

New Kid on the Block: the Nature of the First Systemic Contacts between Crete and the Eastern Mediterranean around 2000 BC

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The model for the Bronze Age Mediterranean constructed by Andrew and Susan Sherratt has strongly influenced recent studies of the Aegean in its wider context, but less attention has been paid to assessing its usefulness to the small-scale. This paper explores the applicability of this model to middle and short-term processes in a small area through an investigation of the transformations that brought the first palaces to Crete. The aim is to revise current ideas about the impact of external influences on the significant cultural changes that occurred on the island around 2000 BC. New dating evidence for the first eastern Mediterranean material found on Crete allows greater contextualisation. The result is a 'Cretan' view of the world-system which is not as asymmetrical as traditionally assumed.

World-systems theory and Cretan studies

Ever since archaeologists proclaimed that the palaces on Crete marked the appearance of the first state societies in Europe, we have been looking towards the eastern Mediterranean for reasons to explain this early manifestation. For pioneering scholars it was evident that the emergence of a palatial society on Crete at the beginning of the 2nd millennium BC (Fig. 20.1; see Manning *et al.* 2006 and Phillips 2008 for current chronological debates) could only be explained as a result of the direct contribution of the more advanced civilisations in the eastern Mediterranean, particularly Egypt (Xanthoudides 1924, 130). The objects with obvious Egyptian parallels that were found in the island's archaeological record (Seager 1912, 5; Evans in Xanthoudides 1924, Preface) and the resemblance of Cretan palaces with earlier counterparts in the Near East were considered to be clear proof of such cultural links (Evans 1928, 269).

It was only in the early 1970s that a new scholarly trend arose that shifted the focus towards explanatory models that

stressed intra-island dynamics in seeking to understand the processes that occurred on Crete around 2000 BC (Branigan 1970; Renfrew 1972). A further, recent shift in our views allows us to re-assess the role of the eastern Mediterranean in the important changes that occurred on Crete (Bevan 2004; 2007; Phillips 1991; 2005; 2006; Pini 2000; Warren 1995; 2000; Watrous 1994; 1998; Weingarten 2005). Such comeback is explained by new ways of thinking about the relationships between Crete and the eastern Mediterranean, which are very distant from the simplistic logic of *ex Orientis Lux* typical of the earlier pioneering studies (*e.g.* Bevan 2007).

Such a shift in opinion is intrinsically linked to Andrew and Susan Sherratt's application of the world-systems approach to Mediterranean Prehistory (Sherratt and Sherratt 1991; Sherratt 1993a; 1994). The complex explanation of socio-economic relationships that the world-systems perspective brought to eastern Mediterranean studies has raised a whole new range of questions regarding long-distance interactions and ways of understanding inter-cultural relationships that avoid the traditional diffusionist pitfalls. The world-systems approach

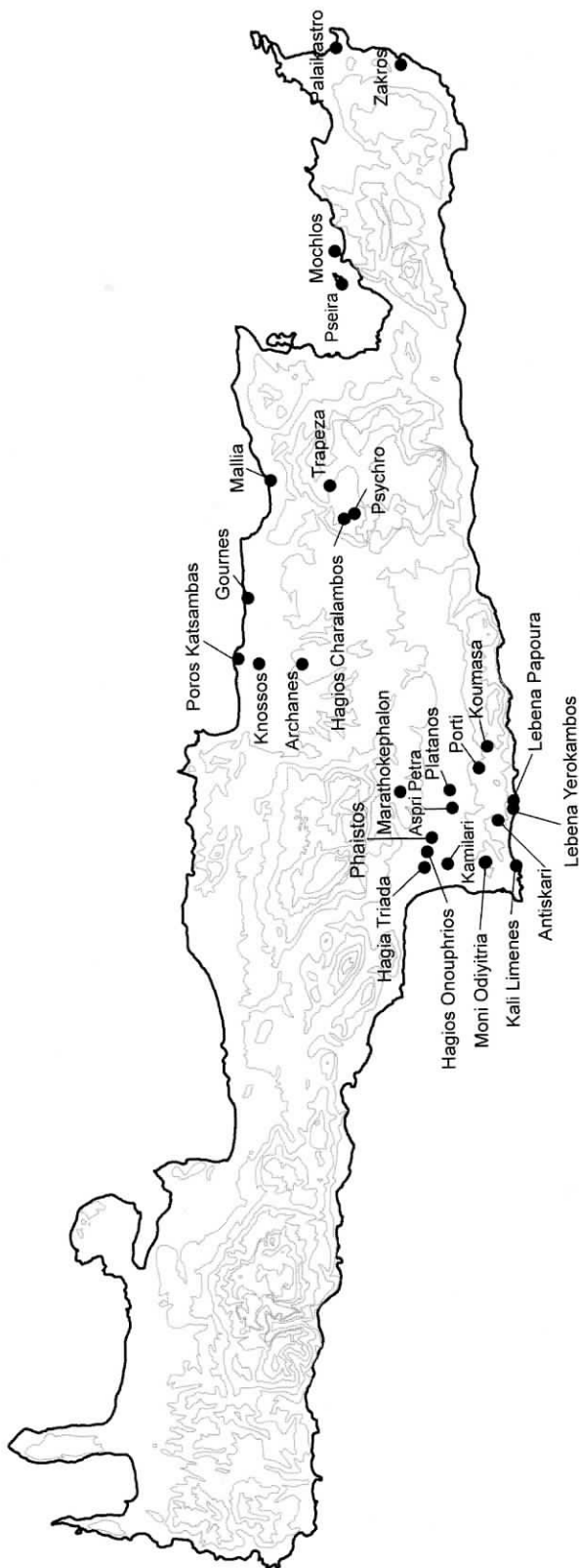


Figure 20.1. Map of Crete with sites mentioned in the text.

has introduced the nuances of sociological and anthropological theories about trade and exchange and has produced complex mechanisms of economic interaction combined with cultural and social aspects (Sherratt & Sherratt 1991; 1998). Perhaps the most interesting point is that the different parts of the system were now characterised as active agents that have much decision power in the way relationships develop (Sherratt 1993b). It is no longer one-way traffic from east to west, but a complex interaction of several geo-cultural entities in various structural positions within the system. Indeed, world-systems perspectives have benefited considerably from a second major factor, the post-processual critique, which has raised a new set of questions about the cognitive side of human interaction (Phillips 2005; 2006; Warren 2000), identity (Sherratt and Sherratt 1998) and value systems (Bevan 2007).

Current debates on Cretan foreign relationships at the beginning of the 2nd millennium BC

Nevertheless, this renewed interest in long-distance contact and large-scale frameworks has instigated some intense debates, particularly with regard to the significance of eastern Mediterranean influences for the changes that occurred on the island during the period that immediately preceded the appearance of the palaces on Crete. Some authors still dismiss non-Cretan elements as being merely peripheral to our understanding of the period (Haggis 1999; Sbonias 1999), while other authors have applied the new approaches to inter-cultural relationships mentioned above and have thus created new explanations for change on Crete that rely heavily on the role of foreign influences and the arrival of Egyptian and Near-eastern material culture and cultural packages (Colburn 2008; Schoep 2006; Watrous 1998; 2005). Predictably, a number of authors fall somewhere between these two paradigms (see for example Manning 1994).

The first camp views Crete as an island at the margin of the eastern Mediterranean trade system at the beginning of the 2nd Millennium BC (Carinci 2000; Phillips 2006). It stresses that only small amounts of material from the eastern Mediterranean have been found on the island (Bevan 2007, 99). Cretan populations were starting to perceive trade opportunities in the eastern Mediterranean, but they were not yet deeply involved in the trade system. According to this model, materials coming from abroad are seen as high-value but having a limited impact on Crete, boosting dynamics of socio-political change that had started to emerge on the island earlier on (Manning 1997). In this view, emerging Cretan elites manipulated the available foreign material to a certain point in order to strengthen their privileged position, but the main reasons and mechanisms behind the appearance of such elites were local to the island and related mainly to new regional social, political and economic competition

dynamics, new administrative systems and perhaps to newly available technologies (the donkey). Crete is considered by these authors as a marginal region in the classic world-systems order. The margin is seen as almost an advantageous situation in which the islanders could have benefited from long-distance trade without having to bow to some of the pressures of a more intense exchange. Normally, this view encompasses the concept that eastern Mediterranean material, particularly Egyptian, reached the island in an indirect form, through a route that would have involved the Levant, the southern Anatolian coast, Cyprus and Rhodes (Agouridis 1997), in down-the-line or gift-exchange mechanisms, and that the material carried limited ideological and political connotations from the cultures in which it had been produced (Phillips 2005; 2006; see also Stein 1999).

