

Université de Montréal

Metaphors of Passage
(The Minoan 'Horns of Consecration' and 'Double-Axe'):

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Université de Montréal
Faculté des études supérieures

Ce mémoire intitulé:

Metaphors of Passage
(The Minoan 'Horns of Consecration' and 'Double Axe')

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Metaphors of Passage (The Minoan 'Horns of Consecration' and 'Double-Axe')

Summary

The Minoan "Horns of Consecration" (HC) and "Double Axe" (DA) motifs are here examined through their various stages of use, contexts and forms in the Cretan Bronze Age. A typology is established for each motif, and their interpretations of the last century of research are presented. To these interpretations we finally add our own, which find that HC represented a "Sacred Boat" which served in part to convey the dead to the next world, and that DA was particularly significant through its relation to funerary rites, the sea and a textile industry. If our interpretations are valid, we surmise that the unified motif [HC+DA] of the later Bronze Age may have represented a "Sacred Sailing Vessel".

Key Words

Minoan, 'Horns of Consecration', 'Double-Axe', Bronze Age, Crete

Metaphors of Passage (The Minoan 'Horns of Consecration' and 'Double-Axe')

Résumé

Les motifs Minoens des “Cornes de Consécration” (HC) et de la “Double Hache” (DA) sont ici examinés à travers leurs parcours à l’âge de bronze Crétois, leurs contextes et leurs formes. Une typologie est établie pour les motifs, et les interprétations du dernier siècle sont présentés. À ces interprétations nous joignons les nôtres qui trouvent que HC était représentatif en partie d’un “Navire Sacré” qui transportait les morts au prochain monde, et que DA tirait sa signification particulière à travers ses relations avec les rites funéraires, la mer et une industrie du textile. Si ces interprétations sont valables, nous soupçonnons que le motif unifié [HC+DA] de l’âge de bronze tardif représentait un “Navire à Voile Sacré”.

Mots clés

Minoen, ‘Cornes de Consécration’, ‘Double-Hache’, Age de Bronze, Crète

List of Abbreviations and Relative Chronology

NL	Neolithic	8 th to 4 th Millennia BC ¹
EN	Early Neolithic	
MN	Middle Neolithic	
LN	Late Neolithic	
BA	Bronze Age	4 th to 2 nd Millennia BC
EBA	Early Bronze Age	
MBA	Middle Bronze Age	
LBA	Late Bronze Age	
EM	Early Minoan	c 3300 - 2100 BC ²
MM	Middle Minoan	c 2100 - 1600 BC
LM	Late Minoan	c 1600 - 1100 BC
EMB	Eastern Mediterranean Basin	

Variables:

HC	“Horns of Consecration”
DA	“Double-Axe”
[HC+DA]	Unified symbol: “Horns of Consecration” with “Double-Axe” between

NB: All dates are in years BC but for those relating to modern scholars and scholarship.

¹ Evans, J.D.: 1964 and 1994: Knossian Neolithic strata and chronology

² Dickinson: 1994: Chapter I : Terminology and Chronology

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Introduction: Symbols and Concepts

The present work examines two important iconographic motifs of Minoan Crete, the so called 'Horns of Consecration' (HC) and 'Double-Axe' (DA). The use of the abbreviations HC, DA and [HC+DA],³ the latter of which is the combinative symbol of HC with DA placed between its 'horns', are here not solely used as abbreviations of the symbols' traditional titles, but serve the function of variables. The author has opted for their use instead of the traditional titles, as the latter were found both cumbersome and conceptually obstructive. As these variables are derived from their traditional titles they should cause a minimum of confusion for our readers familiar with the Minoan world, while establishing a conceptual distance between traditional titles and symbolic expressions for the unfamiliar. What we seek is a more descriptive definition of these symbols than their present titles and traditional interpretations afford them. The creation of a typological overview from their earliest appearances to the later stages of the Cretan Bronze Age was undertaken to this end. The symbols we here discuss and the culture in which they occur are examined through time, the length of which is difficult to establish. This time period covers approximately three thousand years, i.e. the fourth, third and second millennia, i.e. from the final phases of NL to the end of LM.

HC and DA are arguably the most widely recognizable and diagnostically 'Minoan' of motifs. They are the most prominent cultural symbols of Minoan Crete and yet remain to date shrouded in abstraction. HC is certainly the more ambiguous of the two as it seems not to represent a clear, understandable or otherwise comparable 'thing' beyond the horned or horn-like object it itself is, and has consequently been accepted as an abstract representation of bovid horns from its earliest appearance in the archaeological record to the end of the Minoan BA. By contrast, DA is so similar to a double-bitted-axe, and so often found in a metal double-bitted axe form that it has been scarcely surmised to represent anything other than that in past scholarship. Our initial task is therefore to establish what forms these symbols take, what sorts of decorative patterns are applied to them, where and when they can be found, as well as what other objects or

³ HC and DA have been employed in past scholarship. e.g. D'Agata, 1992, as abbreviations. We use them here as variables, and add to these [HC+DA] to represent the motif of the 'Horns of Consecration' with a hafted 'Double Axe' placed between it.

motifs share in any of our symbols' forms, decorations and contexts.

From EM through LM, a great variability exists in the form of these symbols, which needs to be both understood and put into context. Thus, the instances collected are not here studied in isolation, but rather within a wider selection of objects from various localities in Crete to provide a material and iconographic context for the motifs. Subsequently, some concepts and interpretations regarding Minoan Religion, such as attributed ideas of Divinity and Sacrality developed over the last century are addressed, as these symbols have often been tied to concepts of a fertility cult or divinity of some sort.⁴ This then is somewhat more than a study of two symbols among others, but rather a study of them in relation to their cultural environment. In the case of these symbols, the cultural environment is predominantly of a religious or sacred character, but with connotations of wealth, power and prestige, which bring with them additional social, economic and political facets. The present samples are representative of most types of occurrences, be they contextual, aesthetic, in material or technique. Through our analysis of these samples a number of noteworthy patterns reveal themselves, which bring us closer to the descriptive definitions we seek and to which we proffer our interpretations.

⁴ Evans: 1964; Nilsson: 1971; Rutkowski: 1986; et al.

Part I: A: Settlement and Continuity

Crete is an island situated in the middle of the Eastern Mediterranean Basin. It is the largest island of the Aegean and the southernmost inhabited one of that region. It stretches approximately 270 km from east to west, no more than 60 km north to south in its central region, and as little as 12 km at the Isthmus of Ierapetra. Within the context of the Eastern Mediterranean Basin, it is second in size only to Cyprus. Crete has a third dimension to it, namely mountain ranges, with several peaks surpassing 2000 m in height.¹ As Rackham² puts it, “Crete is a miniature continent, with mountains higher than anything in two-thirds of North America, its deserts, jungles, and arctic, its Wales, Morocco, Switzerland, England, and China.”

Crete has several differing microclimates within its contrasted landscape of plains, plateaux, coasts, hills, and mountains, each harbouring particular types of flora and fauna, and much that is endemic to it.³ The fauna did not include *Homo Sapiens* till somewhere between the eighth and seventh millennia BC.⁴ Human beings brought along other non-indigenous species to the island, such as domesticated cattle, goat, sheep, pig, donkey and dog.⁵ Domesticated cattle are only known to have existed at this early period in northern Greece and south-central Anatolia.⁶ Jarman⁷ states that this settlement phase of NL was aceramic, and that the domestication of the introduced fauna is suggested by their relatively small sizes, with a further decline in size stabilising by MN.⁸ These animals constituted economic staples from the onset of Cretan civilization, and are the principle animal species which found expression in the various Minoan

¹ Mairs Geographischer Verlag: 2000

² Rackham: 2001: 7

³ See: Reese: 1992 for Pleistocene fauna and flora of Crete, and Rackham and Moody: 1996 for an overview of Cretan geology, as well as flora and fauna throughout Crete's history.

⁴ Evans, J.D.: 1994: 1

⁵ *Ibid.*

⁶ *Ibid.* For a broader discussion of the domestication of floral and faunal species in Central Anatolia with references to the South Eastern origins of such domestications see: Todd: 1980: 116 and Yakar, Jak: 1991: 267, 271

⁷ Jarman, Michael R.: in Reese: 1996: 212

⁸ *Ibid.*: 213

Arts and iconography.⁹

Man's introductions were not limited to fauna, but also included flora such as barley, emmer and the pure bread-wheat, *triticum aestivum*, the latter of which is only known contemporaneously in Anatolia.¹⁰ The earliest known settlers established themselves at the site of what was to become the palace of Knossos, roughly 5km inland and south of Amnisos.¹¹ From the onset, the original settlers of Crete farmed and herded for their sustenance; hunting of indigenous wild species such as deer is not thought to have been relied upon as a food source.¹² A fair quantity of fish bones found in NL strata attest to the important role played by the sea in these formative years,¹³ and we need therefore add that these early settlers were fisherman as well as farmers and herders. These settlers made their home in this wild land, bringing food sources, traditions, and technical expertise with them. As the island was yet uninhabited, an early scenario of Man vs. Nature rather than one of military conquest was the reality for these early settlers.¹⁴ Having brought stock, both animal and vegetal with them, they needed to have known of the island's presence and the particular value of the Knossian area, suggesting the island had been explored to some degree prior to settlement, and that they, both the explorers and settlers, had navigational skills.

Of strata VIII and IX of Knossos dating to the seventh millennium Evans wrote,¹⁵ "...it was possible to reconstruct several complete vessels whose variety of shape and details reinforce the impression made by the sherds from this and preceding strata that they are not the initial experiments of beginners, but belong to an already well established tradition of potting." By MN,

⁹ For an overview of Minoan Arts and iconography: Rutkowski: 1986, Rutkowski: 1991, Evans: 1964, Marinatos: 1960, Platon: 1966

¹⁰ Evans, J.D.: 1994: I and Yakar, Jak: 1991: 274

¹¹ Ibid.

¹² Ibid.: 10 : No evidence of reliance on game for food.

¹⁵: Bovids increase in numbers and ratio from 13% in stratum VIII to 22.7% in stratum V, peaking in MN to 50% and Caprids also increase through time but decline as a food source from 50 - 25%

¹³ Dickinson: 1994: 28 and Rose: 197-206 and Wilkens: 248; in Reese: 1996: for natural and cultural remains of marine fauna in Crete's NL-BA.

¹⁴ Strasser: in Reese: 1992: 319

¹⁵ Evans: 1964: I: 7

miniature vessels, as well as figurines, beads, and spindle whorls are produced.¹⁶ These may suggest the development of ritual and/or cult activity, but without a doubt the spindle whorls are testament to early textile production.

As Evans identified EN pottery from the earliest Knossian strata, while Jarman did not, one of the two must be wrong. However, given the limited number of soundings made into NL strata, the present author prefers to state that Evans found EN pottery in his soundings, while Jarman did not, rather than stating that the early settlers of Crete did or did not produce pottery.

Continuity from NL to BA is discernible within the material culture as well as through the introduced animal and vegetal species. The earliest known figurine from the island, a male marble anthropomorph dating to the seventh millennium,¹⁷ clearly illustrates a continuity when compared to EM and even LM male anthropomorphic figurines,¹⁸ particularly in the positioning of arms, stance and codpiece. In NL, we also begin to find zoomorphic figurines, particularly bovids,¹⁹ but also those of goat, sheep and birds, which are the most prominent zoomorphic figurines in the following BA.²⁰ The presence of these figurines attests to the importance of these animals in all periods of Crete's prehistory. Bird figurines and vessels in their form, likely a dove species, appearing as early as MN²¹ and continuously produced through to LM,²² might reflect a degree of domestication or an early exploitation of these animals for their meat or eggs. Regardless of the particulars, all these animals connect those first settlers who introduced either their exploitation or iconographic representation on the island, with the BA people who continued to breed, need, use and depict them. An NL ovoid ceramic bowl of a dark burnished

¹⁶ *Ibid.*: 42-3: Fig. 10: spindle whorls and clay spools; 44: Fig. 11: zoomorphic figurines

¹⁷ *Cat. A*: I: PL. I

¹⁸ *Cat. A*: 11, 12: PL. I and for an LM example see Bosanquet and Dawkins: 1923: PL. XXIX

¹⁹ *Cat. A*: 3: PL. I

²⁰ Rutkowski: 1986: 68-71, 96-8 and for Petsophas in particular: Rutkowski: 1991

²¹ Evans: 1964: I: 44: Fig. 11

²² e.g. *Cat. A*: 81, 103, 125: PLS. V, VI, VIII

ware,²³ with its rounded HC-like protrusions at either end also sets an early precedent for horned burnished wares common to later sacred sites of EM and early MM,²⁴ which is not surprising as an incremental development of ceramic production has been observed in Crete from NL through LM by Betancourt.²⁵ We then already observe an evident continuity from NL through to LM in three ways:

- 1.) Within the ceramic record is a progression of forms, decorations and techniques.²⁶
- 2.) The form of anthropomorphic and zoomorphic figures exhibits traditional renderings in the Minoan arts beginning in NL.²⁷
- 3.) The introduced floral and faunal species of NL become the principle Minoan staples (i.e. bovids, caprids, sheep and swine, as well as wheat, barley and emmer).²⁸

B: Navigation

The original settlers of Crete, evidently mariners and fisherman as well as farmers and herders, must have come from a coastal region in the Eastern Mediterranean Basin.²⁹ Already in NL, navigation, besides being established *a priori* by the island's very settlement, was also practised for the acquisition of desirable material such as obsidian found in NL Knossos. This obsidian has been shown to be Melian by its high Barium and low Zirconium content.³⁰ Thus, these early Cretans were already accessing the mineral wealth of an as yet uninhabited extra-insular locality. Wherever the original settlers came from, they flourished on Crete for several millennia. Without the threat of competition for resources or invasion, thanks to the island's

²³ Cat. A: 2: PL. I

²⁴ e.g. Cat. A: 4. 5. 23. 24. 43: PLS. I, II, III

²⁵ Betancourt: 1985: 13

²⁶ Ibid.

²⁷ Evans: 1964: I: 44-45

²⁸ Evans: 1994: in Evely: I. 10. 19

²⁹ The nearest Anatolian coast is at less than 300 km, as is the North African coast from Kommos, the Nile Delta is approximately 550 km from Zakros.

³⁰ Evans: 1964: I. 239. Melos is approximately 165 km from Amnisos as the crow flies.

relative seclusion due to its distance from other cultural areas in the Eastern Mediterranean Basin, they were afforded a certain amount of security. The island's central position within that basin did, however, allow access to other cultural areas when desired. By the beginning of the Cretan BA, the Aegean and the Eastern Mediterranean at large seem to have already been well trafficked.

By EM, depictions of sailing vessels appear on Minoan seals,³¹ and though they represent a *terminus post quem* for the importance of this type of craft, in trade and commerce, verifiable by the increase in imported materials,³² they also represent a *terminus ante quem* for the use of sailing vessels and sailing itself for the simple reason that for sailing crafts to have been playing an important role in the island's economy from EM to MM in supplying luxury materials such as tin and ivory,³³ there had to have already been a tradition in the use of such navigable vessels, as well as preexisting contact with those localities where those materials were being acquired. Furthermore, an infrastructure of some sort need have existed prior to EM in order to build ships and man them with capable hands, and maintain harbours as well as diplomatic and trade relations.³⁴ By EM II, we have documented instances of amethyst stone and elephant ivory on Crete,³⁵ and as attested by Muhly,³⁶ tin is evidently being imported into Crete, albeit in small quantities, as early as EM I. Given this, it would be difficult to maintain an absence of sailing technology on Crete between the late fourth and early third millennia, potentially providing access to the Levant, North Africa, the Aegean, Cyprus and Anatolia.

What actual seafaring crafts were like in Crete from NL to EM³⁷ is hinted at within the

³¹ Evans: 1964: I: 118: Fig. 87.7. In the present work: e.g. Cat. A: 49, 50, 52: PL. IV. and in Fig. 6 from a Platanos ossuary. Other examples include: Cat. A: 45, 46, 53, 56, 57, 115: PLS. IV, VIII

³² Krzyszkowska: 1983: 168: Fifteen to twenty tusks worth of ivory extant from pre-palatial contexts, spread over EM II - MM Ia which represents the importation of one tusk every 30-40 years; or if EM III-MM Ia then one every 25 years. (i.e. 8 - 10 elephants) "...imply a kind of socio-economic development which could not only organize the acquisition of the material but also promote the distribution of that material on arrival on Crete." and Gesell: 1985: 7

³³ Op. Cit.: Krzyszkowska

³⁴ Warren: 1987: 50

³⁵ Cherry: 1983: 41

³⁶ Muhly: 1973: 334

³⁷ Casson: 1964: 11-5

BA iconography, suggesting relatively small embarkations,³⁸ the largest of which, shown with oars or paddles do not depict more than eleven to a side including steering oars.³⁹ Within the Eastern Mediterranean of the fourth and third millennia, both Bass and Casson⁴⁰ agree that small navigable craft were often constructed of hides stretched over a wooden frame, also considered a worldwide primitive technology by Leroi-Gourhan.⁴¹ This type of boat construction has been demonstrated to be sturdy enough for transatlantic passage by Tim Severin who proved that St. Brendan could feasibly have crossed that ocean in such a boat as early as the sixth century AD.⁴² If such a ship, constructed of wood and hide could withstand the more turbulent and icy seas of the North Atlantic, similar ships would certainly have been practicable in the Eastern Mediterranean.

Of symbolic importance in the depiction of Cretan navigable vessels, besides the early representation of masts and yards which suggest early use of sails, are the horned sterns, prows and overall horned profiles of ships. In the historic periods, when ships are certainly of wooden construction, horned projections continue to be applied to sterns and prows, along with beaked prows and painted eyes in the Aegean, suggesting the ship to metaphorically represent a living beast.⁴³ The Minoan practice of depicting their ships with horned projections at stern and prow, as well as the overall horned form of these ships, may set a precedent for the construction of ships in this form within the region in the historical period. The reasons for the Minoan ships to have been depicted with such decorations and in such forms may be related to the use of hides in their construction.

³⁸ Cat. A: 2, 15 a, b, 16, 45-50, 52, 56, 57, 112, 115, 130, 131; PLS. I, IV, VIII, IX

³⁹ e.g. Cat. A: 49, 52, 57, 115; PLS. IV, VIII

⁴⁰ *Ibid.* and Bass: 1972: 12-3

⁴¹ Leroi-Gourhan: 1971: 151-7

⁴² Severin: 1977: 769-97

⁴³ *Op. Cit.*: Casson: as well as myths relating to the ship *Argo*, itself considered a pseudo living entity, and the Homeric epithet for ships: κῆτος; Huebeck, West and Hainsworth: 169

C: Industry and Trade

By the EBA, a major trade opportunity presented itself to the island, namely the possibility to import tin for tin-bronze production, and archaeologically heralds in an Age. Prior to this, arsenical-bronze had been produced, not by the addition of arsenic to form a copper alloy, but from naturally occurring arsenic in certain copper ores, known to have existed within the confines of the Aegean.⁴⁴ Among the earliest of copper tools produced in Crete were awls and punches which were probably used in leather-working according to Branigan.⁴⁵ Given the diversity of herd animals introduced and maintained in early Crete, leather production may have certainly been practiced and of some importance. One of the many applications of leather in BA Crete, as in other areas of the Mediterranean at this time, was in the making of leather ropes and stays for ships.⁴⁶ This practice lingered well into the historical period, and even attested to have been the case in Homer.⁴⁷

Tin-bronze production requires the addition of tin to copper, and one therefore needs to have tin for the process. This metal is rarer than gold, and in its alluvial form, i.e. gathered or prospected from riversides, riverbeds and flood plains rather than mined, even rarer. Neither Crete nor the Aegean have ever counted tin amongst their mineral wealth. Tin therefore made its way to Crete via the Eastern Mediterranean seas, but whether it was through Anatolia, Cyprus, the Levant or Egypt is uncertain. At present the only known sources of alluvial tin to have been exploited between the fourth and second millennia are to the east of the Zagros Mountains in the Lake Urmia region of modern Iran. This Iranian tin is presently thought to have made its way to Crete as early as EM I, but by EM III we have what Muhly claims to be, “the real beginning of a Minoan industry.”⁴⁸ These same Iranian sources are supposed to have originally supplied Sumer

⁴⁴ Cosmopoulos: 1991. offers a complete overview of Aegean sources of ores in the EBA.

⁴⁵ Branigan: 1988: 87

⁴⁶ *Ibid.*

⁴⁷ Huebbeck, West and Hainsworth: 157

⁴⁸ Muhly: 1973: 334

in the fourth to third millennia BC.⁴⁹

The uncertainty involved in locating tin sources is due to the simple fact that the isotopic composition of tin is volatile; every time tin is smelted or heated, certain of its isotopic elements will volatilize, hindering any attempt of locating its geological and geographical origins for lack of a consistent signature.⁵⁰ However, from the fourth to second millennia, this Lake Urmian tin remains the most probable candidate for supplying Mesopotamia, the Levant, Egypt, and the Eastern Mediterranean Basin generally.⁵¹ Non-alluvial Anatolian sources are known to exist in the Troad, but likely remained unexploited in the BA, as even by the early second millennium (i.e. MBA), Assyrian merchants are reputed to have supplied the area with tin at a substantial profit.⁵² Sources from Cornwall and Wessex, England possibly served Late to Sub-Mycenaean interests in the 12th and 11th centuries,⁵³ while Iberian sources of alluvial tin, are known to have been exclusively exploited and exhausted under Rome in the historical period.⁵⁴ Hence, at present the route of the tin trade between the fourth and third millennia begins in the Zagros area and makes its way westward.⁵⁵ By the 14th and 13th centuries, we have irrefutable evidence of well established Eastern Mediterranean Basin trade routes for pottery, copper and tin amongst other trade goods, as evidenced by the Ulu Burun shipwreck.⁵⁶ One might imagine that trade relations may have attained a more political level than had existed prior to the MBA in order to secure the necessary access from the east for tin, as no other sources have yet been identified for these early periods. Warren suggests that Mari served the Minoan interest for tin at least by MM IIIa-b, considering Crete to constitute the most western end of a larger geographic area, stretching from

⁴⁹ *Ibid.*: 262 - 335

⁵⁰ Hamilton: 75- 89

⁵¹ *Op. Cit.*: Muhly: 257

⁵² *Ibid.*

⁵³ *Ibid.*: 251, 343-350

⁵⁴ *Ibid.*: 253

⁵⁵ *Ibid.*

⁵⁶ Pulak, Cemal: 1988

the Eastern Mediterranean Basin to Mesopotamia, and, “ functioning by essentially the same system.”⁵⁷ An even greater geographic BA community may be observable through the dispersal area of bronze axes, from the Indus to the Danube as put forward by Deshayes.⁵⁸

By EM II, we have the earliest evidence of imported ostrich egg-shells, amethyst stone and ivory.⁵⁹ Between MM I and III, we have direct evidence of exchange between Crete and Egypt in the form of a statuette of User (XIIth-XIIIth Dynasty) found with MM Iib sherds at Knossos, an alabaster lid with the cartouche of Khyan dating to the 2nd intermediate period c.1650) with MM IIIa sherds also at Knossos, and of course, Minoan Kamares Ware pottery, dating to MM I-II, found in late XIIth dynasty deposits of the Egyptian sites Kahun, Harageh and Abydos.⁶⁰ Besides a trade in pottery and its possible contents, the Minoans likely traded in textiles and leather goods. Support for the exportation of textiles has been sought amongst the tombs of Egypt where, according to Barber⁶¹ and others, the painted ceilings of certain tombs exhibit particularly Aegean designs which are not found as designs on ceramics, but are known in depictions of clothing in Minoan and Theran fresco. In short, Crete exchanged what it produced for what it could not, exchanging its specialties for either raw materials or the specialties of others.

As we have mentioned above, spindle-whorls from Knossian NL strata attest to textile production from at least MN. The nature of that textile, whether animal, vegetal or both, is as yet not entirely determined for lack of any surviving textiles and the undeciphered Linear A script, but flax is thought to have been used in this transformation long before wool in the Eastern Mediterranean Basin.⁶² Indirect evidence for the production of linen does however exist in the

⁵⁷ Warren: 1987: 50

⁵⁸ Deshayes: 1960

⁵⁹ Cherry: 1983: 41, Krzyszkowska: 1983: 164, 168

⁶⁰ Gesell: 1985: 4

⁶¹ Barber: 1990: 311

⁶² Stout: 1970: 75 and Yakar, Jak: 1991: 269, 279,

form of flax-wetting bowls from EM II Myrtos Phournou Koryphi.⁶³ However, from late NL throughout BA, both linen and wool were likely produced,⁶⁴ the former being particularly important in the production of sails.⁶⁵ Between EM and MM, as suggested by Burke,⁶⁶ textile production attains a level of specialization, and in the latter period seems to be under palatial control as suggested by the concentration of loom-weights particularly within the area of Knossos, but also known from those of Mallia, Vathypetro and Archanes. This concentration of loom-weights coupled with the paucity of spindle-whorls is again evidence of specialized activity, in that weaving took place within such areas as the South House of Knossos amongst others,⁶⁷ while the spinning of thread must have been executed elsewhere and by others. For MM-LM, Van Effenterre⁶⁸ sees the possibility of a linen industry at Mallia where a great quantity of spindle whorls and loom weights were found as well as about forty ‘*auges doubles*’. He considers these trough-like containers to have been used in the treating of vegetal fibres, “*On pense donc au lin qui est bien acclimaté en Crète et don’t nous avons vu nous-même naguère des champs dans l’arrière-pays de Mallia (...).*”

The dyeing of textile is evidenced by deposits of crushed murex shells from MM II Kouphonisis and Palaiokastros as well as MM III Knossos,⁶⁹ for purple hues. Other material used in the dyeing of cloth was surely of vegetal matter such as saffron. The earliest facility potentially identifiable as a ‘dyeworks’ is from EM II Myrtos Phournou Koryphi.⁷⁰

Decorative motifs applied to the textiles produced can only be identified through the

⁶³ Barber: 1990: 73-6 and for such a bowl found at Knossos: Evely: 2003: 193

⁶⁴ Barber: 1990: 313. Burke: 1997: 413. Evely: 2003: 193

⁶⁵ Barber: 1997: 517

⁶⁶ Burke: 1997: 414-9

⁶⁷ Burke: 2003: 195

⁶⁸ Van Effenterre: 1980: 72-3

⁶⁹ Barber: 1990: 228

⁷⁰ Warren: 1972: 26-7, 53-4, 75

examination of their depictions on pottery and frescoes.⁷¹ The earliest of these are from female anthropomorphic pouring vessels discussed further below, and female anthropomorphic figurines generally. The earliest design, found on the EM II 'Myrtos Goddess',⁷² is a simple cross-hatched pattern which likely denotes the fabric's weave rather than the decoration thereon. From EM II onwards, other of these pouring vessels, namely from Koumasa,⁷³ Mochlos⁷⁴ and Mallia,⁷⁵ as well as figurines from Petsophas,⁷⁶ afford us with the earliest glimpses into the types of decorative motifs applied to textiles. These decorations may be simple bands or motifs set within bands which include toothed lines, triangles, twin-triangles, sets of rivet-like dots, S-spirals and vegetal sprays.⁷⁷ Representations of textiles are by far more plentiful in LM when frescoes as well as faience figurines and objects afford us with a better glimpse of what Minoan clothing and textiles were like. Though the LM examples are more elaborate than those of EM cited above, the same use of cross-hatched patterns, banded decorations and vegetal motifs can be found.⁷⁸ According to Barber,⁷⁹ the intricate patterns and lavish use of colour seen on Minoan depictions of clothing is in contrast with the less ornate ones of Egypt and Mesopotamia in the BA. This is particularly the case when band woven textiles are concerned. The Minoan patterns, and band weaving itself finds parallels, not within the Mediterranean, but in NL and BA of the European mainland,⁸⁰ where fabrics woven on portable band looms are recognized by Barber⁸¹ to be of the

⁷¹ See Branigan: 1988: 89 for EM-MM patterns and Barber: 1990: 314, 317-8, 320-3, 327 for MM-LM patterns

⁷² Cat. A: 6.b: PL. I

⁷³ Cat. A: 26: PL. II

⁷⁴ Cat. A: 28: PL. II

⁷⁵ Cat. A: 40: PL. III

⁷⁶ Cat. A: 27: PL. II

⁷⁷ Branigan: 1988: fig. 21. most of these illustrated come from the items noted above, i.e. Cat. A: 26-8, 40: PLS. II, III

⁷⁸ Barber 1990: figs. 15.6 and 15.14

⁷⁹ *Ibid.*: 313

⁸⁰ *Ibid.*

⁸¹ *Ibid.*

same sort of banded textiles as depicted in Minoan fresco. The Minoan technique points to a greater likelihood of a southeastern European origin for the Minoans rather than a southeastern Mediterranean one. Considering that the earliest evidence of both the domesticated *Bos Taurus* and *Triticum Aestivum* are in Anatolia, this southeastern European origin of the early settlers of Crete is certainly the most plausible to date.

In summary, Crete is settled sometime between the eighth and seventh millennia BC, and shows a progression from then on to the culture we call Minoan. These first settlers are primarily herders, agriculturalists and fisherman. These people were already experienced seamen in NL as evidenced both by the island's settlement and presence of Melian Obsidian in NL strata. Between EM and MM, we can discern a steady increase in overseas trade.⁸² This trade permitted the importation of tin amongst other precious materials. What Crete traded for those materials is uncertain, but ceramics, agricultural produce, leather goods and textiles are certainly prime candidates. The marine iconography of BA Crete, which includes the depiction of ships on seals as well as a plethora of sea flora and fauna depicted on various media including ceramics, fresco and textiles, is so consistently found throughout the BA that one must conclude that the sea played a major role on the Minoan stage.⁸³ Indeed, the sea was the way to the island's settlement, supplied fish for sustenance, provided protection, permitted access to foreign ports of trade, and even furnished the murex shells with which to dye their more prestigious cloths in purple hues of wine-darks and sea-blues.

⁸² Cherry: 1983: 41

⁸³ See Cat. B: Aquatic motifs, Boat Images, etc...for examples. For 'Marine Style' Palatial wares: (Betancourt: 1985: 144-5)

Part II:

A: The 'Sacred' and Sacred Zones

The 'sacred' may be defined as a place or state of mind from which a line of communication is opened to a conceptual or spiritual 'other' world. It is a place of altered perspective, consciousness and being, as objectively difficult to define as is Religious Experience itself. The performance of ritual within a given space transforms its area into a sacred zone for at least the duration of the ritual. When a given space is repeatedly used for the performance of ritual, or exclusively used for that purpose, it retains its sacred character even when a particular ritual is over. The principle places which may be deemed to have been sacred in EM, and recognized by their ritualistic patterns of use, are caves, tombs and peak sanctuaries. From MM, we have all these types of sacred sites, added to which are palatial centres, which harbour a high concentration of sacred shrines and spaces, tombs, as well as votive deposits¹ and freestanding shrines in the vicinity of palatial sites.² By LM II there is a drastic decline in the number of peak sanctuaries, and of the dozens of known sites only six continue to be frequented.³ Caves on the other hand, which began to be frequented as early as NL and EM, as refuges, habitations, sepulchres and ritual spaces, continue to be frequented as sacred sites throughout and beyond the BA.⁴

The material evidence examined comes from what are generally considered sacred contexts, as definable within Renfrew's Archaeological Indicators of Ritual.⁵ Within his scheme, HC and DA would fulfill the role of sacred markers and attention-focusing devices in Minoan ritual settings for the following reasons:

¹ Ibid.: 119- 153

² Sakellarakis and Sakellarakis: 1980: 331-92. e.g. the Anemospelia shrine is in the vicinity of the settlement of Tourkogeitonia, the cemetery of Phourni, and peak sanctuary of Iouktas

³ Rutkowski: 1986: 96-8

⁴ Ibid.: 68-71

⁵ Renfrew: 1994: 51-52

- (1.) They are found in areas with special and natural associations, such as caves and mountain sanctuaries
- (2.) They are found in special buildings, which were set apart for sacred functions, such as shrines and shrine rooms within palaces, peak sanctuaries and tomb structures.
- (3.) HC and DA adorn altars, ritual objects and architecture, often in a redundant manner.
- (4.) HC within architectural settings creates a symbolic contrast between the buildings it adorns and those it does not.
- (5.) When placed at the entrance of a sacred local, HC creates a visual boundary, if not between the natural and supernatural spheres, certainly between mundane and ritualized locations.
- (6.) When applied to funerary paraphernalia, HC and DA make this notion of a boundary and passage between two realms most striking as they mark a definable passage, namely Death.

As for ritual activity and spaces generally, Renfrew states:⁶

- (1.) Ritual may involve both conspicuous public display and expenditure, as well as hidden exclusive mysteries, whose practice will be reflected in the architecture.
- (2.) Ritualistic symbols may relate to those seen also in funerary ritual and in other rites of passage.
- (3.) Worship will involve prayer and special movements - gestures of adoration- and these may be reflected in the art, iconography, decorations, or images.
- (4.) Ritual may employ various devices for inducing religious experience, (e.g. dance, music, drugs, and the infliction of pain).
- (5.) The sacrifice of animals or humans may be practiced.
- (6.) Food and drink may be brought and possibly consumed as offerings or burned/poured away.
- (7.) Other material objects may be brought and offered. The act of offering may entail breaking and hiding or discard.
- (8.) Great investment of wealth may be reflected in the equipment, the offerings made, and the structures and facilities themselves.

These criteria are applicable and observable within the contexts of the Cretan BA, Minoan ritual settings and symbolism. The symbols HC and DA are shared between funerary and other ritual settings, adorn architecture and architecturally defined spaces, as well as settings with

⁶ Ibid

natural associations such as caves and mountain sides, all of which served ritual purposes such as processions, congregations, burials and animal sacrifice. As Renfrew states, "It is not the presence or absence of specific diagnostic criteria of this kind which are significant, but rather the documentation of repeated actions of a symbolic nature which are directed, it may be inferred, towards non-terrestrial and therefore transcendent forces."⁷ Indeed there are no other symbols from Minoan Crete applied as conspicuously, abundantly, diversely and continuously as HC and DA within ritual or otherwise sacred contexts.

B: Caves

Caves are inherently places of refuge and provide natural habitable spaces. Hundreds were frequented as such and as sepulchral areas already by the NL inhabitants of Crete,⁸ thus establishing a tradition of use which the BA inhabitants inherited and likely built upon. Caves are in themselves representative of a passage into dark other worldly depths and provide a setting to communicate with that other world.⁹ Such sites were popular in Crete throughout and beyond the BA. It is not surprising to find caves used for burials and generally considered sacred sites, given this idea of passage and communion with another world. Rutkowski¹⁰ acknowledges the chthonic character of caves and grottoes, their otherworldly connection, and holds that the cave supplies a bridge for communication with that underworld through rites held therein. Some caves have successive stages of use including that of dwelling spaces, sepulchres, and cult places. Others are used solely as sepulchres in EM, or solely as cult places as of MM I. Of the thirty-three Cretan caves listed by Rutkowski,¹¹ at least seven show signs of NL use, with continual or sporadic use till LM III and beyond, suggesting a degree of continuity and tradition. At least fourteen of those

⁷ Ibid: 52

⁸ Tyree: 65

⁹ Faure: 1964: for a discussion of attributed ideas of monsters, spirits and other beings to caves and the cave's psychological effects.

¹⁰ Rutkowski: 1986: 65

¹¹ Rutkowski :1986: 68-71

thirty-three caves are frequented as sacred sites well into the Classical Period.¹²

The sacred character of caves may likely have arisen from their natural ‘otherworldly’ or ‘underworldly’ aspects, prompting their use as sepulchral sites, i.e. depositing the deceased in a space considered to be directly connected to an under/other world. However, their traditional use as dwelling spaces, shelters and refuge for the living members of NL Crete, possibly BA herders, and the natural characteristics of caves,¹³ certainly puts their use as cult centres in MM and LM into perspective. Without the need to attribute unsubstantiated divinities to them, there is an evident tradition behind the frequentation of caves directly connected to the functional and spiritual attributes of caverns, as well as to their psychological and physiological effects on human biology and imagination. The name and character of the divinity/ies who oversaw events unfolding at this type of site might be hinted at by an inscribed DA from Arkalochori, read as Da-Ma-Te and interpreted as Demeter.¹⁴ According to a Homeric Hymn to Demeter, when the goddess rests in the house of Caleus in Eleusis from the search for her daughter Persephone, she claims to have been pirated away from her home in Crete,¹⁵ a lie also employed by Odysseus upon reaching Ithaca incognito.¹⁶ However, Demeter’s connection to Crete does not end here in Greek myth, as the Theogony unites her with Iasion in a ‘thrice plowed fallow in the rich land of Crete’ to bear Plouton.¹⁷ However, the inscribed DA from Arkalochori was part of a larger metal hoard, and as such it can not be said with absolute certainty that this DA was fabricated and inscribed to be deposited directly in this cave, but may have come to rest here following a period of use elsewhere. Though DA has a more intimate relationship with women rather than men in BA Crete, which will be elaborated further below, to attribute a divine persona to DA remains conjectural at present. Suffice it to say that HC and DA objects and motifs are common to

¹² Ibid.

¹³ i.e. absence of natural light and constant temperature which leads to temporal and spatial disorientation

¹⁴ Rutkowski.: 240: n. 50

¹⁵ Athanasakis: 5: 120

¹⁶ Homer: Odissea: XIII: 255, XIV: 199

¹⁷ Hesiod: Theogony: 969 - 971

caves.¹⁸

C: Tombs

Early Minoan burial sites, whether the tholoi of the Messara or the rock-cut tombs of Mochlos, are of a communal nature and create a dichotomy between the living communities in settlements and the departed communities in necropoli.¹⁹ The finds at burial sites are dominated by ceramics, most of which are pouring, and drinking vessels, which suggests rituals involving libation, pouring and drinking took place.²⁰ Whether these liquid oriented activities involved water, milk, wine, herbal infusions, oil, honey, blood, a combination of these, or other, is again unknown.

