely ever possible in fully prehistoric contexts, one might at least hope to be able to work with a chronology that allowed the study of the material record of *contemporaneous* social groups in different places (i.e. a single living generation). So loose is the chronology,

however, that we must count ourselves fortunate if we can tie down some object or innovation to a century (i.e. three or four generations). It is important to know, for instance, whether the inception of palace construction was a simultaneous event in several polities or, conversely, whether a single polity had clear priority; in the latter Greek world (Snodgrass this volume: Ch. 3), emulation in monumental construction often occurred within a generation or even less. A further requirement, moreover, is to obtain greater chronological precision not simply for the culture as a whole, but for its regional manifestations. In Crete, it is becoming increasingly clear, particularly as a result of detailed pottery studies such as those by Walberg (1976; 1983) and Andreou (1978), that there existed significant time-lags between different parts of the island in terms of the rate of diffusion or adoption of ceramic styles. This in itself tells us something about the directions and strengths of the interactions we seek to study. Peer polity interaction, in short, may be an abstract concept, seemingly far removed from the archaeological record itself, but it has the virtue of encouraging detailed factual research stimulated by fresh questions.

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