The second group of authors suggest that Crete was already by the early 2nd millennium BC deeply immersed in the periphery of the eastern Mediterranean trade system, with a significant amount of material coming to and leaving the island (Wiener 1991), and that such links were accompanied by strong technological, ideological and perhaps even political influences arriving on the island (Ben-Tor 2006; Pini 2000; Watrous 1998; 2005; Weingarten 2005). Two causes are argued to have led to the appearance of the palaces. First, these new contacts would have urged Cretan communities to create a socio-economic and political system that matched those of the eastern Mediterranean cultures and would have better positioned Cretan populations to partake in the trade system (Manning 1994). Second, it would have been in the interest of Near-eastern and Egyptian cultures to encourage socio-political systems similar to theirs, which would make trade easier between roughly comparable socio-political entities. Authors have highlighted that it is not only Egyptian objects that have been found in the archaeological record, but also Egyptian symbols in iconography, which show a deep understanding of Egyptian culture on Crete (Schoep 2006; Weingarten 1991). Such models maintain that there existed a direct trade link between southern Crete and the east Mediterranean (Van de Moortel 2007), implying the possibility of a direct sailing route between Egypt and Crete (see discussion below); this route would have channelled a significant part, if not all, of the relationships between the two areas (Ben-Tor 2006; Ferrence 2007).

Mediterranean world-systems and the small-scale

The growing entrenchment of these two models can to a certain extent be explained by a crude simplification of many of the concepts and mechanisms that the world-systems approach has brought to our attention. The Cretan case highlights the

problems stemming from the application of world-systems perspectives while showing a disregard for small-scale analyses. Aspects of world-systems approaches have been applied to maintain a highly rigid way to address the study of the influence of long-distance relations in certain cultures. This is particularly clear in cases such as Crete, where ideas and dynamics developed by world-systems studies have been used without an explicit reference to world-systems theory, and therefore have ignored recent theoretical developments that have improved the applicability of such approaches.

The broad brushstrokes with which Andrew Sherratt pictured an eastern Mediterranean world-system should be considered within a framework for the interpretation of regional variation, rather than as a final model that can be applied to any specific regional archaeological record in the Mediterranean. In their discussion of long-distance trade mechanisms and cultural interaction in the eastern Mediterranean and Europe, the Sherratts have stated very clearly that these large-scale connections must be understood mainly through the way in which they were actually implemented by particular populations (Sherratt 1993a, 5–8; Sherratt & Sherratt 1998, 333–5). Ultimately, world-systems perspectives do not aim to paint a picture of long-distance relationships but to explain how phenomena taking place in the large scale affected the day-to-day life of human communities and shaped the trajectories of particular communities and regions. It is therefore surprising that a more systematic introduction of contextual studies within world-systems frameworks has not yet been fully developed for the Bronze Age East Mediterranean and only case-studies of particular regions (Kardulias 1999; Stein 1999) have started to unveil the wide range of mechanisms and situations in which long-distance relationships manifested themselves in this part of the world. Such approaches have not been applied to other regions of the Mediterranean, such as Crete, where studies of long-distance relationships continue to ignore bottom-up, contextual approaches. Consequently, those few studies that have investigated long-distance relationships in meaningful regional contexts have had a limited impact on the general understanding and use of world-systems theory by Mediterranean archaeologists. The smaller-scale studies must feed back into our understanding of world-systems in the Mediterranean and be used to shed light on the particular characteristics that define long-distance interaction in the eastern Mediterranean at the beginning of the 2nd millennium BC and its unique evolution from that point. Large-scale and small-scale studies need each other and only a combination of the two can yield a more nuanced understanding of the significant changes that took place in south-eastern Europe and the eastern Mediterranean during the Bronze Age.

Such a theoretical approach must begin by studying the material record. Foreign material on Crete has typically been studied from an Egyptian perspective, *i.e.* the typological and

chronological links and the ways material introduced Egyptian ideas to the island (Ben-Tor 2006; Betancourt 2005; Höflmayer 2007; Karetsou *et al.* 2001; Politis 2001; Warren 1995; Warren & Hankey 1989; Wengrow 2010). Basic information, such as the archaeological and social contexts in which they were found on Crete, was largely ignored until very recently (Bevan 2007). We have done very little work to decipher the role that off-island objects played for Cretan populations and what they say about the relationships Crete maintained with the eastern Mediterranean. In most cases, it has been assumed that these objects were considered to be *exotica* and that distance and rarity imbued them with an added value (Colburn 2008; Manning 1994; Schoep 2006). However, this has not been demonstrated from their occurrence in the record. Such assumptions have resulted in discussions that cannot move forward because they are not based on actual studies of the material in context, but on suppositions. There are three assumptions concerning Egyptian material on Crete that need to be challenged. Interestingly, these three assumptions seem to pervade many of the applications by archaeologists of world-systems theory in the Mediterranean. First, material with Egyptian links always represents high-value items, or at least items with out-of-the-ordinary attributes and uses. This implies that the majority of the Cretan population was able to understand the off-island connections of these objects and their exotic character. Second, high value materials on Crete refer automatically to hierarchies, elites and dynamics that mark social differentiation. Third, foreign material on Crete must be understood principally from the point of view of the eastern Mediterranean centres and the way they were trying to exercise their influence overseas.

This investigation of the Cretan evidence at the beginning of the 2nd millennium BC will state clearly the problems pertaining to these three assumptions and will shed new light not only on the role of the island within a Mediterranean world-system, but also on our general understanding of what a Bronze Age world-system looks like.

The Cretan record

Two recent developments in our studies of the Cretan record have shed new light on the Egyptian material on the island. On the one hand, the first widespread appearance of Egyptian material on Crete has been now clearly dated to the start of the Middle Bronze Age, or Middle Minoan IA (Ben-Tor 2006; Bevan 2004; Phillips 2005). On the other, off-island material can be more effectively situated in its archaeological context, because we have a more accurate appreciation of the funerary record during the period. Such accuracy has been achieved through new, better understood contexts such as that of Hagios Charalambos (Betancourt 2005; Betancourt

and Muhly 2006), but also through our ability to divide the long-term use of tombs into shorter periods that can be clearly defined through characteristic funerary behaviours (Legarra Herrero 2007).

In the following sections, I focus mainly on the study of scarabs and Egyptianising stone vessels for several reasons. These are the two most numerous types of items in the Cretan record that can be securely connected to Egypt (Bevan 2007; Höflmayer 2007; Phillips 2004; Pini 2000; Warren 1969; Yule 1983). Moreover, they are widely distributed in the mortuary record, allowing for their better contextualisation. Despite a reasonable number of known archaeological contexts, very few other types of items with clear eastern connections can be safely dated to the beginning of the 2nd millennium BC (Phillips 2008). While these other types of items may indicate other kinds of connections, the significant number of scarabs and stone vessels with Egyptian links suggest that these two categories of items constituted a major element in the trade between eastern Mediterranean centres and Crete and, therefore, their investigation should unveil some of the most significant dynamics in the relationship between the two regions.

Scarabs and scaraboids

Scarabs and scaraboids constitute a very particular type of object that has been found in only a few tombs on Crete. Yule catalogued 46 scarabs and scaraboids from Middle Bronze Age I and II contexts in 1983 (Yule 1983). Some new ones have surfaced since then, but mainly in private collections without clear contexts (Karetsou *et al.* 2001; Müller and Pini 1999; 2007a; 2007b; Phillips 2008; Pini 1992; 2000). To the list we need to add one scarab and one scaraboid from the burial cave of Hagios Charalambos in north Crete (Betancourt 2005; Davaras 1989; 1990; Warren 2005) and two more scarabs from the cemetery at Moni Odityritia (Pini 2000). Not all of these 50 scarabs/scaraboids come from known contexts and here I will focus only on the 38 that may be linked to Middle Bronze Age I contexts (Table 20.1).

Scarabs are either actual imports or local Cretan imitations, although the dividing line can be quite fuzzy, as some of the imitations are very similar to the imports, in term of shape, technique and material (Phillips 2004; Pini 2000). In some cases, Egyptian imports were engraved with typically Cretan motifs after their arrival on the island (*e.g.* Platon 1969, no. 118; Phillips 2004), thus reflecting the different ways in which Egyptian and Cretan influences interacted.

It is now evident that the first scarabs on Crete appeared in Middle Minoan IA (Ben-Tor 2006; Phillips 2005). This dating relies on stylistic comparisons with scarabs found in Egypt and in Byblos (Ben-Tor 2006; Phillips 2005). Evans had already suggested such a date (in Xanthoudides 1924,