By far the most common finds in the tombs are clay vessels of various sorts, the majority of which are cups.²¹ The following most common ceramics from these sites being, in order of frequency from EM I-MM I: jugs and teapots, dishes and bowls, two-handled jars, pyxides, and fruit-stands/lids.²² Functionally, the ceramics found within tombs are not differentiated from types used in settlements,²³ but they differ in shapes, wares and decorations (e.g. Pyrgos Wares and other burnished varieties, horn-rimmed cups, as well as zoomorphic and anthropomorphic rhyta). Horn-rimmed cups provide the earliest examples of HC variants not only for their obvious outward appearance,²⁴ but also for their sacred contexts, i.e. tombs and caves. As tombs harbour the earliest evidence for purely ritualistic ceramics and/or offerings, such as rhyta and pitchers in zoomorphic and anthropomorphic forms, boat models as well as pyxides and pouring vessels in

¹⁸ e.g. Cat. A: 83, 84: PL. V, and Rehak and Younger: in Cullen: 2001: 416: The metal hoard from the Arkalochori cave probably constitutes the largest deposit of metal found anywhere in the Mediterranean.: Cat. A: 108 : PL. VII

¹⁹ Walberg: 1992: 133-5

²⁰ Gesell: 1985: 15-7

²¹ Branigan: 1970

²² Branigan: 1970: 57-59

²³ Branigan: 1970: 57

²⁴ e.g. Cat. A: 2, 4, 5, 23, 24, 43: PLS. I, II, III

the form of boats,²⁵ they are the places in which the earliest HC and DA examples should be found, as they seem to be. Bull rhyta are known from MM Ia Koumasa, Porti, and Mochlos; triton shells and imitations of them of MM II date from funerary contexts in Palaioikastro and Gournes.²⁶ The boat models and boat shaped ceramics, found in HC-like forms²⁷ and decorated with HC variants,²⁸ have few parallels outside of burial contexts and found throughout the BA (EM-LM) within funerary sites.

HC then seems to have originally been a predominantly funerary ceramic application, marking those ritual implements or votives which served rites related to the dead in EM in the form of horn-rimmed cups, boat models and other ceramics.²⁹ However, we also have examples of the symbol's use outside of funerary contexts, though fewer, even in EM,³⁰ thus testifying to an already generalized sacred significance of HC for this early period. As late as MM II we have at least one fragmentary example of a horn-rimmed cup from a Malliote shrine,³¹ which is the latest example of this sort of ceramic decoration, and one of the few outside of a funerary context known to the author.

The earliest DA documented in this work is also from a funerary context and dated to EM II.³² Metal DA examples are also known from the EM I and II tombs of Mochlos,³³ and MM Ib-II tombs of Platanos.³⁴ The DA motif appears on seals deposited in tombs as of EM III,³⁵ and

²⁵ e.g. Cat. A: 15, 16, 18, 20, 22, 33, 36: PLS. I, II, III

²⁶ Gesell: 1985: 15-6

²⁷ e.g. Cat. A: 15.a: PL. I

²⁸ e.g. Cat. A: 16: PL. I

²⁹ Cat. A: 14: PL. I

³⁰ e.g. Cat. A: 4, 21: PLS. I, II

³¹ Cat. A: 43: PL. III

³² Cat. A: 25: PL. II

³³ Dietrich: 1988: 13

³⁴ Watrous: 207-8: in Cullen: 2001

³⁵ Grumach: 1968: 7-25

commonly depicted on later LM Larnakes, which creates an undeniable continuity in the symbol's funerary application.

Marinatos³⁶ observes that in EM, the exceptional role of the dead can be deduced from the richness of burial gifts, as most known luxury items of the period, such as gold, ivory and stone objects, come from funerary contexts. Cemeteries were thus ritual foci of the communities from EM to MM, while from MM to LM, a substantial amount of luxury items are found within palaces, cave and peak sanctuaries, no longer necessarily connected to funerary practices. However, in EM, caves were also used as sepulchral spaces, and they too had a religious function; it would seem that ritual focused around an idea of death, ideas of passage from this world to another, or communication between the world of the living and another, rather than cemeteries or tombs in a strict sense.

Xanthoudides³⁷ suggested a link between NL round huts and EM tholos tombs, in that originally the Minoan's house in death had the same form as his house in life. The tholoi of the Messara, and the EM tholos structures of the Phourni (Arkhanes) cemetery, were certainly conceived to be the 'houses' of the dead. However, the rounded tombs, with their small entrance ways and presumed dark enclosed spaces may, rather than representing round huts for which there is little evidence, be metaphoric expressions for caves, and in this way may link the NL habitational and EM funerary functions of the cavern with the creation of tholoi in the latter period and beyond, as well as to the rock cut tombs of LM, as these latter tombs are artificial caverns.³⁸ This connection between cave and tholos tomb seemed evident to Faure³⁹ who wrote:

...l'époque subnéolithique, où apparaissent les tombes circulaires entièrement voûtées de pierres, et l'époque prépalatiale MA-MM1a (i.e. EM-MM 1a), qui en voit le plus grand développement, sont aussi celles où l'on enterre le plus dans des cavernes en Crète, soit dans près d'un tiers des cas. Lequel imite l'autre: le tombeau naturel ou le tombeau artificiel? Je suis d'autant plus fondé

³⁶ Marinatos, N.: 1993: 13

³⁷ Xanthoudides: 1971: 135

³⁸ Dickinson: 1994: 225: Fig. 6.8

³⁹ Faure: 1964: 78-9

à voir dans les cavernes crétoises les modèles des tholoi crétoises que nos listes nous fournissent au moins dix cas de sépultures néolithiques sous roches, antérieures aux premières tombes construites.

As for the continued use of tholoi and other communal tombs, Walberg⁴⁰ observes that from EM into MM, though there is a general trend for larger communal tombs to go out of use and individual burials become more frequent, in East and Central Crete, chamber tombs were still built for multiple burials. Until MM III the normal burial form for adults in Crete was not in individual tombs.⁴¹ Furthermore, there is evidence in the Messara for continued use of old tholoi, as well as for the building of new ones (e.g. Kamilari, Phourni). Many tholoi built in earlier periods go out of use only after MM III and new tombs which were built in MM III continue to be used throughout LM. Generally, these tombs are slowly replaced by individual burials in larger collective cemeteries, but not exclusively.⁴² In the end, community members, when they passed on, were moved from town to tomb and from thence to the next world. A cemetery of individual burials may be seen as less communal than a tholos which serves many, but then the tholos itself is a sort of mini-cemetery which serves a small community. When the main centres grew, perhaps there was need to expand notions related to the requirements of the dead, their burial and rest, as tholoi do not go out of use but rather become one of several types of places used for the treatment of the dead. In short, we have evidence of diversification and coexistence, as opposed to a replacement of traditional forms in favour of newer practices, suggesting a degree of continuity within the funerary sphere.

‘Pitchered Ladies’ and ‘Breasted Pots’, i.e. female anthropomorphic pouring vessels, of which this work documents ten examples,⁴³ are primarily found in EM-MM tombs. The exceptions are the so-called ‘Myrtos Goddess’⁴⁴ which was found within a shrine complex

⁴⁰ Walberg: 1992

⁴¹ Ibid.: 133

⁴² Ibid.: 134

⁴³ Cat. A: 6-9, 26, 28, 29, 40, 41: PLS. I, II, III

⁴⁴ Cat. A: 6.b: PL. I

containing a human skull fragment, and the example found in the Trapeza cave,⁴⁵ which was itself a sepulchral cavern. The 'Pitchered Lady' type was popular within the tombs of the Messara and Mochlos⁴⁶ from EM-MM and also found within the tombs of Mallia.⁴⁷ What all these have in common, including the Myrtos and Trapeza examples, is a bulbous feminine form, relation to death, function as ritual pouring vessel, and discontinuation by MM III.⁴⁸ Their function, that of pouring vessels, suggests these to have been ritual implements rather than representations of divinities, and their discontinuation suggests a change in fashion with regards to ritual pouring vessels rather than the depiction of some divinity. Given the overall continuity in BA Crete, a change in the forms that ritual implements take are certainly more common than changes in beliefs or rituals, and it is unlikely that an existing divinity, or divinities, within a well established tradition of use and application from EM to MM from the Messara to Mallia and Mochlos, suddenly disappears. It is possible that these vessels had some metaphoric correlation to the passage of the deceased to the next world, or for ritual participants to a 'sacred' space, whether physical or psychological, but this does not necessitate a directly divine attribution for the vessels. The passage of the dead to the next world was a concern for the BA Cretan, as several types of ritual implements, sacred iconographies and architectural constructions were dedicated to that passage, but what might have been the nature of the divinity which had jurisdiction over that passage is as yet an unknown.

If we continue to consider these 'Pitchered Ladies' divinities, an attempt might be made to ascertain what form these pitched goddesses might have taken if the change in fashion resulted in a split between the functional aspect of the pitcher, from the metaphorical 'Lady Provider'. Only item (26) of Catalogue A, the so called 'Snake Goddess of Koumasa', has been associated to any later possibly divine figurines, i.e. the LM I 'Snake Goddesses' of Knossos. This connection however is based on the interpretation of the banded decorations along the top of

⁴⁵ Cat. A: 6.a: PL. I

⁴⁶ Soles: 1992: 91

⁴⁷ Cat. A: 40: PL. III

⁴⁸ Further common attributes between these 'Pitchered Ladies' include: breasts, painted representations of textile and textile decorations, as well as necklaces.

the 'Pitchered Lady's' arm flaps as snakes, and of course the supposition that the LM snake-handling figurines are representations of divinities themselves. To take the banded decorative elements as representative of actual reptilian snakes rather than simply 'clay snakes', applied as decoration as part of the object's overall textile decorative motifs, is a perilous supposition, as neither do these snakes have recognizable heads or tails, nor is there any other evidence to corroborate a connection between any 'Pitchered Lady' with a faience 'Snake Goddess'. The only type of LM figurine which can in some way be directly associated with any 'Pitchered Lady' of EM-MM, according to the author, is that of an LM I votive figurine who holds a breast in each hand⁴⁹ in the manner of the 'Pitchered Lady' here found as item (28) of Catalogue A. The LM I figurine is classed as a votive, but could she have been more than this? Figurines found in the Levant, in forms similar to this Minoan figurine, specifically the held breasts, have been interpreted as representations of the Goddess Asherah, dating to c.1100.⁵⁰ Whether the Minoan figurines have any connection to these is certainly a lead to explore in future research on the topic. At present the Minoan figurines remain nameless. As there existed contemporary female anthropomorphic figurines to our 'Pitchered Ladies' from EM to MM, the later figurines of MM and LM therefore have antecedents which were not functional pouring vessels. It is thus difficult to establish whether who or what these 'Pitchered Ladies' represented survived in some other form into later periods.

To conclude, the finds from tombs, like in so many societies, suggest that rituals took place involving food and drink preparation, and the consumption and/or offering of these beverages and comestibles, which also become common to later MM and LM shrines and sanctuaries. Till MM Ia cave and tomb sites are the principal archaeological sources upon which we may reconstruct cult activity in Crete. Peak sanctuaries are also in use from late EM through to LM, creating overlaps, diversifications and elaborations of cult activities and ritual settings. By MM II, we then have well developed ritual settings outside of funerary contexts, which by this period also include shrines within towns and palatial settings.

⁴⁹ Platon; et. Al.: 1983: Fig. 147

⁵⁰ Scham: 2005: 36-40

D: Shrines

The identification of shrines rests on the presence of a combination of ceramic deposits of fine wares, votive figurines, storage of food-stuffs, altars, benches, hearths, food/drink preparation areas and of course the conspicuous presence of such symbols as HC and DA.⁵¹ Most shrines identified are dated between MM and LM. The tripartite shrine of Anemospelia, dated to MM II, contained most of the above mentioned types of finds which included a large stone HC.⁵² Also from MM II, *le sanctuaire aux cornes* of Mallia, was found to have the balustrade at its entrance decorated with the earliest known HC architectural elements.⁵³ Architectural models found at Knossos and the peak sanctuary of Piskokephalo⁵⁴ have been identified as those of shrines based on the architectural HC elements applied to them, dating to between MM IIB and III, as well as by association to their find spots, i.e. a palatial centre and peak sanctuary respectively. One of the earliest depictions of the DA motif outside of a funerary context is also from a Malliote MM II shrine⁵⁵ contemporary with the earliest architectonic HC examples. By LM I, monumental bronze DAs are known from Nirou Khani,⁵⁶ which may have been destined to be exhibited out of doors as depicted on the Agia Triada Sarcophagus and elsewhere, as emblems, standards or otherwise sacred markers.

Sanctuary XVIII⁵⁷ in the palace of Mallia, also from MM, and the tripartite shrine of Anemospelia⁵⁸ both contained a pair of life-size terracotta feet, which may have served as the insertable bases of now disintegrated wooden cult statues. Their identification as representations

⁵¹ Gesell: 1985: 15-6: Rhyta and ostrich egg vases were found in MM Ia Khamaizi, and triton shells in the MM II sanctuary of Mallia, other locations in Mallia, the Upper West Court of Phaestos, Khamaizi, and the Loom-Weight Basement deposit of Knossos.

⁵² Cat. A: 58: PL. IV

⁵³ Cat. A: 54: PL. IV

⁵⁴ Cat. A: 44, 61: PLS. III, IV

⁵⁵ Cat. A: 42: PL. III

⁵⁶ Cat. A: 82

⁵⁷ Rutkowski: 1986: 129-131

⁵⁸ Sakellarakis, I. and E.: 1980. This work: Catalogue A: 58: PL. IV

of a god or goddess is certainly possible, but the nature of that divinity or divinities is yet to be established. At present we may content ourselves with the idea that, by MM, the Minoans may have had a divinity or divinities who was/were worshipped within sacred enclosures and in the form of anthropomorphic-statuary. However, how to differentiate the adorant from the hierophant, and these from the divinity is an ongoing task which needs be addressed by the entire community of Minoan scholars through expanded research, debate and consensus.

All in all, by MM, shrines and sanctuaries are rarely found without some HC or DA element. Whether rightly or wrongly, when rooms or buildings are found to contain these symbols, they are identified as sacred sites, as the symbolically sacred elements are never limited to HC and DA, but usually include other recognizably sacred objects and architectural elements as noted above. Support for the direct association between the symbols HC and DA with ritual activity and sacred spaces is graphically portrayed on Knossian frescoes such as that of a tripartite shrine decorated with HCs on the 'Grandstand fresco',⁵⁹ the Agia Triada Sarcophagus,⁶⁰ various carvings on stone rhyta,⁶¹ monumental HCs present in Knossos, such as that over the 'Temple Tomb',⁶² and various seals and sealings.⁶³ This suggests that between MM and LM these symbols were incorporated into some form of official iconography by the palatial authorities.

There is less evidence for shrines of EM date, the earliest shrine recognized dates to EM II and did not contain any HC or DA symbols. Excavated by Warren, Rooms 89-92 of Myrtos Phournou Koryphi are widely accepted to constitute this early shrine complex.⁶⁴ The identification of it as such rests on four principle points. Firstly, Room 90 contained grinding and draining equipment for the preparation of consumable and/or libationary liquids, with remains of

⁵⁹ Vasilakis: 200

⁶⁰ Cat. A: 87

⁶¹ e.g. Cat. A: 127-8: PL. VIII

⁶² Marinatos: 1960: PL. 47 and Rutkowski: 1986: 26. Notable with this particular instance of HC, dated to MM IIIb-LM IIIa, is the continued association of the symbol to sepulchral sites.

⁶³ e.g. Cat. A: 59, 69, 107: PLS. IV, V, VI

⁶⁴ Warren: 1972: 86-87, 209-210, 265-266 and 1988: 4

grapes.⁶⁵ Secondly, Room 91 contained a stored assortment of fine ceramic wares. Thirdly, Room 92 housed a stand/altar placed against its east wall, near which a female-anthropomorphic pouring vessel, carrying a pitcher which served as spout, the 'Myrtos Goddess',⁶⁶ was found. Lastly, a human skull fragment was found near the hearth of Room 89 which likely served as the shrine's storeroom.⁶⁷

The interpretation of these rooms as constituents of a shrine complex would however be weaker if it were not for the interpretation of the 'Pitchered Lady' as a goddess of the spring or fresh water divinity by Warren.⁶⁸ Other examples of such female anthropomorphic pouring vessels include one from the Trapeza cave,⁶⁹ which is cruder than the 'Myrtos Goddess' but still hailed as no less divine a figure, and associated with that of Myrtos by Peatfield.⁷⁰ These vessels then would be used in ritual, according to Warren and Peatfield,⁷¹ in the pouring of water symbolizing a primal nourishing goddess of fertility. This may be arguable for the Trapeza lady, but as for that of Myrtos, the entire grinding and draining equipment in Room 90, not to mention grape remains, seem pointless if the central pouring vessel in the shrine's equipment was to serve in the pouring of plain water. While there is no question that these 'Pitchered Ladies' were sacred ritual implements, as they are found exclusively within ritual areas of a dominantly funerary character, a divine attribution might be going too far. Though we have seen that statues of divinities may have existed on Crete by MM II, this does not mean that every anthropomorphic figure or figurine found within ritual settings need represent a divinity, as the Minoan seems to have depicted the adorer, whether priestly or simply piously, of some divinity to a greater degree than the divinities themselves. Naturally, some portion of anthropomorphic figurines will

⁶⁵ Rutkowski: 1986: 158

⁶⁶ Cat. A: 6.b: PL. I

⁶⁷ Op. Cit.: Rutkowski and Myers, Myers and Cadogan: 200

⁶⁸ Warren: 1972 and 1988

⁶⁹ Cat. A: 6.a: PL. I

⁷⁰ Peatfield: 1990: 125

⁷¹ *Ibid.*, and Warren: 1972

represent divine beings, but which? By late LM III scholarship is more concordant in that the Gazi Bell-skirted idols, and others like them, have been considered representations of divine beings,⁷² but to what extent these figures represent pre-existing concepts of divine representation such as the Malliote and Anemospelia feet, Mycenaean influence thereon, or simply a sign of the times is unclear.

E: Peak Sanctuaries

Peak Sanctuaries are physically the opposite of Cave Sanctuaries, as the former are found on mountains and the latter inside them; one affords a view of the world, the other hides from it. Like most other things, Peak Sanctuaries must have had a functional reason for their dedication to the sacred. The functionality of Cave Sanctuaries, innately places of refuge and dark depths, rests in their use as shelters, habitations and places of burial from thence acquiring their sacred character. The tomb is sacred for the fact that the dead are there treated, and are hence ritualized locations. A town-shrine may be made sacred in terms of its service in gathering community members together, in the storage of goods and produce for use within the community, and as a place to commune with the sacred through rituals which may concern aspects best set within the settlement (i.e. internal social, political, religious, economic and/or organizational concerns) rather than outside it. Peatfield⁷³ suggests that the sanctity of the Peak Sanctuary rests on the worldwide phenomenon of mountains being considered sacred. Elevations of Minoan Peak Sanctuaries vary between 99 m and 1160 m above sea level, giving an average of 573.6 m for the eighteen sites listed with their elevations by Rutkowski,⁷⁴ suggesting accessibility was a key element in their frequentation. The Peak Sanctuary is recognized as early as EM II/III. That of Jouktas has shown to have EM II sherds which would make it the earliest of such sites,⁷⁵ but the Petsophas sanctuary is firmly dated to EM III by a large repertoire of ceramics and terracotta

⁷² Marinatos: 1960: PLS. 128-32, 135-7

⁷³ Peatfield: 1987: 89

⁷⁴ Rutkowski: 1986: 96-8

⁷⁵ Peatfield: 1990: 119

figurines.⁷⁶ The bulk of such sites belong to MM, but of the thirty-seven sanctuaries documented by Rutkowski,⁷⁷ no more than six are in use past LM I.

Rutkowski⁷⁸ remarks that Peak Sanctuary environments provide good pasture for flocks, and that the pastoral character of Peak Sanctuaries is accentuated by domestic animal figurines. He further states that offerings of grain, and clay miniature votives representing plates with loaves are representative of the agricultural aspect of these sites. Among the finds from Peak Sanctuaries, are various anthropomorphic figurines, both male and female, zoomorphic figurines including those of livestock and other domestic animals as well as beetles, birds and double-bulls, stone offering tables, architectural models with HC decoration, bronze DAs and more.⁷⁹

Peak Sanctuaries are connected to the palatial centres, or at least to palatial order, in that the same iconographies and ritual implements are common to both,⁸⁰ as well as representations recognized as peak sanctuaries such as the Zakros Sanctuary Rhyton⁸¹ and the steatite vase fragments from Ghypsades⁸² having been found exclusively in and around palatial centres. The relationship between the Peak Sanctuary and Palatial centre is not an exclusive one, as several types of votive gifts and ritual paraphernalia found on peak sanctuaries are also common to cave and tomb; these include anthropomorphic and zoomorphic figurines, DA's, HCs, offering tables, etc...⁸³

The particular importance of these elevated sites may have been due to the view they provided over the waters surrounding Crete. These sites provide ideal locations for lookouts to sight both friendly and hostile sails on the horizon, and this creates a rapport between palatial

⁷⁶ Rutkowski: 1991

⁷⁷ Ibid.: 1986: 96-8

⁷⁸ Ibid.: 93-4

⁷⁹ Ibid: 73-98

⁸⁰ Peatfield: 1987: 89

⁸¹ Cat. A: 127: PL. VIII

⁸² Cat. A: 90.a: PL. VI

⁸³ Rutkowski: 1986: 47-71

centre and sanctuary that is more than symbolic. Economically, incoming ships of trade could be welcomed and taxed as they arrived into harbour; politically, incoming emissarial ships could receive their due welcome; strategically, a fleet could be signalled to intercept any hostile craft before it could land on Cretan soil.⁸⁴ The nature of approaching ships would have been discernible by the weave, cut, and colour of the most visible part of a ship, the sail, at varying distances from the coast depending on the sites elevation. Signals could be sent by light (i.e. fire), hence serving as rudimentary lighthouses, or smoke to either the local settlement and harbour, or when drastic measures were called for, sent from peak to peak in order to sound a general alarm to all major harbours and towns, which would account for the ashen deposits commonly found at peak sanctuary sites which served some unknown function.⁸⁵ Their sacrality may very well have stemmed from the necessity and practicability of such lookout points, the security they provided, and their general accessibility from and to the settlements/palatial centres they served.⁸⁶ The very real social collaboration required to maintain such a system on the island also favours their palatial orientation. The relationship between palatial centre and peak is in this way an expression of collaboration, safety, and defence; their sacrality deriving itself from utility rather than a generic veneration of mountains. As Crete is an island, the functional purpose(s) of Peak Sanctuaries may therein be contextualized and conceptualized with topography in mind, without needing to abandon a notion that some sort of divinity need surely have been the patron of ritual activities held on these sites. However, until such a divinity can be identified we limit ourselves to proposing this more practical function.

To conclude, all Peak Sanctuaries have remains of First Palace date (MM II-LM Ia), but only six of Second Palace date (i.e. post LM Ib), which are Gonies, Jouktas, Kophinas, Petsophas, Traostalos and Vrysines.⁸⁷ From LM Ib onwards, extra resources were channelled

⁸⁴ This idea blends itself well into an island culture which shows little by way of fortifications. From the historical period: Thucydides: 1.4: p. 15: Remarks on the common belief in a Minoan Thalassocracy.

⁸⁵ Rutkowski: 1986: 91

⁸⁶ Most 'Peak' Sanctuaries are not at great altitudes. Jouktas and Petsophas, which I had the pleasure to visit, are approximately an hour's hike from town to sanctuary.

⁸⁷ Ibid.: 127

towards the elaboration of these Peak Sanctuaries at the expense of the others.⁸⁸ Peatfield sees this as, "...a deliberate centralization of cult, a religious dimension to the political and economic centralization which also marks the Second Palace Period." If, however, these were used as lookouts or signalling stations, a centralization of the commercial and/or military function of certain harbours may be reflected in association to certain palatial sites, harbours, sea ways,⁸⁹ mountain passes and/or internal roadways. As part of the elaborated forms of both Jouktas and Petsophas was the addition of architectonic HC elements, either crowning the roofs of the structures or decorating walls and/or niches,⁹⁰ as occur at the palatial centre of Knossos, seen on terracotta models,⁹¹ as well as carved depictions of mountainous sanctuaries.⁹²

F: Palatial Centres

The Minoan palatial centre served multiple functions. It was a religious centre, with rooms opening onto the western side of the central court, primarily harbouring a concentration of shrine rooms, votive deposits and, of course, open courts which would have served politico-religious gatherings and ceremonies, as depicted on Knossian fresco.⁹³ These courts may have also been used as market spaces of some sort. The Palatial Centre's economic importance is irrefutably attested by the vastness of storage magazines for dry and liquid comestibles. The quantity of luxury materials and objects of prestige stored within what are usually the religiously oriented rooms of the west wing, link economy and religion together. Its function as an administrative centre is attested by the presence of tablets in both Linear A and B scripts, which were used to economic, religious and political ends, though until Linear A is deciphered this

⁸⁸ Ibid.

⁸⁹ Vrysines with Rethymnes, Jouktas with Amnissos, i.e. Knossos, Gonies with Mallia, Traostalos with Zakros, Petsophas with Palaiokastros, and Kophinas with the southern coast generally perhaps overlooking a route into Kalo Limenes or other small southern harbour.

⁹⁰ Rutkowski: 1986: 77, 80

⁹¹ Cat. A: 44, 61: PLS. III, IV

⁹² Cat. A: 127-8: PL. VIII

⁹³ Vasilakis: 200

remains conjectural, however reasonable. The palatial centre may have also served as residence for certain members of the community, probably those with the economic, religious, political and administrative powers and responsibilities. Added to these, it is a centre of ceramic production, particularly fine wares, as well as articles of stone, ivory, metal, faience, textiles, and generally luxurious materials.⁹⁴ Finally, it is also a trade and/or redistribution centre for those goods stored and produced within it,⁹⁵ which may in turn also represent some form of taxation, investment and/or insurance, whether of the ruling class or community at large.

As Lindgren⁹⁶ observes:

...there was a Minoan society already in EM before the great palatial centres, and there existed a society outside and parallel to them in later periods. Though life was certainly always quite different in the small settlements and farmsteads, the palatial centres from the moment they were built constituted the administrative centres of a society, which through the very existence of these palatial centres, had taken on a new appearance with regard to essential parts of social organization and administration, compared to its previous state.

To this we may add that the very structure of any given Minoan palatial centre is related to some degree to contemporary eastern Mediterranean and Mesopotamian palaces, e.g. that of Mari, which were designed in part to accommodate diplomatic receptions.⁹⁷

The separation of cultic and secular functions of palatial centres is impossible to define; though they served as collective sanctuaries they also served all of the above mentioned functions. Moody⁹⁸ states that, "...if the existence of a palace means the existence of an elite, it then follows that the phenomena which cluster around these centres, more or less to the exclusion of other types of sites, are characteristic of that elite." In order to guarantee its social position, an

⁹⁴ Chrysoulakis and Platon: 1987: 83 for Zakros, but Phaestos contains a kiln east of the Central Court, and another west of the West Court, as well as work shops having been identified in most palatial centres. For textile production see: Barber: 1990 and Burke: 1997, 2003

⁹⁵ Alexiou: 1987: 252

⁹⁶ Lindgren: 1987: 41

⁹⁷ Joannès: 48

⁹⁸ Moody: 1987: 236

elite must control public access to all sources of prestige. One way to control access is to control production: both material production (as in raw materials, labour, technology, foreign exchange) and theatrical production (as in the location, goods and knowledge required to conduct a ritual),⁹⁹ which palatial centres seem to have been capable of doing, and likely did.

For Warren,¹⁰⁰ the Minoan palatial centres, like EM building complexes, are the visible expression of social structure and organization, and states that:

“... the emergence of the Knossian palatial centre must be attributed to either a powerful, dominating family or a collective co-operative effort, as it is hard to believe that an open, unfortified central building would have been possible without collective acceptance of it by the leading members of the society. The hypothetical powerful families (and greater social ranking) appear to have established themselves with relatively little conflict, there being little evidence for major breaks or destruction horizons in EM III and MM Ia.”¹⁰¹

In further support of this non-conflictual rise to power is the fact that the new palatial Crete does not differ greatly from the former pre-palatial, “...everywhere towns and cemeteries continue, while at three known sites a larger, more complex building joins the pre-existing buildings, which suggests an incremental social trajectory rather than one of punctuated equilibria.”¹⁰² Indelicato¹⁰³ is in agreement with Warren in that the palatial centres did not emerge fully formed, nor emerge simultaneously at different places in Crete. She further suggests Knossos to have been the first to be elaborated out of existing buildings *in situ*.

Renfrew¹⁰⁴ suggests that, in the palatial centres, cult was not celebrated in temples set apart, as in so many early civilizations. Rather the palatial centres were used, on special

⁹⁹ Ibid.: 240

¹⁰⁰ Warren: 1987: 52

¹⁰¹ Ibid.: 54

¹⁰² Ibid.: 55

¹⁰³ Indelicato: 1990: 115

¹⁰⁴ Renfrew: 1981: 30

occasions, for the celebration of cult. The number and diversity of shrine rooms within palatial structures, however, suggests that they were used on more than special occasions; attendants of cult would have certainly performed rites which did not require direct participation of the entire citizenry and thus may have prompted the emergence of a hierophantic class, as well as the palatial centre's partial function as temple-complex.

In short, palatial centres seem to be all these things. They are religious centres, as attested by the quantity of shrine rooms, courts and votive deposits, not to mention the quantity of DA and HC symbols and objects with which the palatial centres, particularly Knossos, were decorated with and stored. They are economic, administrative and trade centres as attested by their vast storage facilities for foodstuffs, luxury materials, and tablets in both Linear A and B. They are also locations of manufacture, as attested by various workshops and kilns contained therein, and of course political centres which oversaw the whole. To hold one of these aspects above another is to deny the palatial centres their evident panoptic character.

Until we can gain a clearer insight into who that 'Elite' was that resided or worked out of the palatial centres, i.e. what they were responsible for and what actions they undertook, it is impossible to determine whether these centres are predominantly palaces, storage facilities, redistribution centres, temples, temple-complexes, or even to what degree they were private or public property.

G: Summary

We have then found that ritual implements used in caves are similar to those found in funerary contexts, and burials are indeed found in many a cave. The votive deposits of caves also have significant parallels with those found in Peak Sanctuaries, and which both find parallels with those found in palatial centres. The town shrine from Myrtos may well serve as a precursor to the shrines found within palatial centres, as do the storage facilities within that site hint at the type of organization found in the later palatial centres. In short, these various sites are linked together within a single cultural tradition and continuity on Crete from its earliest settlements to the end of the BA. In MM there arises an organizational power that mobilizes the citizenry to

create palatial centres. This power also concentrates luxury goods and their production within the palatial centres, and hence seems to control the trade in those goods, including metals such as gold, copper and tin, as well as ivory, semi-precious stones, textiles, ceramics and their contents.

Archaeologically we have relatively little evidence for cult and ritual activity outside of funerary contexts besides the Myrtos shrine and caves for EM, but this poverty, a common phenomenon for the EBA, is probably due to our present ignorance. The Myrtos shrine may be the sole representative of its kind, for this early date, due to its abandonment and hence preservation; similar shrines may have been present in EM but remain unexcavated or undiscovered, as the sites they occupied may not have been abandoned, but rather developed into palatial sites. The concentration of shrine rooms found within palatial structures may suggest they developed from pre-existing sacred areas within these same sites, as the palatial centres largely developed from pre-existing buildings rather than having been built from scratch.¹⁰⁵

There is evidence for cult statues by MM, but what those statues represented is unknown as the only testament to their existence are clay feet which were presumably inserted into disintegrated wooden effigies. Some sort of divinity/ies were certainly worshipped, but their nature is yet indefinable. Minoan art seems to concentrate on the portrayal of ritual activity rather than divinity, and this makes it difficult to determine where a line is to be drawn to differentiate the two. As a clear methodology is yet to be established with regards to the differentiation between mortal and divine figures in Minoan iconography, the sole personae the author accepts as probable candidates of divine figures or parts thereof are: the MM clay feet found in Anemospelia and Mallia mentioned above, the late LM III bell-skirted idols from Gazi and others like them which often bear decorative sacred emblems on their person (e.g. HC, birds, poppies),¹⁰⁶ composite creatures such as griffons, man-bulls and man-lions, mostly from late LM III,¹⁰⁷ but cynocephalic creatures¹⁰⁸ are known from as early as MM II (i.e. contemporary to the

¹⁰⁵ Indelicato: 1990: 115

¹⁰⁶ We include the poppy as a sacred symbol as this plant was likely appreciated for its medicinal, if not narcotic properties in relation to cult activity and religious experience.

¹⁰⁷ Kenna, V.E.G.: 1969

¹⁰⁸ Evans: 1964: I: 83: Fig. 51

clay feet from Mochlos and Anemospelia). Lastly, the authoritative staff bearers such as the 'Lady of the Beasts',¹⁰⁹ a small male figure on a gold seal ring,¹¹⁰ and the 'Master Impression' from Kydonia,¹¹¹ all from LM I, may each represent some kind of powerful or divine entity, though the staff bearer on the Chieftain's Cup, also of LM I date, is doubtfully divine.¹¹² Future research will certainly shed greater light on both the identification of divinities and rulers of Minoan Crete.¹¹³

We may state that a death was an occasion for ritualized activity, the places where the dead were treated or celebrated were sacred, and that the rituals and ritual implements used within funerary contexts were also applied to ritual activities beyond the funerary. Furthermore, the emerging palatial order incorporated those ritual activities and implements, as that palatial order was no less Cretan than any which preceded it. All in all, we surprisingly have, if the observable material culture is reliable, one culture from NL to LM, with a religion and social organization which remains stable, despite natural catastrophes within the BA millennia, throughout its growth, diversification and elaboration, at least till the final stages of the BA. Consistently throughout these periods, and elaborating along with this society, are the symbols HC, DA and [HC+DA] within sacred zones, and ritual paraphernalia.

By LM, HC and DA are found in profusion as painted motifs on ritual terracottas which include larnakes where they are often found combined into the single symbolic expression: [HC+DA].¹¹⁴ The common application of these motifs on larnakes, which includes the Agia Triada Sarcophagus, is evidence of their continuity within funerary contexts well after they had been applied to non-funerary articles and sites from MM to LM. Indeed, their application to non-funerary objects and spaces represents a diffusion, diversification and elaboration of function and

¹⁰⁹ Cat. A: 69: PL. V

¹¹⁰ Cat. A: 71: PL. V

¹¹¹ Andreadaki-Vlasaki: 21

¹¹² Koehl: 1986: 99-110

¹¹³ See Davis: 1995, Koehl: 1995 and Krattenmaker: 1995 for an overview of rulership in the Aegean BA.

¹¹⁴ e.g. Cat. A: 73, 86-90, 96, 97, 114, 116, 122, 123, 124: PLS. V, VI, VIII

significance as opposed to a shift in their religious focus. The evidence suggests that as religious practices became more complex and diversified, something in the symbols' original nuances made them applicable and relevant to all things and activities religious, while a funerary application was retained and was itself elaborated. These symbols can be seen to have enjoyed a stability in their symbolic significance and use from their earliest applications to their latest. Hence, the meaning, variational forms, prominence and value placed upon these symbols simply grew over time.

We may then add to the three points made in Part I concerning continuity in Crete, four more:

- 1.) The use of symbols such as HC¹¹⁵ and DA, as well as ritual practices in general, change little over time.
- 2.) Funerary practices and iconographies do not undergo any drastic shifts or changes in their foci, but rather seem to evolve from NL practices.
- 3.) Following the seismic shock of c. 1780 (MM IIb/ IIIa) there was a large scale rebuilding program which took place over the succeeding century, and presumably "after the designer's original concept".¹¹⁶ Attempts to identify such a 'designer' are however fraught with difficulties,¹¹⁷ as is the establishment of clear destruction and rebuilding horizons between MM II and LM Ib.¹¹⁸ Similarities between the various palatial centres, in terms of architectural layout, rather than being attributable to any single 'designer', are likely due to shared concepts of organization, traditions, beliefs and the common needs of BA Cretans, which are also borrowed from and/or shared with other architectural traditions in the Eastern Mediterranean Basin.¹¹⁹
- 4.) As for evidence of either disruption, destruction or abandonment in early periods, we know of only three sites to have been abandoned in late EM to early MM, these are Myrtos Phournou

¹¹⁵ Ibid.: 57: Of the EM HC from Mochlos (Cat. A: 21: PL. II). "There is great probability...that we have in this horned object the precursor of the 'Horns of Consecration', generally formed of clay with a plaster coating. that mark the later Minoan sanctuaries... The ritual elements of Minoan cult can thus be traced back to the borders of the Neolithic Age."

¹¹⁶ MacGillivray: in Evely: 1994: 45

¹¹⁷ Indelicato: 1990: 115

¹¹⁸ Davis, Jack L.:1992: in Cullen: 2001: 56

¹¹⁹ Warren: 1987: 50 and Watrous: 1987: 65-70

Koryphi, Vasiliki, and Debla.¹²⁰ Of these sites only Myrtos, dated to EM II,¹²¹ never sees any permanent re-occupation after its abandonment. However, it already exhibits, according to Warren, the type of organization of production and storage that will be employed by the later palaces,¹²² implying a continuity of ideas related to the construction, organization and functionality of storage areas and techniques between a discontinued site of EM II and the palatial centres that emerge in the MBA.

To conclude, HC and DA are religiously charged symbols across the island's central and eastern regions throughout the Cretan BA, as they are primarily found within ritual sites. Not only are the two symbols well represented within shrines and sanctuaries, but they mark those locations as shrines and sanctuaries for the archaeologist by their redundant and conspicuous presence. The symbols are usually found repeated within a given space and together with other recognizably sacred objects, symbols and contexts. These objects include various types of votive gifts such as fine ceramics, figurines, and of course objects in precious materials such as metals, semiprecious stones and ivory. The symbolism is usually related to domesticated livestock, sea life, vegetation both terrestrial and marine, as well as anthropomorphic figurines in attitudes of prayer or otherwise of an obvious ritual function of some sort as are female-anthropomorphic pouring vessels. Their contexts include tombs, caves, peak sanctuaries, shrines and palatial centres. Throughout the Minoan periods HC adorns objects used within funerary rites which, it may be surmised, aid the dead in their passing to the next world or are representative of that passage; from EM II onwards as much can be said for DA.¹²³ Conceptually, HC and DA are bound within Sacred and Ritual Activity generally, as well as an implied organization of that sacral and ritual activity by a political, economic, administrative and religious body, whose influence and power is seen to expand, as the palaces in which that influence and power may be said to have resided, also expanded.