| Scarabs | Corpus der Minoischen und Mykenischen Siegel | Type | Origin |
|--|--|-----------|------------------------|
| Hagios Charalambos | | Scarab | Cretan |
| Hagios Onouphrios (area without clear context) | CMS II.1 118 | Scarab | Egyptian, Cretan motif |
| Hagios Onouphrios (area without clear context) | CMS II.1 121 | Scarab | Unknown |
| Hagios Onouphrios (area without clear context) | CMS II.1 117 | Scarab | Cretan |
| Hagios Onouphrios (area without clear context) | CMS II.1 11 | Scarab | Unknown |
| Hagios Onouphrios (area without clear context) | CMS II.1 21 | Scarab | Cretan |
| Antiskari | CMS II.IV 99 | Scarab | Cretan |
| Archanes Phourni, Burial Building 6 | | Scarab | Egyptian |
| Archanes Phourni, Burial Building 7 | CMS II.1 395 | Scarab | Egyptian |
| Aspri Petra | CMS I.1 1 | Scarab | Cretan |
| Gournes | CMS II.1 405 | Scarab | Egyptian |
| Gournes | CMS II.1 402 | Scarab | Cretan |
| Kali Limenes | CMS II.1 111 | Scarab | Cretan |
| Moni Odiyitria (area without clear context) | CMS V.IA 209 | Scarab | Cretan |
| Moni Odiyitria (area without clear context) | CMS V.IA 210 | Scarab | Cretan |
| Moni Odiyitria (area without clear context) | CMS V.IA 211 | Scarab | Cretan |
| Moni Odiyitria cemetery, Tholos B | | Scarab | Cretan |
| Moni Odiyitria cemetery, Tholos B | | Scarab | Cretan |
| Lebena Papoura Tholos I | CMS II.1 180 | Scarab | Egyptian |
| Lebena Yerokambos Tholos II | CMS II.1 201 | Scarab | Egyptian |
| Lebena Yerokambos Tholos IIa | CMS II.1 204 | Scarab | Egyptian |
| Platanos cemetery Tholos B | CMS II.1 332 | Scarab | Unclear |
| Platanos cemetery Tholos B | CMS II.1 267 | Scarab | Egyptian |
| Platanos cemetery Tholos B | CMS II.1 283 | Scarab | Egyptian |
| Poros Katsambas | | Scarab | Egyptian |
| Poros Katsambas | | Scarab | Cretan |
| Psychro | | Scarab | Egyptian, Cretan motif |
| Trapeza | CMS II.1 434 | Scarab | Egyptian |
| Scaraboids | | | |
| Hagia Triada B | CMS II.1 99 | Scaraboid | Unknown |
| Hagia Triada B | CMS II.1 95 | Scaraboid | Egyptian |
| Hagia Triada B | | Scaraboid | Unknown |
| Hagios Charalambos | | Scaraboid | Cretan |
| Kali Limenes (area without clear context) | CMS IV 106 | Scaraboid | Cretan |
| Kali Limenes (area without clear context) | CMS IV 108 | Scaraboid | Cretan |
| Koumasa | CMS II.1 154 | Scaraboid | Cretan |
| Mailia Quartier Ⓞ | CMS II.2 84 | Scaraboid | Cretan |
| Marathokephalon | CMS II.1 238 | Scaraboid | Unknown |
| Platanos Cemetery | CMS II.1 331 | Scaraboid | Unknown |
| Poros Katsambas | | Scaraboid | Unknown |
| Zakros Pezoules Kephala B | | Scaraboid | Cretan |

Table 20.1. Scarabs and Scaraboids of possible MMI date (data from Karetsou et al. 2001; Lambrou-Phillipson 1991; Phillips 2005; 2008; Pini 2000 and Yule 1983).

viii), but only now has it been confirmed. Scarabs have been found in well-defined Middle Minoan I contexts such as Platanos Tholos B (Xanthoudides 1924, 116–8), Archanes Phourni Buildings 6 and 7 (Sakellarakis and Sapouna-Sakellarakis 1997, 686–8) and Gournes (Hatzidakis 1916; 1921; MacGillivray 1998, 99).

While much effort has been devoted to identifying the

Egyptian connections and chronology of these scarabs (Warren 1981; Watrous 2005), little or no research has been directed towards understanding their use and values for Cretan populations. If one followed the traditional explanation for the presence of Egyptian material on Crete, it would be suggested by default that, as in Egypt, imported scarabs were used as funerary amulets and that they were considered prestige

items (Ben-Tor 2006; Colburn 2008; Schoep 2006; Watrous 1998). Imitations of Egyptian objects could be explained as an effort to emulate them and a short-cut for the creation of value through replication. In the typical core-periphery or core-margin situations, scarabs would be seen as objects trickling into the non-core areas as high-prestige items that act as a beachhead for promoting further a development of long-range relationships. Elites receiving this material would use it to consolidate their positions and would be interested in organising local production towards providing the Near East and Egypt with products in exchange for such objects. Normally, such products would be raw materials or lower value bulk materials (Manning 1994; Schoep 2006; Sherratt and Sherratt 1991; Sherratt 1994).

However, following the careful understanding of the deposition of scarabs in the context of the funerary behaviour serious doubts arise regarding such a model. First of all, scarabs have to be understood within the larger context of the deposition of seals in Middle Minoan I cemeteries. All Cretan scarabs, even when close in shape to their Egyptian counterparts, have typically Cretan motifs that are also found on other contemporary sealstones, such as the scarabs within the 'white pieces' group (Platon 1969, nos. 117 and 402; Sakellarakis and Kenna 1969, no. 99; Sbonias 1995, 113–4). Phillips has moreover pointed out that scarabs follow the typical shapes of Cretan sealstones during the MM I period (Phillips 2005). Finally, the distribution of scarabs follows quite closely the deposition of seals in the tombs (Fig. 20.2, lower graph). Normally, scarabs are found in contexts which also include a significant number of seals, and substantial concentrations of scarabs correspond with large seal assemblages. There is no discernible pattern in the record to separate the use of scarabs from the use of seals and this suggests that scarabs may have been considered by Cretan populations simply as a particular type of sealstone.

This would mean that scarabs were used in a very different manner on Crete compared to Egypt and the Near East. They were not used as funerary amulets as has been suggested more recently (Ben-Tor 2006), but as sealstones, and they were placed inside tombs as any other seal, probably marking the administrative roles of the deceased. By the end of Early Bronze Age III there was a significant change in the assemblages found in Cretan tombs; one of these changes involved the more common appearance of sealstones in comparison to earlier periods. The increase in the number of seals deposited in tombs was accompanied by a shift towards greater uniformity and simplicity in shapes and motifs in Middle Minoan IA (Sbonias 1999, 45). Moreover, seals were now carved out of more common materials, stone or bone (Krzyszowska 2005, 68–70). Changes in sealstone assemblages seem to have been responses to a new, wide-spread implementation of an institutionalised administrative

sealing system by Cretan communities in Middle Minoan I, very different from their amuletic use in earlier periods (Sbonias 1999, 45). The evidence suggests that scarabs in Cretan contexts also appeared as part of a new administrative use for sealstones by Cretan communities in the Middle Minoan IA period and their deposition in tombs may mark the increasing administrative importance of certain individuals (Sbonias 1999, 45; Schoep 1999).

One question still remains: why did they use scarabs as sealstones in the first place? It is possible that scarabs, now available through new trade routes with the eastern Mediterranean, were considered a suitable object to express certain local identities. Sbonias (1995; 1999) has suggested that on Crete, particular types of seal iconography were related to particular settlements, communicating a local identity in a general framework of inter-settlement competition and the management and administration of resources. It is possible that scarabs were considered to be a particular type of seal that was adopted by certain settlements as an identity marker, with little connection to their Egyptian origin. In this sense, there are remarkable connections between scarabs and the so-called 'white-piece' seals, which Pini (2000) argues were all made in only a few workshops in south-central Crete. Such associations may be reinforced by local ideological meanings attached to the beetle (Phillips 2005, 44–45), which was thought to be particularly relevant as a local iconographic identifier for some communities.

Stone vessels

Egyptian stone vessels in the Middle Minoan I funerary record followed a similar pattern to that of scarabs (Fig. 20.2 and Table 20.2), although we have to make a clear distinction between actual imports and local imitations (Bevan 2007 96–7; Warren 1969, 74–5, 105–15). At least 25 fragments of Early Dynastic stone vessels have been found at Knossos (Lambrou-Phillipson 1990; Phillips 2008). An additional example was found intact in Hagia Triada Tholos A (Stefani 1933). Unfortunately the pieces from Knossos are poorly contextualised and we cannot be sure that these fragments did not arrive on the island in later periods (Bevan 2004). At Hagia Triada, the import was found in a secondary deposition next to three local imitations of Egyptian stone vessels (Bevan 2004). Given the unusual deposition patterns of such imports, Bevan (2007) has suggested that the few actual imports that arrived on the island during the MM I period may have been used as high value items. The discovery of high-value objects in only a small number of MM I tombs, such as gold items at Platanos Tholos A (Xanthoudides 1924, 110–1), may indicate that the stone vessel at Hagia Triada was deposited together with a specific individual to mark her/his social status. However, these two examples must be understood