¹²⁰ Gesell: 1985: 7

¹²¹ Myers, Myers and Cadogan: 1992: 198 - 201

¹²² Warren: 1987: 50: EM II storage at Myrtos magazines divided into areas for dry and liquid measures as well as magazines for storage of local agricultural production may be seen as economic microcosm of the later palatial storage systems.

¹²³ e.g. Cat. A: 25: PL. II, Soles: 1992: 238, Grumach: 1968: 12, et. Al.

Ritual activity attempts to establish a link with an other world, whatever that 'other' is believed to be, and for whatever reason. Whether it be within tomb, cave, mountain side, grove, or architecturally defined shrine, ritual attempts to create a bridge to a sacred sphere over which to interact with it. The symbols HC and DA begin as markers of locations and objects that serve in communicating with the sacred, by acting as attention-focussing devices, whether for the mortal or divine eye. This seems to have evolved into a more political and economic advertisement of wealth, power and prestige of an organizational and formalizing body likely responsible for the rise of the Minoan palatial centres. As political and economic power had a sacred and religious facet, exemplified by the concentration of shrine rooms and religious iconography found within those centres,¹²⁴ it would be futile to attempt a separation of any single aspect from the others. HC and DA were recognizable symbols to the eyes of the Minoan and Minoan divinity alike, but what they were recognized as, is of course the question.

¹²⁴ Rutkowski: 1986: Ch VII

Part III: HC, DA and [HC+DA]: Typologies and Traditional Interpretations

A: HC: Typology

HC is usually formed of a pair of protrusions, in the manner of horns, which rise from the ends of a horizontal section or base, and is most commonly symmetrical. The base itself is usually a straight horizontal section, but is also found curved. It is found mainly of terracotta and stone, and as a painted motif on terracottas and frescoes, its size varying from the miniature to the monumental. However, the earliest EM examples are mostly plastic extensions on the rims or shoulders of ceramic vessels; these horn-like extensions taper towards their peaks in a smooth curvilinear fashion following the profiles of the vessels they decorate which may be defined as (Tapered Horns),¹ but these horned protrusions are also found splayed to the sides (Outwardly Splayed).² A peculiarity which begins with architectonic HC elements in MM and continued through LM are (Book-ended)³ sides, i.e. the exterior sides of the objects are flattened as opposed to curved or rounded horns, usually perpendicular to the base and set in sequential rows.⁴ These may be (Inwardly Curved)⁵ exhibiting a curvature from the protrusion's peak down towards the centre, and may even exhibit single rather than double prominent protrusions. Those with single prominent protrusions are thus also (Asymmetrical), but examples with double protrusions can also be asymmetrical.⁶ HC may also be formed without curvatures, the base straight and flat, the outer sides often perpendicular to it, while the inner sides of the protrusions slope towards the centre slightly and are thus definable as (Inwardly Sloped).⁷ A further variant is stouter, has a

¹ e.g. Cat. A: 2, 5, 16, 23.b, 24: PLS. I, II

² e.g. Cat. A: 4, 89.b, 122: PLS. I, VI, VIII

³ e.g. Cat. A: 44, 54, 61: PLS. III, IV

⁴ e.g. Cat. A: 44, 54, 61, 102, 105, 122-4, 127: PLS. III, IV, VI, VIII

⁵ e.g. Cat. A: 43, 44, 58, 61, 99, 101: PLS. III, IV, VI

⁶ e.g. Cat. A: 21, 54, 103: PLS. II, IV, VI

⁷ e.g. Cat. A: 124, 129: PL. VIII

more rounded base with protrusions that taper towards the top; these are what Gaerte called the (Bergtypus).⁸ Some objects may display a combination of characteristics such as an example from the cave of Patsos,⁹ which is both Inwardly Sloped and Outwardly Splayed. Further sub-variants exhibit a (Saddle-like Curvature) between peaks,¹⁰ in these cases, the centre of the object is rounded like unto a saddle or quadrupeds back, otherwise, as a painted motif rather than a freestanding object, this 'saddle-like' curvature may be expressed by those variants depicted with a (Convex Centre)¹¹ between the protrusions. As of LM I, we begin to find HC examples which are (Socketed).¹² While free standing HC examples of this socketed type have lost whatever staff might have been inserted into them, they are abundant as painted motifs from LM I onwards with vegetal sprays or staffs sprouting from their centres. Those said vegetal sprays or staffs often support a DA atop them. However, HC examples of the (Socket-less)¹³ types continue to be produced and depicted throughout the BA. A further LM variation is differentiated by a (Protruded Base),¹⁴ a peculiarity shared with boat and ship depictions.¹⁵ A notable LM composition exhibits a (Perched Bird),¹⁶ either resting directly between the peaks of HC, in flight above a set of HCs, perched on a vegetal stock which rises out of HC, or placed in proximity. The bird is one of the few motifs, besides the vegetal stalk and DA, found between the peaks of HC motifs and objects.¹⁷ From LM IIIc, variants are found decorating the headdresses of bell skirted idols from Gazi, and are the first examples which directly connect an anthropomorphic

⁸ Gaerte: 1922: 74. For Gaerte this LM variant was supposed to represent a twin peaked mountain and also HC's essence as mount.

⁹ Cat. A: 84: PL. V

¹⁰ e.g. Cat. A: 44, 54, 66, 99, 101: PLS. III-VI. For an example of a HC-like saddle see Vasilakis: 158-9; Iraklion Archaeological Museum Room X, Case 138. This connection further extends the relation between HC and leather/hides, and transportation.

¹¹ e.g. Cat. A: 21, 89, 90.c, 96, 97, 103: PLS. II, VI.

¹² e.g. Cat. A: 73, 81, 84, 86, 89: PLS. V, VI

¹³ e.g. Cat. A: 21, 66, 104, 120, 129: PLS. II, V, VI, VIII

¹⁴ e.g. Cat. A: 86.b, 123: PLS. VI, VIII

¹⁵ e.g. Cat. A: 15, 47, 91: PLS. I, IV, V

¹⁶ e.g. Cat. A: 81, 103, 125, 127: PLS. V, VI, VIII

¹⁷ Cat. A: 34: PL. III: a miniature votive from Petsophas, is thus far unique in that it exhibits a bowl-like application between the horns.

form to the motif. These variants may be (Fish-Tailed),¹⁸ of the Inwardly Curved variety with Book- Ended sides,¹⁹ or otherwise: Outwardly Splayed.²⁰ A final variant, of which only one example is known to the author, exhibits a (Multiple HC)²¹ construction where five distinct HCs form the object.

HC objects and motifs are rarely decorated. Two examples, both from LM,²² and both of the Socketed type will serve as examples. The first of these is one of a composition which includes three HC motifs found on a votive plaque; this HC is decorated with vertical lines along its base and horizontal lines on either 'horn'. The other, a terracotta HC from the Patsos cave, is more elaborately decorated with bands of zigzagged lines along the base and protrusions, beneath the socket at the centre of the base is a spiralled chevron motif, while between the protruding socket and either horn are plastic loops.²³

Several of these variants are concurrently observable throughout the Minoan periods to the exclusion of socketed and decorated HC variants, which are limited to LM. The earliest of those found on ceramics of EM, are principally from funerary contexts.²⁴ The association between funerary cult and early forms of HC, with their later abundance on Larnakes of LM II-III leads to an undeniable relationship between funerary symbolism and this abstraction, as well as a continuity therein which ultimately stretches over more than two millennia (EM-LM). As of MM, HC is applied to connote sacred zones and objects generally, which includes an architectural application to sacred buildings²⁵ and locations where sacrifices and ritual activities

¹⁸ Cat. A: 125.b: PL. VIII

¹⁹ Cat. A: 125.a: PL. VIII

²⁰ Cat. A: 125.c: PL. VIII

²¹ Cat. A: 66: PL. V

²² Cat. A: 81, 84: PL. V

²³ D'Agata: 1992: 254: briefly discusses decorated terracotta HC objects of LM IIIc from central Crete. One particular HC fragment from Agia Triada is painted with vertical lines going up the extant 'horn'.

²⁴ e.g. Cat. A: 2, 4, 5, 23, 24: PLS. I, II

²⁵ e.g. Cat. A: 44, 54, 61: PLS. III, IV

were performed.²⁶ This non-funerary application of the symbol is already evidenced in EM, though it is artefactually less widespread in this early period.²⁷ All in all, the motif enjoys a diversity of form from EM through LM. It is applied to funerary objects and spaces from EM through LM, and is commonly found in a variety of sacred contexts such as caves, peak sanctuaries, palatial centres and shrines from MM through LM.

In summary, HC is then associated to funerary rites and/or symbolism beginning in EM through its application on ceramic vessels deposited in tombs,²⁸ and through LM as depicted on larnakes, or as a free-standing object within tombs.²⁹ Similar ‘horn-rimmed’ cups may also be found in caves of this early period though more rarely,³⁰ and in shrines by MM.³¹ Also in EM, the HC motif is found to decorate a boat model,³² and the earliest depictions of boats on seals are also decorated with horned prows and/or sterns.³³ Otherwise, boat models and depictions of boats are also found in HC forms.³⁴ From MM through LM, HC may adorn buildings, architectural spaces, or architectural models.³⁵ From MM through LM, the motif is present where depictions of animal sacrifice and other rituals are performed.³⁶ In LM, the motif is found with vegetal stalks growing out of its centre or placed between its ‘horns’,³⁷ and of course that ‘stalk’ may be a staff

²⁶ e.g. Cat. A: 55, 58, 69, 87: PLS. IV, V

²⁷ e.g. Cat. A: 4, 21: PLS. I, II

²⁸ Cat. A: 5, 23, 24: PLS. I, II

²⁹ e.g. Cat. A: 87-90, 96, 104, 106, 118, 123: PLS. VI, VIII

³⁰ Cat. A: 4: PL. I

³¹ Cat. A: 43: PL. III

³² Cat. A: 16: PL. I

³³ e.g. Cat. A: 49, 50, 53: PL. IV

³⁴ e.g. Cat. A: 15, 91: PLS. I, VI

³⁵ e.g. Cat. A: 44, 54, 61, 69, 127, 128: PLS. III, IV, V, VIII

³⁶ e.g. Cat. A: 55, 87: PL. IV

³⁷ e.g. Cat. A: 81, 107, 122, 123, 127: PLS. V, VI, VIII

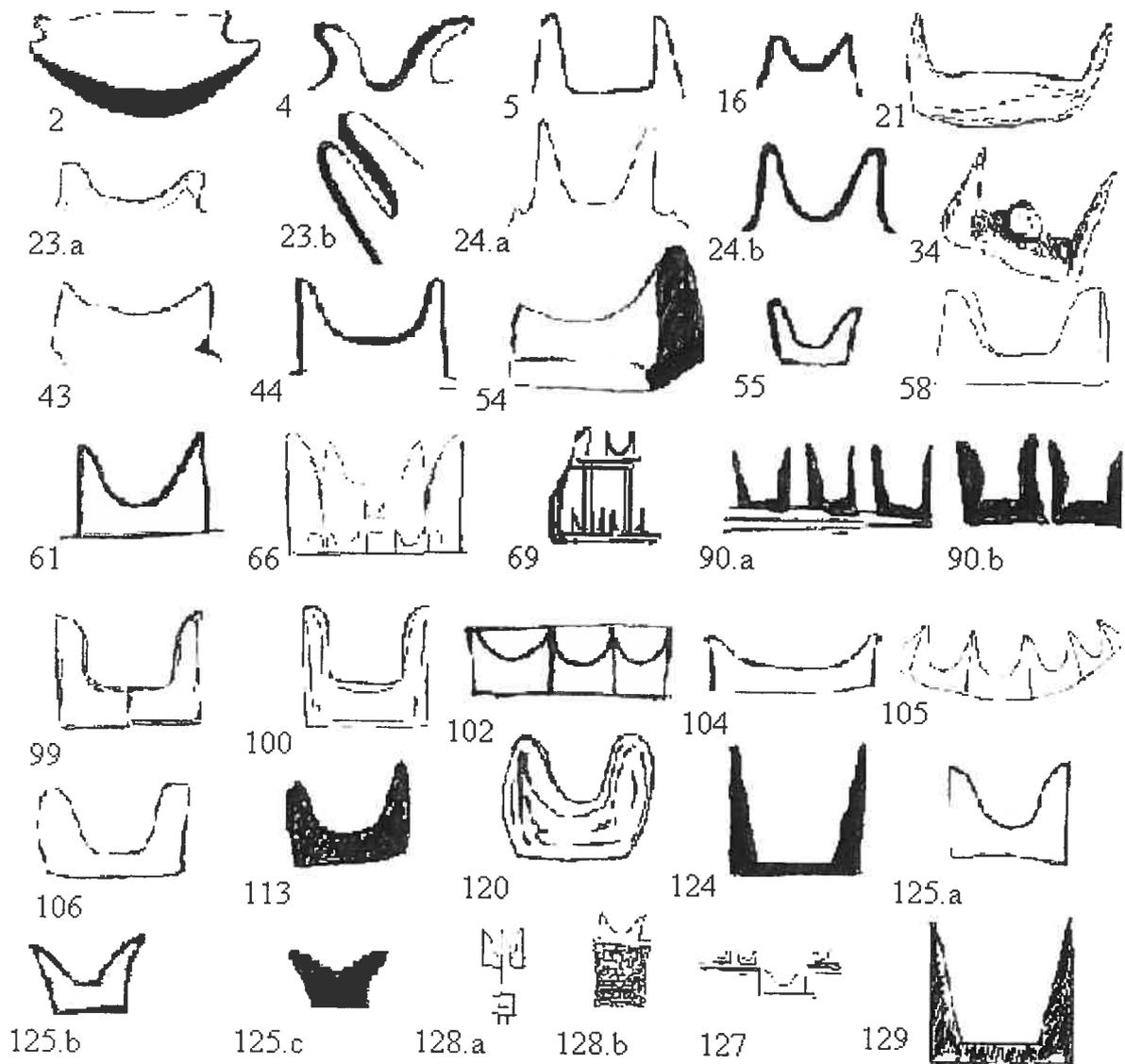


Figure 1: HC Variants from NL through to LM III.

or haft which supports a DA atop it.³⁸ By LM, it is also coupled with birds and fish,³⁹ and may also, by LM IIIc, even adorn headdresses of female anthropomorphic figures.⁴⁰

B: HC: Variants

The following typological list illustrates the variability of form with reference numbers to Catalogue A and their respective illustrations in the Plates.

HC variants: 2, 4, 5, 14- 19, 21, 23, 24, 29, 30, 34, 43, 44, 54, 61, 66, 69, 81, 84, 86, 88- 90, 96- 107, 109, 113, 116-125, 127- 129

HC from funerary contexts: 2, 5, 14, 16, 18, 19, 23, 24, 29, 41, 86, 88- 90, 96, 104, 106, 118, 123, 124

HC from non-funerary contexts: 4, 17, 21, 30, 34, 43, 54, 61, 66, 81, 97- 103, 105, 116, 117, 119, 122, 125, 127- 9

Asymmetrical: 21, 23.a, 54, 86, 88, 96, 103, 106, 113, 123

Bergtypus: 106, 120

Book-ended: 44, 54, 58, 61, 66, 84, 98-101, 117, 118, 121, 129

Convex Centred: 89, 90 b and c, 96, 97

Curved Base: 2, 4, 5, 16, 21, 23, 24, 43, 103-5, 118-20

Fish Tail: 125 b

Inwardly Curved Single Protrusion: 54

Inwardly Curved Twin Protrusions: 43, 44, 58, 61, 66, 86b, 90 b and c, 96, 99- 102, 117(?), 125 a, 127, 128 a

Inwardly Sloped Twin Protrusions: 5, 21, 34, 69, 81, 84, 90 a, 98, 118, 124, 129

Multiple: 66

³⁸ e.g. Cat. A: 86, 88, 89, 90.c, 96, 97, 114, 116, 122: PLS. VI, VIII

³⁹ e.g. Cat. A: 81, 97, 103, 125.a, 125.b, 127: PLS. V, VI, VIII

⁴⁰ Cat. A: 125.a, .b: PL. VIII

Outwardly Splayed Twin Protrusions: 4, 16, 19, 55, 81, 84, 86 a, 89, 97, 104, 107, 119, 122, 123, 125 b, 125 c, 128 b

Perched Bird: 81, 103, 125a, 125b, 127

Protruded Base: 86b, 123

Saddle-like Curvature: 44, 54, 58, 61, 66, 99- 101, 106, 117, 120, 121

Socketed HC: 81, 84, 86, 88, 89, 90 c, 96- 98, 107, 114, 116, 118, 119, 122, 123

Socket-less HC: 2, 4, 5, 16, 21, 23, 24, 43, 44, 54, 58, 61, 66, 90 a and b , 99- 106, 113, 117, 120, 121, 124, 125, 127, 128 b, 129

Straight Base: 44, 54, 58, 61, 66, 84, 98-102, 129

Tapered Horns: 2, 5, 16, 23.b, 24, 119, 120

Freestanding HC or painted/carved representation of: 21, 34, 44, 54, 58, 61, 66, 69, 81, 84, 86, 89, 90, 96- 107, 113, 116- 124, 127- 129

HC-like decoration on ceramic rims: 2, 4, 5, 23, 24, 43, 105

HC with Marine elements: 16, 81, 97, 125 b

C: HC: Past Interpretations

Past interpretive theories of HC have often looked to Egyptian motifs with similarities to the Minoan symbol, as well as generally maintaining that the motif is an abstract representation of bovid horns. As these past theories of interpretation do not often base themselves on the Cretan symbolic associations and contexts of the motif, they cannot serve in shedding any new light on HC's meaning. We present them here with the sole intention of informing our readers as to what some of these theories have purported.

Williams⁴¹ found a striking similarity between the position of the arms of certain idols, presumably the bell-skirted idols of LM III date who hold their arms up in an HC-like position, such as those from Gazi,⁴² and the forms of the sacred horns, comparing these to an Egyptian

⁴¹ Williams.: 1904 : 48

⁴² Cat. A: 125: PL. VIII

Predynastic figure whose raised arms resemble horns. From this Egyptian connection she proposes that it is not impossible that in Crete, as in Egypt, there prevailed an early worship of a Great Mother in the form of a cow goddess and that a reminiscence of such a goddess is preserved in the curious attitude. The Egyptian figurines referred to hold their crescent-shaped arms well over their heads,⁴³ and while they do look like horns, they do not look like any HC variant, and precede the bell-skirted idols of Crete by nearly three millennia. As HC motifs appear between NL and EM, associations should first be sought locally within these early periods. However, these idols, which may have headdresses decorated with HC, have been taken for representations of divinities, and as such the HC motif has been tied to this supposed Mother/Earth/Cow Goddess. Although these idols may represent a relation between images of feminine divinities and the HC motif by LM IIIc, there exist no comparable examples prior to them to suggest the relation to have existed in earlier periods. In LM, women are depicted presiding over ritual activities near representations of HC motifs.⁴⁴ As early as EM, we have our 'Pitchered Ladies' to attest to a prominent position of the feminine figure within sacred rites. However, a direct connection between women and HC, as seen on the bell-skirted idols of LM IIIc, is lacking from any prior period.

Zahn⁴⁵ took up William's suggestion in the opposite sense, considering the horns to be the sign of the raised arms of the goddess. This, however, is again unlikely as HC variants pre-date these figures by more than a millennium.⁴⁶ If anything, the raised arms may be an abbreviated symbol for HC, and not HC an abbreviation for the raised arms, but, as we have noted, taking this to equate a goddess with HC is presently untenable, though possible.

Newberry,⁴⁷ referred to certain Egyptian symbols with two to six protrusions which rise from horizontal sections. Those with two protrusions represent the word-sign for 'hill' or

⁴³ Ucko: 1968: Figs. 44, 47, 48 dating to the 5th to 4th millennia.

⁴⁴ Cat. A: 69, 87, 107: PLS. V, VI

⁴⁵ Zahn: 1914: 34

⁴⁶ See: Marinatos: 1960: PLS. 128, 129, 136, 137. for full illustrations of these idols dating to LM III, i.e. the late 2nd millennium.

⁴⁷ Newberry: 1908: 24 (See Figure 12 for illustration)

'mountain', and those with three the word-sign for 'foreign country'. However, this pertains to the Egyptian motifs, or a little known divinity of the NW delta,⁴⁸ and not to any Cretan evidence. Admittedly, some of the Egyptian symbols are very similar to HC, but the presence of the symbol on Crete as early as EM I,⁴⁹ if not NL,⁵⁰ suggests two culturally distinct symbols with similar forms. The nature of Creto-Egyptian relations in the fourth millennium could scarcely be less clear, as it is only by the third millennium that Egypto-Cretan relations can be truly substantiated.⁵¹ However, these Egyptian symbols from the NW Delta are relatable to funerary symbolism and ritual activity. They are found as two to six crested motifs mounted on standards, and appear as the mastheads of boats figured on the decorated pottery of Prehistoric Egypt, itself mostly funerary. We find EM equivalencies with both the funerary and boat associations of these Egyptian symbols, as the Minoan HC is also found to decorate boat models within funerary contexts, as well as boat models themselves being found in HC forms.⁵² By c 1250, in Egypt, as attested by the Papyrus of Ani,⁵³ there existed symbols more similar to the Minoan HC. One of those illustrated in Figure 12 below, more so than the NW Delta glyphs, is extremely similar to Minoan examples, as well as with a Minoan association to HC, in that a bird, here the Falcon of Horus, is perched above the HC-like object. The horned object itself is depicted with a granulated texture suggestive of stone, which is in keeping with the material of several Minoan examples of late LM. Beyond this, there is little to corroborate an Egyptian origin for, or connection to, the Minoan HC. Like most scholars of the early twentieth century AD, Gaerte,⁵⁴ also followed an Egyptian connection to HC, believing the motif to represent a mountain or hill, directly transposing an Egyptian significance to Crete. In his opinion, the sacred horns represent the earth

⁴⁸ *Ibid.*

⁴⁹ e.g. Cat. A: 4, 5, 16, 21: PLS. I, II

⁵⁰ Cat. A: 2: PL. I

⁵¹ Gesell: 1985: 4: MM Ib - II: Kamares Wares found in Late XIIth Dynasty Egypt : Kahun, Harageh and Abydos. Statue of User, XIIth - XIIIth Dynasty, found with MM Ib sherds at Knossos. An Alabaster lid with cartouche of Khyan, a Hyksos king c. 1650 of Second Intermediate Period found with MM IIIa sherds at Knossos. See also, Kemp and Merrillees: 1980.

⁵² e.g. Cat. A: 15, 16, 45, 46, 49, 53: PLS. I, IV

⁵³ Faulkner: PLS. 18 and 34. (See also Figure 12 below for illustrations)

⁵⁴ Gaerte: 1922: 72-98

and are symbols of the Great Minoan Earth Goddess who is akin to Magna Mater. For Gaerte, the sacred horns represented mountains, but he did observe that there are various forms of the object, many of which are not 'mountain-like'. He admitted that the differences of age (several types occur at the same time and in the same place) created a logistical problem. Furthermore, the bulk of the instances cited by Gaerte belong to LM II and III, and several of his examples are from Mainland Greece, the Cyclades and Cyprus. As Nilsson⁵⁵ put it, "This series would only prove something, if it really represented a continuous development from older to later forms, but this is not the case." Equating the Minoan HC with mountains remains unsubstantiated, as no morphological line can be locally traced in that direction, nor can a Great Minoan Earth Goddess be satisfactorily identified, let alone equated with HC.

More evocative of Minoan HC variants are the objects illustrated in Fig. 12, from EBA Beycesultan, in South Eastern Anatolia.⁵⁶ These objects are, to the author's knowledge, the sole examples of their kind outside of Crete in the early third millennium within the Eastern Mediterranean Basin. They not only share the form of Cretan HC objects, but also a conspicuous placement within shrine areas.

Other motifs and objects within the greater Mediterranean area, which share HC's form and contexts within funerary or otherwise sacred areas include boat models such as one from Fara.⁵⁷ However, other HC-like objects from the Anatolian site of Alishar Hüyük are likely utilitarian pot stands rather than sacred objects as they were found within hearths but not from identifiable funerary or otherwise sacred contexts.⁵⁸

The earliest freestanding terracotta example of HC from EM I Mochlos,⁵⁹ Seager and Evans held to be the prototype of the Minoan HC. The base is high, long and curved, while the

⁵⁵ Nilsson: 187

⁵⁶ Lloyd and Mellaart: 1962: 37-51. See Fig. 12 below for illustrations.

⁵⁷ Cat. A.: 133: PL. IX

⁵⁸ Schmidt: 1932: 202

⁵⁹ Cat. A: 21: PL. II

thin horns are small and pointed, leading Nilsson⁶⁰ to state that, “If this interpretation is correct, the hypothesis of Gaerte is undoubtedly wrong.” Indeed, though there are similarities to be drawn between HC and mountains as Mt. Ida is twin-peaked, the similarities do not apply to most HC examples, particularly the above mentioned EM HC and the earliest examples from horn-rimmed cups. However, the HC from Mochlos is a rather crude example and need not represent the prototype of HC, as it is one among several early expressions of the symbol from EM.⁶¹ The Mochlos example exhibits two notable peculiarities. Firstly, it is asymmetrical. Secondly, its base is not formed by a straight horizontal section, but is convexly curved in the manner of a boat model from the same site,⁶² and akin in shape to a boat’s hull halved lengthwise. Both the asymmetry of the object and the curvature of the base find comparable examples as late as LM. One such HC from Agia Triada,⁶³ exhibits both asymmetry and a curved base, suggesting, as many other instances in the material record, a degree of continuity from EM to LM, as well as a variability in the symbol’s expression, which includes this asymmetry and curvature. The curvature of HC’s base on other EM examples is due to its placement on the rims of ceramic vessels. It is possible that this curvature, dictated in those early instances by the shape of the vessel from which HC extended, was transposed to HC motifs and objects whose form was no longer dictated by the shape of a vessel. Whatever the reasons, a curved base is one of the many elements which could be used in HC’s expression.

The earliest recognized architectural application of HC also exhibits an asymmetrical form, and comes to us from an MM II shrine of Mallia.⁶⁴ The HCs found on the balustrade, leading into the open space before the small shrine complex, have but one pronounced peaked end with a flat side against which the next adjacent HC rises, creating a sort of overlapping effect described by Van Effenterre as, “. . . *simples, emboîtées en quelque sorte les unes dans les*

⁶⁰ Op. Cit. Nilsson: 188

⁶¹ e.g. Cat. A: 4, 5, 16, 23, 24: PLS. I, II

⁶² Cat. A: 15.a: PL. I

⁶³ Cat. A: 103: PL. VI

⁶⁴ Cat. A: 54: PL. IV

autres."⁶⁵ These examples are the earliest architectural application of the symbol without the most commonly recognized feature of HC, namely twin peaks or protrusions in the manner of horns. Overall, we need to admit that the asymmetry of the EM HC from Mochlos, these single-horned examples from Mallia and the votive set from Agia Triada, lead to the notion that 'horns', in the sense of animal horns, are somehow not the defining element of the symbol's significance, though somehow remain inextricable from its metaphoric essence as HC remains a horned object.

Within an interpretation of HC, the addition of DA, tree, or plant between HC's horned peaks must also be examined. These elements are not part of the original HC symbol, but their appearance and persistence from LM I onwards, must have had a logical and understandable correlation to HC, as well as a significance. With these vegetal elements added to and sprouting from HC we may come back to notions of Earth and Mother, but if it were the case we certainly would have corroborating evidence for EM, which is lacking. Furthermore, single-peaked examples of HC must also be accounted for,⁶⁶ as does the entire spectrum of HC's variability, for any theory to hold. As Nilsson pointed out: "The use and significance of the sacral horns are established with certainty through the testimony of the representations...They are neither cult objects venerated in themselves nor the place for offerings...".⁶⁷ What the evidence testifies to is that these objects are rightly what Renfrew terms:⁶⁸ Attention-Focussing Devices, which depend heavily on dominating the view through redundancy, marked visibility, and a consistent and understandable metaphoric correlation to the sacred, and this from EM through LM. Given that HC is predominantly applied to funerary objects and locations, both mountain and cave shrines, as well as palatial structures, this symbol seems linked both to a particular rite of passage, namely death, as well as to a general socio-religious iconography, and thus also has economic nuances, as it is also found on seals and sealings.

To summarize, HC has been taken for bull horns, mountains, a symbol of the Earth,

⁶⁵ Van Effenterre: 1980: 440

⁶⁶ i.e. Cat. A: 54: PL. IV

⁶⁷ Nilsson: 183

⁶⁸ Renfrew: 1994: 47-54

fertility, and raised arms. There is a hint of truth to all these suppositions but none are adequate enough to take the symbol's variability into account, nor do they rely on the Cretan associations to the symbol, tending to look to Egypt or elsewhere for answers.

At present, we consider HC a Cretan symbol which should be defined within a Cretan framework. Its prominent and frequent application on objects of funerary character mark it as a symbol related to the final passage from life to death. Indeed, the importance of the HC motif within Minoan iconography begins with its application to this most important rite of passage. It is therefore not surprising to begin seeing this symbol also applied to ritual locations in general by MM, denoting locations where passage from one state of mind or being to another is attained, as in initiations into particular social, religious and/or political groups, which are inherently more exclusive in character than funerary rites, and finally as elitist advertisements of social, religious, political and economic status, authority and prestige by LM. This diversification of use and diffusion of the motif has been seen by some as evidence of its functional transformation caused by catastrophe and mainland immigration.⁶⁹ However, as we see an incremental development in the motif's application and a variety of forms from its earliest to its latest instances, it is best to speak of a functional diversification with a continuity of traditional functions, forms and applications. The most striking change in the symbol's depiction is the addition of a socket to support a staff, haft or vegetal sprig in LM. This conjunctive symbol may certainly have been instigated by some palatial authority, and must have added a nuance to the motif's significance. However, as this new HC form is also found on funerary objects and their contexts, within caves, shrines, palatial centres and on mountainous sanctuaries, it remains a part of one and the same tradition.

D: DA: Typology

Buchholz⁷⁰ has established a typology for metal examples of DA, including within that typology both potentially functional double-bitted axes and votive types made of sheet metal. He

⁶⁹ D'Agata: 1992: 254-5

⁷⁰ Buchholz: 1959: 7

also deals with painted examples of the motif, but these are limited to LM, and restricted to those motifs which fall into his *Grundforme III*, which are differentiated by the blades of the 'axe' being much broader than the centre. We therefore present a general typology of the DA motif found in all manner of mediums, from metal examples to painted, stamped and carved depictions.

In EM, as a painted or carved motif, DA is found in the form of (Twin Triangles),⁷¹ these both cross-hatched and plain. These twin triangles may also be (Concave Ended),⁷² describable as an abstracted (Butterfly). However, even in EM, though more commonly from MM onwards, the symbol is formed of either (Twin Triangles) or (Twin Trapezoids),⁷³ which are supplied with a transecting vertical element.⁷⁴ The twin-trapezoids, supplied with that transecting element,⁷⁵ seem to be transitional variants between twin-triangular forms and the axe-like ones which follow, the transecting line developing into the hafts of axe-like DAs. However, these twin triangular and trapezoidal forms can not be considered abstractions of double-bitted axes, as metal examples of DA are already common to tomb deposits of EM and even found in twin-triangular forms, albeit with convex blades.⁷⁶ Metal examples are most commonly found in tombs, cave deposits,⁷⁷ peak sanctuaries,⁷⁸ various shrines,⁷⁹ and in palatial contexts.⁸⁰ The symbol, as an independent object and not as a painted or stamped motif, is found predominantly

⁷¹ e.g. Cat. A: 25: PL. II

⁷² e.g. Cat. A: 37: PL. III

⁷³ e.g. Cat. A: 37, 39, 51, 62, 76a, 78, 86, 109, 111: PLS. III, IV, V, VII

⁷⁴ Platon: 1971: 100

⁷⁵ e.g. Cat. A: 39, 62: PLS. III, V

⁷⁶ Soles: 1992: 230 for a Platanos Ossuary of EM II date; see Gesell: 1984: PL. 80 for an illustration of a DA from Platanos and PL. 87 for an illustration of a twin-triangular metal DA from Karphi with convex blades. See Dietrich: 1988:13 for EM I and II DA examples from Mochliote tombs.

⁷⁷ e.g. Cat. A: 83, 108: PL. VII

⁷⁸ Particularly Jouktas, where at least thirteen bronze DAs were found; Iraklion Archaeological Museum: Room II: Unnumbered Case

⁷⁹ e.g. Cat. A: 82

⁸⁰ e.g. Platon: 1971: 146

in bronze, but gold,⁸¹ silver,⁸² and lead⁸³ examples also occur. Other materials used include ivory,⁸⁴ steatite⁸⁵ and terracotta,⁸⁶ the latter of which are principally from Subminoan times (LM IIIc), and found in great numbers in the cave of Eileithyia at Inatos.

As painted, carved or stamped motifs, (Convex Ended)⁸⁷ twin triangles and twin trapezoids, which are more readily recognizable as axes than some of the preceding forms become more common by MM II, and developed into an indisputable (Double-Axe) form.⁸⁸ It is in this latter form that it is found as an independent sheet metal object through LM.⁸⁹ Independent sheet metal DAs are always supplied, if not with a metallic haft,⁹⁰ then with a slot or groove for the insertion of a haft or supporting staff.⁹¹ As of MM III-LM I, further elaborations of the symbol are notable; firstly, internal axe-tips may be added to the DA motif,⁹² and secondly, these doubled tips may be elaborated into filigreed curves.⁹³ We catalogue the former as (Doubled),⁹⁴ and the latter as (Filigreed). The third notable elaboration of the DA motif, this in LM, is its depiction as a vegetal or floral motif. The haft is often decorated with either upward or

⁸¹ e.g. Cat. A: 108: PL. VII

⁸² Rehak and Younger: in: Cullen: 2001: 416

⁸³ Evely: 2000: fig. 171

⁸⁴ Op. Cit.: Platon :131 and Evans: 1964: II: 338

⁸⁵ Evans: 1964: II:339

⁸⁶ Eileithyia examples: Iraklion Archaeological Museum: Room XI: Case 149. See Gesell: 1984: PL. 88 for a fragmentary terracotta example from Agia Triada.

⁸⁷ e.g. Cat. A: 62: PL. V

⁸⁸ Cat. A: 42, 59, 70, 73- 5, 76b, 79, 85, 88- 90, 96, 97: PL. III, V, VI

⁸⁹ e.g. Cat. A: 82, 83, 108: PL. VII

⁹⁰ e.g. Cat. A: 108: PL. 108

⁹¹ e.g. Cat. A: 82, 83

⁹² e.g. Cat. A: 59, 85: PLS. IV, V. Other uncatalogued DA forms with added interior axe-tips include those depicted on the Agia Triada Sarcophagus as well as metal and ivory examples from the palace of Zakros (Platon: 1971: 131, 146)

⁹³ e.g. Cat. A: 73, 74: PL. V

⁹⁴ La Grange: 1908: 82

downward pointing toothed/leafy lines in the manner of a stalk of flax, or flanked by shorter grass-like lines on either side of it. In short, the 'haft' is often depicted as a sprig of vegetation. The fourth notable change in LM is the combination of DA and its haft to the HC motif. In this latter variation DA and its haft are either planted into HC's centre or otherwise grow out of it, thus forming the [HC+DA] motif. It is with this combination that DA's floral and vegetal qualities are most evident, as HC motifs may also be combined with simple vegetal sprigs growing out of them without the DA 'bloom'. Related to these are abstracted forms of DA, reduced to linear motifs which are simply expressed by a vertical staff or line transected by two curved horizontal lines,⁹⁵ which may retain a vegetal quality to them. In LM, amongst all these variations, we continue to find the earlier twin-triangles and trapezoids of EM and MM. All these forms are found as painted motifs on larnakes and other ceramics, while metal examples, whether miniature or monumental, are of the true (Double-Axe) form which may also be (Doubled) or (Filigreed).

The DA motif not only has a variety of outward forms, but various decorations and patterns may be applied to its 'blades'. The earliest twin-triangular examples from EM II and MM Ia are filled with a cross-hatched pattern,⁹⁶ and this type of decoration applied to twin-triangular DAs is found into LM.⁹⁷ However, the DA motif is also found with undecorated 'blades', but with a haft or transecting element added to it from EM/MM.⁹⁸ The blades of the first example of a true double-bitted-axe motif from MM II,⁹⁹ is likewise undecorated, as is a hafted twin-triangular DA from MM Iib.¹⁰⁰ The DAs represented on a seal and a sealing from MM III are also left undecorated but for the doubled axe-tips.¹⁰¹ Several of these undecorated DA motifs,

⁹⁵ e.g. Cat. A: 116, 122: PL. VIII

⁹⁶ e.g. Cat. A: 25, 37: PLS. II, III

⁹⁷ e.g. Cat. A: 78: PL. V

⁹⁸ e.g. Cat. A: 39, 51: PLS. III, IV

⁹⁹ e.g. Cat. A: 42: PL. III

¹⁰⁰ Cat. A: 62: PL. V

¹⁰¹ Cat. A: 59.a, b.: PL. IV

from EM through MM, are interestingly produced in a similar medium. Although some are carved on sealstones while others are stamped motifs or sealings, they are all in the end produced as carved motifs for the purpose of stamping some other object. We are at times left with the seal, while other times with the sealing or stamp. As such, the DA motif, although imbued with some sacred and/or votive significance, as it is found within funerary¹⁰² and shrine contexts from EM through MM, must also have had an economic and/or socio-political significance by virtue of the very function of seals and sealings upon which it is found in these periods.¹⁰³

By LM, as in so many other things, the DA motif attains its apogee in the number of instances, variety of find spots, forms and decoration. Variants which hearken back to EM and MM forms¹⁰⁴ persist, these being twin triangles and trapezoids which may also be found with cross-hatched interiors, but increasingly rendered as plant-like.¹⁰⁵ DA may still in LM be left undecorated, either plain or filled a solid black, particularly as a painted or incised motif on ceramics.¹⁰⁶ As noted above, its form may be decoratively expressed with filigrees, whereas in MM, the motif had double axe tips, but even in these instances the body of the motif may be a solid undecorated black.¹⁰⁷ However, in LM, the motif may also be decorated with simple dots,¹⁰⁸ some of these rivet-like,¹⁰⁹ as well as with banded motifs.¹¹⁰ These banded motifs may be simple intercrossing lines, or otherwise, interlocking spirals, wave-crests and leafy sprigs contained within intercrossing bands, at times in intricate patterns that fill most of the object's body.¹¹¹

¹⁰² e.g. Cat. A: 25: PL. II. and Soles: 1992: 238, Grumach: 1968: 12, et. Al.