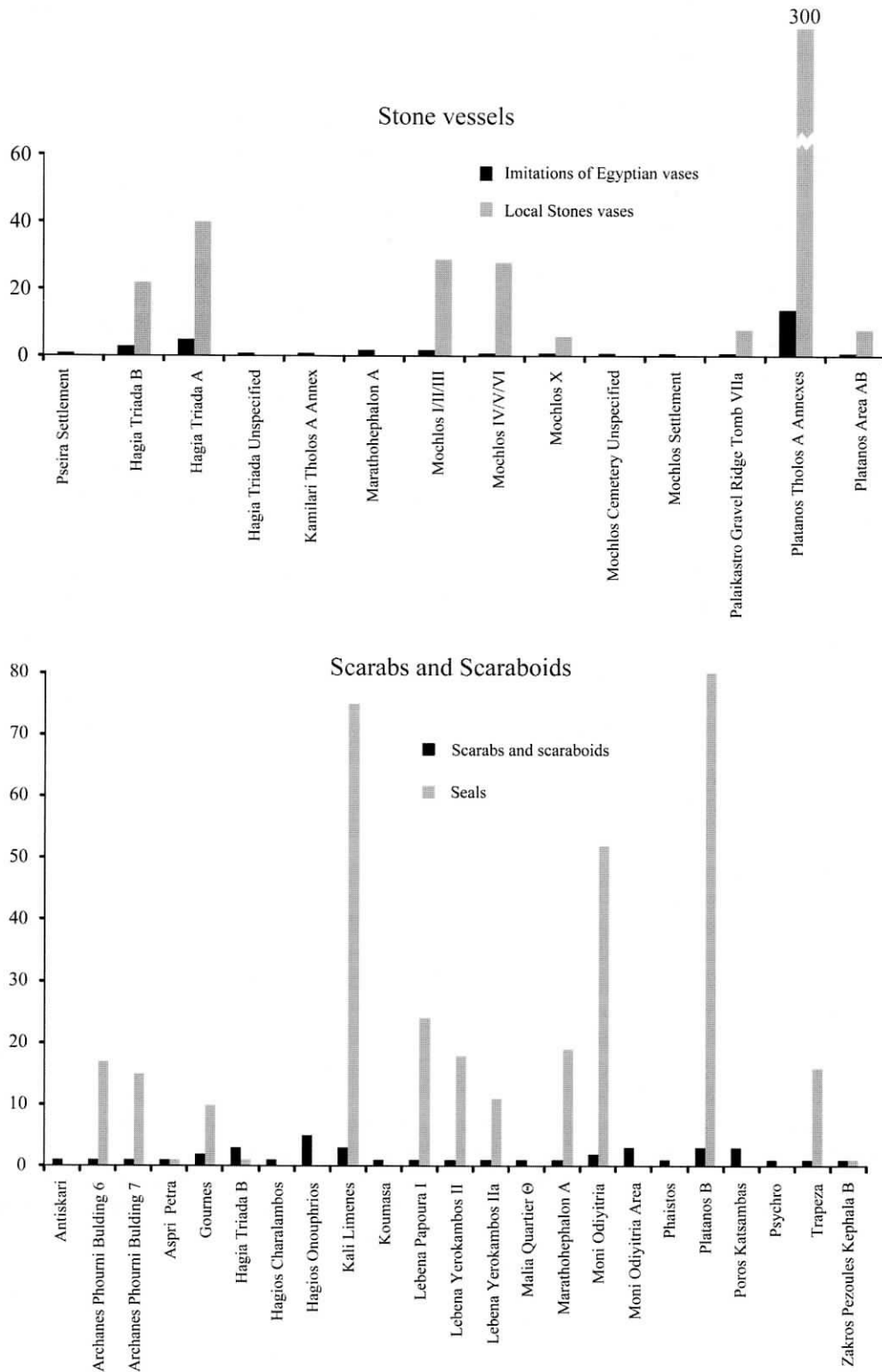


Figure 20.2. Distribution of Scarabs, Scaraboids and Egyptian Stone vessels in MM I funerary contexts.

| Stone vessels | Type | Origin |
|-----------------------|-------------------|----------|
| Hagia Triada A | Miniature amphora | Cretan |
| Hagia Triada A | Miniature amphora | Cretan |
| Hagia Triada A | Pyxis | Egyptian |
| Hagia Triada A | Cylinder Jar | Cretan |
| Hagia Triada A | Cylinder Jar | Cretan |
| Hagia Triada B | Miniature cup | Cretan |
| Hagia Triada B | Miniature cup | Cretan |
| Hagia Triada B | Miniature cup | Cretan |
| Mochlos II | Miniature jar | Cretan |
| Mochlos II | Miniature vase | Cretan |
| Mochlos Settlement | Pithos - amphora | Cretan |
| Mochlos Cemetery | Cylinder Jar | Cretan |
| Mochlos V | Miniature vase | Cretan |
| Mochlos XX | Miniature vase | Cretan |
| Palaikastro VII | Miniature Jar | Cretan |
| Platanos AB | Miniature cup | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature pithos | Cretan |
| Platanos chamber A2 | Miniature vase | Cretan |
| Platanos chamber A2 | Zoomorphic vase | Cretan |
| Platanos chamber A2 | Miniature cup | Cretan |
| Platanos chamber A3,4 | Miniature amphora | Cretan |
| Platanos chamber A3,4 | Miniature pithos | Cretan |
| Platanos chamber A4 | Miniature pithos | Cretan |
| Porti P | Miniature cup | Cretan |
| Pseira Town | Cylinder Jar | Cretan |

Table 20.2. Stone vessels in probable MM I contexts (following Warren 1969, Lambrou-Phillipson 1991 and Phillips 2008).

in very specific local circumstances. The Knossos evidence is so atypical that it suggests a unique use for stone vessels within this settlement. On the other hand, the Hagia Triada example has no parallels in the comprehensively known funerary record of the period (more than 100 tombs) and should not be used as a template to understand the general use of imported Egyptian material in tombs. Imported stone vessels were not considered suitable for deposition in tombs even when the cemetery was one of the more active social arenas of the period, where many significant social dynamics were negotiated. Egyptian stone-vessels were not used in Cretan funerary rituals to mark a privileged social status and such a use in non-funerary contexts may have been restricted largely to the very specific case of Knossos.

According to Bevan (2007, 97–8), the Cretan imitations of Egyptian stone vessels (Fig. 20.2, upper graph) follow a deposition pattern that can hardly be interpreted as that of high-value objects. Indeed, similar to the relationships between scarabs and seals, imitations of Egyptian stone vessels follow the general deposition patterns of Cretan stone vessels. Just like seals, from Early Bronze Age III onwards, stone vessels were often found in tombs, a phenomenon that occurred far more rarely in earlier periods. Also, as in the case of seals, the shapes and materials used were far more standardised by MM IA. The evidence indicates that they were more commonly used by Cretan populations. It is true that in contrast to seals, stone vessels have been found in very distinctive concentrations in a small number of tombs, such as Mochlos Tomb XI (Seager 1912, 58–61; Soles 1992, 94–97) or Platanos Tholos A (Xanthoudides 1924, 89), which may indicate that stone vessels were used in particular social dynamics of differentiation. However, these dynamics did not rely on the association of high value items with particular individuals, but on an interest to mark a difference for the whole group that used the tomb as its burial ground. The game of differentiation seems to have been played by the group that was interred in a particular tomb and not by privileged individuals trying to mark a personal status. This is shown clearly at Platanos, where more than three hundred stone vessels were found outside Tholos A (Gerontakou 2003; Xanthoudides 1924). These rituals do not highlight the value of particular items but the gathering and consumption of resources in the form of stone vessels by a community.

Egyptian imitations may have been included in these ceremonies, not because of their Egyptian links, but simply as ordinary stone vessels. Egyptianising stone vessels found outside Tholos B at Hagia Triada (Banti 1933, 184; Warren 1969, 76) and Porti (Warren 1965, 74; Xanthoudides 1924, pl. XXXIX no. 1057) show that Egyptian imitations were also used indiscriminately in unremarkable cemeteries and for small-scale ceremonies. The deposition of vessels with Egyptian influences can only be understood through the broader patterns of use of stone vessels in Cretan cemeteries, and it is the latter that requires explanation. When stone vessels were used to mark differentiation in an inter-settlement oriented competition, this was based on the number of stone vessels deposited, not on the Egyptian links that some of the stone vessels might have had. Apart from the small deposit at Hagia Triada (Bevan 2007, 98) the deposition pattern of copies of Egyptian stone vessels on Crete indicates that the Egyptian link may have been a trait to which Cretan populations did not attach much meaning, and it is possible that a large part of the population could not recognise it. In most cases, such a stylistic choice may have been devoid of much significance for social practices.

Egyptian materials, Cretan decisions

We have assumed that scarabs and Egyptianising stone vessels were items recognised by Cretans as exotica and that the distance made these objects desirable and highly valuable. Such an interpretation fits well with the traditional views of world-systems, as high-value materials from more advanced cultures are seen as one of the initial exchange mechanisms between Core and Marginal areas. However, in the Cretan record this model seems to follow a modern understanding of exotica in the western world and a natural inclination of archaeologists to draw attention to a particular material that is recognised as odd, rather than to show how Cretan populations actually used and understood it.

The Cretan evidence presents a tantalising opportunity to explore new possible scenarios for the interaction of cultures within the east Mediterranean. First, we should consider that much of the foreign material may have arrived on the island by a long down-the-line mechanism that involved the Levant, Cyprus and Anatolia. Given the sailing technology of the period and the prevailing currents and winds, such a route would have been far more accessible than sailing directly from Egypt to Crete (Agouridis 1997; Lambrou-Phillipson 1991; Wachsmann 1998, 295–301; but see Berg 2007). By the time it arrived on Crete, the material would have been so far removed from its origin, having passed through so many intermediaries, that most, if not all, of the values and ideological connections it originally conveyed would now be lost (Bevan 2004, 120, see also Stein 1999, 55–64) and, with them, much of its value as exotica. The objects, emptied of much of their original cultural meanings in the long and winding trade routes, could be easily manipulated and adapted by the receiving Cretan communities. Traders (particularly those who covered the last stages of the trade between Anatolia and Crete) would adapt to the demand of the Cretan markets and target desirable items for these markets. Therefore, the decisions that would have determined the selection of items to trade may have relied primarily on Cretan demand rather than on the choices of the east Mediterranean centres. This would explain why we find a very restricted range of Egyptian items on Crete, a question that has been raised recently by several authors (*e.g.* Phillips 2005, 41). Trade would have focused on items that were of particular interest to Cretans, such as scarabs and certain types of stone vessels, and not on other Egyptian items (*e.g.* other amuletic items such as pendants or figurines). Cretans would have chosen objects that they recognised and found easy to insert into the existing material culture classes, particularly as seals and stone vessels were categories of items that gained much social significance for Cretan communities in this period.