¹⁰³ Burke: 1997: 417-18

¹⁰⁴ e.g. Cat. A: 75, 76.a, 78, 86, 109, 111: PLS. V, VI, VII

¹⁰⁵ e.g. Cat. A: 75, 78, 79, 122: PLS. V, VIII

¹⁰⁶ e.g. Cat. A: 70, 73, 74, 76, 77, 86, 88, 89, 90.c, 96, 109.b, 111, 114: PLS. V, VI, VII, VIII

¹⁰⁷ e.g. Cat. A: 73, 74: PL. V

¹⁰⁸ e.g. Cat. A: 75, 79: PL. V

¹⁰⁹ e.g. Cat. A: 126: PL. VIII

¹¹⁰ e.g. Cat. A: 76.b, 85, 97, 108: PLS. V, VI, VII

¹¹¹ e.g. Cat. A: 85, 108.g: PLS. V, VII. and a further example from the Zakriote "Treasury of the Shrine": Platon: 1971: 146

Besides a variety of forms and decorations from EM through LM, the motif also had associative elements, i.e. motifs and symbols found represented with DA on the ceramics and seals upon which they are most commonly found. The EM II bowl from a tomb of Mochlos¹¹² depicts cross-hatched DAs alternating between curved linear bands on the vessel's rim, while within the interior, DAs alternate between cross-hatched rectangles and vertical bands. The inner bottom of the bowl is painted with a cross-like composition of four cross-hatched trapezoids. Between EM and MM, seals with hafted twin-trapezoidal DAs often combine the motif with that of fish.¹¹³ Seals which combine DA with fish are mostly found in tombs and are thought to represent a kind of formula due to its common recurrence.¹¹⁴ From MM, the motif may be found isolated, as in the cases of a stamped double-bitted-axe DA from MM II Mallia and a sealstone of a hafted twin-triangular DA from MM IIb of the same site,¹¹⁵ or simply accompanied by banded decorations on ceramics as with a jug from MM Ia Knossos.¹¹⁶

From MM III, we have a sealstone and a sealing, the former from Knossos and the latter from Zakros, which both depict similar scenes. The sealstone depicts a figure wearing a long skirt carrying a flounced skirt draped over one arm and carrying a large hafted DA in the other. Extending from the figure's leg between the buttock and calf, a banded motif stretches out towards the seal's edge. On the sealing we see one figure wearing a long skirt carrying a bundle of cloth similar to the flounced skirt carried on the seal, while a second figure, also wearing a long skirt, stands with one of its hands raised towards the forehead before a DA set upon a pillar in an attitude of prayer known from bronze votive figurines from Minoan Crete. In this attitude of prayer, i.e. standing with the hand raised towards the forehead, men are always portrayed wearing a simple loincloth or kilt, whereas in a similar attitude of prayer, women wear a long

¹¹² Cat. A: 25: PL. II

¹¹³ Cat. A: 39, 51: PLS. III, IV

¹¹⁴ Grumach: 1968: 12

¹¹⁵ Cat. A: 42, 62: PLS. III, V

¹¹⁶ Cat. A: 37: PL. III

skirt, flounced or otherwise.¹¹⁷ Thus, these figures, on the seal and sealing, are in all likelihood women, as is most certainly a similar figure on an LM mould from Palaiokastros wearing the flounced skirt and carrying a DA in each hand.¹¹⁸ As Buchholz put it, “*Wir sehen in der Doppelaxt ein ursprünglich weibliches Symbol.*”¹¹⁹ Another variation in DA’s association to textiles is found with carved or painted examples which depict a ‘sacral knot’ or rope passed through the motif to form an ankh-like symbol.¹²⁰

Further associative motifs are found from MM III/LM I. A terracotta vessel depicts four filigreed DAs, their hafts set between curvilinear bands which surround the image of a boat.¹²¹ A jar from Pseira¹²² is decorated with several different DA motifs. One of these has a crocus-like flower growing from its top and is set between the horns of a bucranium, but seemingly not connected to that bucranium by a staff or haft. This same combination of a hafted DA placed in suspension between the horns of a bucranium rather than planted into the skull, as would rightly be the case if the bucranium was equivalent to HC, is seen on another terracotta vessel from Palaiokastros, dated to MM III.¹²³ An LM IIIb ceramic fragment depicts an [HC+DA] motif juxtaposed with images of algae and a fish.¹²⁴ This connection between DA and fish was already present in EM and MM, as noted above. Finally, the DAs set upon tapering pillars depicted on the Agia Triada Sarcophagus¹²⁵ all have dark coloured birds, likely crows, perched atop them.

As DA is commonly decorated, while HC is not, we return to those decorative patterns applied to it. At first glance the decorative patterns do not appear to carry any special significance

¹¹⁷ e.g. Cat. A: 69, 71: PL. V. See also: Rutkowski: 1986: figs. 55, 56, 67, 68; Platon: 1966: figs. 32, 106, as well as examples from the Mitsoukakis Collection of the Archaeological Museum of Khandia: case 15: dated to between MMIII and LM I.

¹¹⁸ Cat. A: 126: PL. VIII

¹¹⁹ Buchholz: 1959: 16

¹²⁰ Bosanquet and Dawkins: 1923: fig. 109 illustrates an ivory carving of this motif from Palaiokastros

¹²¹ Cat. A: 74: PL. V

¹²² Cat. A: 76: PL. V

¹²³ Bosanquet and Dawkins: 1923: PL. XII

¹²⁴ Cat. A: 97: PL. VI

¹²⁵ Cat. A: 87

as they are common enough in the Minoan Arts. Vegetal and floral patterns are found in abundance, cross-hatched patterns so rudimentary that it seems barely worth considering these to have any significance at all. As much could be said of spirals, waves, simple linear bands and even the more intricate banded decorations. In any case, DA motifs are also found undecorated. However, as this work deals in part with this motif, we will examine these decorative patterns and see whether any possible significance might be attributable to them which would allow for all of DA's decorative patterns and associative iconography to fit into any single concept.

Beginning neither at the beginning nor at the end, we wondered whether the MM III seal and sealing, from Knossos and Zakros noted above, with their women, DAs and bundled fabrics had anything to do with DA's decoration and significance generally. As we have seen, DA's relation to women does not end with these two objects, as a representation from Palaiokastros also depicts a woman carrying a DA in each hand, we have an inscribed DA from Arkalochori potentially inscribed with Da-Ma-Te, numerous votive DAs from the cave dedicated to Eileithyia, and of course the depiction of women presiding over the rites being performed on the Agia Triada Sarcophagus where both DA and HC objects are prominently exposed. We can therefore state that at least from MM III to LM III women are directly associable to the DA motif. However, whether women are associable to DA's decorative patterns is another matter.

We then return to the beginning, where we have DA as a twin-triangular motif which may be found cross-hatched by EM II. As we have noted, this cross-hatched patterning of DA is found even into LM, so perhaps it may offer a clue. Interestingly, contemporary to those EM II DAs, we find that cross-hatched patterns are also applied to the so called 'Myrtos Goddess' to depict the figure's clothing in squares and rectangles, and in a triangle to denote its pubis. One therefore may wonder whether the connection noted in MM III between women, textiles and DA may have already been present by EM II, but so far this connection may be purely coincidental, as between EM II and MM III, DA is mostly found undecorated. These DA examples, primarily found on seals and sealings, likely had some sort of economic significance, though what aspect of the economy they might have represented is of course unknown. However, the common conjunction of DA with fish on certain early seals may suggest a maritime concern.¹²⁶ As marine elements

¹²⁶ e.g. Cat. A: 39, 51: PLS. III, IV

and decorations continue to be applied or associated to DA throughout LM in the form of wave-crests, fish, algae and even ships, the sea doubtlessly played some role in DA's significance. Whether this role was economic, political or religious is again an unknown, but a combination of these is probable.

In LM, we find the most intricate decorative patterns of our motif, namely the intercrossing bands of lines, spirals, wave-crests, dots, and leafy sprigs. Banded decoration is now common in the Minoan Arts, where it is found on ceramics, fresco borders, and even larnakes. Of course, in any of these various types of occurrences, DA and HC motifs may also be included. The question is whether we are dealing with a general decorative trend, or whether this type of banded decoration had its roots in any one particular medium, or otherwise used to express something specific. In any case, it would have to be applicable to all periods, from EM through LM, in order to have any chance of validation.

Returning to EM and early MM, we find that such banded decorative motifs are found to decorate certain terracotta vessels and figurines. Interestingly, these banded designs are applied to female anthropomorphic pouring vessels and figurines to connote either clothing or textile designs.¹²⁷ We therefore once again have a connection between women and decorative textile patterns with DA. Even so, we find that such banded decoration is applied to pottery without necessarily including either DA or HC motifs. Amongst the pottery groups of the Knossian Old Palace Period, and dating to between MM I and II, we find pottery decorated with such banded motifs similar to those found on both the aforementioned female figures and LM DAs. These belong to pottery Group D, and are interestingly labelled as being of the 'Woven Style' as the patterns are thought to have been inspired by woven textiles.¹²⁸ However, the banded decorations applied to the DA motif are from LM, not from either EM nor MM. The question then is whether we find such decorative patterns on depictions of clothing and/or textiles in LM contemporary to those applied to DA. Indeed, we do find such banded patterns on depictions of clothing and textiles in LM, and these in full colour fresco and faience pieces, which again usually pertain to women's clothing, or in the case of 'sacral knots', which are essentially pieces of folded fabric,

¹²⁷ Cat. A: 8, 26-8, 40: PLS. I-III, and see Branigan: 1988: fig. 21

¹²⁸ MacGillivray: 1998: 59-61

are again exclusively handled by women.¹²⁹ We then say with a degree of certainty that DA is related throughout its period of use to textile patterning, women, and some economic concern which has itself something to do with the sea. Furthermore, the motif is of great religious importance, literally connected to HC by LM, and of course, its religious significance is related to ritual activity and location generally, which, like HC, has its beginnings within a funerary sphere but is not limited to it.

In summary, DA, like HC, enjoys a variety of forms throughout its period of use, and like HC which can hardly be defined in terms of 'Abstracted Horns', DA is not definable as a 'Ritual Double-bitted Axe', as both motifs are each emblematic of something as yet indefinable. DA, as a painted or carved motif, seems to progress from twin triangles to twin trapezoids and finally to a double-bitted axe motif, but the earlier forms persist throughout that progression. Added to this, the early abstracted forms have functional and votive metal examples contemporary to them throughout their periods of use from EM to LM which are also predominantly found within funerary contexts. DA's decoration includes cross-hatching, bands and banded motifs, and from LM I is often expressed as a vegetal element. Within the iconography, the motif is found coupled to marine elements, whether fish, algae or boats, as well as to textiles, women, birds, bucrania and of course HC.

HC appears first and foremost within funerary and ritualized settings of EM, and although DA is also found within funerary assemblages of that period both in its metal form and as a painted or carved motif, it is commonly found on seals and sealings from EM to MM. These seals may be found within funerary contexts, but the very nature of such objects precludes some sort of economic significance.¹³⁰ However, DA's religious significance can hardly be ignored, and although its fabrication in precious materials such as gold and bronze certainly represents an ever-present economic and prestigious facet to the motif, a sacred nuance existed which allowed or required its presence within funerary or otherwise sacred contexts, as well as seeing it coupled to HC by LM.

¹²⁹ See Barber: 1990: 311-30: for an extensive discussion and cataloguing of textile decoration in the Aegean BA drawn from frescoes, faience and ivory pieces, and, Barber: 1997: 515: for band woven patterns.

¹³⁰ Grumach: 1968 et. Al. see this application of the DA motif on seals from funerary contexts as constituents of a 'libation formula', and is further discussed below.

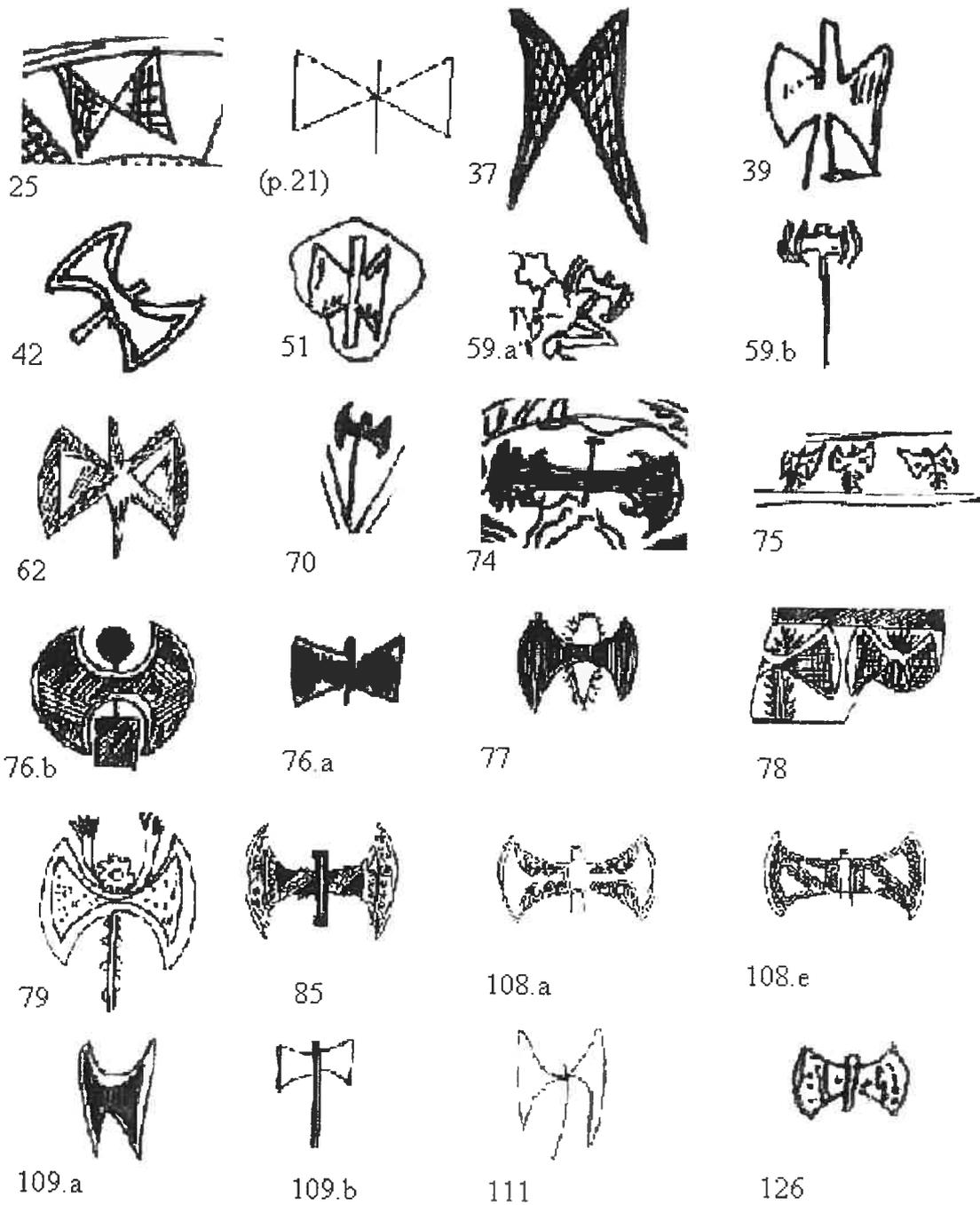


Figure 2: DA Variants from EM II through to LM III.

E: DA: Variants

The following typological list illustrates the symbol's variability of form, decoration and instances, again with reference numbers to Catalogue A and their corresponding illustrations in the Plates.

Asymmetricals: 38, 39, 111

Butterfly: 37, 80

Concave Ended Twin Triangles: 37

Convex Ended Twin Trapezoids/Triangles: 62, 75, 78, 97, 108, 111, 114, 126

Cross-hatched: 25, 37, 78

Double Axe Form: 42, 59, 70, 73, 74- 76 b, 82, 83, 85, 86, 88- 90, 96, 97, 108, 109, 111, 114, 126

Filigreed: 59, 73, 74, 85

Haft-less: 25, 37, 38, 77, 85, 109

Metallic: 82, 84, 108

Miscellaneous: 37, 38, 77, 109 a, 111, 116, 122

Monumental: 82

Textile decoration (i.e. banded decorations observable in the treatment of textiles represented on early figurines and later fresco) : 25, 37, 78, 85, 108 a-g,

Transitional Axe-like forms: 39, 62, 75, 78

Twin Triangles: 25, 51, 62, 78, 86

Twin trapezoids: 39, 51, 62, 75, 76 a, 86, 109 b

Vegetative: 73, 75, 77- 9, 96, 97, 108 e, g, 122

[HC+DA]: 86, 88, 89, 90 c, 96, 97, 114, 122

DA's from Funerary contexts: 25, 39, 51, 86, 88, 89, 90, 96

DA in Isolation: 37, 42, 51, 62, 85, 108, 111

DA with marine elements: 39, 51, 74, 97, 108 a and b

DA variants: 25, 37-9, 42, 51, 59, 62, 70, 73- 80, 82-3, 85- 90, 96, 97, 109- 111, 114, 116, 122

F: DA: Past Interpretations

Interpretations of DA's significance have principally restricted themselves to it representing a ritual or sacred axe of some sort. La Grange¹³¹ proposed that certain twin-triangular motifs with a transecting vertical line, dating to the third millennium from Susa,¹³² were at the root of the Cretan motif of the same form. The 'blades' of these eastern motifs are decorated with horizontal lines and were thought to represent both metal and lightning. He states, "*C'est donc à ces très lointaines origines qu'on devrait faire remonter le symbole de la double hache.*" He further suggests that in Crete, DA may have been a symbol for lightning, connecting the later Greek Zeus Labrandeus and Dolichenos who carry double axes to BA Crete. However, as we have seen no male figure is ever represented carrying DA in BA Crete. As the material available for study at the beginning of the twentieth century was far more limited than it is today, he further stated that, as there are no DA motifs prior to the final phases of MM, the motif was introduced through a foreign invasion. As we have seen, this is not the case.

Grumach¹³³ has dealt with the DA motif in terms of its conjunction with other motifs, particularly the fish or sepia, within what has been termed a 'libationary formula' on seals dating to between EM III and MM Ia.¹³⁴ Due to the frequency that DA is combined with a 'fish' motif, he suggests that this is not a simple decorative or ornamental combination, but rather a significant conjunction. As most of these seals are from funerary contexts,¹³⁵ hence deposited into tombs with the dead and eventually transported with their remains into the ossuary, means that the beneficent power of the 'formula' was taken from the living and given to the dead.¹³⁶ He proposes that this was either a magical formula which was not only for the living, in terms of its

¹³¹ La Grange: 1908: 80-1

¹³² Ibid.: 80: Fig. 56

¹³³ Grumach: 1968

¹³⁴ Ibid. 12

¹³⁵ Ibid. 9

¹³⁶ Ibid. 22

use as an amulet or talisman, but also for the dead or perhaps specifically designed for a funerary purpose. Going further, he suggests that DA was the cult symbol of a deity of the underworld, stating, “At any rate, from the Early Minoan period until Late Minoan and even Subminoan times we find the double axe in close association with death and burial.”¹³⁷ He sees the connection between DA, fish or sepia and death in relation to an idea that the dead had to, “cross the sea or the river of death in order to reach the Islands of the Blessed, a conception which the Minoans passed on to the Greeks, and which they themselves had taken from the Egyptians.”¹³⁸

Hodge,¹³⁹ on the other hand, believes that the religious significance of the DA motif can only be sought if we first accept that its functional aspect is at the root of that sacred origin, and identify what that function was. He suggests that a military function is unlikely in the Minoan context, suggesting that the motif’s original essence sprung from its use in the felling and splitting of trees and lumber, as in modern times the double-bitted axe is used for such a function. However, there is a lack of Minoan evidence either to support or deny this theory.

Dietrich¹⁴⁰ also sees DA to have been derived from a functional aspect, namely a weapon or tool used in ritual sacrifice. However, he admits that it is curiously never depicted as such in the Minoan iconography. He notes that the earliest occurrences of metal DAs are from tombs and the earliest metal mould for the fabrication of a DA is from a cave sanctuary.¹⁴¹ He holds that the impractical dedicatory DAs, those of sheet metal which range in size from the miniature to the monumental, obscure rather than efface DA’s function as a sacrificial tool, and notes that the symbol is invariably associated with a goddess or her priestess. He takes both DA’s representation with vegetal hafts and with sacral knots passed through them in an ankh-like form as evidence of the motif’s significance as one of renewal.¹⁴² To this element of renewal he adds

¹³⁷ Ibid. 23

¹³⁸ Ibid. 24

¹³⁹ Hodge: 1985: 307-8

¹⁴⁰ Dietrich: 1988: 14

¹⁴¹ Ibid. 13, 15

¹⁴² Ibid. 16-7

the Butterfly-like forms of early DA forms and an LM functional DA incised with a butterfly motif from Phaestos as further evidence of this aspect of renewal and rebirth tied to the motif.¹⁴³ Furthering his case, he cites the numerous and varied DA objects found in a cave known to have been dedicated to a goddess of birth in the historical period, that of Eileithyia at Inatos,¹⁴⁴ which we have mentioned above.

DA as a weapon, though well suited to sacrificial contexts, is never represented as such. DA is depicted alongside sacrificial beasts and bucrania, in the hands of women, and in the form of miniature gold amulets deposited at sacred sites (caves and peaks), ornate monumental bronzes, and bronzes of varying sizes.¹⁴⁵ It is interestingly never shown to be used in sacrifice, as daggers are,¹⁴⁶ nor involved in the death of animals, such as arrows or spears are found to be.¹⁴⁷ By LM, DA was a symbol which marked areas where ritual activities were to be performed, was deposited as a votive gift in sheet metal form, but was not strictly speaking a weapon or tool.

As noted above, between the fourth and second millennia, axes, and particularly bronze axes have been demonstrated by Deshayes to represent a symbol of power and prestige, whether political, military or religious, from the Indus to the Danube. However, Deshayes' axes are ornate single-bladed axes, and for the most part functional weapons rather than tools or abstractions, connoting a sense of military and/or political might.¹⁴⁸ Doubtlessly, functional axes also served as symbols of power and prestige in Crete as any weapon might, but it is difficult to establish to what extent the symbolism of the axe proper relates to the DA motif. Cast metal examples of potentially functional double-axes are also known within votive deposits, but may still share some of the same iconography as the symbol DA, in relation to textiles¹⁴⁹ and the butterfly. It

¹⁴³ Ibid. 18. See Nilsson: 1971: fig. 41 for illustration.

¹⁴⁴ Ibid. 19

¹⁴⁵ e.g. Cat. A:82, 83, 87, 108: PL. VII, and see Rutkowski: 1986: 58

¹⁴⁶ Marinatos, N.: 1986: Figs. 1, 25, 31-2

¹⁴⁷ Ibid.: Figs. 18 b., 30, 40, 56-7, 73

¹⁴⁸ Deshayes: 1960

¹⁴⁹ Marinatos: 1986: Fig. 46: this double-bitted axe is decorated with incised depictions of bound cloths flanking a figure-eight shield, this association with bundled fabrics is observable in other depictions of DA, particularly items 59 (a) and (b) of Catalogue A. For other cast double-bitted axes which were supplied with suspension loops, hence intended as votives more than tools, and decorated with incised sacral

seems that if DA is indeed a double-axe, it represented power and authority of a political, economic and/or religious character rather than military might in BA Crete. Indeed, depictions of military activities are scarce for the entire Cretan BA. A noteworthy peculiarity is DA's exclusive depiction in the hands of women rather than men.¹⁵⁰ The LM IIIc deposit of terracotta DAs found in the cave dedicated to the goddess Eileithyia, in use into the historical period, is certainly interesting in terms of DA's close affiliation to women. To what extent the examples from the cave of Eileithyia are representative of a preexisting state of affairs from EM till LM IIIb, as the cave deposit included anthropomorphic figurines of pregnant women, copulating couples, as well as nursing and cradled infants,¹⁵¹ is difficult to ascertain, as there exist no known precedents to link DA directly to feminine fecundity except to say that the motif had a generally feminine character. This feminine relation of the symbol, suggests that DA needs be relatable to a feminine sphere of activity with connotations of power and authority, whether political, economic and/or religious, in connection to the symbolism of the axe proper, while remaining congruent within the funerary sphere to which it is inextricably linked.

A definition of the DA motif must then take its connections to women, vegetation, textiles, marine elements, and HC into account, as well as the fact that there are DA examples in all periods which can not rightly be called axes. At present, we may state that DA certainly represents some sort of power and prestige, but needs nonetheless remain an undefined abstraction with the above mentioned connections and associations to death, sacrifice, and ritual location generally, as does HC. DA, even in its metallic forms, was not intended to be used as an axe, but rather may have expressed a metaphoric correlation to the axe in relation to the latter's connotations of power and authority. The question as to what sort of power and authority we might be dealing with, and to whom it belonged, can only be answered within the boundaries set by its own associative links, connections and expressions.

knots or textile bundles see: Rehak and Younger: 2001: 417

¹⁵⁰ e.g. Cat. A: 59, 126: PLS. IV, VIII

¹⁵¹ Vasilakis: 165

G: [HC+DA]

From LM I onwards, we begin to find the symbols HC and DA combined to form the unified symbol [HC+DA].¹⁵² In these cases, HC is provided with a socket either for the insertion of a staff which supported a hafted DA, a vegetal stalk, or both.¹⁵³ This unification implies that DA represents something beyond its axe-like form, and is relatable to HC, since the former can be said to 'grow' and/or 'bloom' from the latter,¹⁵⁴ as vegetal stalks are seen to do even without DA.¹⁵⁵ As independent HC and DA objects and depictions continue to be produced throughout LM, the unified symbol is not a replacement of either, but a new symbol of the two combined. The question which arises is whether the two symbols, HC and DA, could have been united into an intelligible third symbol without having a relatable significance to each other by that time. Whether that relation could have been metaphoric, practical, or otherwise is to be seen. In any case, [HC+DA] appears wherever HC and DA may be found, and may even appear on the same object with them,¹⁵⁶ particularly on larnakes.

H: Summary

DA has affiliations to textiles as early as EM II,¹⁵⁷ and is associated with aquatic motifs beginning in EM and through to the end of LM.¹⁵⁸ Between EM and LM, it is found both in abstracted as well as recognizable axe forms, the latter of which is found monumentalised by

¹⁵² e.g. Cat. A: 86, 89: PL. VI

¹⁵³ e.g. Cat. A: 73, 81, 84, 86, 88, 89, 90c, 96, 97, 98, 107, 114, 116, 122, 123: PLS. V, VI, VIII

¹⁵⁴ e.g. Cat. A: 97, 122: PLS. VI, VIII

¹⁵⁵ e.g. Cat. A: 81, 107, 123: PLS. V, VI, VIII

¹⁵⁶ e.g. Cat. A: 90.c: PL. VI

¹⁵⁷ e.g. Cat. A: 25: PL. II

¹⁵⁸ e.g. Cat. A: 51, 39: PLS. IV, III

LM I.¹⁵⁹ The addition of sockets to support a vegetal element and/or DA between HC by LM I¹⁶⁰ coincides with DA and HC's incorporation into a symbolic language used by the palatial order, at a time in which palatial centres were growing into greater influential entities. The transition of painted and carved DA motifs from simple twin geometric expressions to that of an axe also coincides with the rise of palatial centres, as well as the increase in trade which concentrated luxury goods within those centres. By LM, both HC and DA seem to have been used as symbols of that wealth, power and organization, while both symbols continued to be applied outside of palatial centres, within shrines, caves, sanctuaries and tombs.

A definite increase in the use of both symbols from EM to MM, and from MM to LM is discernible, and the conjunction of these symbols into one, as [HC+DA], is an LM development. This increase in use and conjunction is likely due to their absorption into the palatial iconography from MM II/III onwards, as well as their long standing traditional significance within Minoan culture generally, making the palatial use of these symbols not only desirable, but natural. The palatial order incorporated and elaborated the symbols into its iconography, but without an exclusive control over their use, nor imposing a strict iconographic form for either.

I: [HC+DA] Variants:

LM: 81, 84, 86, 88, 89, 90 c, 96- 98, 107, 114, 116, 118, 119, 122, 123

J: HC: Chronological Schema:

NL: 2

EM: 4, 5, 14, 16, 23, 24,

MM: 34, 43, 44, 54, 55, 58, 61, 66,

LM: 69, 73, 81, 84, 86, 87, 88- 90, 96, 97- 107, 113, 116-125, 127- 9

¹⁵⁹ e.g. Cat. A: 82

¹⁶⁰ e.g. Cat. A: 73, 81: PL. V

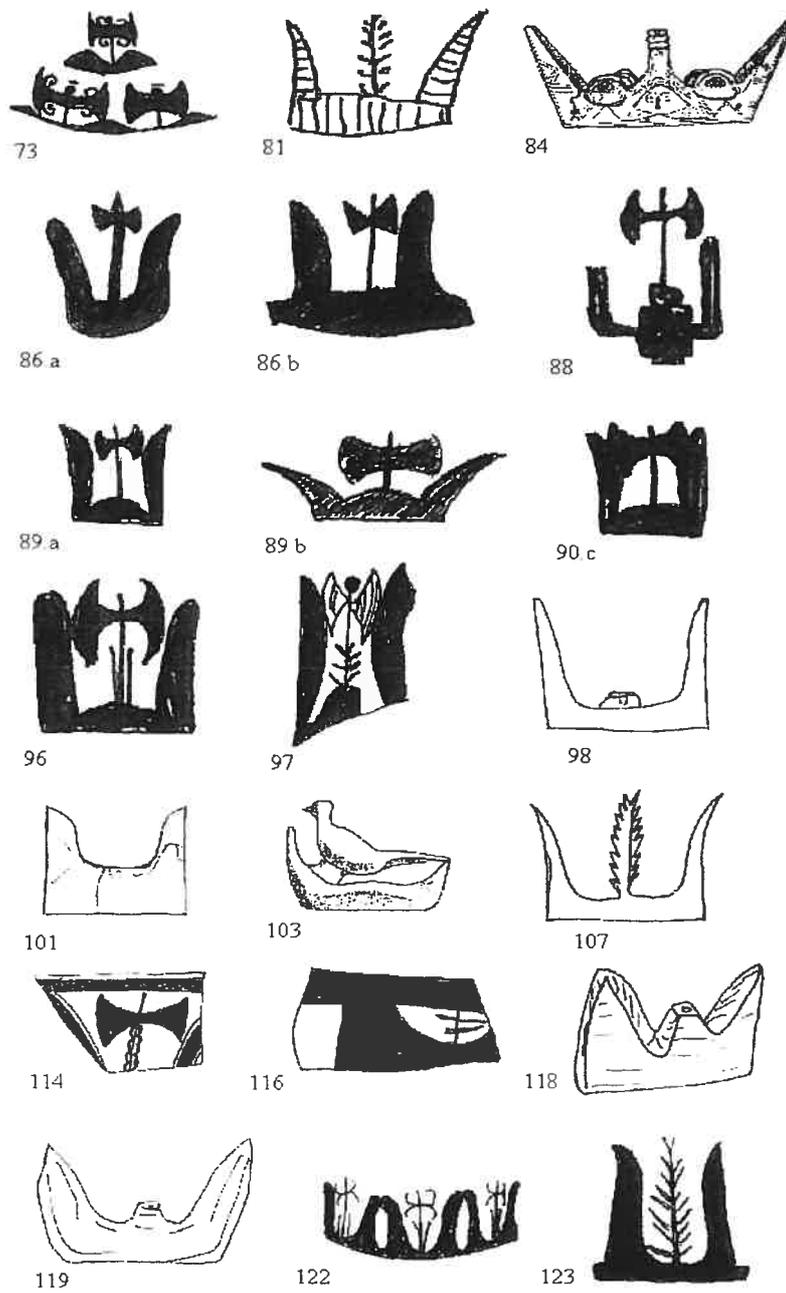


Figure 3: [HC+DA] Variants from LM I through III.

K: DA: Chronological Schema:

EM: 25, 51

MM: 37, 38, 39, 42, 59, 62

LM: 73, 74, 75- 80, 82, 83, 85- 90,96, 97, 108- 11, 114, 122, 123, 126

L: Distribution of Catalogued Occurrences

	HC	DA	[HC+DA]
Cave Sanctuaries	4, 81, 107	83, 108	84
Funerary contexts	2, 5, 14, 16, 18, 19, 23, 24, 29, 41, 87, 90, 104, 106,124	25, 39, 51, 87	86, 88, 89, 90, 96, 97, 118, 123
Peak Sanctuaries	(17, 30?), 34, 61, 66		
In the vicinity of towns and/or palaces	58, 128	82	
Within towns and/or palaces	44, 54, 55, 62, 69, 98, 101, 103, 105, 113, 116, 117, 121, 125, 127, 129	37, 38, 39, 42, 43, 70, 74, 75, 76, 77, 78, 79, 80, 85, 109, 110, 111, 114, 126	73, 116

NB: As this is not an exhaustive study of all occurrences of HC and DA the table above illustrates the distribution of the catalogued material. Notably absent are bronze DAs not catalogued in this work (Rutkowski: 1986: 96, 98) from the Peak Sanctuaries of Jouktas and Vrysines. Other lacunae would doubtlessly be filled with an exhaustive study.

The present schema illustrates: 1.) The symbols are not exclusive to any sort of site or context. 2.) A greater concentration exists within both funerary and palatial contexts.

Part IV: Plates I - IX

The drawings which follow are a selection from Catalogue A,¹ and were sketched together by the author as a visual aid during research. They are not drawn to scale, nor are they meant to serve as exact copies of any object they depict, but do provide a fair idea of the material under investigation. Catalogue A, which follows the plates, provides references, descriptions, information and interpretations of the material.

The examples of HC and DA here outlined afford the reader with a solid overview of observable variants through time and place of both motifs, as well as other pertinent artefacts. Most of the painted examples taken from ceramic decorations represent one of several like examples, but it should be noted that every paint stroke applied to a specific HC or DA symbol creates a nearly unique example.

Plate IX offers a few extra-insular depictions of boats and ships from the fourth to second millennia related to the forms of Cretan boats and ships, their funerary application, and HC forms. Further non-Cretan examples of HC-like symbols or objects are found in Fig. 12, while the remainder of figures found in Parts III and V mainly reproduce items illustrated in this section.

¹ Unillustrated items from Cat. A are items: 60, 63- 5, 67, 68, 72, 80, 82, 83, 87, 92- 5 and 110. The remaining 124 items are illustrated either in their entirety or selected parts.