It may be argued that the larger distribution of scarabs and stone vessels on Crete in the south-central part of the island (*e.g.* top map, Fig. 20.3) indicates the existence of a

direct connection between south-central Crete and the east Mediterranean (Ferrence 2007; Van de Moortel 2007), which seems to imply that a direct sailing route between Egypt and Crete was possible. However, we must be careful when interpreting these distributions. It is only when Egyptian material is placed within the broader context of the Cretan material record that we identify the problems with such an interpretation. Material may have entered the island from the east, but it could easily have travelled around the north or south coasts of Crete according to demand (Fig. 20.4). The possible significance of the coastal site of Kommos in Middle Minoan IB (Shaw 2006, 11; Van de Moortel 2007) may have depended on its role as a regional trade centre rather than a hub for long-distance trade. Material on the south coast does not necessarily mean a direct link with north Africa or the east Mediterranean. This becomes clear when the patterns of deposition of Egyptian material are plotted against the patterns of some other material, for example long daggers (bottom map, Fig. 20.3). Long daggers were made of arsenical copper, produced locally (Nakou 1995; Tselios 2006). Crete is an island poor in copper sources and most probably the ore was imported from the Aegean via the north coast (Betancourt 2006; Doonan *et al.* 2007; Papadatos 2007). Despite this, these objects are found mainly in the south. Moreover, we should remember that there is a greater density of known Early and Middle Minoan tombs in the south, which represent the main corpus of archaeological contexts for these periods. Such bias in archaeological recovery has a direct impact on the distribution of objects. Therefore, the distribution of material on the island does not necessarily reflect trade routes directly, but consumption patterns and our biased knowledge of the archaeological record.

However, down-the-line trade need not be the only avenue for the introduction of Near-Eastern material to the island. Gift-exchange type networks are also likely to have existed. Due to their raw materials (such as in the case of gold and ivory) or their craftsmanship, some objects would have retained their high value, even in extensive gift-exchange trade networks. Such exchanges also tend to carry more of the information regarding the original ideas surrounding the object. Furthermore, some objects may have reached the island through other forms of relationships, not yet considered, such as Wengrow's (2010) recent suggestion that Egyptian women were reaching the island via marriage, thus bringing to the table the question of whether people were also moving along with material culture.

This article does not aim to replace one model of trade and cultural interaction with another, but instead to open up our range of interpretations to suit better the array of patterns in the material record, and to assess the extent to which these could be combined for a better understanding of the multilayered interaction between Crete and Egypt.

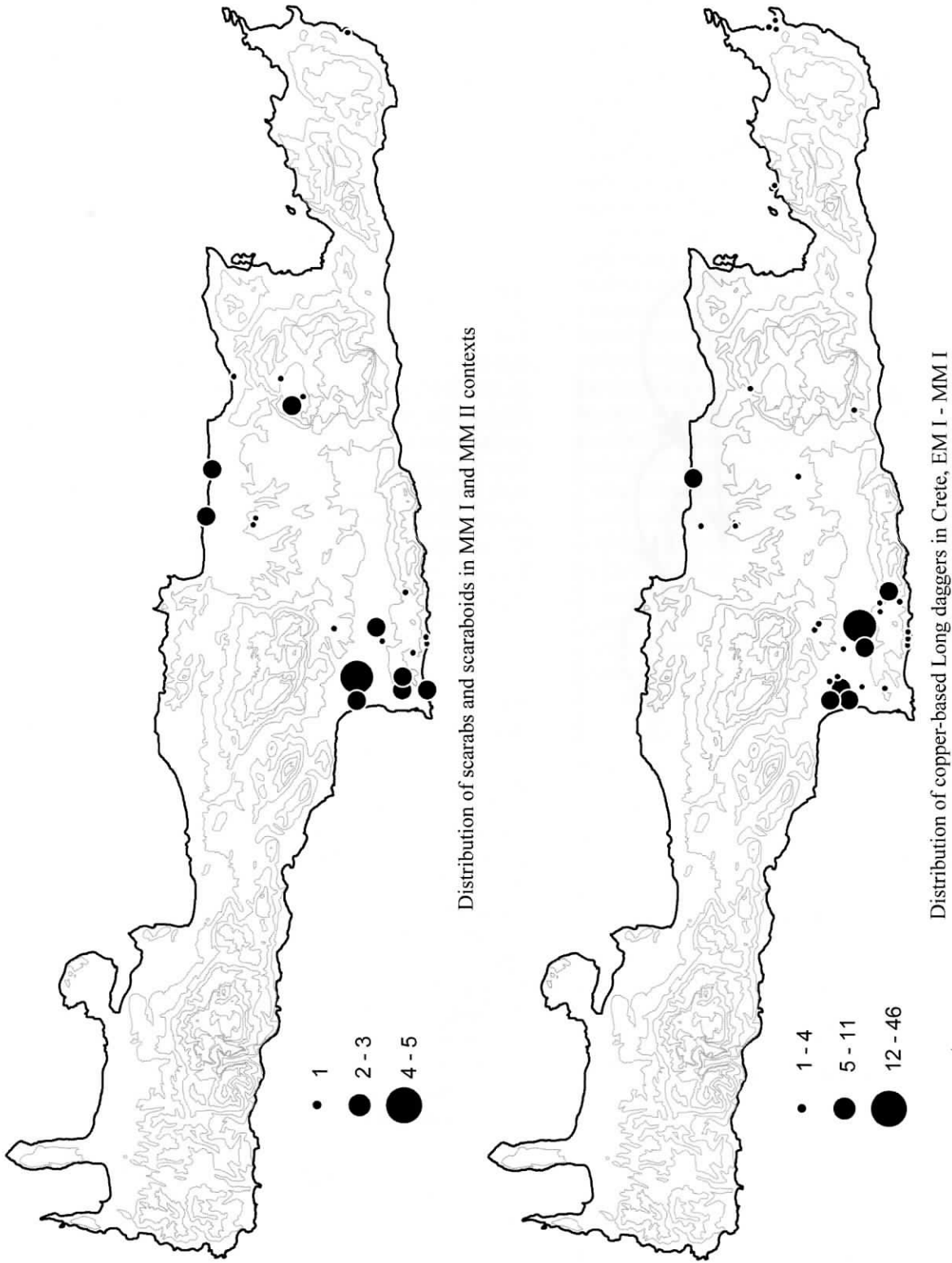


Figure 20.3. Spatial distribution of scarabs and long daggers in EM-MM Crete: (a) Distribution of scarabs and scaraboids in MM I and MM II contexts, (b) Distribution of copper-based long daggers in Crete, EM I-MM I

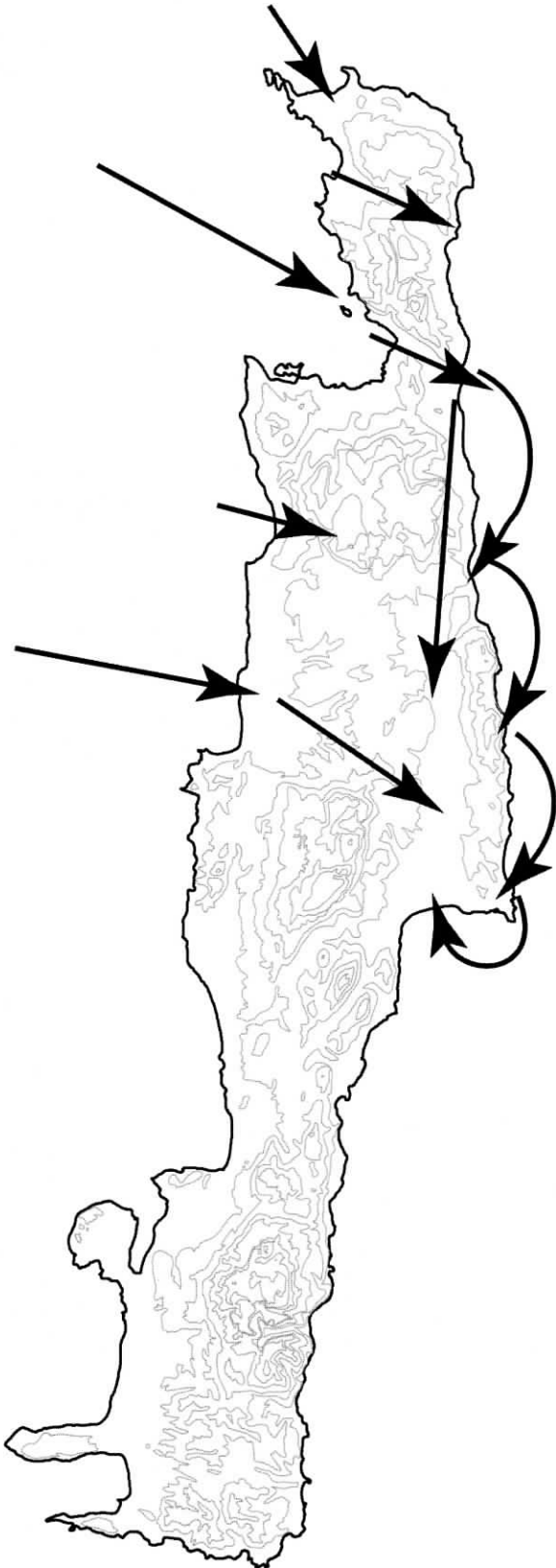


Figure 20.4. Possible routes of imported material on Crete.