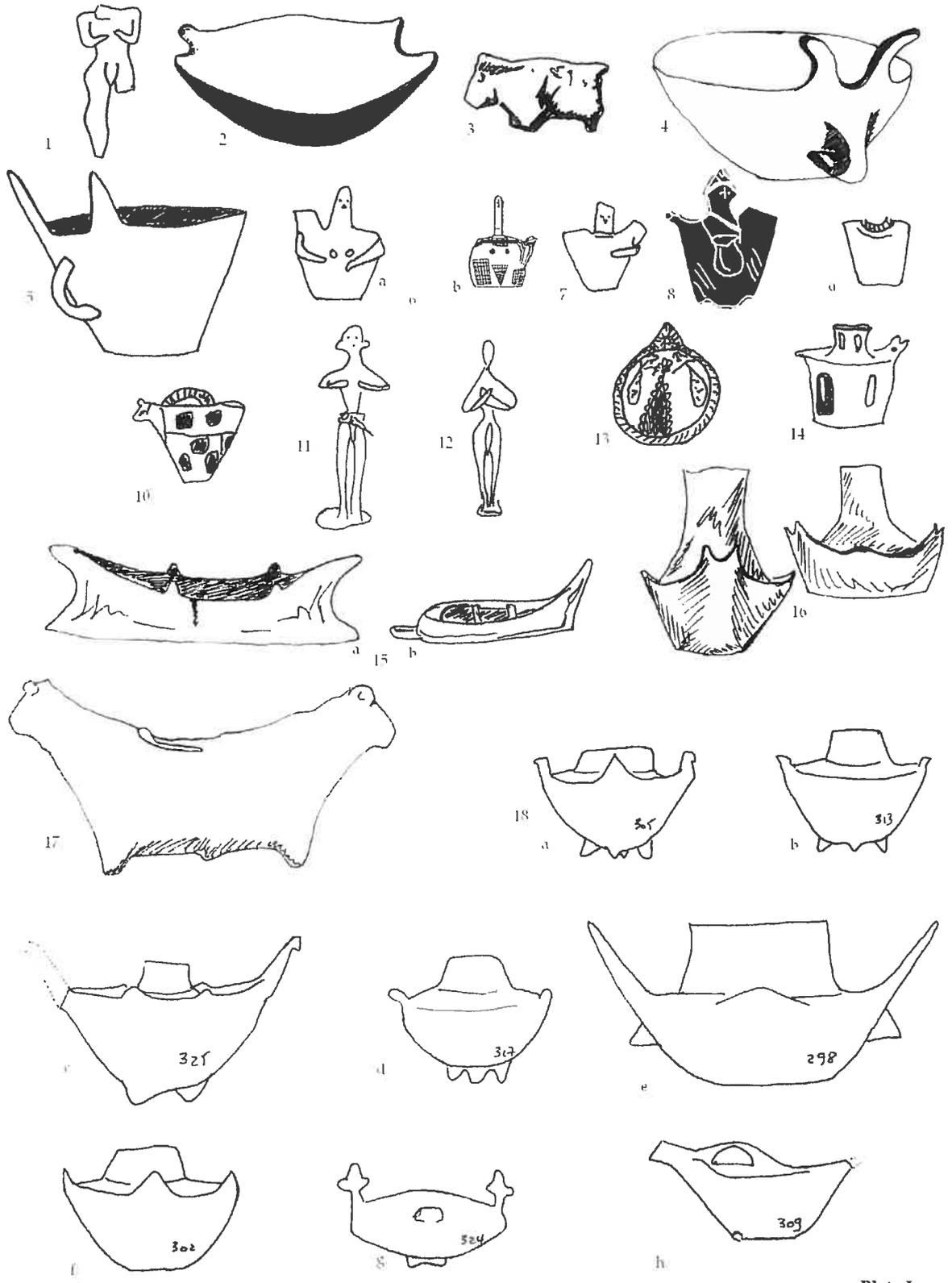
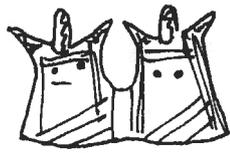
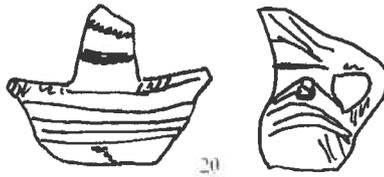


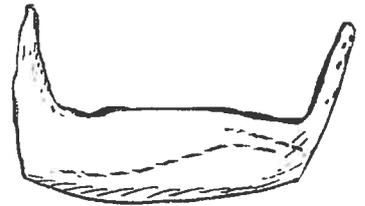
Plate I



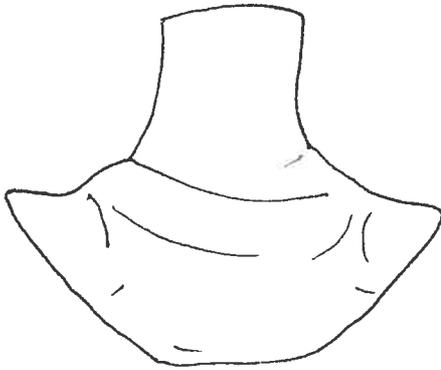
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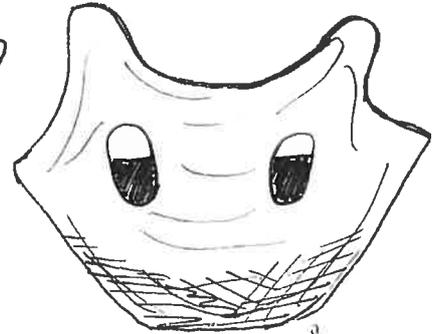
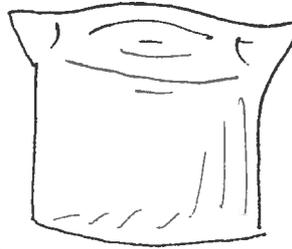
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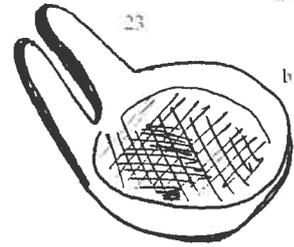
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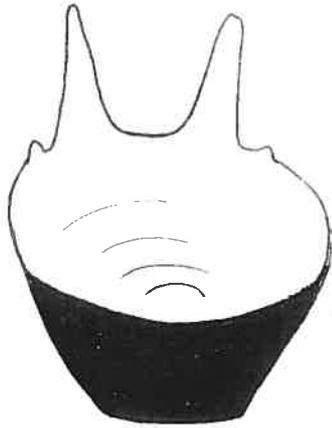
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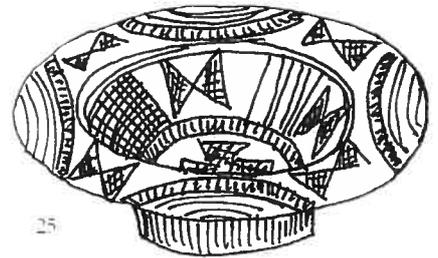
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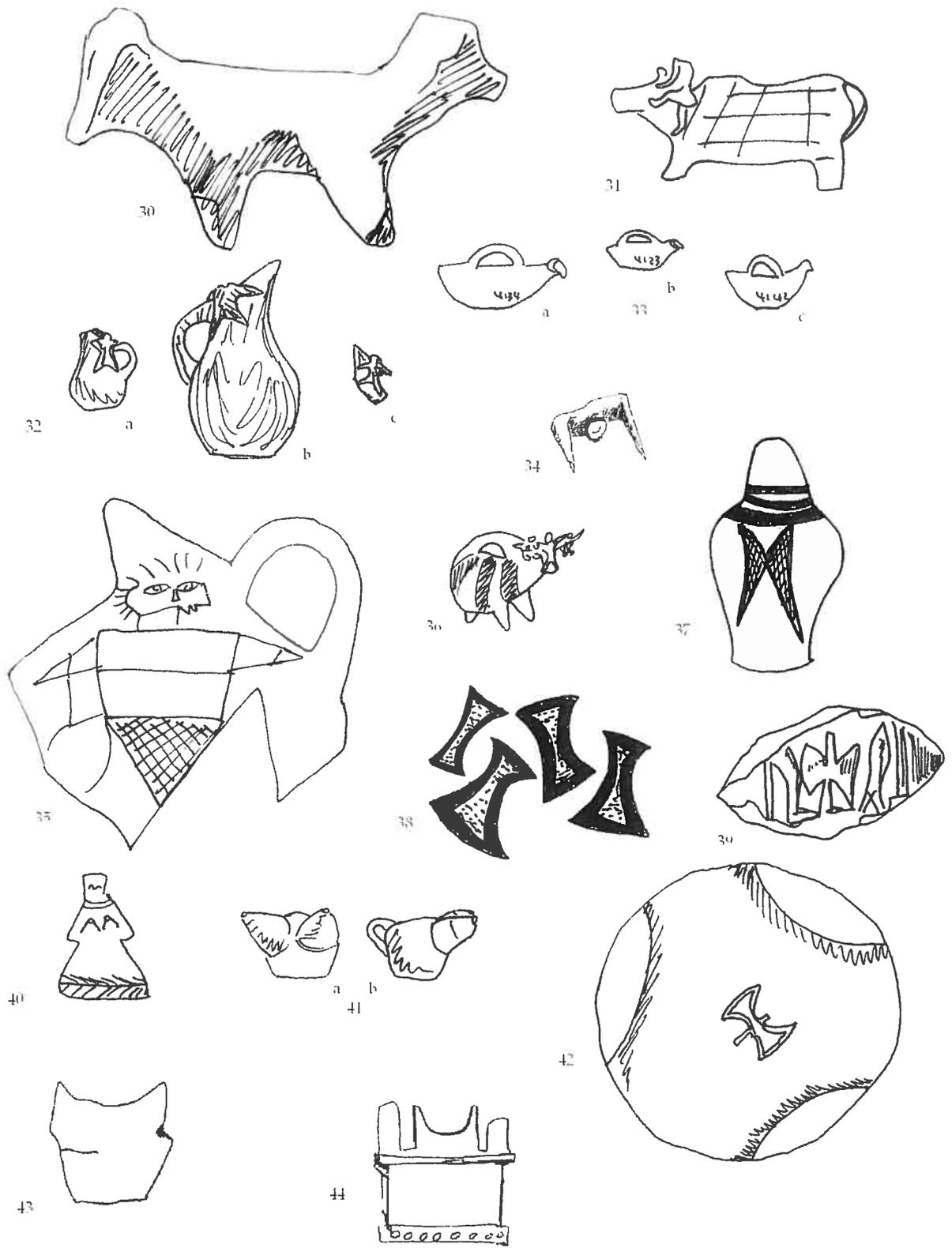
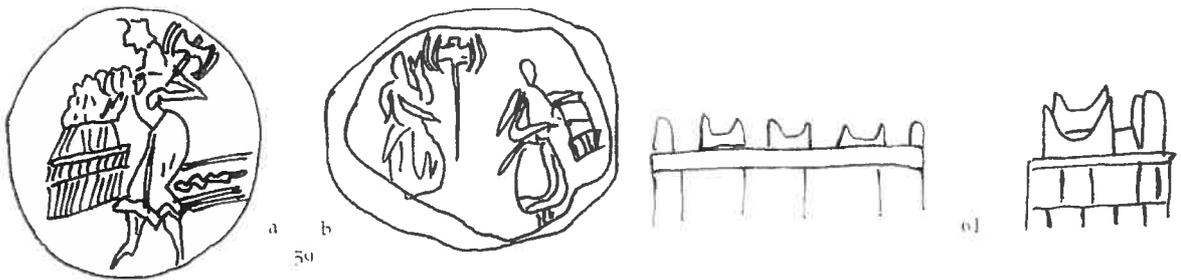
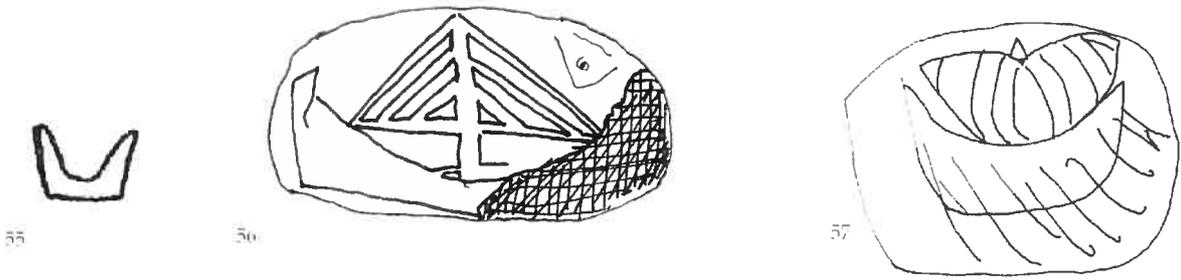


Plate III



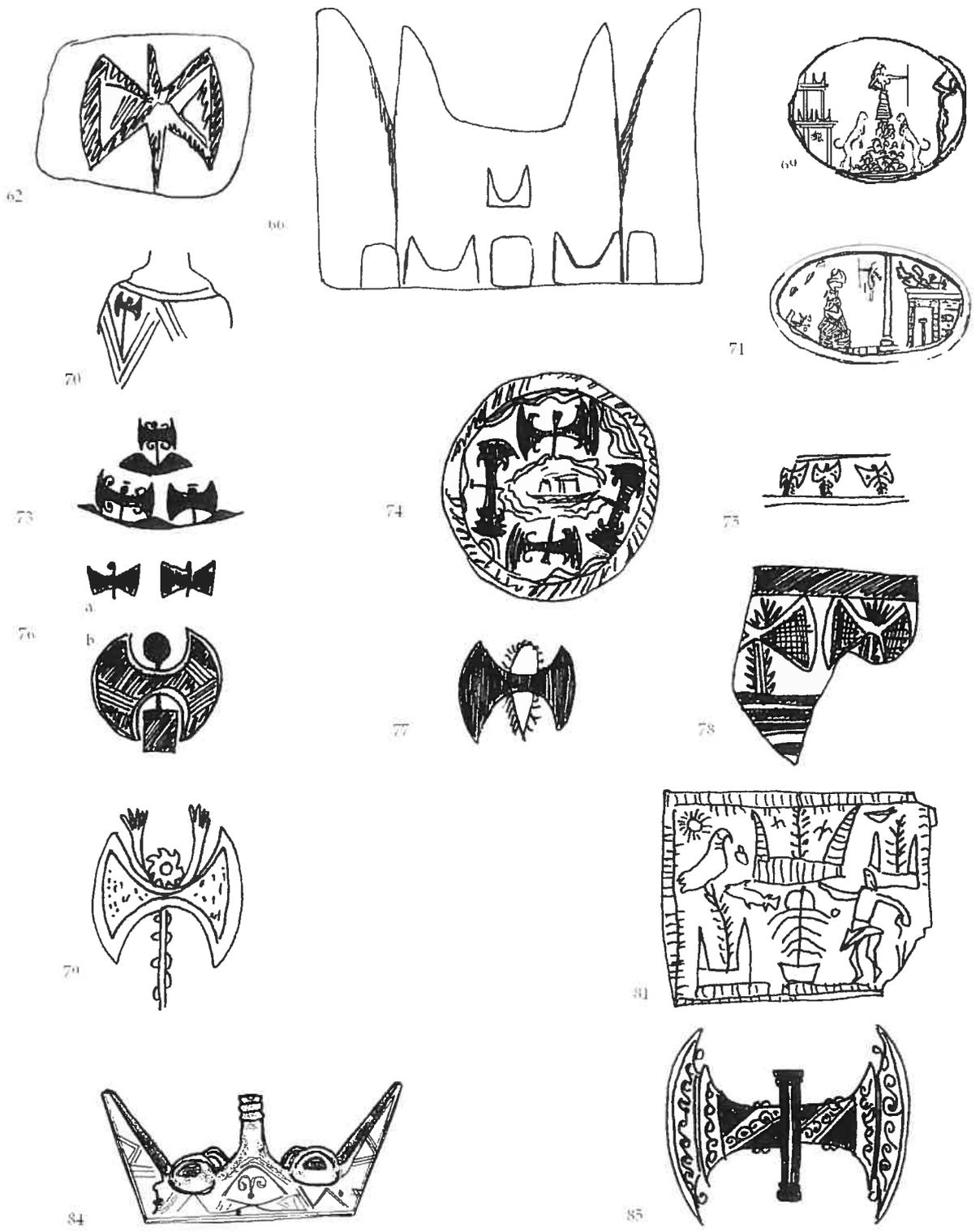
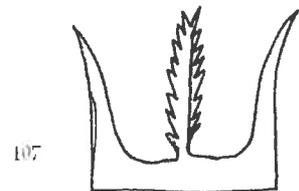
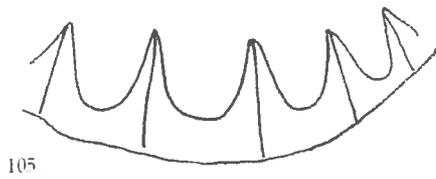
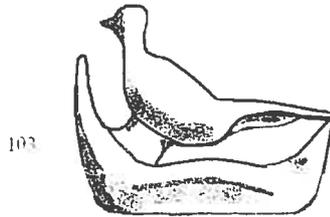
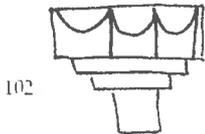
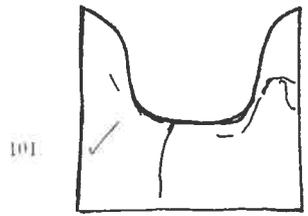
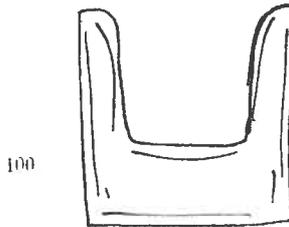
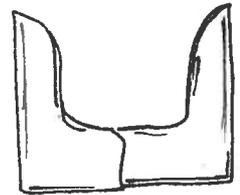
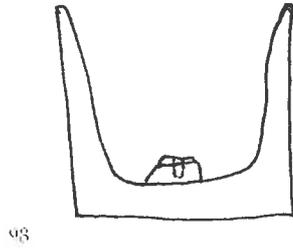
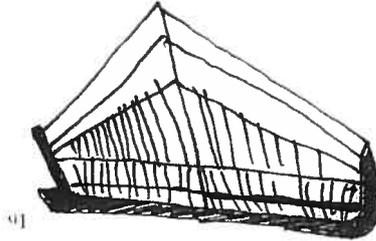
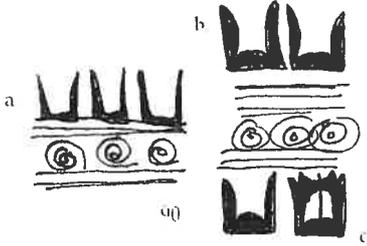
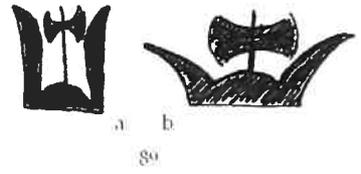
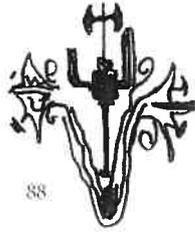
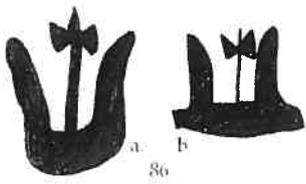
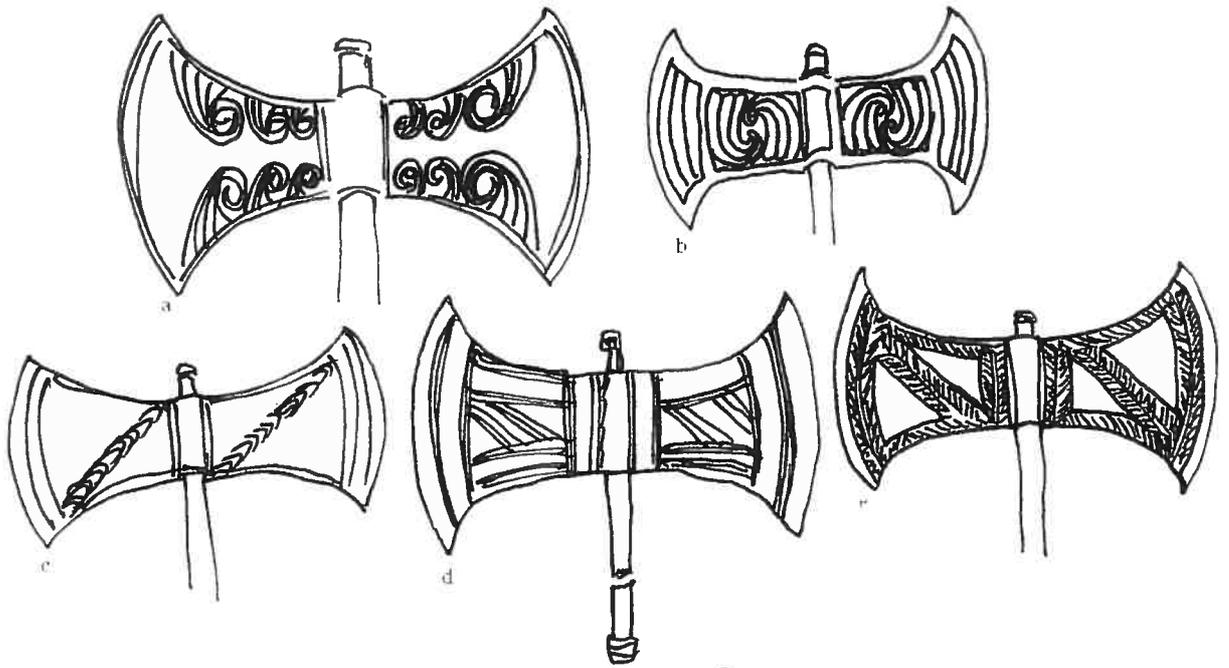
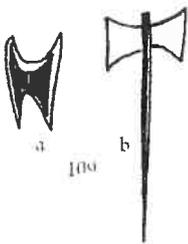
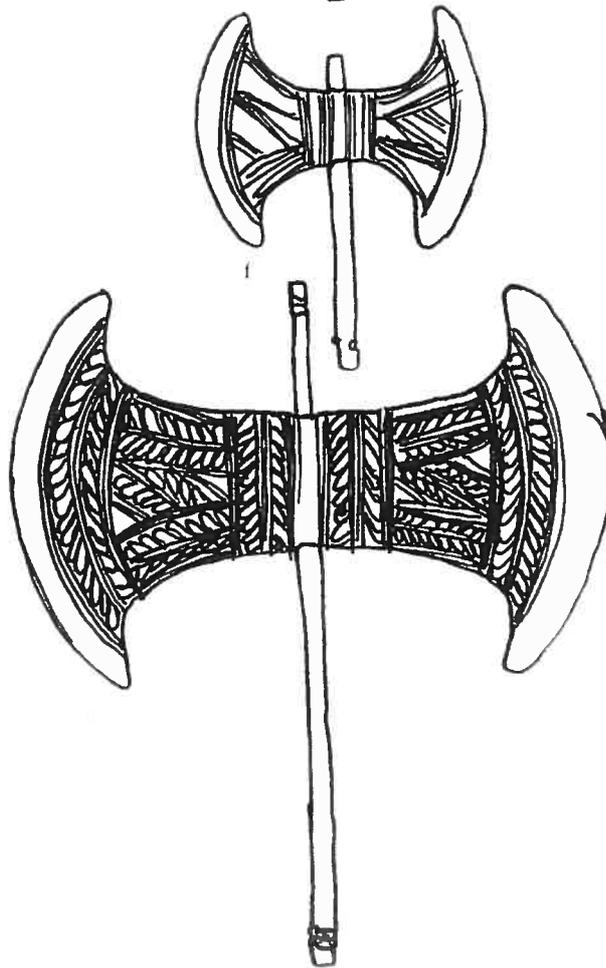


Plate V

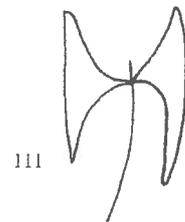




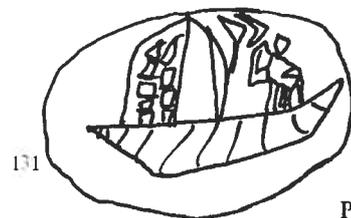
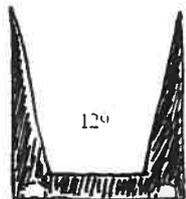
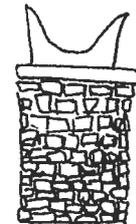
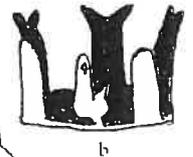
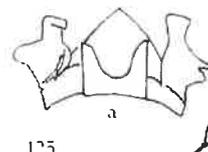
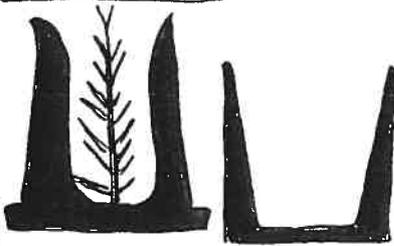
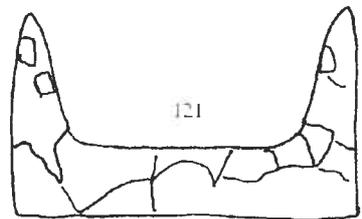
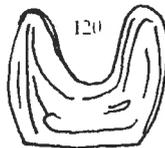
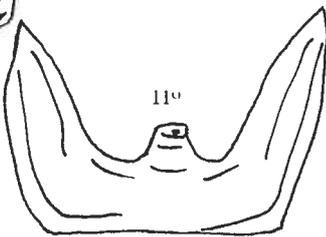
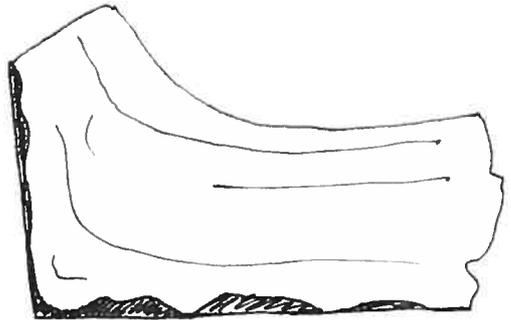
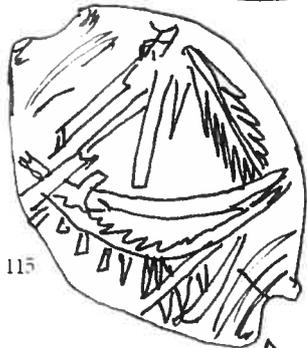
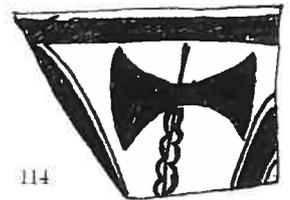
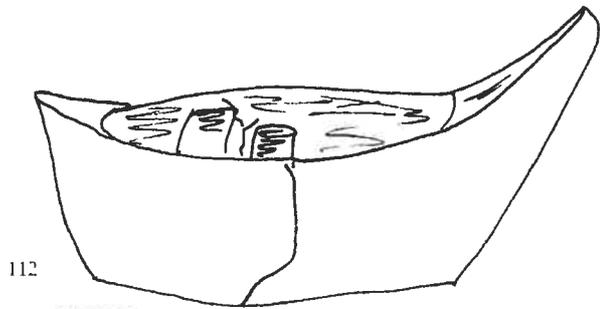
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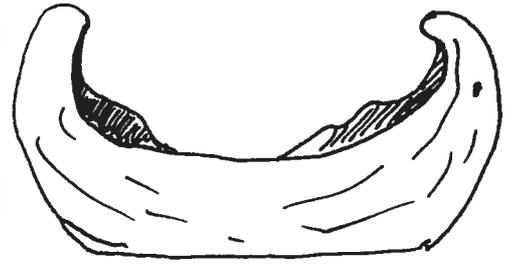


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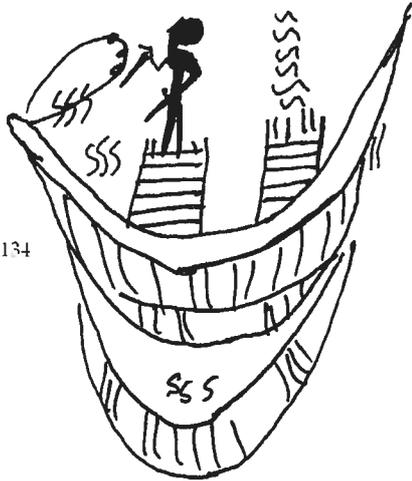




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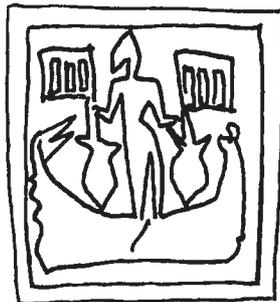
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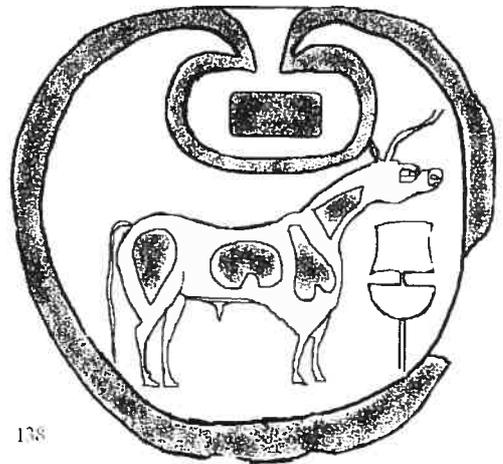
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This present part is primarily composed of two catalogues. The first is a list of the material evidence collected, in a roughly chronological order from earliest to latest, constituting the bulk of the material cited in this work. The items catalogued are provided with references to either the museum, article or book in which they are exhibited and/or published. The objects, most of which are illustrated in full or in part in the preceding section, are here generally described and/or discussed. Objects listed without a bibliographical note are known to the author from visits to the Cretan Archaeological Museums,¹ personal notes, sketches and photographs made or taken in Crete. The second catalogue, Catalogue B, groups the various artefacts according to common features, genres and/or motifs. Figures 4-12 which follow, illustrate a few of those groupings. General observations regarding the symbols and artefacts here documented are then made, and we conclude with an outline of our underlying premises concerning the interpretation of the HC, DA and [HC+DA] motifs.

A: Catalogue A: Minoan Material Evidence

1. EN (Seventh Millennium) Male anthropomorphic figurine; white marble; Knossos; Vasilakis: 45

Square shouldered, with arms bent in towards breast. Genitalia discernible in cod-piece-like bulge. Surviving right leg well modelled. It is unique in form and material for its period and geography, but may be considered a proto-type for later terracotta male-anthropomorphic figurines such as represented by items (11) and (12) from EM, and for which we even have comparable examples as late as LM III from Palaiokastro,² illustrating a facet of the observable continuity of material cultural in Crete which stretches over several millennia.

¹ Museums visited include: The Khania, Rethymnon, Iraklion, Agios Nikolaos, Siteia and Archanes Archaeological Museums. The items are: Cat. A: 2, 4, 16, 17, 23, 24, 34, 58, 89, 90, 99, 100, 102, 105, 118, 119, 122- 4, 129

² Bosanquet and Dawkins: 1923: PL. XXIX

2. NL Horn-rimmed ovoid bowl; terracotta; Iraklion Archaeological Museum # 76043

This bowl is one of the earliest examples of HC-like decoration and/or treatment of ceramic rims. The peculiar ovoid shape may be described as boat-like in reference to the earliest embarkations known for the Eastern Mediterranean Basin as far as Mesopotamia. These are round to oval boats, known as *quffas*, and made of a wooden frame with a hull of stretched hide.³ The dates for iconographic Egyptian and Mesopotamian types of this sort of boat fall between 3500 and 3100 according to both Bass and Casson,⁴ but the use of such embarkations certainly predates their representation in the arts. As Crete was settled by the seventh millennium, sea going vessels of some sort must have existed in the eighth to seventh millennia. The HC-like decoration of the vessel's ends is also congruent with representations of boats, as other horn-rimmed cups, horned boat models and horned ships in the catalogue will elucidate (e.g. 4, 5, 16, 46).

3. MN Bovid figurine; terracotta; Knossos; Evans:1964: I: 44: Fig. 11

Representative of the importance of the bovid from this early date⁵ and certainly marking the beginnings of a tradition in their representation in the Minoan arts and religious iconography.

4. EM Horn-rimmed cup; terracotta; Eileithya Cave; Iraklion Archaeological Museum # 9548

The outwardly splayed protrusions may imitate goat rather than bovid horns. This is a rare example of a horn-rimmed cup outside of a funerary context, and outside of the Messara. When associations between tomb and cave cult paraphernalia are taken into account its presence in a cave, though rare, is not incongruous as caves and tombs have much in common with each other. A similarity between this type of vessel and representations of ships with horned sterns or prows as noted above at (2) is noteworthy.

5. EM Horn-rimmed cup; terracotta; Lebena, Tomb II; Iraklion Archaeological Museum #

³ Bass: 1972: 12-3 and Casson: 11-5

⁴ Ibid.

⁵ Evans, J.D.:1994:1-15

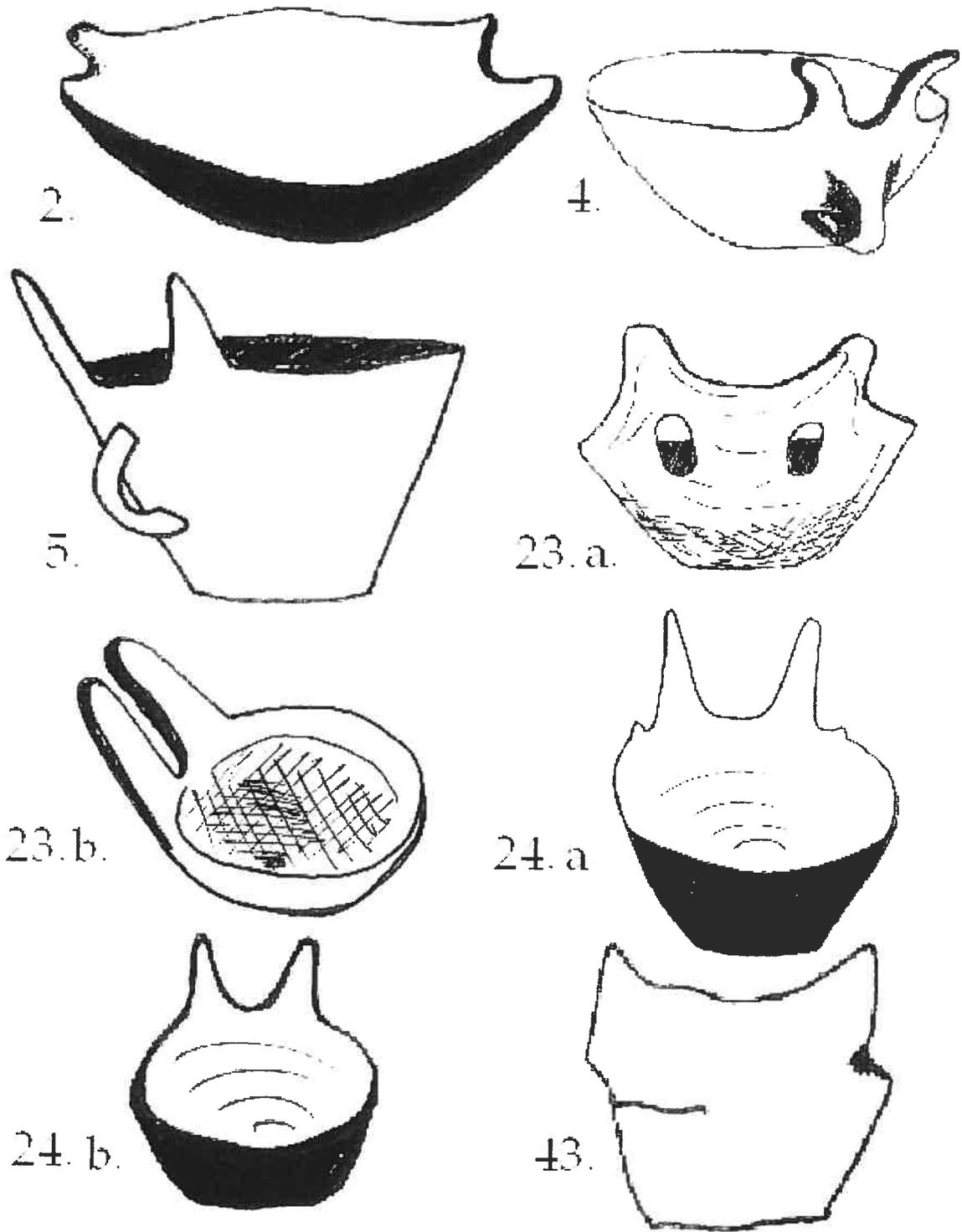


Figure 4: Horn-rimmed Cups

9198; Alexiou and Warren: 2004: # 110 A 69

This type of decoration on ceramics, also seen above at (2) and (4), is common elsewhere in the Eastern Mediterranean Basin particularly Anatolia,⁶ where the ceramic decoration is also applied to ritual or sacred wares. All Cretan examples found by the author are exclusively from incontestable sacred locations, namely tombs, but also from at least one cave (4) and one shrine (43). Given the continuity for Crete, these decorative HC-like protrusions may be more than simple decorations, and carry some symbolic significance. The relationship between the cave and sepulchral zones have already been related, and thereby the example from the cave of Eileithyia is not incongruous to the mass of horn-rimmed cups from funerary sites. These horned rims on ceramic vessels may be analogous to horns applied to the sterns and/or prows of seafaring vessels represented on seals and boat models as noted above and elaborated below. The similarity between this type of decoration to the symbol HC is also of note and likely to represent the beginnings of the symbol's use within funerary contexts. The symbol seems to have developed beyond a funerary and strictly ceramic application in order to denote sacred areas generally, but never ceasing to be applied to funerary contexts as late as the final phases of LM III (e.g. 118).

6.(a) EM Female anthropomorphic pouring vessel; terracotta; Trapeza Cave; Peatfield: 1990:
Fig.14

This figure holds a pitcher-like spout in the crook of her right arm, contrary to (6b), and (26) who hold the pitcher in the left. The category, 'Pitchered Lady', has been given this type of pouring vessel in this text, and includes even those vessels with spouted breasts rather than a pitcher as spout: (e.g. 28, 29, 40, 41 a, b). As this particular cave contained a burial,⁷ one need ask whether this 'Pitchered Lady' is directly related to the rituals involving that particular burial, or if the burial was the initial sanctifying act in the consecration of the cave to ritual and cult activity into which this ritual implement was subsequently introduced. The predominance of similar

⁶ Lloyd and Mellaart: I: 1962 :40-52: The only Anatolian site which may also be said to apply the symbol HC to an incontestable sacred function is that of Beycesultan, where in shrines XIV "B" and XV "A" an HC forms part of the altar construction as well as containing a variety of horn-rimmed vessels within the shrines' deposits.

⁷ Tyree: 69

'Pitchered Ladies' within funerary contexts suggests an emphatic relation between funerary ritual and these pouring vessels. The presence of sepulchres in caverns also suggests that common rites and/or beliefs existed which connected caves and burial site types such as tholoi and rock-cut tombs.

6.(b) EM II Female anthropomorphic pouring vessel, 'The Goddess of Myrtos'; terracotta; Myrtos Phournou Koryphi; Warren: 1972: Fig. 92

This vessel is in the form of a woman holding a pitcher in the loop of her left arm, a 'Pitchered Lady'. The right arm is stretched across the breast, the hand resting on the pitcher's handle. The breasts are small rounded protuberances and the pubis formed by a cross-hatched pubic triangle. Flanking the pubis, in the thigh areas are cross-hatched rectangles, of which a smaller one is found above the breast area. The rectangles are most likely representations of textile wares, whereas the cross-hatched pubis depicts hair and gender. The head and neck of the figure are formed out of a single finger-like extension from the shoulder area which forms the vessel's lid. Facial features are pinched out of the clay and the eyes painted round their contours. Towards the base of the neck are two painted bands undoubtedly representing necklaces. The left side of the vessel is decorated with a vegetal branch similar to the decoration at the base of the Mochlos example (40). The back of the figure is also decorated with four other cross-hatched rectangles. The decoration of the pitcher held in the left arm is reminiscent of pitchers of Agios Onouphrios wares known from the tombs of the Messara.⁸ The shrine she resided in, is the earliest recognized town-shrine, and again a connection between this type of vessel and death is still oddly present, as a human skull fragment was found near the hearth of the adjacent Room 89.

This 'Pitchered Lady', though not likely to represent a goddess, may represent one of the earliest *funerary cult* implements applied to a cult not directly related to burial or burial sites. The equipment in Room 90, grinders and strainers, and the remnants of grapes within that room suggest this vessel may have served in the pouring of wine.⁹ The interpretation of this and similar

⁸ Betancourt: 1985: 29

⁹ L. Godart and Tzedakis, *RFIC* 1991: 129-49; and: E. Hallager and others, *Kadmos* 1992: 61-87 in relation to the Cretan Dionysus.