In this respect, the overwhelming evidence from Cretan tombs points to Egyptian material not having a particularly high value. It shows that a large proportion of the Cretan-Egyptian links did not rely on gift-exchange or the exchange of high-value items, and that more mundane and common trade networks not only existed but may have channelled much of the off-island trade. Moreover, it suggests that Cretan decisions may have played a more important role in the arrival and adoption of Egyptian material on the island than actual Egyptian influences.

A Cretan view on world-systems

The contextualised interpretation of the material record outlined here raises some issues regarding world-systems in the Mediterranean around 2000 BC. World-systems approaches are in danger of becoming stagnant as the traditional overarching models on which they were developed have been reified in a way that precludes their combination with bottom-up analyses. However, there is no reason why world-systems perspectives cannot incorporate the study of specific cases without losing any of their large-scale perspective. In practical terms, this means paying more attention to the contextualisation of foreign objects in the material record where they were found and not divorcing them from the cultural context where they were deposited. In theoretical terms, it means developing new, flexible and multilayered models within the language and structural principles of world-systems theory, as they are still relevant and useful to the understanding of small Mediterranean populations.

The type of mechanisms outlined by the Sherratts two decades ago (*i.e.* an expanding core area bringing new areas under its influence, first by establishing trade connections through high-value items and then by expanding these connections into an asymmetrical trade system involving raw and bulk materials) may still apply in certain areas (Sherratt 1993a; Sherratt 1994). In other areas, we should start to consider other trajectories and other interaction mechanisms that depended on the traits of each culture and population. We need to be more flexible in the consideration of how items were exchanged and the types of trade in which they were moved around. Furthermore, many of these mechanisms may have been in use at the same time, involving a multi-level relationship between two geographical areas and dependent on particular agents, types of objects and information.

Crete has proven to be an excellent case in which such flexibility can be studied. The island should be considered as an area at the fringe of the east Mediterranean trade systems around 2000 BC, but not necessarily as 'marginal', at least in the way the term has been traditionally defined in world-

systems approaches (Sherratt and Sherratt 1991, 367–8; Sherratt 1993a, 22–4). Crete was involved in trade routes with the east Mediterranean that did not exist in earlier periods. Material may have arrived on Crete as a natural consequence of more intense trade in the east Mediterranean, due to improved sailing techniques and a major interest by Egyptian and Near-Eastern centres in long-distance trade that energised the whole trade system in this part of the Mediterranean.

The opening up of Cretan communities to the east Mediterranean did not consist of a classically defined economic asymmetric relationship. Crete was undergoing deep internal transformations that ended in the emergence of a new socio-economic system in Middle Minoan I, which had many, if not all, of the traits of an early state (administrative system, clear settlement hierarchy, monumental architecture). One of the consequences of such a change was that Cretan populations acquired an advantageous position in the Aegean trade system during the Middle and Late Bronze Ages. A growing amount of Cretan material in the Aegean during the Middle Bronze Age (Broodbank 2004; Wiener 1991) indicates that Crete managed to establish itself as the dominating trade force in the Aegean. Developed structures of off-island trade were in place on Crete by Middle Minoan I. Such structures may have facilitated Cretan populations' rapid engagement in trade relationships with the east Mediterranean. Moreover, such a symmetrical interaction would have been helped by down-the-line trade mechanisms that dampened many of the original cultural influences attached to the material exchanged. The fact that the island naturally linked its dominant position in the Aegean trade network with the new east Mediterranean exchange circuits may have also been quite significant for the understanding of the Cretan position in long-distance trade networks. While such a link may not have had large significance for Cretan populations at the beginning of the Middle Minoan period, as the trade with the east was still of low intensity, it would have set up an advantageous structural situation that Cretan populations would continue to develop and which would culminate in Mycenaean times when the Aegean became a major link between the Mediterranean world-system and continental Europe (Sherratt 1993a).

There is no real material evidence to support the idea that Crete was subordinate to the east Mediterranean centres in any meaningful way in the early 2nd millennium BC, calling into a question a traditional interpretation of core-periphery relationships. Some of the ideas developed by Stein (1998; 1999) in Distance-Parity perspectives seem much more relevant for understanding the way Crete related to the east Mediterranean during this period. In this model, economic, political and cultural influences of far away east Mediterranean centres such as Egypt may have been minimal. The inability of the eastern centres to exert their influence

over such long distances, combined with the presence of developed social, political and economic institutions on Crete, would have allowed quite a symmetrical relationship between the two. On the other hand, long-distance trade cannot be ignored as trivial, since such exchanges may have broadened the spectrum of economic activities that the new socio-economic organisation of Cretan palatial societies could benefit from and which they were quick to develop over the following periods, when a more direct influence from eastern centres seem to have been exerted.

It is undisputable that the world-systems framework constitutes a very relevant way of understanding the Mediterranean, particularly from the 2nd millennium BC onwards, when long-distance trade began to develop rapidly. World-systems theory provides a clear and structured way of understanding large-scale dynamics that are fundamental to the consideration of communities and small regions around the east Mediterranean. The big picture that was drawn by the Sherratts does not lose any of its relevance and usefulness when it is applied to smaller geographical and temporal scales. It is actually when we follow an approach that accounts for the ever-changing heterogeneity of human populations and which treats terms such as 'margin', 'core' and 'periphery' as structural positions requiring characterisation on the basis of particular traits in each area investigated, that a world-systems approach realises its full potential in explaining the contingent nature of the Mediterranean and the people that inhabited it.

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References

- Agouridis, C. (1997) Sea routes and navigation in the third millennium Aegean. *Oxford Journal of Archaeology* 16(1), 1–24.