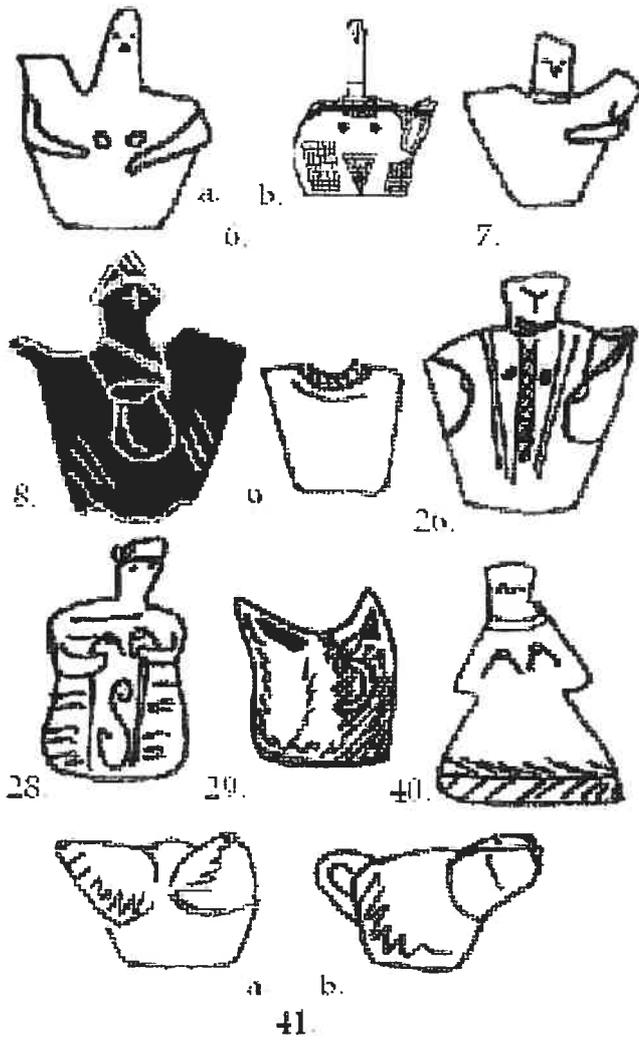


Figure 5: 'Pitchered Ladies'

vessels as a goddess or goddesses is obstructed for two reasons: first, a pouring vessel of any form found within a ritual area is first and foremost a *ritual implement*, and not necessarily the focus of adoration or worship. Secondly, this type of pouring vessel does not survive past MM II; this discontinuity is limited to the form of such vessels, while pouring vessels continue to form an important element in ritual contexts, making the contents of these vessels, e.g. wine, milk or other, just as likely candidates for divinity as the pitchers themselves.

This and other 'Pitchered Ladies' suggest a correlation between women and the pouring of liquids in ritual contexts, either as libations, in the service of ritual consumption, or as a metaphor of woman as vessel i.e. nurturer or 'Lady Provider'. The functional correlation of these pouring vessels is relatable with the iconography on the LM III Agia Triada sarcophagus (87) where women are shown to be pouring libations of a red liquid. If Minoan Religion may be defined in what Warren terms 'Ritual Action'¹⁰ the factor of import is the depiction of ritual participants and activities rather than the receiver of those acts and gifts, i.e. the supposed divinity. Besides being functional pouring vessels, these 'Pitchered Ladies', rather than being identified as a divinity, may have simply served as attention-focusing devices, employing the common device of redundancy for the focusing of that attention. The redundancy here is expressed by the functional pitcher that holds a pitcher (6 a, b, 7, 8, 26), or the pitcher with nipples as spouts (28, 29, 40, 41 a, b) which metaphorically associates breasts with vessels. Furthermore, ritual contexts involving libations require that someone do the pouring. Hence, placing the breasted or female anthropomorphic pouring vessel in the hands of an actual woman, as women are seen to do the pouring on the Agia Triada Sarcophagus, furthers the redundancy and heightens the focus of ritual participants by having a bare-breasted woman pouring from a vessel in the form of a bare-breasted woman who is pouring from a vessel herself. Considering their ties with the funerary element of Minoan cult, these vessels may very well have something to do with death and life, the idea of something like a mother, nourisher or Fate tying death and birth¹¹ together, not necessarily a divinity as such, but the expression of a belief metaphorically put into redundant references to women as vessels and providers within a

¹⁰ Warren: 1988

¹¹ Marinatos, N.:1993: 147 and Gesell: 1983: 95

ritualistic context of passage, an end in a beginning so to speak. Within this scheme the 'Myrtos Goddess' amidst an abandoned village is metaphorically equivalent to the body of 'Pitchered Ladies' whose provenances are burial sites and hence related to the cessation of one state of existence and the passage to another, here at a community level, rather than a single individual.

7. EM Female anthropomorphic pouring vessel; terracotta; Koumasa; Xanthoudides: 1971 # 4993

This vessel is from the funerary site of Koumasa and similar to other 'Pitchered Ladies'. This figure holds a pitcher in the left arm and exhibits decoration round the base of the neck, similar to necklaces worn by most 'Pitchered Ladies'.

8. EM Female anthropomorphic pouring vessel; terracotta; Phourni; Marinatos, N.: 1993: Fig. 24

This 'Pitchered Lady' is from the funerary site of Phourni. The figure is decorated with an open bodiced robe-like garment and a band across the neck/breast area. A pitcher is held before the breast as opposed to one side. The head is adorned with a pointed cap similar to the later figures from Gazi (125) but without any added decoration.

9. EM Fragmentary pouring vessels; terracotta; Koumasa; Xanthoudides: 1971: #'s 4138 and 4139

Though incomplete these two anthropomorphic pitchers are much too similar to the above mentioned 'Pitchered Ladies' to be considered anything but similar types of vessels. Their provenance is the same as several like examples, a funerary site. Number 4139, illustrated in Plate I, exhibits what may be a large necklace.

10. EM Zoomorphic pouring vessel; terracotta; Koumasa; Xanthoudides: 1971: # 4141
- The shape of this vessel is a cross between the 'Pitchered Lady' type and the zoomorphic boats (33 a-c). The spout is in the form of a bovid head. The top of the vessel is arched with a handle for pouring like the afore mentioned zoomorphic vessels. This pitcher may attest to the pouring

of milk within ritual settings, as may also beasted pots (e.g. 41). Blood or some other liquid cannot be discounted for lack of any evidence in support of any particular liquid, except for the grape remains in the Myrtos EM II shrine, and the depiction of sacrificial blood collection on the Agia Triada Sarcophagus.

11. EM Male anthropomorph with codpiece and dagger; terracotta; Petsophas;
Rutkowski:1986: Fig. 99

Of note is the similarity in form with item 1, and the implied continuity from EN to EM and through to LM III as evidenced by a Palaioakastro figurine noted above at (1).

12. EM Male anthropomorph with codpiece; terracotta; Piskokephalo; Rutkowski:1986: Fig. 158

See 1 and 11.

13. EM Kamares Ware bowl with figural representation of three women; Terracotta;
Phaestos; Marinatos: 1993: Fig. 120

The central figure rising from the rim towards the centre of the bowl has been taken by many to represent a goddess emerging from the earth. The bulbous forms given to all three women represented are reminiscent of the above mentioned 'Pitchered Ladies' as well as figurines such as (27) below. A vegetal or fertile affiliation has been given this central figure as she has been interpreted to be emerging into the bowl's centre as a plant emerging from the earth. Her limbs are all hidden, unlike the two flanking ladies whose arms are flayed out, the central figure's arms are hid beneath her robe, while her feet would be where the figure meets the vessel's rim. The only parallel to this is of much later date but from nearby Agia Triada; the Agia Triada Sarcophagus (87) depicts the supposed deceased with his arms hid beneath a cloak, and his feet below the ground level in a similar fashion as the central figure of this bowl. A second funerary affiliation may be found with the circular form of the bowl, its heavy border and triangular ansa are reminiscent of the circular tombs of the Messara valley overlooked by Phaestos. The figure need not be emerging, but may rather be receding and representative of a funerary ritual as

opposed to a ritual involving an as yet undefinable and unverifiable goddess of fertility.

Certainly, the implication of death is here suggestive of a cycle of birth, life, death and renewal by the very vegetal suggestions of this emerging or receding figure, whether into, or out of the ground.

14. EM Hut-like incense burner (?); terracotta; Lebena Tomb II; Pot # 512; Alexiou and Warren: 2004

With the profile of a 'Pitchered Lady' and HC-like decoration on its perforated ansa, this vessel may be interpreted in a manner of ways. Its overall shape is like-onto the 'Pitchered Lady' type but is not a pitcher. An incense burner or model of a round hut, tomb or shrine may be suggested. Its 'Pitchered Lady' form and HC element is in line with funerary paraphernalia of the period and location.

15. EM Boat models; terracottas; (a.) Mochlos; Tombs; Iraklion Archaeological Museum # 5570; Betancourt: 1985: Figs. 32 a. and (b.) EM II; Palaiokastro; τὰ Ἑλληνικά ossuary; Bosanquet and Dawkins: Fig. 4

Example (a) represents a flat-bottomed sea-faring craft with high prow and stern splayed outwardly, a symmetrical construction reminiscent of Outwardly Splayed HC and HC-like decorations and objects (e.g. 4, 89b, 104, 122). Examples of similarly shaped ships are represented on seals such as (56) and (57), as well as with extra-insular¹² examples (e.g. 132-137). Also noteworthy are the protrusions at the base of the object's prow and stern seen on other boat depictions (e.g. 15b, 47, 91), and the pair of small protrusions on both port and starboard sides of the boat which may represent rowlocks. The addition of smaller protrusions to an otherwise horned object, or boat model, is also seen elsewhere: (e.g. 16, 18 a, c, e, f, 24 a).

Example (b.) represents a flat-bottomed sea-faring craft with a high prow and rounded stern. The single peaked prow of the model is similar to the model from Lambda XVII (48), an LM boat model (112), and the boat on a gold seal (130) with a zoomorphic end, as well as evocative of the later Malliote HCs (54).

¹² See also Cat. A: 133 and Cat. B: Boat Images, for further boat/funeral parallels.

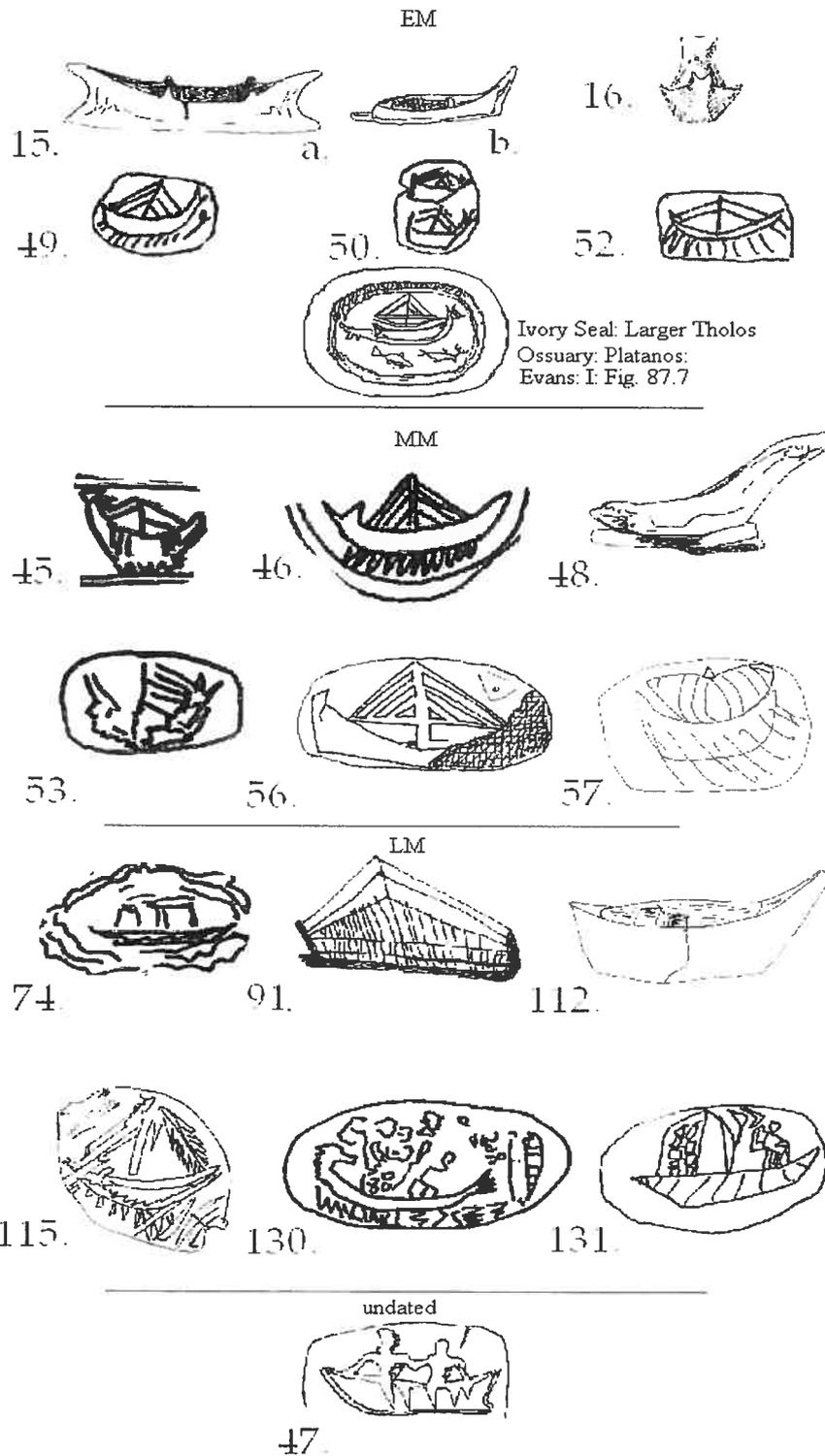


Figure 6: Boat and Ship Depictions

Protuberances at the bases of both prow and stern for (a) and at the stern for (b) find parallels both with other representations of ships and later representations of HC (e.g. 86 b, 123).

16. EM I Boat model pyxis; terracotta; Messara; tomb; Iraklion Archaeological Museum # 10861

This little boat model has the flat-bottom of both the above-mentioned models and unmistakably HC decoration at both prow and stern. The HC decorations on this object are among the earliest, and exhibit a likewise early relationship between the symbol and sea-faring craft. The decoration of prows and sterns with horned projections are observable in the later representations of ships on seals (e.g. 45, 46, 49, 50, 53) and may also be correlated to the boat-shaped NL bowl listed above (2). The presence of boats and boat models within funerary contexts find local and extra-insular parallels (e.g. 15, 87, 137, and Cat. B), and are prominent in Crete. This suggests that boats are involved in the passage of the dead to the next world in the mind of the BA Cretan, a notion well suited to an island civilization.¹³

17. EM Double-headed bull figurine; terracotta; from a Peak sanctuary; Iraklion Archaeological Museum # 16579

I suspect these double-headed figurines are related to ship building practices. The double-bull possibly represents the practice of combining two or more bovid hides for the construction of relatively larger vessels with high prows and sterns, as suggested by the above example of a boat with horned decorations in HC forms at both prow and stern, as well as the twin peaked boat model (15a), in contrast to the smaller embarkation suggested by such models as (15b). A further parallel between HC and this type of figurine is the saddle-like curvature of the animal's back, as the same type of curvature is found on several HC examples from subsequent periods (e.g. 44, 54, 58, 61, 66). Furthermore is the more obvious similarity in form between this figurine and HC, the protrusions here being formed by the necks and heads of the beast. They may otherwise be, as suggested to me by Dr. Vet. Jürg W. Eitel, a fascination or veneration of animals born with this

¹³ Grumach: 1968: 24 and Kenna: 1969: 152

particular deformity.¹⁴

18. EM Pyxides and pouring vessel; terracotta; from Lebena Tombs; a.) pot # 305, b.) 313, c.) 325, d.) 317, e.) 298, f.) 302, g.) 324, h.) 309; Alexiou and Warren: 2004

These vessels with their protrusions at either end, their flat bottoms, or footed bases are not likely to be suspension pots. The perforations may simply allow the lids to be secured onto the vase. Symbolically the securing string may have imitated rigging, as this type of container is found to imitate boat forms. Examples (a-g) are reminiscent of the boat model (15a), and the pyxis (16), the latter both a pyxis and boat model. It should be noted that from the onset of boat depictions on EM seals, mast and rigging are rarely absent.

The pouring vessel (h) is similar to the zoomorphic vessels listed as (33 a-c) and most likely, like them, symbolically represents a boat or ship with a high prow as in example (15 b). It would seem that boat models and boat shaped vessels constitute an important element within the funerary paraphernalia of EM Crete.

19. EM “Sheep-Bells”; terracotta; Knossos; Iraklion Archaeological Museum; Nilsson: 1971: Fig. 89

These so called ‘sheep bells’ are decorated with painted bands reminiscent of textile decoration on female anthropomorphic vessels and figurines, and are also decorated with small rounded protrusions similar to the breasts on the said female anthropomorphic vessels (see 6, 26, 27).

These articles are also found with faces painted on a side or plain. Several examples, such as this one, exhibit the peculiarity of being decorated with horned protrusions in the manner of upraised arms or horns, reminiscent of HC forms. Such bell-shaped objects have also been found with bovid figurines applied to them.

20. EM Pitcher; with frontal profile of a boat model; terracotta; Lebena; Tomb II; Pot # 510; Alexiou and Warren: 2004

¹⁴ Dr. Vet. Jürg Eitel is head physician of the Moesano region Switzerland, based in Grono. Dr. Eitel is a caprid specialist and the originator of the first viable and successful goat Caesarian Section Technique.

We have here again an allusion to a boat or ship combined with the functionality of a ceramic vessel within a funerary context. The frontal profile is most similar to the pyxides (16) and (22).

21. EM I HC; terracotta; Mochlos votive deposit; Iraklion Archaeological Museum;
Nilsson:1971: Fig. 88

This is the earliest recognized example of a free-standing HC. It is contemporary to horn-rimmed cups and bowls (see 4, 5, 23, 24, 43), as well as the boat model (15a) with which it also shares provenance. It has been heralded as the prototype of the HC motif.¹⁵ This object however is contemporary, even in EM I, with the said horn-rimmed cups. These cups are decorated with HC forms which find comparable examples in subsequent periods, whereas this asymmetrical example finds few comparable types but for item (103) from LM .

A further peculiarity of this object is its outwardly curved base, this curvature visually marks it as one to be viewed frontally. Taken as a frontally oriented object, a striking similarity with other objects emerges; these are items (15a, 16 and 20), i.e. boat models or boat shaped objects which all exhibit a curved base and pointed, peaked or horned extremities, as does also the aforementioned LM asymmetrical HC (103).

22. EM I 'Suspension pot' and lid; terracotta; Agios Nikolaos; Evans: 1964: I: Fig. 24

This vessel is similar to (16) though simpler. Its flat bottom, like items (16) and (18), suggests that this was not meant as a suspension pot. The perforations at the points of the vessel and lid likely served the functional purpose of securing the lid to the vessel and aesthetically creating the aspect of a boat or ship complete with rigging.

23. EM I/ II Horn-rimmed cups; terracotta; Agia Photia - Siteia Cemetery; Agios Nikolaos Museum (# NA)
(see 5)

24. EM Horn-rimmed cups; terracotta; Messara Graves; Mitsoukakis Collection; Khania

¹⁵ Nilsson: 188

Archaeological Museum (# NA)

(see 5)

25. EM II Painted bowl with DA motif; terracotta; Mochlos; Tomb II; Betancourt: 1985: 43
This is the earliest application of DA decoration on ceramics here catalogued, and exhibits a cross-hatched pattern reminiscent of textile wares (e.g. 6b, 31, 35). These DAs lack a central shaft, and all that defines them as early DA examples is their twin triangular construction, to which is later added the transecting haft.

26. EM IIb “ Snake Goddess of Koumasa”; terracotta; Koumasa: outside a tholos tomb;
Xanthoudides:1971: # 4137

Like the “Goddess of Myrtos”(6 b) and others, the vessel is an abstracted female figure. The flap-like arms are folded in towards the breast, the left blanketing a jug. The breasts are again small protrusions, but the painted decoration is more elaborate. Along the length of the arms is a banded motif, whilst the front of the figure is decorated with vertical bands radiating from the base between which are the breasts. Further vertical bands with a twin-triangular pattern bracketed by toothed lines run between the breasts. The neckwear consists of two plastic parallel bands. The name ‘Snake Goddess’ derives from the banded decoration along the top of the arm flaps, however, no snake head or tail is visible. The banding on the arms may simply represent banded textile decoration, as the same type of banded decoration is found on “La Parisienne” fresco fragment from the West Wall, Knossos, by LM I.¹⁶ As the rest of the painted lines and bands on the body of the vessel are recognized as textile,¹⁷ an exception made for those banded lines leading from the neck line down the arm flaps as representing snakes seems no more than a desire to recognize the existence of a ‘Snake Goddess’ for this early period.

The attributes of this vessel are the same as other vessels of its type: textile decorations, neckwear, breasts, and either a pitcher or spouted breasts. It is a ‘Pitchered Lady’ found within the most common context for such a vessel: a funerary site. It is, as others of its type, more likely

¹⁶ Vasilakis: 200-1

¹⁷ Branigan: 1988: 89

a ritual implement, rather than an object of veneration. Furthermore the very term ‘Snake-goddess’, as applied to a number of female figurines handling snakes, has its own interpretational problems discussed below (65).

27. EM II/III Female anthropomorphic figurine; terracotta; Petsophas; Evans: 1964: I: Fig. 111

These votive figurines with their bulbous bottom halves, small rounded breasts, and textile decoration are reminiscent of the said ‘Pitchered Ladies’ but have slimmer waists. They are in other respects similar to the later so called ‘Snake Goddesses’ but lack the snakes (see 65). Curiously, this type of female figurine, complete with a broad headdress, is also common to contemporary Anatolian sites.¹⁸

28. EM III Female anthropomorphic pouring vessel; terracotta; Mochlos; Tomb XXII; Evans:1964: I: Fig. 84

This vessel is classed as a ‘Pitchered lady’, though rather than holding a pitcher or jug, she holds a spouted breast in each hand. The function, context and symbolism remains that of a ‘Pitchered Lady’. The vessel is decorated with horizontal lines above the breasts, vertical bands extending below the arms, and an S spiral motif found at centre. These decorations are all likely of textile derivation. The back of this vessel is equipped with a handle for pouring. The neck is decorated with two horizontal bands as necklaces. The facial features are plastically rendered, with the head crowned with a diadem which has a flat disc-like application above the right eye representing jewelry or some floral application, perhaps precursors of the more elaborate headdresses of the Gazi idols (125).

Despite the spouted breasts and bulbous form it has been suggested this vessel represents a male.¹⁹ However, its similarity in form, decoration and function to other ‘Pitchered Ladies’ suggests it to be female, as do the spouted breasts.

Of particular importance is the geographical provenance of the vessel, linking the ritual

¹⁸ Schmidt: 1932: Frontispiece: Fig. B 2056

¹⁹ Marinatos, S: 1960: 117

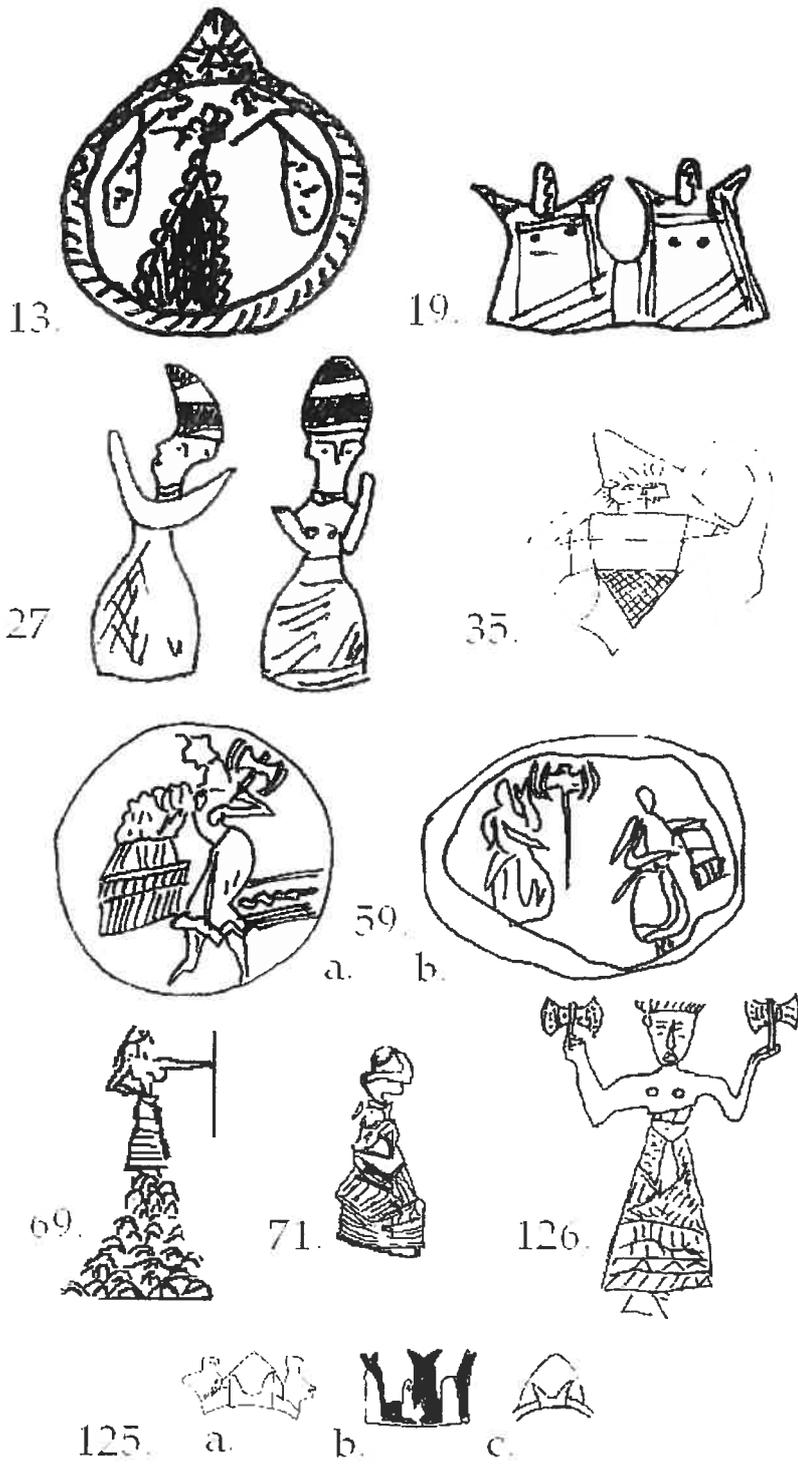


Figure 7: Female Anthropomorphs

paraphernalia of the Messara with that of the northern coast of Crete by EM III. As this sort of 'side-spouted jug' was already popular in the tombs of Mochlos as early as EM II,²⁰ they are thus also contemporary to the Messara and Myrtos examples.

An LM I votive²¹ female anthropomorphic terracotta figurine shares the feature of holding a breast in each hand, and as noted above in Part II: C, a divine connotation can not be entirely discounted at present.

29. EM II / MM II Breasted or Horned pouring vessel (Double spouted jug); terracotta; Koumasa; Xanthoudides: 1971: # 4992

This object looks more like a pair of horns or pointed ears rather than breasts, but it shares function, general form and funerary context with the breasted pots of Kalathiana (41), and may be thus related to our 'Pitchered Ladies'.

30. MM Double-headed bull figurine; terracotta; Choudetsi; Rutkowski: 1986: Fig. 113 (see 17)

31. EM II/MM I Bull-sports rhyton; terracotta; Koumasa; Xanthoudides: 1971: #4126
Acrobats hang off of both of the bull's horns; over the back of the animal is a net-like decoration expressed by cross-hatched lines. Of note is the funerary provenance of this vessel and others like it (e.g. 36), and the association of such an activity as bull-sports in association with the funerary contexts in which they are found.

Three questions arise:

- 1.) Do such depictions of Bull-sports represent actual rituals involving bulls and acrobats, or are they merely some metaphor involving bulls and acrobats?
- 2.) Is their funerary provenance of any significance?
- 3.) How can a ritual activity or metaphor involving bulls and acrobats relate to a funerary context?

²⁰ Soles: 1992: 91

²¹ Platon; et. Al.: 1983: Fig. 147

Question 1 is unanswerable as we lack evidence to suggest such sport was indeed practiced, however we can not exclude the possibility that it was. We may certainly assume that these depictions of bull-sports had at least a metaphoric significance. This significance must be related to ritual activity of a funerary nature as funerary contexts are their only find spots in EM. From MM through LM, bull-sports are found within palatial contexts, primarily Agia Triada and Knossos,²² but their origins remain with the tombs of the Messara.

Pinsent²³ states that in Spain are present modern bull-sports which include bull-leaping, and suggests the very real possibility of such sport to have existed regardless of the danger involved. Indeed, danger and the infliction of pain often form a part of ritual and/or cult activity to induce religious experience as noted by Renfrew.²⁴ Both Pinsent and Boardman caution that, “even art historians can fall into the trap of treating vase paintings as though they were tracings of photographs from life, rather than conventional symbols for figures and acts drawn in a period when realism and drawing from life had been barely conceived as either possible or desirable.”²⁵ That said, Pinsent suggests:

“...the element of danger, indeed of likely death, was what was important in any form of bull-sport, was even the crucial element, and that the real (if unadmitted) ‘object of the exercise’ was to ensure a death in circumstances in which it was willed responsibility of none but, if at all, the willing victim, who has accepted at least the possibility, even likelihood, of his own death.”²⁶

In this way, depictions of bull-sports as indicative of a play with life and death, can be related to their funerary contexts in which a death or deaths are being honoured and/or celebrated. It is possible that this life-threatening activity was a part of the games performed on

²² Marinatos: 1960: PLS. XVII, 96, 97, 106, 107. To these we would add the Palaiokastro Kouros, (Dickinson: PL. 5.19), as he is likely to have been part of a bull-vaulting group considering the similarity in his stance with the figure holding onto the bull's horns on the Knossian fresco, i.e. Marinatos: 1960: PL. XVII.

²³ Pinsent:1983: 259

²⁴ Renfrew: 1994: 52

²⁵ Op. Cit.: Pinsent: 260 and Boardman:1980: 245: *Journal of Hellenic Studies*: 100

²⁶ *ibid.*: 261

the occasion of a deceased community member's funeral, or metaphorically represents the precarious nature of life itself and the inevitability of death. Either way, representations of this activity are certainly relatable to their funerary context and understandable therein. From MM to LM representations of bull-sports (e.g. 72) are no longer restricted to funerary contexts and may, if practiced, have evolved into a rite of passage for the Minoan elite with the palace rather than the tomb as focal point.

32. EM II/ MM I Pitchers with anthropomorphic figure attached on neck between handle and beak; terracotta; Koumasa; Xanthoudides: 1971: a.) # 4115, b.) 4116, c.) 4117

These acrobatic expressions doubtlessly make a metaphoric parallel with bull-sport rhyta by combining an anthropomorphic acrobatic element to a pouring vessel. The pouring vessel here being a jug as opposed to a zoomorphic rhyton. Further connecting these to the bull-sports rhyta is their shared provenance, i.e. the tombs of the Messara. It would seem that both women and livestock may be formed into sacred or ritual pouring vessels, and in these particular cases, even pouring vessels themselves may be metaphors for livestock.

33. EM II / MM I Pouring vessels with zoomorphic spouts; terracotta; Koumasa; Xanthoudides: 1971: a.)# 4123, b.) 4124, c.) 4142

These elliptic vessels, described by Xanthoudides as boats, are equipped with a handle spanning over the spine of the beasts, with spouts modelled in the form of horned rams, except for ©), which may be that of a bird.²⁷ These vessels may be representative of the affixation of animal crania or their horns to the prows of boats, the use of animal hides, or other parts therefrom, in boat construction, as leather and skins are thought to have been used,²⁸ or related to a conception of the ship as a sort of sea-faring animal. This conception is also illustrated on a seal from a Mochliote burial from LM Ib (130).

34. MM Votive HC; terracotta; Prinias, Siteia; Agios Nikolaos Archaeological Museum

²⁷ See Evans: 1964: I: 44: Fig. 11 for an NL example of a bird shaped pouring vessel.

²⁸ Huebeck. West and Hainsworth: 157

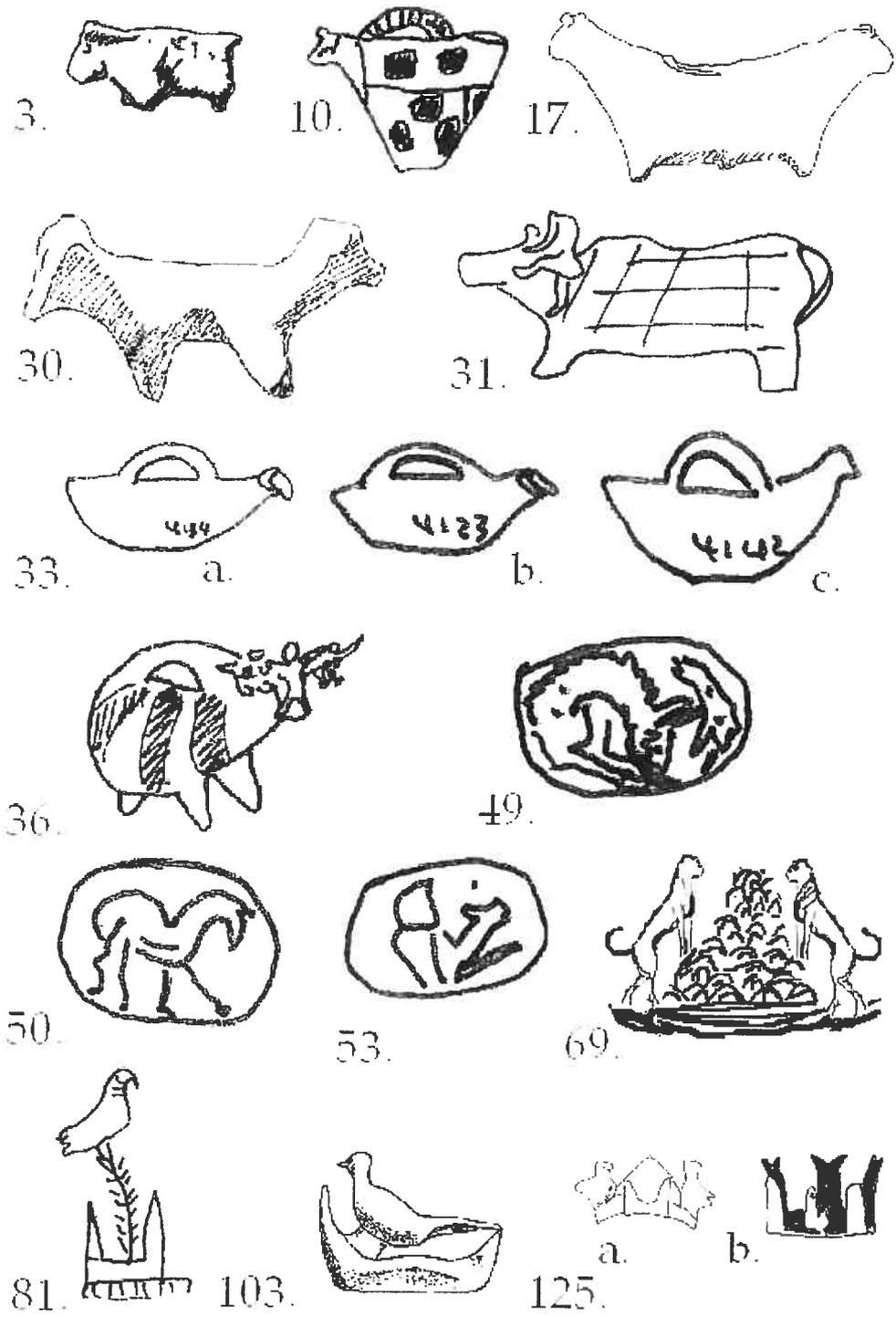


Figure 8: Zoomorphs

(#NA)

This miniature example has a bowl-like appliqué between the horned protrusions. Of note is the votive application of the symbol, as suggested by the miniature size and provenance from a peak sanctuary.

35. MM I Pitcher with incised male and female figures; terracotta; Mallia; Van Effenterre: 1980: Figs. 572-4

The female on the one side is shown with a triangular cross-hatched pubis. The male on the reverse is similar in stance to figures 1, 11, and 12 but with his head in profile.

36. MM I Bull-sports rhyton; terracotta; Porti Tombs; Xanthoudides: 1971: # 5052

This bull stands on three legs and is shaped with the similar curves of the zoomorphic boat models (33 a-c) and (18 h), and thus also reminiscent of the boat on item: (130).

(See 31 above for a discussion of bull-sports and their significance within funerary ritual and other sacred contexts.)

37. MM Ia Jugs with 'Butterfly' DA motif; terracotta; Knossos; Betancourt: 1985: PL. 5. I See (25) for a discussion of cross-hatched DA motifs.

38. MM Ia Polychrome jug with decoration in DA-like pattern; terracotta; Knossos; Evans: 1964: I: Fig. 123

Similar to DA motifs, or at least an axe-like form, but as yet indefinable as either.

39. MM I Sealing with Leg, DA, Fish and Pillar motifs; clay; Knossos; Evans: 1964: I: Fig. 144

This is one among some of the earliest sealings with a representation of DA supplied with a central shaft which date between EM II and MM I. Of note is the presence of the symbol with fish, also seen on items (51) and (97). It is an intermediate form between the twin triangular and axe-like forms. Preceding examples of DA (25, 37) are decorated with a cross-hatched motif

similar to the treatment of textiles and pubic triangles, seen again even in LM (e.g. 78). The association between DA and aquatic motifs is increasingly observable towards and through LM (e.g. 51, 74, 97, 108 a. and b.), but as Grumach²⁹ notes, the combination of DA with a fish or sepia is already common between EM II and MM I, particularly within funerary deposits. It is however notable that this example is a sealing, not a seal deposited within a tomb, and as such likely held some administrative and/or economic significance.

40. MM I Female anthropomorphic pouring vessel; terracotta; Mallia; Communal Grave;
Van Effenterre: 1980: PL. XIX: HM 8665

The breasts are spouted and the neck banded like other 'Pitchered Ladies'. The body is decorated with a net-like vegetal motif, which likely represents textile. The base of the figure is decorated with a horizontal hemming in the form of a vegetal spray as mentioned above at (6b). As with (28), a connection between the forms of ritual implements in the Messara with those of Crete's northern coast is notable. Funerary rites from the Messara to Crete's northern coast all seem to have involved liquid offering/consumption, often poured out of such feminine forms, at least until MM I/II.

41. MM I and II Breasted pouring vessels; Terracotta; Kalathiana; Xanthoudides: 1971: (a.)#
5704, (b.) 5703

These vessels are in the form of spouted breasts and supplied with a handle at back for pouring. They undoubtedly carry the same metaphoric meaning as the 'Pitchered Ladies' (6a, 6b, 7, 8, 9, 26, 28, 40), and a pouring vessel of similar shape (29), being mostly pouring vessels in feminine forms within funerary or otherwise ritualized contexts. These vessels, along with (28) and (40) are the last of their kind in Minoan Crete. The supposition for any of them to represent a goddess or goddesses to the exclusion of others would deny their common function, provenances, and character. Either they all represent a female divinity, a series of divinities, or are simply ritual implements which served in the pouring of liquids within sacred contexts. Their discontinuation by MM III suggests that they were ritual pouring vessels, which disappeared as a result of

²⁹ Grumach: 1968

changing fashions in the ritual pouring vessels used within funerary rites, perhaps influenced by the developing ritual practices of non-funerary character. The discontinuation of this type of vessel within funerary contexts, and the abandonment of one such example at the site of Myrtos does not support a divine attribution. This is not to say that these vessels were not sacred objects, but that they were not, strictly speaking, representations of a divinity or divinities. Their ritual function, that of pouring, was taken up by jugs, pitchers, vases and rhyta, according to the fashion and styles which predominated after MM II, which seem no longer to have required the pouring vessel to be shaped either like a woman or breasts.

42. MM II DA stamped motif on bottom of tripod vase; terracotta; Mallia; *le sanctuaire MM II voisin du Musée stratigraphique*; Van Effenterre:1980: Fig. 585 :M 65/7

An example of an early hafted DA in isolation, and which as a stamped DA motif, can for the first time be said to represent a double-bitted axe. This development is contemporary with the emergence of palatial centres. This DA is also contemporary to the earliest architectonic application of HC from the same site (54).

43. MM II Fragment of a horn-rimmed vessel; terracotta; Mallia, Town Shrine; Rutkowski: 1986: Fig. 224

This is the latest example of a horn-rimmed cup, and the first to be found outside of a funerary or cave site. As of MM II we begin to see more free-standing HC expressions, while on ceramic vessels, HC becomes a painted rather than plastic application. Item (21), of EM I, may be said to be the precursor of the free-standing HC, but as remarked above, HC itself is rooted and well represented in EM as a plastic ceramic application on ritual cups and bowls from primarily, though not exclusively, funerary contexts (see 4, 5, 23, 24). Although, this and item (4) are not from funerary sites, they are nonetheless from sacred sites.

44. MM IIb Architectural model fragments with HC; terracotta; Knossos; Evans: 1964: I: Fig. 166

By MM II, HC achieves a grander symbolic significance, as it is used as an architectonic element,

as known from architectural models such as these, and actual vestiges (e.g. 54), as opposed to strictly marking individual items such as cups. A symbol marking funerary paraphernalia thus becomes a palatially oriented sacred marker. The emerging palatial order elaborates an existing and recognizable sacred emblem into the architectural decor of buildings and shrines within its sphere of influence. From MM II, HC will often, though not exclusively, be represented with the exterior sides flattened and perpendicular to the base, the protrusions curved inwardly, and a saddle-like interior section.³⁰ The book-ended exterior sides, seem to have been developed to facilitate the continuous or contiguous placement of architectural HC elements such as these.

45. MM II Signet with ship; chalcedony; Mochlos; Evans: 1964: I: Fig. 207 b

The ship depicted in the centre of the seal has a horned prow or stern, a mast, rigging, and oars/paddles. The horned decoration of this and other ships is reminiscent of horned decoration applied to early ceramic vessels and boat models (e.g. 2, 4, 5, 15, 16, 23, 24, 43). The glyphs to right and left of the ship I dare not attempt to define, but the decorative bands of S-swirls above and below may certainly represent waves. The mast and rigging are of course evidence for the use of a sail.

46. MM II Sealing with representation of ship and vegetal sprays; clay; Evans: 1964: I: Fig. 213

The ship, as the previous example, has a horned prow or stern, mast, rigging and oars/paddles. The space above the ship is mostly filled with vegetal sprays, with an ingot shaped object to the far left. These may represent the trade items in which the ship owner or trader dealt in.

47. Unstratified Seal with two-manned fishing boat and fish;³¹ Mallia; Van Effenterre: 1980: Fig. 98

³⁰ This saddle-like form of HC is comparable to the depiction of a saddle from a Terracotta figurine of a horse rider from post-palatial Arkhanes. The common element between the saddle as a horned object and horned decorations on boats is vehicular, i.e. movement or passage, and material, i.e. animal hides. (Vasilakis: 158-9)

³¹ Unknown date as this piece is documented by VanEffenterre as having been, "*anciennement découvert à Mallia (Mélanges DUSSAUD: I: 122)*".

Of note are the peaked prow and stern, as well as the protrusion at the stern's base similar to that seen on items (15, 18 e, 86, 91, 123). This boat is similar to the boat model (112). The ribbing on the boat's side may allude to the boat's construction, possibly involving a wooden frame with a hull of stretched hide. In general form, it is also similar to an LM HC (103).

48. MM/LM High-prowed boat model; terracotta; Mallia; Tomb Lambda XVII; Van Effenterre: 1980: Fig. 100

Similar to the boat model (15 b), and a carved depiction (49), and significant in that boat models continue to be found within funerary contexts.

49. EM Prism-seal³² with ship on one of three sides, boar-like zoomorph on second, and possible circular loomweights³³ on third; white steatite; Mallia; Kenna: 1960: K 49

Of note is the horned prow of the ship, mast and rigging.

50. EM Prism-seal with two ships on one of three sides, zoomorph, and three anthropomorphs seated in a row respectively on the other two sides; white steatite; Mallia; Kenna: 1960: K 50

Of note are the horned prows of the ships, masts and rigging.

Contemporary to this seal is an amygdaloid ivory seal from a larger tholos ossuary at Platanos, illustrated in Fig. 6. This latter ship is supplied with an elaborate rigging system complete with mast and yards, and decorated with multiple horned motifs. These 'horns' form both the prow and stern of the ship, with another horned object adjoined to the prow. The steering oars are also formed into an inverted HC form, as well as the ships overall profile being that of a horn. Two fish are seen beneath the ship, directly beneath the keel is a tunny fish with fins fore and aft, but that beneath the ship's prow is supplied with a single 'flipper', a forked tail, and beaked snout, likely representing a dolphin. This dolphin carries a quadruply peaked standard in its mouth, or otherwise emerging from its head, which resembles one of the Predynastic

³² Items 49-53 are from the Ashmolean Collection and their dates are likely to fall somewhere between MM and LM.

³³ Burke: 1997

symbols published by Newberry,³⁴ and illustrated in Fig. 12. Interestingly, these Egyptian symbols may be found to adorn the mastheads of ships in Egypt,³⁵ as the Minoan HC is also found to decorate seafaring craft in Crete.

51. EM Prism-seal with DA, Swastika and Fish motifs; dark brown steatite; Kenna: 1960: K 20

The affiliation of DA with fish, also seen at (39) and (97), is notable, as is the intermediate form of DA between the twin-triangular haft-less form and that of a double-bitted axe. This DA is composed of twin trapezoids with a central shaft or haft similar to that of item (39).

52. EM Prism-seal with ship on one of three sides, zoomorphs, and two swastikas; white steatite; Mallia; Kenna: 1960: K 55

Of note is the crescent shape of the vessel similar to other examples (e.g. 56-7, 87, 115, 131-7, 140) with peaked prow and stern, perhaps associating the crescent moon with a ship, and again the ship with horns of some sort.

53. MM Prism-seal with ship on one of three sides, zoomorphs, and abstraction; black steatite; Mallia; Kenna: 1960: K 59

Of note is the horned prow of the ship, mast and rigging.

54. MM II HC architectural decoration; terracotta; Mallia; *le Sanctuaire aux cornes*; Van Effenterre: 1980: Figs. 593-4

The overlapping single horns of this shrine have more in common with boat models with single high prows (15 b, 48, 112), than they do with other HC examples. They are the only such examples with a pronounced single horn to connote HC, and apart from boat models, are comparable to little else. The only comparison with other HC variants can be made with items (21) and (103), as one end is more pronounced than the other on these examples. This suggests

³⁴ Newberry: 1908: 24

³⁵ *Ibid.*

that these items may themselves be boat abstractions. These single-horned HC examples represent the earliest extant architectural use of HC, apart from the models (44) and (61). As there is no reason to consider these anything but HC examples, we must then accept that twin 'horns' is not an exclusive defining element of the symbol HC, and also consider that the boat plays some role in HC's symbolism and definition.

55. MM II-III HC decoration; Sealing; House E; Mallia; Van Effenterre: 1980: Fig. 85
The HC on this seal is similar to those of items (106) and (113). The HC is one of three items depicted above a bound and sacrificed bull resting on an altar table. The other two items seem to be a spike or sword and a bucranium or conical vessel. A kilted figure, probably a male, stands with his arms outstretched over the bull's rump.

56. MM IIb Seal of boat with high prow or stern; Mallia; *l'atelier des sceaux*; Van Effenterre: 1980: Fig. 811

Notable is the high stern or prow, though incomplete it is likely the missing end mirrored the extant side. Similar boat shapes are observable in other examples (e.g. 52). The space which would be occupied by the sail is represented by rigging set triangularly out from the mast as in several other examples: (45, 46, 49, 50, 52, 91, 115), and suggested by: (18 a-g, 22, 84, and 97).

57. MM IIb Seal of boat with high prow and stern; Mallia; *l'atelier des sceaux*; Van Effenterre: 1980: Fig. 813

A rare example of a ship with a hoisted (?) sail represented by two billowed triangular shapes. A seal from Knossos³⁶ dated to MM III is another example of a seal with a representation of a ship with hoisted sail. The sail of this Knossian example is square and cross-hatched, a device known from EM (see 6b) to represent woven material.

58. MM II-III HC; limestone; Anemospelia; Arkhanes Archaeological Museum (#NA)³⁷

³⁶ Evans: 1964: II: 243: fig. 140

³⁷ See: Sakellarakis and Sakellarakis: 1980 for more on the site and its finds.

This object certainly marks Anemospelia as a sacred site.

59. MM III (a.) Lentoid seal; steatite and (b.) Sealing; clay; Knossos and Zakros respectively; Evans:1964: I: Figs. 312 a, b

Of note are the combinations of DA with women, and DA with textiles. As seal and sealing these objects have an economic facet to them possibly related to textile production or the ritual use of textiles. Symbolically they express a relation between DA, textiles, and women. The action is possibly one in which the cloths are either made sacred or blessed. Item (a) has a further textile band stretching from the woman's leg towards the seal's edge. It is one of the few instances in which DA is held by an individual, and, when this is the case, it is always held by a woman.

When further similarities between textile and DA decorations are considered (e.g. 25, 37, 73, 78, 108) the connections between DA, textiles and women can hardly be ignored. Those textile parallels are generally from women's clothing (i.e. textile cross-hatching and hemming on 'Pitchered Ladies', and the hemming and embroidering of flounced skirts and bodices represented on Knossian fresco).³⁸ A direct link between DA's symbolism and textiles is thus highly plausible. Furthermore, the only extant depictions of actors in ritual handling DA are women, therefore, DA must then also have some part of its significance directly related to women.

60. MM III Relief plaques of goat and kid, and cow and calf; faience; Knossos; Marinatos: 1960: PL. 71

Of these Nilsson³⁹ says, "Whether these objects *per se* have any religious significance seems very doubtful, although Sir Arthur Evans cites in comparison the cow of the Egyptian goddess Hathor and recognizes a marine aspect in the cult."

At bare minimum, the fashioning of these animals in a luxury material hints at the importance played by such animals in the Cretan economy and ritual. As has been suggested

³⁸ Of particular interest is 'The Ladies in Blue' fresco from Knossos; in relation to textile bandings with spiral decorations in comparison to items 72, 95 and other similar examples. (Evans: 1964: 547: Fig. 397)

³⁹ Nilsson:1971: 84

above, the marine aspect of certain zoomorphic figurines may rest with the use of hides in naval construction.

61. MM III Models of shrines with HC; terracotta; Piskokephalo; Rutkowski: 1986: Figs. 79, 80

See (44) and (54) for a discussion of HC's architectural use.

62. MM IIb Seal with DA; steatite; Mallia; *l'atelier des sceaux*; Van Effenterre: 1980: Fig. 588

Similar to (39, 51, 78) in shape, this item is an example of an intermediate form of DA, coupling twin-triangular and axe-like forms. The top and lower portions of the central shaft on this object and those of items (39, 51) are roughly of an equal length. Indeed, which is the top and which the bottom half is not here discernible. By LM, DA will increasingly be placed atop pillars (e.g. 59, 70, 86), or otherwise with a well differentiated top and bottom, i.e. a knob-like cap at top (e.g. 73, 74, 76), or planted into a ground or stand as early as MM I (e.g. 39, 73, 89).

63. MM III - LM Ia Sea-shells; natural and faience; Knossos; Temple Repository; Evans: 1964: I: Figs. 377-8

These objects in a luxury material, i.e. faience, like (48) above, and the natural shells and fish vertebrae found within this same deposit, the latter unpublished by Evans,⁴⁰ attest to the important role played by the sea in Minoan Crete. Several scholars admit that an Earth/Sea dichotomy is more likely than an Earth/Sky dichotomy in Minoan religion.⁴¹ Indeed, marine iconography is far more prevalent on Crete than are symbols of the sky such as moons, suns, stars, lightning or even birds. These celestial elements do form a part of the religious iconography of Crete, but can by no means contend with the abundance of marine and terrestrial

⁴⁰ Panagiotaki: 1993: 54: from the unpublished photograph taken by Evans of temple repository finds with "snake goddess" shows the coiled placement of fish vertebrae with a ferret skull for head, amongst the finds which were later eliminated. Either this represents Evans' sense of humour or an attempt to create a snake goddess cult by whatever means available.
104: notable is the "considerable emphasis on marine life among faience objects, fish and shells."

⁴¹ Warren and Codagan: 1981: 172, 214

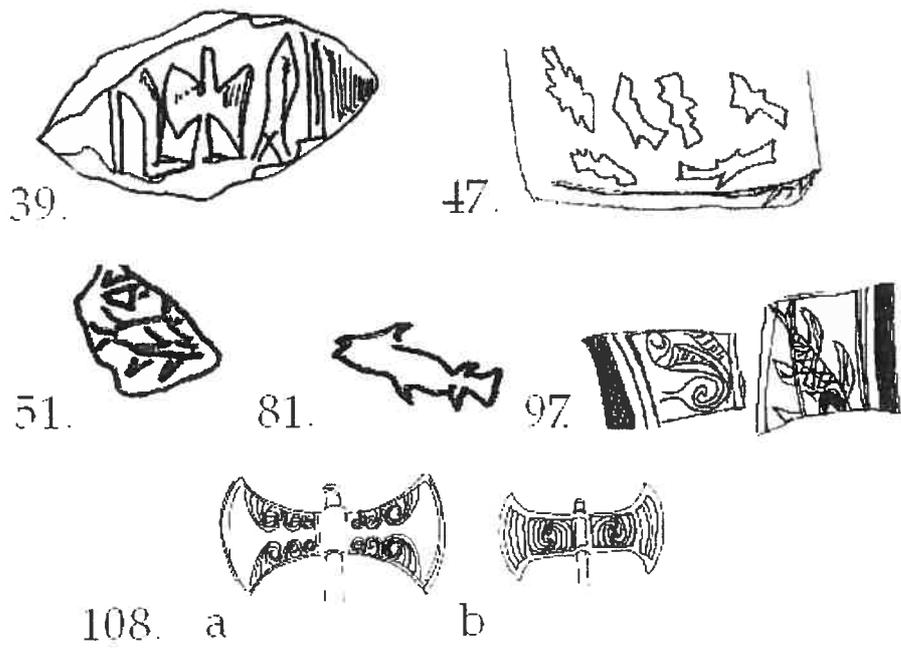


Figure 9: Marine Iconography

elements.

64. MM III- LM Ia Flying fish and shells; faience; Knossos; Iraklion Archaeological Museum; Evans:1964: I: Fig. 379

See (63) for further on marine elements and symbolism.

65. MM III “Snake Goddess”; faience; Temple Repositories; Knossos; Iraklion Archaeological Museum; Marinatos: 1960: PL. 70

Often taken as goddess figurines, these (65, 67-8) are more likely votive statuettes as suggested by Marinatos and Hägg.⁴² They were found within a votive deposit among other objects of a generally sacred character, including faience and natural sea-shells, as well as fish vertebrae.⁴³ The question still remains as to what these votive statuettes represent. If not ‘Snake Goddesses’, why not more down to earth snake-handlers. Acrobats are represented to play with bulls, and hence with their lives within representations of ritualized settings, a pitting of Man vs. Beast no different in the level of danger and metaphor than these snake-handlers. The two, bull-sport and snake-handling, are the same sort of death defying ritual which involves the control of an animal which can potentially mortally wound the participant. The bull gores, the snake bites, the result is the same. It would seem, that some Minoan rituals involved the peril of death, fear, control of that fear, and the mastery of animals to induce the focus necessary in the inducement of religious experience through extreme measures. In both cases, the audience would share in the excitement, anxiety and peril of the actors if these, bull-sport and snake-handling, represent actual ritual activities rather than metaphoric expressions.

66. MM - LM Quintuple sacral horns; Plaster; Petsophas; Agios Nikolaos Archaeological Museum # 6805; Marinatos: 1993: Fig. 86

A unique example of HC, illustrating the concept of redundancy as applied to cult paraphernalia,

⁴² Marinatos and Hägg: 1983: 195

⁴³ Op. Cit.: Panagiotaki. The presence of a ferret skull in this votive deposit, as well as the numerous ferret figurines from the Peak Sanctuary of Petsophas, (Rutkowski: 1991), may attest to ferreting practices in Minoan Crete.

though Marinatos calls this a shrine model.

67. LM Ia “Snake Goddess”; faience; Knossos; Iraklion Archaeological Museum; Marinatos: 1960: PL. XXIV

See (65)

68. LM Ia Fragments of “Snake Goddesses”; faience; Knossos; Iraklion Archaeological Museum; Evans: 1964: I: Fig. 377

See (65)

69. LM Ia Seal impression; the “Lady of the Beasts”; clay; Knossos; Iraklion Archaeological Museum; # 160 1 / 2 Rutkowski: 1986: Fig. 114

The authoritarian female figure atop the hill at centre, has led many to consider her a goddess, particularly due to the heraldic felines or canines. The male figure has not been so considered though his relative size is twice that of the female. The male’s stance is that of what is considered belonging to a votary, with fist raised to the forehead.⁴⁴ To the left of the hill upon which the female stands, is a scaffold-like construction made up of HCs and pillars. The female figure holds out a staff in the same fashion as the authoritative male figures on the Chieftain Cup, the male figure in item (71) below, and the Khaniote ‘Master Impression’.⁴⁵ Authority is certainly expressed by this female figure, but whether she be representative of a divinity is best left for future discussions and research.

70. LM I DA decoration; terracotta vase; Gournia; Nilsson: 1971: Fig. 95

The DA here is raised on a slender pole, the top of which is knobbed. The placement of DA atop a slender pole is illustrated no earlier than MM III (59b), but becomes increasingly common as of LM (e.g. 82, 83, 87).

⁴⁴ Rutkowski: 1986: Figs. 55, 56, 67, 68 and Marinatos: 1960: PL. 108

⁴⁵ Andreadaki-Vlasaki: 21

71. LM I Seal ring; gold; Knossos; Rutkowski: 1986: Fig. 128

This seal ring shows a scene which is a reverse of item (69). Here it is a female who is the votary and a male who holds a staff before him in an authoritative stance. The scene here is made up of a slim pillar before a building, perhaps a shrine, with the female figure standing on a paved way leading to the pillar. The male figure has been taken by some to represent a male sky divinity, but as we have seen with item (69), this interpretation of a staff bearer with divinity is debatable.

72. LM I Bull-sports scene; fresco; Knossos; Marinatos, S.: 1960: PL. XVII

Early parallels are found with items: (31, 36), while the Boxers and Bull-sport rhyton from Agia Triada is contemporary.⁴⁶

Bull-sports have been discussed above (31), as well as their relation to snake-handling (65). The sex of the snake-handlers is unquestionable, they are women, whereas that of these acrobats is debatable. The point of contention is the colour applied to the figures on the fresco, some are red-ochre and others are white. Attempts to apply the general rule in the Eastern Mediterranean Basin for red representing men, and white women, has been primarily hampered by this fresco,⁴⁷ because young women would not have participated in this sort of masculine activity. This reason seems more sexist than logical. Representations of bull-sports in which gender can be distinguished are scarce, the rhyton from Agia Triada mentioned above is the only example for which a male can be specifically identified as being gored by a bull. In the fresco, it is in fact the red figure who is actually on the bull's back, the white figures assist the acrobatics at their peril but are not technically vaulting.

One scholar has surmised that each figure represents a different moment of the same performance, and that the only 'real' figure is the dark figure, while the white figures represent a before and after, thus the picture would be a representation of bull-leaping dynamics, in which skin colour introduces a notion of time into the image,⁴⁸ but if this be true, it would be the only

⁴⁶ Marinatos, S.: 1960: Pls 106-7

⁴⁷ Indelicato: 1988: 39-47

⁴⁸ Indelicato: 1988: 43

example of such a temporal device in the entire Eastern Mediterranean Basin. The principle problems with this theory are: firstly, in other bull-vaulting depictions, primarily the earliest ceramic rhyta, two to three anthropomorphic figures are depicted in the sport as in the fresco, hence the sport is not so much an individual one, but a cooperative effort. Secondly, the sex of vaulters in other depictions are rarely discernible, and we therefore must forgo passing a judgement on the issue for the time being. Thirdly, why we should continue to think up reasons to exclude young women from bull vaulting, when in other Minoan frescoes (e.g. the Agia Triada Sarcophagus, and the bulk of Knossian fresco) the differentiation between the sexes is in fact achieved through a dark and light contrast, is beyond the present author's comprehension.

As the fresco is a palatial creation, and the earliest representations of bull-sports are EM rhyta, we have an example of a funerary oriented iconography incorporated into a palatially organized one, i.e. a rite of passage associated with that of the dead becomes applied to a rite of passage possibly designed for the youths of a Minoan elite, and plausibly involved both young men and women.

73. LM I DA between HC-like motif; from a basket-shaped vase; terracotta; Pseira; Nilsson: 1971: Fig. 96

The DAs depicted on this vase are of various shapes, this diversity of form within a single object's decoration is not uncommon. What is consistent on this and other vase decorations which include DA is that throughout the BA, DA is consistently treated as either a textile and/or vegetal element, suggesting a strong connection to textiles and vegetal matter.

In its vegetative form DA grows from some soil to bloom, and as represented on this example, HC often provides that metaphoric soil by LM I. The cross hatching on certain examples (e.g. 25, 37, 78), is equivalent to the cross hatching employed to denote clothing or netting in Minoan art (e.g. 6 b, 26, 27, 31, 126). The type of banded decoration observable on metal DA's (e.g. 108), are also reminiscent of borders and hems on Minoan textiles depicted in fresco,⁴⁹ and early 'Pitchered Ladies', with cross-hatched patterns, banding and vegetal sequences (e.g. 6b, 8, 19, 26-8, 40, 59, 69, 71, 87, 126). It may be possible that DA was in part a metaphor

⁴⁹ Evans: 1964: 547: Fig. 397

for a plant used for the production of some textile,⁵⁰ likely flax for the linen that was of such great economic importance by the LBA as attested by Linear B tablets, in which its production was by then a speciality trade of some communities and taxed separately.⁵¹ This special status attests to both the importance of linen production and to the probable antiquity of its organization and administration. The industry could not have been of such importance in the LBA without a history and tradition of cultivation and transformation of flax into cloth,⁵² and would explain why vegetal and textile motifs are interwoven into the fabric of DA's symbolism.

74. LM I Lid/Bowl; terracotta; Pseira; Nilsson: 1971: Fig. 97

A ship occupies the centre of this bowl, the image surrounded by watery lines⁵³ out of which stem the slim supporting staffs of ornate DAs. This object expresses some connection between DA, water and ships. As noted above (2, 15, 16, 45), HC is also related to ships, and we thus have a symbolic connection between HC and DA besides their generally sacred application and conjunction into [HC+DA] onwards from LM I.

75. LM I DA motif; terracotta urn strainer; Gournia; Nilsson: 1971: Fig. 98

Of note is the vegetal expression of DA.

76. LM I DA motifs; terracotta amphora; Pseira; Nilsson: 1971: Fig. 99

The banded decoration on the main DA on this vase is reminiscent of that on metal DAs and textiles (see 73, 108). A further DA motif with a crocus-like flower sprouting from its top is found on this vase between the horns of a bucranium, but strangely it is not connected to the skull

⁵⁰ See Cat. B: Flax-like stock supporting DA. and compare to Frontispiece: Flax. Note the leaves upwardly pointed off the stock.

⁵¹ Dickinson: 1994: 82

⁵² Stout: 1970: 75: quoting W.F. Leggett: "It is truly impossible to learn which of the many natural fibres were first used for textile purposes, or even to be sure how that particular fiber came to be used, but of the four chief textile fibres, wool, cotton, silk and flax, the last is unquestionably the most ancient. Some anthropologists even declare that it is possible that linen had its origin not long after the advent of man. It is known that linen cloth was produced in Egypt long enough ago to be a well-developed art by 3400 B.C. This fact is attested by the linen cloth in a number of varieties and textures found in the tombs of the dynasties which ended about that time." See also Barber: 1990 and 1994

⁵³ This type of wavy line decoration is commonly used either as a stylized representation of waves or of the tentacles of octopods in Minoan iconography. See: Grumach: 1968: 24-25

of the animal by a haft or shaft of some sort. Similar to this latter composition is another example of a DA motif placed between a bucranium from an MM III jar from Palaioakastro⁵⁴ where the DA is clearly represented in suspension between the horns rather than emerging from the bull's forehead as DA is seen to do in combination with HC.

77. LM I DA decoration; terracotta vase fragment; Gournia; Nilsson: 1971: Fig. 100
DA is here portrayed with a vegetal loop or garland. The garland may also be found in the form of a 'sacral knot' which forms an ankh-like motif.⁵⁵

78. LM I DA decoration; terracotta vase fragment; Gournia; Nilsson: 1971: Fig. 101
Of note is the vegetal expression of DA with a cross-hatched interior, which combines the vegetal element directly with the textile, and combines early forms of the object (i.e. the cross-hatched twin triangles) with a more contemporary axe-like form.

79. LM I DA decoration; terracotta vase; Mochlos; Nilsson: 1971: Fig. 102
Of note is the vegetal expression of DA.

80. LM I DA decoration; terracotta vase; Zakros; Nilsson: 1971: Fig. 103
The DAs represented on this vase are again vegetal elements

81. LM I Votive tablet; bronze; Psychro cave; Evans: 1964: I: Fig. 470
Of note is the depiction of HC with vegetal elements sprouting from it, the presence of a bird (dove) perched on one of the sprouting HCs, as well as fish, and one of the few representations of sky elements besides birds: sun and moon.

Evans remarks that its double border of short bars represent a pattern of textile derivation.⁵⁶ The stalks seen growing out of HC may very well be representations of flax, or an abbreviated tree

⁵⁴ Bosanquet and Dawkins: 1923: PL. XII

⁵⁵ Ibid.: Fig. 109

⁵⁶ Evans, A.: 1964: vol. I: 632 and corroborated by Burke: 1997, Barber 1990 and 1994, and Branigan: 1988

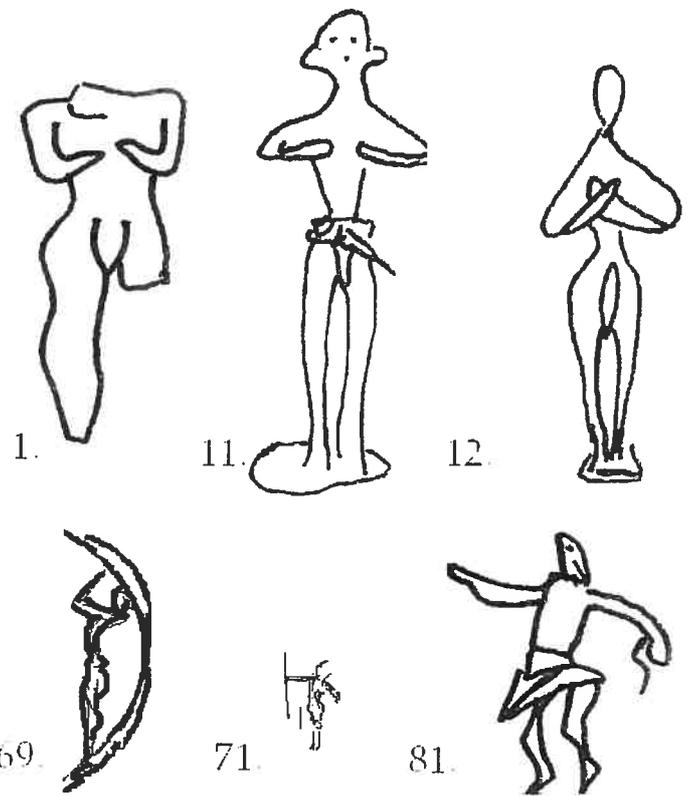


Figure 10: Male Anthropomorphs

symbol. The placement of a perched bird between HC or atop a stalk sprouting from HC, may be representative of a symbolic interchangeability between DA and birds at some level.

82. LM I Monumental DAs; bronze; Nirou Khani; Iraklion Archaeological Museum; Evans: 1964: I: Fig. 313

Four of these were found in this 'domestic sanctuary' or warehouse.⁵⁷ Their size is notable, with lengths of approximately 1.2 m, and widths of 24 cm at centre and 60 cm at extremities. They would have been visible at great distances if placed out of doors, serving as advertisement, or in the focusing of attention during ritual and festive occasions. They were however found in what was either storage, or fallen from an upper storey room thought to have contained a sanctuary from MM IIIb - LM Ia.⁵⁸ The exhibition of DA out of doors, within ritual settings, is testified by their depiction on the Agia Triada Sarcophagus (87), and suggested by stands such as that found in the Psychro cave with a bronze DA near to it (83).

83. DA; Bronze; Psychro; Iraklion Archaeological Museum; Evans: 1964: I: Fig. 315

This DA was found in the cave shrine and had likely been there displayed as a steatite stand with socket was found with it.

84. LM I - III HC; terracotta; Patsos Cave; Iraklion Archaeological Museum; Rutkowski: 1986: Fig. 61

This example is much in line with HC representing a boat or ship, with the perforations on the sides of the object as well as at the tips of the horned protrusions possibly serving, like in items (18, 22), for the passing of string imitating rigging, attached in this case not to a lid but to the staff inserted into the object as representative of a mast. The loops on either side may have served the same purpose, or are otherwise representations of rowlocks, as might be the similarly placed central protrusions on the boat model (15a). This is an incomplete symbol, in that the staff/mast which would have been inserted into its socket is missing, likely having been made of a

⁵⁷ Rutkowski: 1986: 27

⁵⁸ Ibid.

perishable material.

85. LM II DA motif; terracotta jar; Knossos; Iraklion Archaeological Museum; Betancourt: 1985: PL. 25 A

Of note is the vegetal expression of DA on the vase generally. The DA illustrated in Plate VI is a shaft-less, though seemingly socketed example, with watery spirals as decorations. This type of wavy S-spiral has been noted on the seal with a ship (45), and connected to textile patterning (59, 73).

86. LM III [HC+DA] motifs; pyxis; terracotta; Kalamia; Khania Archaeological Museum; Marinatos:1993: Fig. 109

The composition includes: Birds, Water, Kithara, and Kithara Player. Example (b.) in the illustrations, is similar in form to the ship in item (91) with its protrusion at the base, a feature shared with the boat models (15 a, b) and the pyxis (18 g), but a resemblance in form between HC and the Kithara is also notable on this object.

87. LM III Agia Triada painted limestone sarcophagus; Chamber Tomb; Agia Triada Necropolis; Marinatos: 1960: PLS. XXVII - XXX

The exhibition of DAs set upon pillars is notable in relation to items such as: (82, 83), as these likely served such a function. Furthermore, the presence of this symbol, as well as HC, within a funerary context, and within depictions of ritual activity, including procession, sacrifice, libation, music, and gift offering, certainly ties these symbols directly to these activities.

On one long side of the larnax, two activities are represented, apparently directly related to funerary rites. On the left is being performed a libation ritual to the sound of a kithara moving towards the left. The woman at far left pours the contents of a basket-like vessel into a larger container placed between the bases of two pillars which bear each a DA atop them which are crowned with birds, likely crows. To the right of this woman is another who carries two basket-like vessels on her shoulder by virtue of a staff passed through their looped handles. Behind her is the male kithara player. On the right panel of the same side is a procession of three men

moving towards the right. Their destination is a male figure standing before the hint of a building, likely the entrance into a tomb structure. The three men would then be bearing gifts to the deceased, the leader carries a boat model,⁵⁹ while the others carry what are either calves, or bovid models. The male figure before the building, most likely the deceased, passively receives the gifts. We say passively for two primary reasons: firstly, the figure's arms and hands are hidden beneath his cloak which expresses muteness, and secondly, his feet are hidden from view contrary to the other figures. The feet are not hidden beneath the cloak as are the arms, but rather by a change in level, the deceased stands on a floor that is lower than the rest of the company.⁶⁰ The significance of these points, the differentiated planes upon which the active figures stand, and the hidden limbs of the defunct, are a key element in the proper interpretation of the scene. The receiver of the gifts is a passive recipient, who does not actively participate in the ritual as he would have in life, but through a symbolic presence akin to a cult object or effigy. He has become the object of ritual rather than a participant therein. Being dead, he receives ritual gifts and rites accorded to the dead, and is relegated to the passivity and inactivity of those who no longer exist on the same plane as the living community, the actors in ritual, and metaphorically relegated to an 'off stage' existence.

The parallel scene on the other long side of the larnax shows, on the left, four figures in procession towards the right. In the centre field is a table upon which is a sacrificed bovid whose blood pours into a vessel similar to those carried on the first side except for the loop handles.⁶¹ Beneath the table are two passive goats likely awaiting their demise, while behind the table a male musician plays the pipes. The right field is occupied by a female figure performing a rite before an altar structure. Above this altar are a pitcher and a basket, these containing probable offerings of food and drink. Following these is a DA on a pillar and stand with a crow perched atop it, followed by a second, larger altar structure crowned with two sets of two pair of HC.

⁵⁹ Of this offering of a boat model Evans says: "The other side of the sarcophagus is partly occupied by a scene of offering, including a votive boat or ship, to a personage, who had evidently been a Sea Captain."; Evans, A.: 1964: I: 438. Considering the profusion of boat models within the funerary contexts of Crete, it is more likely that they have a symbolic or metaphoric significance for Minoans in general as opposed to specifically denoting a specific trade.

⁶⁰ See item (13) for a comparable use of this device to connote a possibly deceased individual as early as EM.

⁶¹ Sakellarakis and Sakellarakis: 1980: 181: Figs. 4, 5: connect a vase found at Anemospelia with the sort depicted for the collection of sacrificial blood on this larnax.

Between the two sets of sacral horns is a small tree or plant. This scene is parallel to the first, and likely represents the rites of sacrifice and food preparation connected to the funerary rites of the deceased on the first side.

The lateral sides of the sarcophagus exhibit a chariot scene each. One represents what is most certainly an otherworldly pair, whose chariot is pulled by griffins, and accompanied by a raptor-like bird. The other short side is more down to earth in that there is a panel above the charioteers depicting a procession of three or four individuals, the extant figures being kilted. The charioteers on this processional side, pulled by donkeys or mules, likely forms part of the procession involved in the funerary rites of the deceased.⁶²

A notable peculiarity in the two chariot scenes, is the treatment of the chariots themselves. The bodies of the chariots are both made with the mottled hides of bovids,⁶³ as are the cabin-like enclosures found on the ships depicted on Thera frescoes from the West House, Akrotiri,⁶⁴ establishing a connection between hides and the construction of vehicles, as well as the versatile use of the bovid hide. Also of note, is the depiction of chariots involved with funerary rites, also found on Mycenaean Chariot Kraters from as far as Cyprus and the Levant, with their chassis also depicted with a mottled pattern, suggestive of hide construction.⁶⁵

To conclude on this object; the playing of music, kithara on the first side and pipes on the second, general ritual activity: i.e. bearing of gifts, pouring of libation, sacrifice, procession, prayer, music and preparation related to funerary rites on either side, I believe to be in direct juxtaposition to the mute inactive figure on the first long side who draws attention to himself due to that very passivity, much like the central figure of item (13).