- Banti, L. (1933) La grande tombe a tholos di Haghia Triadha. *Annuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente* XIII–XIV, 155–241.
- Ben-Tor, D. (2006) Chronological and Historical Implications of the Early Egyptian Scarabs on Crete. In E. Czerny, I. Hein, H. Hunger, D. Melman and A. Schwab (eds.) *Timelines: Studies in Honour of Manfred Bietak*, 77–86. Leuven, Uitgeverij Peeters en Departement Oosterse Studies.
- Berg, I. (2007) Aegean Bronze Age seascapes – a case study in maritime movement, contact and interaction. In S. Antoniadou and A. Pace (eds.) *Mediterranean Crossroads*, 387–418. Athens, Pierides Foundation.
- Betancourt, P. P. (2005) Egyptian Connections at Hagios Charalambos. In R. Laffineur and E. Greco (eds.) *EMPORIA. Aegeans in the central and eastern Mediterranean. Proceedings of the 10th International Aegean Conference /10e Rencontre égéenne internationale. Athens, Italian School of Archaeology, 14–18 April 2004. Volume II*, 449–54. Liège/Austin, University of Liège/University of Texas.
- Betancourt, P. P. (2006) *The Chrysokamino metallurgy workshop and its territory*. Princeton, American School of Classical Studies at Athens.
- Betancourt, P. P. and Muhly, J. D. (2006) The Sistra from the Minoan Burial Cave at Hagios Charalambos. In E. Czerny, I. Hein, H. Hunger, D. Melman and A. Schwab (eds.) *Timelines: Studies in Honour of Manfred Bietak*, 429–36. Leuven, Uitgeverij Peeters en Departement Oosterse Studies.
- Bevan, A. (2004) Emerging Civilized Values? The Consumption and Imitation of Egyptian Stone Vessels in EMII–MMI Crete and its Wider Eastern Mediterranean Context. In J. C. Barrett and P. Halstead (eds.) *The Emergence of Civilisation Revisited*, 107–26. Oxford, Oxbow Books.
- Bevan, A. (2007) *Stone Vessels and Values in the Bronze Age Eastern Mediterranean*. Cambridge, Cambridge University Press.
- Branigan, K. (1970) *The foundations of palatial Crete: a survey of Crete in the Early Bronze Age*. London, Routledge and Kegan Paul.
- Broodbank, C. (2004) Minoanisation. *Proceedings of the Cambridge Philological Society* 50, 46–91.
- Carinci, F. M. (2000) Western Messara and Egypt during the Protopalatial period: a minimalist view. In A. Karetsou (ed.) *Krīti – Aigyptos. Politismikoi desmoi triōn chiliētiōn [Crete – Egypt. Cultural links over three millennia]*, 31–37. Athens, Ministry of Culture – Herakleion Archaeological Museum.
- Colburn, C. S. (2008) Exotica and the Early Minoan Elite: Eastern Imports in Prepalatial Crete. *American Journal of Archaeology* 112, 225–46.
- Davaras, C. (1989) Spīlαιο Agiou Charalampos (Gerontomouri) [The cave of St Charalambos (Gerontomouri)]. *Archaiologikon Deltion* 37(B2), 387–388. [in Greek].
- Davaras, C. (1990) Prōimes Minōikes Sfragides kai Sfragistikoi Daktylioi apo to Spīlαιο Gerontomouri Lasithiou [Early Minoan Seals and Signet Rings from the Cave of Gerontomouri, Lasithi]. *Archaiologikī Efimeris* 127, 9–48. [in Greek].
- Doonan, R. C. P., Day, P. M. and Dimopoulou-Rethemiotaki, N. (2007) Lame Excuses for Emerging Complexity in Early Bronze Age Crete: the Metallurgical Finds from Poros Katsambas and their Context. In P. M. Day and R. C. P. Doonan (eds.) *Metallurgy in the Early Bronze Age Aegean*, 98–122. Oxford, Oxbow Books.
- Evans, A. J. (1928) *The Palace of Minos. A comparative account of the successive stages of the Early Cretan civilization as illustrated by the discoveries at Knossos. Vol. II: Part I. Fresh lights on origins and external relations: the restoration in town and palace after seismic catastrophe towards close of M.M. III, and the beginnings of the new era*. London, MacMillan and Co. Ltd.
- Ferrence, S.C. (2007) Hippopotamus Ivory in EM-MM Lasithi and the Implications for Eastern Mediterranean Trade: New Evidence from Hagios Charalambos. In P. P. Betancourt, M. C. Nelson, and H. Williams (eds.) *Krinoi kai Limenes. Studies in Honor of Joseph and Maria Shaw*, 167–76. Philadelphia, INSTAP Academic Press.
- Gerontakou, E. (2003) Dyo Mesominōikoi apothetes sto nekrotafeio tou Platanou [Two Middle Minoan deposits in the cemetery of Platanos]. In A. Vlachopoulos and K. Birtacha (eds.) *ARGONAUTIS. Timītikos tomos gia ton kathīgītī Christo G. Ntouma apo tous mathītes tou sto Panepistīmio Athīnōn [ARGONAUT. A volume in honour of Professor Christos G. Doulas from his students at the University of Athens]*, 303–330. Athens, Ī Kathīmerinī A.E. [in Greek].
- Haggis, D. C. (1999) Staple Finance, Peak Sanctuaries, and Economic Complexity in Late Prepalatial Crete. In A. Chaniotis (ed.) *From Minoan farmers to Roman traders. Sidelights on the economy of ancient Crete*, 53–85. Stuttgart, F. Steiner.
- Hatzidakis, J. A. (1916) Prōtominōikoi tafoi para to chorion Gourmes [Early Minoan tombs around the village of Gourmes]. *Archaiologikon Deltion* 1, 59–63. [in Greek].
- Hatzidakis, J. A. (1921) Minōikoi tafoi en Krīti [Minoan tombs in Crete]. *Archaiologikon Deltion* 4, 45–87. [in Greek].
- Höflmayer, F. (2007) Ägyptische Skarabäen auf Kreta und ihre Bedeutung für die absolute Chronologie der minoischen Altpalastzeit (MM IB -MM IIB). *Egypt and the Levant. International Journal for Egyptian Archaeology and Related Disciplines* 17, 107–25.
- Kardulias, P. N. (1999) Multiple Levels in the Aegean Bronze Age World-System. In P. N. Kardulias (ed.) *World-Systems Theory in Practice: Leadership, Production, and Exchange*, 179–201. Lanham, MD, Rowman & Littlefield.
- Karetsou, A., Andreadaki-Vlasaki, M. and Papadakis, N. (2001) *Crete – Egypt. Three thousand years of cultural links. Catalogue*. Heraklion/Cairo, Hellenic Ministry of Culture.
- Krzyszowska, O. (2005) *Aegean seals, an introduction*. London, Institute of Classical Studies, School of Advanced Study, University of London.

- Lambrou-Phillipson, C. (1990) *Hellenorientalia. The Near Eastern presence in the Bronze Age Aegean, ca. 3000–1100 B.C. Interconnections based on the material record and the written evidence; plus Orientalia: catalogue of Egyptian, Mesopotamian, Mittanian, Syro-Palestinian, Cypriot and Asia Minor objects from the Bronze Age Aegean*. Göteborg, Paul Åströms Förlag.
- Lambrou-Phillipson, C. (1991) Seafaring in the Bronze Age Mediterranean: the parameters involved in maritime travel. In R. Laffineur and L. Basch, (eds.) *Thalassa: L'Égée Préhistorique et la mer: actes de la troisième rencontre égéenne internationale de l'Université de Liège, Station de recherches sous-marines et océanographiques (StaReSO), Calvi, Corse, 23–25 avril 1990*, 11–20. Liège, University of Liège.
- Legarra Herrero, B. (2007) *Mortuary behaviour and social organisation in Pre- and Protopalatial Crete*. Unpublished PhD thesis, University College London.
- MacGillivray, J. A. (1998) *Knossos: pottery groups of the Old Palace period*. London, British School at Athens.
- Manning, S. (1994) The emergence of divergence: development and decline on Bronze Age Crete and the Cyclades. In C. Mathers and S. Stoddart (eds.) *Development and Decline in the Mediterranean Bronze Age*, 221–70. Sheffield, John Collis.
- Manning, S. (1997) Cultural change in the Aegean c. 2200 B.C. In H. Nüzhet Dalfes, G. Kukla and H. Weiss (eds.) *Third Millennium B.C. Climate Change and Old World Collapse*, 149–71. London, Springer.
- Manning, S., Ramsey, C. B., Kutschera, W., Higham, T., Kromer, B., Steier, P. and Wild, E. M. (2006) Chronology for the Aegean Late Bronze Age 1700–1400 B.C. *Science* 312(5773), 565–9.
- Müller, W. and Pini, I. (1999) *Corpus der Minoischen und Mykenischen Siegel. Band II 6. Iraklion Archäologisches Museum. Teil 6 die Siegelabdrücke von Aj. Triada und anderen zentral- und ostkretischen Fundorten*. Berlin, Mann.
- Müller, W. and Pini, I. (2007a) *Corpus der minoischen und mykenischen Siegel. Band III. Iraklion. Archäologisches Museum. Teil 1 Sammlung Giamalakis*. Mainz am Rhein, von Zabern.
- Müller, W. and Pini, I. (2007b) *Corpus der minoischen und mykenischen Siegel. Band III. Iraklion. Archäologisches Museum. Teil 2 Sammlung Giamalakis*. Mainz am Rhein, von Zabern.
- Nakou, G. (1995) The Cutting Edge: A New Look at Early Aegean Metallurgy. *Journal of Mediterranean Archaeology* 8(2), 1–32.
- Papadatos, Y. (2007) The Beginning of Metallurgy in Crete: New Evidence from the FN-EM I Settlement at Kephala Petras, Siteia. In P. M. Day and R. C. P. Doonan (eds.) *Metallurgy in the Early Bronze Age Aegean*, 154–67. Oxford, Oxbow Books.
- Phillips, J. S. (1991) *The impact and implications of the Egyptian and 'Egyptianizing' material found in Bronze Age Crete ca. 3000–ca. 1100 B.C.* Unpublished thesis, University of Toronto.
- Phillips, J. S. (2004) The Odd Man Out: Minoan Scarabs and Scaraboids. In Bietak, M. and Czerny, E. (eds.) *Scarabs of the Second Millennium BC from Egypt, Nubia, Crete and the Levant: Chronological and Historical Implications. Papers of a Symposium, Vienna, 10th–13th of January 2002*, 161–70. Vienna, Österreichische Akademie der Wissenschaften.
- Phillips, J. S. (2005) A question of reception. In Clarke, J. (ed.) *Archaeological perspectives on the transmission and transformation of culture in the eastern Mediterranean*, 39–47. Oxford, Oxbow Books.
- Phillips, J. S. (2006) Why?... And Why Not? Minoan Reception and Perceptions of Egyptian Influence. In E. Czerny, I. Hein, H. Hunger, D. Melman and A. Schwab (eds.) *Timelines: Studies in Honour of Manfred Bietak*, 293–300. Leuven, Uitgeverij Peeters en Departement Oosterse Studies.
- Phillips, J. S. (2008) *Aegyptiaca on the island of Crete in their chronological context: a critical review*. Vienna, Österreichische Akademie der Wissenschaften.
- Pini, I. (1992) *Corpus der Minoischen und Mykenischen Siegel. Band V Supplementum 1A. Kleinere griechische Sammlungen. Supplementum 1A. Ägina-Korintz*. Berlin, Mann.
- Pini, I. (2000) Eleven Early Cretan Scarabs. In A. Karetsou (ed.) *Krīī – Aigyptos. Politismikoi desmoi triōn chilitiōn [Crete – Egypt. Cultural links over three millennia]*, 107–113. Athens, Ministry of Culture – Herakleion Archaeological Museum.
- Platon, N. (1969) *Corpus der Minoischen und Mykenischen Siegel. Band II. Iraklion archäologisches Museum. Teil I Die Siegel der Vorpalastzeit*. Berlin, Mann.
- Politis, T. (2001) Gold and Granulation: Exploring the social implications of a Prestige Technology in the Bronze Age Mediterranean. In A. J. Shortland (ed.) *The Social Context of Technological Change. Egypt and the Near East, 1650–1550 BC: Proceedings of a conference held at St. Edmund Hall, Oxford 12–14 September 2000*, 161–93. Oxford, Oxbow Books.
- Renfrew, C. (1972) *The Emergence of Civilisation: The Cyclades and the Aegean in the Third Millennium BC*. London, Methuen.
- Sakellarakis, J. A. and Kenna, V. E. G. (1969) *Corpus der Minoischen und Mykenischen Siegel. Band IV. Sammlung Metaxas*. Berlin, Mann.
- Sakellarakis, J. A. and Sapouna-Sakellarakis, E. (1997) *Archanes. Minoan Crete in a New Light*. Athens, Ammos Publications, Eleni Nakou Foundation.
- Sbonias, K. (1995) *Frühkretische Siegel. Ansätze für eine Interpretation der sozial-politischen Entwicklung auf Kreta während der Frühbronzezeit*. Oxford, Tempus Reparatum.
- Sbonias, K. (1999) Social Development Management of Production and Symbolic Representation in Prepalatial

- Crete. In Chaniotis, A. (ed.) *From Minoan farmers to Roman traders: Sidelights on the economy of ancient Crete*, 25–51. Stuttgart, F. Steiner.
- Schoep, I. (1999) The Origins of Writing and Administration on Crete. *Oxford Journal of Archaeology* 18(3), 265–76
- Schoep, I. (2006) Looking Beyond the First Palaces: Elites and the Agency of Power in EM III–MM II Crete. *American Journal of Archaeology* 110, 37–64.
- Seager, R. B. (1912) *Explorations in the Island of Mochlos*. Boston/New York, American School of Classical Studies.
- Shaw, J. W. (2006) The Architecture and Stratigraphy of the Civic Buildings. In J. W. Shaw and M. C. Shaw (eds.) *Kommos V. The Monumental Minoan Buildings at Kommos*, 1–116. Princeton, Princeton University Press.
- Sherratt, A. G. (1993a) What Would a Bronze-Age World-system Look Like? Relations between temperate Europe and the Mediterranean in later Prehistory. *Journal of European Archaeology* 1(2), 1–58.
- Sherratt, A. G. (1993b) Who are you calling peripheral? Dependence and independence in European prehistory. In C. Scarre and F. Healy (eds.) *Trade and Exchange in Prehistoric Europe*, 245–55. Oxford, Oxbow.
- Sherratt, A. G. (1994) Core, periphery and margin: perspectives on the Bronze Age. In C. Mathers and S. Stoddart (eds.) *Development and Decline in the Mediterranean Bronze Age*, 335–345. Sheffield, Sheffield Academic Press.
- Sherratt, A. G. and Sherratt, E. S. (1991) From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems. In N. H. Gale (ed.) *Bronze Age Trade in the Mediterranean*, 351–86. Göteborg, Paul Åström förlag.
- Sherratt, A. G. and Sherratt, S. (1998) Small Worlds: Interaction and Identity in the Ancient Mediterranean. In E. H. Cline and D. Harris-Cline (eds.) *The Aegean and the Orient in the Second Millennium: Proceedings of the 50th Anniversary Symposium, Cincinnati, 18–10 April 1997*, 329–43. Liège, University of Liège.
- Soles, J. S. (1992) *The Prepalatial Cemeteries at Mochlos and Gournia and the House Tombs of Bronze Age Crete*. Princeton, American School of Classical Studies at Athens.
- Stefani, E. (1933) La grande tomba a tholos di Haghia Triadha. *Anuario della Scuola Archeologica di Atene e delle Missioni Italiane in Oriente* XIII–XIV, 147–54.
- Stein, G. J. (1998) World-system Theory and Alternative Modes of Interaction in the Archaeology of Culture Contact. In J. G. Cusick (ed.) *Studies in Culture Contact. Interaction, Culture, Change, and Archaeology*, 220–55. Carbondale, Center for Archaeological Investigations, Southern Illinois University.
- Stein, G. J. (1999) Rethinking World-Systems: Power, Distance, and Diasporas in the Dynamics of Interregional Interaction. In N. P. Kardulias (ed.) *World-System Theory in Practice. Leadership, Production, and Exchange*, 153–78. Lanham, Rowman & Littlefield Publishers Inc.
- Tselios, T. (2006) A New Look at Minoan Metalworking Techniques. In J. Day, C. Greenlaw, H. Hall, A. Kelly, L. Matassa, K. McAleese, E. Saunders and D. Stritch (eds.) *SOMA 2004. Symposium on Mediterranean Archaeology. Proceedings of the eighth annual meeting of postgraduate researchers. School of Classics, Trinity College Dublin. 20–22 February 2004*, 193–8. Oxford, Archaeopress.
- Van de Moortel, A. (2007) Kommos and Its East Mediterranean Connections in the Protopalatial Period. In P. P. Betancourt, M. C. Nelson, and H. Williams (eds.) *Krinoi kai Limenes. Studies in Honor of Joseph and Maria Shaw*, 177–84. Philadelphia, INSTAP Academic Press.
- Wachsmann, S. (1998) *Seagoing ships and seamanship in the Bronze Age Levant*. London, Texas A&M University Press.
- Warren, P. (1965) The first Minoan Stone vases and EM chronology. *Kritika Chronika* 19, 7–43.
- Warren, P. (1969) *Minoan Stone Vases*. Cambridge, Cambridge University Press.
- Warren, P. (1981) Knossos and its foreign relations in the Early Bronze Age. In *Acts of the 4th International Cretological Congress (Herakleion, 29 August – 3 September 1976)*, vol. A(2): *Prehistoric and ancient times*, 628–637. Athens, University of Crete.
- Warren, P. (1995) Minoan Crete and Pharaonic Egypt. In W. V. Davies and E. Schofield (eds.) *Egypt, the Aegean and the Levant; interconnections in the Second Millennium BC*, 1–18. London, British Museum Press.
- Warren, P. (2000) Crete and Egypt: the Transmission of Relationships. In A. Karetsou (ed.) *Krītī – Aigyptos. Politismikoi desmoi triōn chilitiōn [Crete – Egypt. Cultural links over three millennia]*, 24–28. Athens, Ministry of Culture – Herakleion Archaeological Museum.
- Warren, P. (2005) A model of iconographical transfer. The case of Crete and Egypt. In I. Bradfer-Burdet, B. Detournay and R. Laffineur (eds.) *Kris Technitis. L'artisan crétois. Recueil d'articles en l'honneur de Jean-Claude Poursat, publié à l'occasion des 40 ans de la découverte du Quartier Mu*, 221–7. Liège/Austin, University of Liège/University of Texas.
- Warren, P. and Hankey, V. (1989) *Aegean Bronze Age Chronology*. Bristol, Bristol Classical Press.
- Watrous, L. V. (1994) Crete from earliest prehistory through the Protopalatial period. *American Journal of Archaeology* 98, 698–753.
- Watrous, L. V. (1998) Egypt and Crete in the Early Middle Bronze Age: A Case of Trade and Cultural Diffusion. In E. H. Cline and D. Harris-Cline (eds.) *The Aegean and the Orient in the Second Millennium: Proceedings of the 50th Anniversary Symposium, Cincinnati, 18–10 April 1997*, 19–28. Liège, University of Liège.
- Watrous, L. V. (2005) Cretan International Relations during the Middle Minoan IA Period and the Chronology of Seager's Finds from the Mochlos Tombs. In R. Laffineur and E. Greco (eds.) *EMPORIA. Aegeans in the central and eastern Mediterranean. Proceedings of the 10th International Aegean Conference / 10e Rencontre égéenne internationale. Athens, Italian School of Archaeology, 14–18 April 2004. Volume*

- I, 107–16. Liège/Austin, University of Liège/University of Texas.
- Weingarten, J. (1991) *The Transformation of Egyptian Taweret into the Minoan Genius: A Study in Cultural Transmission in the Middle Bronze Age*. Partille, Paul Åström Förlag.
- Weingarten, J. (2005) How many Seals Make a Heap: Seals and Interconnections on Prepalatial Crete. In R. Laffineur and E. Greco (eds.) *EMPORIA. Aegeans in the central and eastern Mediterranean. Proceedings of the 10th International Aegean Conference /10e Rencontre égéenne internationale. Athens, Italian School of Archaeology, 14–18 April 2004. Volume II*, 759–66. Liège/Austin, University of Liège/University of Texas.
- Wengrow, D. (2010) The voyages of Europa: ritual and trade in the Eastern Mediterranean, c.2300–1850 BC. In Parkinson, W. A. and Galaty, M. (eds.) *Archaic State Interaction: The Eastern Mediterranean in the Bronze Age*. Santa Fe, NM, SAR Press.
- Wiener, M. H. (1991) The Nature and Control of Minoan Foreign Trade. In Gale, N. H. (ed.) *Bronze Age Trade in the Mediterranean. Papers Presented at the Conference held at Rewley House, Oxford, in December 1989*, 325–50. Jonsered, Paul Åströms Förlag.
- Xanthoudides, S. (1924) *The Vaulted Tombs of the Mesara*. London, Hodder and Stoughton.
- Yule, P. (1983) Notes in scarabs and Aegean chronology. *Annual of the British School at Athens* 78, 359–68.