88. LM III Terracotta larnax with HC and DA decoration, including a griffon-like animal; Palaiokastro; Marinatos: 1960: PL. 127

⁶² The depiction of chariots used within funerary contexts becomes popular in the subsequent Proto-geometric and Geometric in the Aegean, but already popular towards the end of the BA.
Dickinson: 1994: 125: PL. 5.7 and Muhly: 2005

⁶³ Huebeck, West and Hainsworth: 1988: I: 238 : for Homeric relation between chariots, hides and ships

⁶⁴ Marinatos, N.: 1984: 47

⁶⁵ Dickinson: 1994: 125 and Muhly: 2005: 45

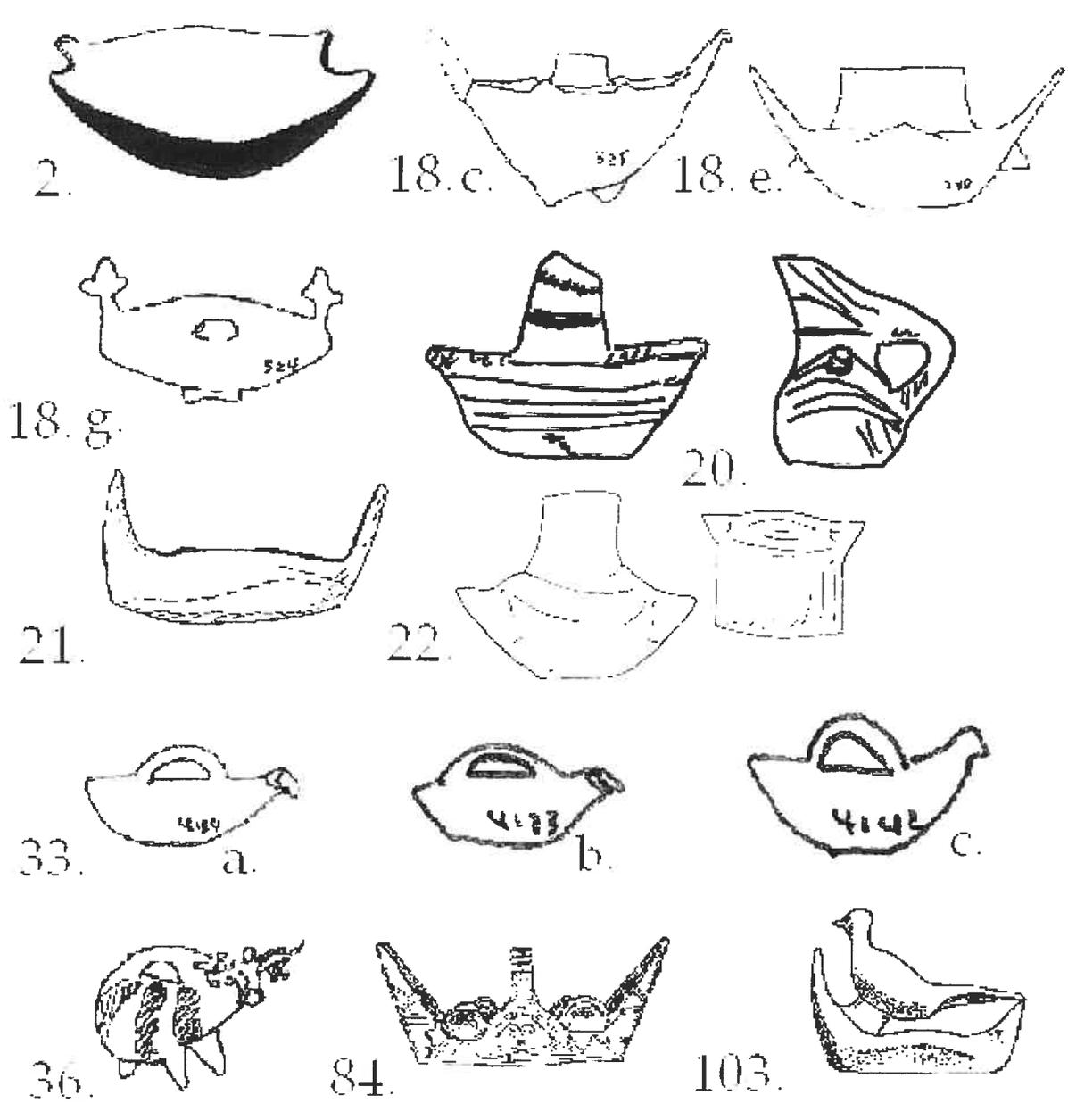


Figure 11: Boat Shaped Ceramics

Of note is the elaborate vegetal expression of both DA and HC

89. LM HC and DA motifs; terracotta larnax; Kydonia; Khania Archaeological Museum # π22608

The HC from a short side of the larnax, illustrated as (89 b) in Plate VI, is reminiscent of the horns on item (4), the boat model (15 a), and other Outwardly Splayed variants of HC. Notable on this, and other items (e.g. 86 and 90), is the mixture of varying HC types on a single object.

90. LM HC and DA decoration; terracotta larnax; from short sides; Khania Archaeological Museum # 1711

The long sides of the larnax are decorated with representations of Squid, furthering the connection between HC, DA and death, and marine elements.⁶⁶ We again have a variety of HC expressions applied to a single object.

91. LM Painted ship; terracotta larnax; Iraklion Archaeological Museum; Vasilaki:181
Aquatic Birds as well as the ship are painted on the long sides, on the short sides are ox-hide shapes. The association of death with a ship is of course notable, as well as the ox-hide which innately denotes both hide and ingot. If the imagery were to represent the particular individual entombed, perhaps the trade for copper is suggested by the ship and the ingots, however it should by now be apparent that ships, boats and both aquatic and vegetal elements are generally a part of Minoan funerary iconography and need not denote an individual's trade. The form of the ship, particularly the protrusion at its base, is common to depictions of boats and ships as well as LM HC expressions (e.g. 15, 18 e., 86 b). Furthering the connection between ships and HC is the obvious similarity of this ship's horn-like prow and stern to the motif, as well as the mast in relation to such slim pillars or vegetal stalks found in [HC+DA] depictions.

92. LM Larnax with Aquatic Motifs; Terracotta; Pachyammos; Marinatos: 1993: Fig. 234
Items (92) to (95) are listed as further examples of aquatic elements coming from funerary

⁶⁶ On the particular importance of cephalopods in connection to funerary symbolism and in connection to DA see: Grumach:1968.

contexts, specifically larnakes. Of this sort of iconography applied to these funerary chests Marinatos⁶⁷ comments, "... that the sea is meant to receive the dead is shown by the fact that fish are painted on the interior surfaces of the larnakes." Given that Crete is an island, and considering the extent to which the Minoans are attested to have used, needed, venerated and frequented the sea, it follows that a certain number of Minoans were lost and buried at sea *per annum* in the course of the exploitation of that vast resource. For the Minoan, both the land and sea may conceptually and actually serve as final resting place. Aquatic motifs are not the exclusive decoration for larnakes, but prominent. We have seen that boats as votive gifts were brought to the deceased from the earliest tombs (e.g. 15, 16) right through to LM III (e.g. 87, 91). Aquatic elements on these larnakes and the votive boat offerings found within tombs suggest that the recently departed were believed to need boats in order to cross the waters that separated the world of the living from that of the dead, or that the world of the dead was a watery one.

93. LM Larnax with aquatic motifs; terracotta; Messi; Marinatos: 1993: Fig. 235

94. LM Larnax with aquatic motifs; terracotta; Piskokephalo; Marinatos: 1993: Fig. 236

95. LM IIIa Larnax with fish and aquatic birds; terracotta; Vasilika Anogeia; Marinatos: 1993: Fig. 237

96. LM IIIa [HC+DA] motif; terracotta larnax; Armenoi Rethymnes; Rethymno Archaeological Museum; Betancourt: 1985: PL. 26 G.

Bovids with Crescent shaped objects (moons, boats, HCs?) over their backs are also represented on the long sides. DA is here a vegetal element which sprouts out of HC.

97. LM IIIb [HC+DA], fish and algae motifs; ceramic fragment; Iraklion Archaeological Museum # 4443; Evans: 1964: II: Fig. 390

This fragment depicts DAs sprouting from HCs, and these in juxtaposition to the images of fish

⁶⁷ Marinatos, N.: 1993: 231. For further on this same opinion see Grumach: 1968: 24

and algae, a combination of motifs known from other artefacts (e.g. 39, 51 and 81).

In LM, HC is often a base from which the vegetal element sprouts and blooms into DA. HC may also provide the metaphoric soil and functional socket for a vegetal stalk and/or staff without DA (e.g. 107, 123), and at times with a bird instead of DA (e.g. 81).

98. LM III HC with socket; terracotta; Knossos; Iraklion Archaeological Museum;
Dickinson: 1994: Fig. 8.6.8

This example with its particularly slim proportions and tall horns with a steep inward curvature is of the type most commonly depicted as adorning architecture in Knossian fresco.⁶⁸

99. LM III HC; stone; Iraklion Archaeological Museum # 277

The provenances of this and the following example, (100), are not indicated at the museum.

These objects would have visually dominated the space they occupied as they are both rather large stones (40-50 cm in length, 35-40 cm in height, 10-15 cm in width). They demonstrate that, even into LM III, HC is still an iconographically potent and important symbol.

100. LM III HC; stone; Iraklion Archaeological Museum # 563
(see above)

101. LM III HC; terracotta; Knossos, Shrine of the double-axe; Iraklion Archaeological
Museum # 2875; Evans: 1964: II: Fig. 189

There were two socketed HCs in this shrine, found on the bench that ran along the back wall. On this same benched-altar were votive figurines which included bell-skirted female figurines, and a miniature steatite DA. The shrine also included an offering table and various ceramic vessels.

102. LM Object with HC motif; stone; Iraklion Archaeological Museum # 2895

Of note is the redundant application of HC forming a movement of rising and falling, wave-wise, as sequences of HC are apt to produce.

⁶⁸ Rutkowski: 1986: 145

103. LM HC with bird between; terracotta; Agia Triada; Iraklion Archaeological Museum # 18660; Kanta: 1998: 114

This HC is asymmetrical and similar to the boats of items (47) and (112), as well as to the HCs from the Mallia shrine (54) and the earliest free-standing HC (21). The bird, judging by its profile, is likely a dove, and has thus a symbolic companion in item (81).

104. LM III HC element; from a terracotta 'Dancing Group'; Kamilari Circular Tomb; Iraklion Archaeological Museum # F.59 2634; Rutkowski: 1986: Fig. 164

The group is composed of four anthropomorphs wearing tall peaked hats. They are set, facing inwards, in a circular 'vat', apparently dancing in a circle within it. The four HCs represented are set on the rim of the vat alternating between the dancers. The figures are possibly grape stompers, the dance and ritual plausibly revolving round wine production. The HCs that decorate this object are similar in form to the EM boat model (15a) and other Outwardly Splayed variants of HC.

105. LM HC sequence; from the rim of a terracotta circular shrine model; Gournia; Iraklion Archaeological Museum # 8404

HCs rise and fall round the rim of what may represent the roof of a shrine. Again we have a repetitious application of the symbol well suited to HC's function as a sacred marker, attention focusing device and architectonic element.

106. LM III HC from the 'bread making scene'; Kamilari Circular Tomb; Iraklion Archaeological Museum # 15079; Marinatos: 1993: Fig. 22

The scene is set in a circular enclosure. At centre is a kneeling figure who seems to be kneading dough or grinding grain. Behind her is a post and lintel construction similar to the entrances to circular tombs. A little figure, possibly a child, peers in at this entranceway. The HCs, three total, are rather crudely shaped and of the *Bergtypus* variant.

107. LM HC motif; from the seal of the triton shell blower; gem; Idaean cave; Nilsson: 1971: Fig. 61

The HC rests on a stand next to a triton shell blower. Notable here is the application of a vegetal sprout between the horns, without DA atop it. Two other of these vegetal sprouts flank the HC.

108. EM - LM Votive DA's; gold; Arkalochori cave; Nilsson: 1971: Fig. 91

The period to which these objects belong is problematic as they are from a deposit covering EM to LM. The crested waves, banded lines and vegetal bands that decorate these examples have already been mentioned above in relation to other DA examples and band woven textiles.

As DA seems predominantly a feminine symbol, and often decorated with textile patterns, an involvement in the production and trade of such material by women may be reflected, elucidating the apparent socio-economic, as well as religious empowerment of Minoan women.

The Arkalochori cave contained other DA examples of bronze and silver as well as numerous other metallic objects and scrap metal which combines to form what is likely to be the largest metal hoard in the BA Mediterranean.⁶⁹ As one particular DA within the deposit was found inscribed, read as Da-Ma-Te, and interpreted as Demeter,⁷⁰ a further feminine quality to the symbol DA is added.

109. LM DA motifs; terracotta fragments; Phaestos; Nilsson: 1971: Fig.92

Example (a) in the plates is an odd form reminiscent of the type illustrated as (38). The DA illustrated as (b) is set on a slim pole like several other examples (e.g. 59 b, 70), which may suggest the symbol was used as an emblem or standard.

110. LM DA motif; terracotta vase; Gournia; Nilsson: 1971: Fig.106

Similar to that of (77), this DA has an ankh-like garland or ribbon in the stead of a central shaft. If a garland, we have a further vegetative association to DA; if a ribbon, we then have a further

⁶⁹ Rehak and Younger in: Cullen: 2001: 416

⁷⁰ Rutkowski: 1986: 240: n. 50

association to textile.

111. LM Incised DA; fragment of terracotta disc; Phaestos; Nilsson: 1971: Fig.93
It is an asymmetrical 'butterfly' shaped axe with a curved central shaft.

112. LM Boat model; terracotta; Iraklion Archaeological Museum #3141; Vasilakis: 154
The high prow and flat bottom of this model is similar to the EM model (15 b), and that depicted on a seal (47), exhibiting a continuity not only in the shape of boats, but also in the creation of such models.

113. LM IIIb HC appliqué; terracotta tubular stands; Gournia; Betancourt: 1983: PL. 32 A, B
These HCs are similar to those listed as: (99- 101).

114. LM IIIc [HC+DA] motif; terracotta vase fragment; Vrokastro; Betancourt: 1983: Fig.125
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Notable is the application of curvy lines to the shaft which supports DA, possibly connoting vegetation and/or rope. A similar motif is applied to certain tubular stands (e.g.113).⁷¹

115. LM Amygdaloid seal of boat; Mallia; Van Effenterre: 1980: Fig. 845
Of note are the vegetal elements added to the ship, also seen on item (49), possibly representing a product of trade. The ship itself has a mast, steering oars, as well as oars or paddles.

116. LM [HC+DA] motif; terracotta fragment; Mallia; Van Effenterre: 1980: PL. XXXI
Of note is the abstracted DA variant between HC which could be vegetal or perhaps representative of a mast with yards.

117. LM HC; stone; Zakros; Siteia Archaeological Museum #3086; Platon: 1971: 17
This is a fragmentary object which might have been formed into any number of HC variants, but

⁷¹ Also: Gaerte: 1922: Fig. 5

certainly architectural as evidenced by its book-ended construction.

118. LM Socketed HC; stone; Pachyammos; tomb; Iraklion Archaeological Museum #299
Similar to item (119), its funerary provenance illustrates the continuity on Crete concerning the use of HC symbols within funerary contexts.

119. LM Socketed HC; stone; Iraklion Archaeological Museum #3136
Compared with items (84, 118), this type of HC with its outwardly splayed peaks is evocative of an abstracted sea-faring vessel.

120. LM HC; stone; Siteia Archaeological Museum #437; Gaerte: 1922: Fig. 3
This form of HC has been taken by Gaerte to be representative of HC's mountainous essence, but as demonstrated, HC and mountains are not as easily equatable as are HC and boats.

121. LM HC; (reconstructed); Knossos; East Hall; Evans:1964: III: Fig. 367
Objects such as these found in the Palace of Knossos reinforce the palace's sacred/religious character, but as this is a reconstruction, like (117), it could have been formed into any number of HC variants.

122. LM [HC+DA] motif; incense burner; terracotta; Agios Nikolaos Archaeological Museum # 1929
Of note are the vegetal and abstracted expressions of DA, and the repetition of HC round the vessel.

123. LM HC motif; terracotta larnax; Khandia Archaeological Museum (#NA)
Of note is the vegetal expression between HC and the protrusions at the base, reminiscent of items (15, 18 e, 47, 86, 91). The notion of redundancy as applied to sacred symbols is here notable, particularly since larnakes are often decorated with sequences of HC, DA and [HC+DA] motifs.

124. LM HC motif; terracotta larnax lid; Agios Nikolaos Archaeological Museum (#NA)
HC is here more rigid, composed of straight slopes. The notion of redundancy as applied to sacred symbols is again noteworthy.

125. LM III HCs; headdress decorations; terracotta; barrel skirted female figures; Gazi; Iraklion Archaeological Museum; Marinatos: 1960: PLS. 128,129,136,137

Of note are the affiliations of HC with birds (doves), the possibility of a fish tail variant of HC, and the LM III development in which HC is applied to anthropomorphic forms, suggesting these figures were sacralized representations of either priestesses or divinities.

126. LM Lady with DAs in hand; from a mould; Palaiokastro; Nilsson: 1971: Fig. 112

The figure here represented is possibly dancing and chanting, wearing the traditional Minoan flounced and banded skirt. She holds a DA in each hand. As in items (59), it is a woman who bears the object, whether ritual participant, priestess or goddess.

127. LM HC elements; from a steatite rhyton: 'Sanctuary Rhyton'; Zakros; Platon: 1971:165-8

The positioning of the symbols attract the eye to the more central HC, as it is larger. The notion of a redundant application of sacred symbols is here notable, as not only are HCs placed on the lower walls of the structure, which are those illustrated in the plates and reminiscent of the balustrade HCs from Mallia (54), but they also adorn the rooftop of the shrine which is occupied by lounging goats. At the bottom of what seem to be the steps leading to the main building, a further isolated HC is set on an altar-like stand with a vegetal spray placed over it.

The HCs which flank the rooftop, a pair on each side, have birds placed on them, which bring to mind the crows perched on DA examples from the Agia Triada Sarcophagus (87) and other HC expressions with the same composition (e.g. 81, 103). The bird on the left is perched between a set of two HCs, while that on the right is in take off position just above another set of two HCs. The birds and HCs heraldically bracket the four goats on the roof of the structure. By their profile, i.e. wing shape, tail length, and head shape, these birds are most likely magpies, (Pie

Bavarde/ Black Billed Magpie, *Pica pica*),⁷² a crow family member.

Both HC and DA are thus associated with birds, usually crows or doves, a typical duo known to the Epic of Gilgamesh in the tablets relating the tales of Atrahasis/Ziusudra,⁷³ and elsewhere in the Old Testament tale of Noah's Ark.⁷⁴ Both tales it should be noted refer to a cataclysmal flood, and a ship which carries the survivors above the destructive waters. The birds are the scouts, surveyors, and eyes of the ship's crew searching for land and home. In Crete, these birds have been taken to represent epiphanies of some divinity,⁷⁵ but whether this divinity be chthonic, ouranic or marine is one of the great unknowns. What we can state is that either dove or crow appear between or atop HC motifs, as well as atop DAs. We might suggest, in relation to the funerary and generally sacred connection of birds with DA and HC, that the bird may have been seen as a guide for the dead to the next world and for the living to a sacred state of mind just as easily as representing the epiphany of some divinity.

128. LM HC elements; from steatite rhyton fragments; Gypsadhes; Rutkowski: 1986:(a.) Fig. 95, (b.) Fig. 135

This combination of pillar and HC within an architectural setting, (a), is also found in item (69). The outwardly splayed HC, (b), is observable as early as EM (4), and also in the treatment of boats (15a).

129. LM HC; terracotta; Mallia; Iraklion Archaeological Museum # 8647

Similar to that of (98) and (124) in form.

130. LM Ib Signet ring; gold; Mochlos; Burial; Souvinou-Inwood: 1973: PL. I

Notable is the association of some cult, trade or social position involving a boat and vegetation, officiated by a woman, if woman she be. The anthropomorph wears what appears to be a long

⁷² See : La Grande Encyclopedie des Oiseaux; Karel Št'astný; traduction : Dagmar Doppia; Gründ: Paris: 1992: 408

⁷³ Dalley: 1989: 114: Gilgamesh XI: iii

⁷⁴ The Holy Bible containing the Old and New Testaments with Apocryphal/ Deuterocanonical Books; 1989: 7: Genesis 8. 6

⁷⁵ Rutkowski: 1986: 109

skirt and sits at the boats stern. At midship is a plant.

131. MM/LM Makrigialos Seal with woman in sailing boat; Agios Nikolaos Archaeological Museum; # 4653: Marinatos: 1993: Fig. 184

As above, a figure who is likely a woman is here represented on a sailing vessel. Of note is the sail on this item substituting for the vegetation of the preceding boat, or vice versa, suggesting that perhaps a plant, or some sort of vegetation, may at times symbolically be a substitute for the sail.⁷⁶

B: Extra-insular Material Evidence

132. Late Uruk ©. 3300 - 3000) Cylinder seal with boat, 'priest-king', and bovid; Aruz and Wallenfells: 2003: Fig. 111

Notable is the vegetal nature of the ship with its prominently peaked prow and stern, as well as the bovid with the boat

133. ©. 3000) Boat model with high stern and prow; clay; Fara, grave offering; Bass: 1972: Fig. 2

Notable are the shape of the model, evocative of HC variants and boat models from Crete, as well as the offering of boat models at funerary sites.

134. 4th millennium; fishing scene; terracotta vase; Egypt; Bass: 1972: Fig. 4

Of note is the crescent shape of the boat and depiction of fishing nets. This type of vase and iconography is common to funerary contexts of the period.

135. c. 3000 Egyptian vase with potential funerary scene involving a boat; *Archaeology*; 2004: November/ December:13: Courtesy Harrogate Museums and Arts: Harrogate

⁷⁶ Marinatos interprets the composition as a boat transporting a palm tree, exemplifying the common attributes in Minoan iconography between masts, sails, and plants.

Borough Council

Of note is the early funerary affiliation of the boat.⁷⁷ The ship's involvement in funerary rites in Egypt was elaborated by the 13th and 12th centuries as illustrated in the Book of the Dead.⁷⁸

136. 3rd to 2nd millennium Circular seal with boat motif; Gulf region, Bahrain, Karrana; Aruz and Wallenfells: 2003: Fig. 220b

The boat is similar to those represented by (133-35, 137); essentially crescent shaped and/or with a peaked prow and stern.

137. Early Dilmun ©. 2000-1800) Square seal with boat scene; Gulf region, Falaika, F6 758; Aruz and Wallenfells: 2003: Fig.221

The shape of this boat is similar to Cretan examples of both boats and HC, as well as to item (131). The prow or stern of this boat also has a horned application, as several Cretan boat depictions do.

138. Harappan ©. 2000-1900) Pendant with bovid and sailboat-model; Steatite; Indus Valley, Mohenjo-daro, DK 8063; Aruz and Wallenfells: 2003: Fig. 295a

The animal represented on this and the following item has been interpreted as a unicorn and the object in front of the beast as a 'ritual stand'. The beasts here represented may however be bovids, and the 'ritual stands' are evocative of rounded boats of the *quffa* type with added square sails. Given the economic function of seals, it is possible that the represented bovids were of a type used in the shipping industry for the construction of hide boats or parts thereof. At bare minimum, the pendant or medallion, more so than the seal below, has certainly a string of prestige and wealth tied to it, likely related to socio-economic status.

⁷⁷ For a further example: Midant-Reynes: 2005: 27

⁷⁸ The Egyptian Book of the Dead; Papyrus of Ani; Thebes; New Kingdom; 19th dynasty 1295-1186 BC; EA 10470/5 (cat. 101): the sarcophagus is here placed in a boat which is pulled on a sledge by four bovids. Also EA 10470/35 (cat. 103) for the use of boats in the afterlife in this Egyptian context.

139. Harappan c. 2000-1900; Seal with bovid and sailboat-model; Steatite; Indus Valley, Harappa, 8796-01; Aruz and Wallenfells: 2003: Fig. 295b

(As above)

140. Harappan ©. 2600-1900) Three-sided moulded tablet with a boat; Indus Valley, Mohenjo-daro, MD 602; Aruz and Wallenfells: 2003: Fig. 299

A similar embarkation is seen on item (52), while the ‘cabin’ is reminiscent of those on the Theran fresco from the West House made of hides, and the Ox-hides represented on the larnax with the ship: (91).

C: Catalogue B: Material Evidence by Genres and Motifs

Acrobatic Anthropomorphic appliqués and fresco: 31, 32, 36, 72

Aquatic motifs with HC and/or DA: 39, 51, 74, 81, 85, 89, 97, 103, 108 a and b, 125 b

Aquatic motifs from Knossos⁷⁹: 63, 64

Aquatic motifs on Larnakes: 89, 92-5

Boat images⁸⁰: 15, 16, 20, 33, 45- 50, 52, 53, 56, 57, 84, 87, 91, 103, 112, 130-140

Boat and HC variants with Protruded bases: 15, 18 e, 47, 86 b., 91

Boat Shaped Ceramics: 2, 15, 16, 18, 20, 22, 33, 48, 84, 103, 112, 133

Boat Shapes with HC and/or Horned Protrusions: 15, 16, 18, 22, 33, 45, 46, 48- 50, 84, 86 b., 91, 89 b, 103, 104, 112, 132- 135, 137

Double-headed Bulls: 17, 30

Female Anthropomorphic representations: 6- 9, 13, 14, 19, 26- 29, 35, 40, 41, 59, 65, 67- 8, 71, 125, 126, 130, 131

Flax-like stock supporting DA: 78, 97

Fragmentary examples of HC: 24, 121

⁷⁹ Also: ‘The Ladies in Blue’ fresco from Knossos; in relation to textile bandings with blue spiral decorations in comparison to items 72, 95 and other similar examples. Evans, A.:1964: 547: Fig. 397

⁸⁰ Also: Evans, A.: 1964: I: 438, fn 3: “In a tomb of the Zafer Papoura Cemetery a small ivory boat was found with a high prow.” (*Preh. Tombs of Knossos, Archaeologia, lix, p. 27, Fig. 22.*)

Headdresses with HC: 125 a, b, c

Male Anthropomorphic representations: 1, 11, 12, reverse of 35, 47, 69, 71, 81, 132, 134, 137

Men near HC and/or DA: 69, 81, 87, 128

Objects from funerary contexts: 1-3, 5-10, 14- 16, 18- 26, 28, 29, 31- 3, 36, 40, 41, 48, 81, 86, 88- 91, 96, 104, 106, 107, 112, 123, 124, 135

Objects from non-funerary contexts: 4, 11- 13, 17, 34, 42- 4, 47, 54, 58, 60- 2, 66, 70, 73, 74, 84, 85, 97- 103, 105, 116- 122, 125, 127

Pillars, shafts, staffs, and masts: 39, 42, 46, 59, 62, 69- 71, 73- 6, 78, 79, 81, 84, 86, 88- 91, 96- 8, 107- 9, 111, 114, 49- 53, 56, 57, 115-9, 122, 123, 128 a, 140

Pillars, shafts...with Banded and/or Knobbed decorations: 71, 73, 74, 76, 85, 97, 108

‘Pitchered Ladies’ and Breasted Pots: 6 a, b, 7, 8, 9, 26, 28, 29, 40, 41

Supposed ‘suspension pots’: 18 a - h, 22

Surmised boat representations: 17, 18 a - h, 21, 30- 33, 36, 54, 86, 97, 116, 118, 119, 138, 139

Textile decoration: 6 b, 8, 13, 19, 25- 28, 31, 35- 37, 40, 56, 57, 59, 69, 71, 76, 78, 81, 85, 108, 126, 138, 140

Women holding DA: 59, 126

Women near HC and/or DA: 59, 69, 87, 125, 126

Zoomorphic figurines and vessels: 3, 10, 17, 18 h, 30, 31, 33, 36, 103, 125 a and b, 130

D: Observations:

As mentioned in Catalogue A, items (39, 51, 62, 78) represent intermediate forms of DA between its simple shaft-less twin triangular expression (e.g. 25) to its elaborated axe-like forms (e.g. 42, 59, 70, 85, 108) as depicted on ceramics, but metal DAs are also known from tombs of mid to late EM and early MM and hence both actual double axes and abstract representations of them exist simultaneously in the archaeological record from the start of the motif's/object's appearance in the tombs of Minoan Crete. Even into LM, DA motifs that hearken back to early forms (e.g. 76a, 86) exist, suggesting DA represents something more than a double-bitted axe, though predominantly expressed as such. DA's significance relates to a series of things; the

dominant associations are namely death, fish, textile patterns, vegetation and women. The secondary and more general associations of this symbol are to domestic livestock, birds, ritual, sacrifice, power and wealth. By MM III-LM I, further connections arise, as it is then also found suspended over bucrania and connected to HC by its haft or pole.

HC makes its initial appearance as a plastic ceramic application, predominantly within funerary contexts (e.g. 5, 23, 24), develops into an architectonic element by MM (e.g. 44, 54), and by LM, is elaborated into a socketed form which supports a vegetal element often coupling it to DA (e.g. 73, 84, 86, 89), as the expression [HC+DA]. Its earliest use, funerary paraphernalia of EM, is also the most consistent throughout the BA. However, even in EM there is evidence for a non-funerary application, though still within sacred locations (e.g. 4, 21). A particularly significant occurrence of HC in this early period, is its application on a boat model pyxis from a tomb in the Messara (16). As both boats and HCs have a consistent funerary application from EM through LM, as well as sharing their very forms with each other, the two must be somehow related to each other.

HC, like DA, may thus take a number of variational forms. The significance and applications of both motifs attained a level of formalization within a Minoan symbolic language without a strict adherence to any particular outward form. This sort of loose formality, seen in microcosm within the context of two individual motifs, can also be observed in the greater monumental expressions of Minoan culture, the Palaces. Palatial structures across the island can be recognized as such by virtue of common elements such as courtyards, magazines, shrine rooms, workshops, etc...placed in predictable areas, but still, no two palaces are exactly alike. Freedom of expression and variability, if not diversity, within commonly accepted or recognizable forms seems to have been the Minoan way in all things, from the monumental to the miniature.

E: Underlying Premises

Having established the symbols' sacred contexts and connotations, we need now to concentrate upon what made them so. The underlying premises are:

- (1.) For these symbols to have been sacred they must have represented things worthy of sacrality within the Minoan world.
- (2.) They were not empty abstractions, but rather abstract representations of things known, useful and necessary to the Minoan, whether practically, conceptually or both.
- (3.) These known, useful and necessary things were deemed by the Minoans to be well adapted to their beliefs about the passage of the dead to the next world, generally for the passage of ritual actors into a communicable space with that other world, and meaningful enough to be used as sacred markers and attention-focussing devices within sacred areas.
- (4.) When applied to palatial structures or fabricated in precious materials, they possessed added political and economic nuances.
- (5.) How Minoan Crete was ordered politically and religiously is largely unknown, and as Moody states, "...I don't believe we can distinguish secular and sacred forms of power and prestige in Minoan society; nor do I think it likely they existed as separate spheres in the Minoan world, especially in the Proto-palatial Period (i.e. MM)."⁸¹ Our symbols then, need to be relatable as much to religious or spiritual concerns, as to the practical and mundane.

Our aim has been to identify what elements of the material or mundane world endowed these motifs with their sacred significance, and allowed them their versatility, continuity, variability, and seemingly unbounded application within sacred contexts. In this way, our hope is to be permitted a glimpse into the stratigraphy of their metaphoric nuance and implicit transcendent qualities. What remains to be done is to see where, if, and how our motifs can be linked together into an understandable whole.

⁸¹ Moody: 1987: 241

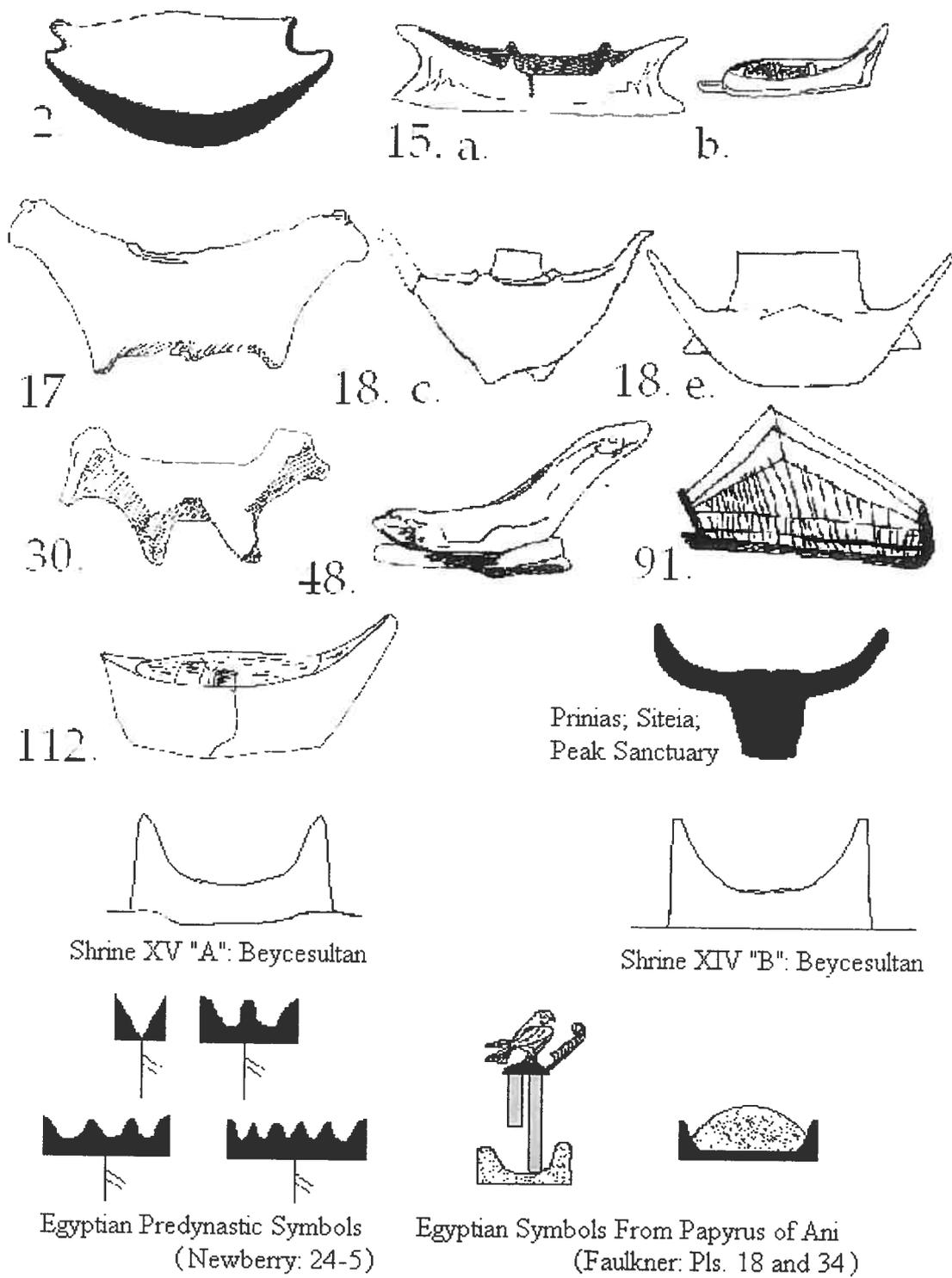


Figure 12: HC-like Objects and Depictions

Part VI: A: HC and DA: Final Analysis

As is evident from an examination of the Figures and Plates, it is difficult to choose a single type of either symbol to represent the whole, or even enough categories into which every variant can be placed. We have done our best to keep it as informative and comprehensive as possible by basing the typologies on the more conspicuous features of the motifs. Clearly, within the bounds of a tradition, there existed a certain liberty of expression in the Minoan arts and symbolism which made this variability possible, acceptable, and of course intelligible.

Without a doubt, these symbols are Cretan creations, with roots in a tradition dating back as far as NL for HC, and EM for DA. We may note that:

- 1.) DA is at once found as a shaft-less twin-triangular motif, a hafted trapezoidal form and in its metallic double-bitted axe form as early as EM II/III.
- 2.) There are marked increases from EM through LM of both the variability of forms, and contexts within which both HC and DA may be found.
- 3.) A socket is added to HC in LM.
- 4.) HC and DA are unified in LM to form [HC+DA].
- 5.) The unification does not render the individual motifs obsolete, but creates a third which incorporates the two.
- 6.) By LM, DA is often represented as a vegetal element that sprouts out from HC.
- 7.) HC is that from which the vegetal element emerges, but functionally speaking, as a freestanding object it is a base into which a staff may be inserted.
- 8.) When HC is provided with a socket, its symbolic meaning is incomplete, as [HC+DA] or at least, HC with staff or vegetal element, is intended.
- 9.) The symbol [HC+DA] plausibly infers a difference in nuance and/or meaning from the individual symbols HC and DA.
- 10.) The symbol [HC+DA] likely combines elements of HC and DA deemed either compatible or otherwise complementary.

As we have observed, HC is most commonly found in funerary contexts of EM, but non-

funerary contexts also occur,¹ with at least one possible NL antecedent.² Generally speaking, objects decorated with HC, DA, or [HC+DA] are usually intended for some sacred sphere of activity, as these objects come predominantly from burial sites, cave and mountain sanctuaries, shrines and palatial centres, i.e. locations of explicit or potential ritual activity. The motifs HC and DA actively designate or demarcate sacred zones and objects, whether ritual implements, cult paraphernalia, votive offerings or architectural spaces. It must however be remembered that 'sacred' or religious contexts are not without their political and/or economic nuances. When DA is found in gold or monumental bronzes, and HC found applied to architectural spaces or otherwise monumentalised, levels of wealth, prestige, authority and sanctity are reflected of either an area, individual, social group, politico-economic entity, divinity or any combination of these.

HC predates DA in funerary or other sacred contexts, and is well established in cult paraphernalia and symbolism by EM I.³ DA makes its appearance at least by EM II, within funerary contexts as bronzes or carved motifs on seals deposited in tombs such as those of Platanos, Mochlos and Phourni.⁴ By MM both motifs are commonly found within all types of sacred zones and contexts. With the emergence of palatial centres the symbols are incorporated into their iconography and applied to the structures and shrines therein to differing degrees from palace to palace. Throughout LM, HC, DA and [HC+DA] are found profusely and redundantly as painted motifs on larnakes, (i.e. commonly in repetitive rows and/or sets), and other sacred objects, with a constancy that can not be regarded as insignificant.

The most prominent and consistent context for our symbols from EM through LM is funerary, and the most expressive of Minoan funerary articles illustrating this, is the *Agia Triada*

¹ Cat. A: 4

² Cat. A: 2

³ e.g. Cat. A: 4, 5, 16, 21, 23, 24

⁴ Soles: 1992: 239, Dietrich: 1988: 13 and Grumach: 1968: 9 respectively.

Sarcophagus. The painted limestone larnax of LM IIIc⁵ from Agia Triada,⁶ is often taken to represent the ideal find on which to base interpretations of cult activity and objects found within sacred contexts, due to the graphic nature of the images there depicted. Its late date however, is cause for caution. Whether it should be regarded as an idealized expression of Minoan ritual activity which no longer existed at this late date, a 'realistic' rendering of cult activity surrounding funerary ritual at the time, or cult activity generally is debatable. Whatever the case, the iconography on the larnax relates well with the early finds from EM tombs and may thus be considered part of a Minoan funerary tradition. The similarities between the scenes depicted on the larnax and early funerary cult are:

- 1.) In EM, we have funerary or otherwise ritual ceramics decorated with HC;⁷ on the sarcophagus, we have HC decorating the altar area where a ritual is performed.
- 2.) In EM, we begin to find DA decorations on funerary ceramics and as votive gifts within tombs;⁸ on the larnax, DA is found on every pillar.
- 3.) In EM, the tombs are equipped with ceramics for cooking, eating, drinking and libations; on the larnax, we have rituals involving sacrifice, libation and food offering suggestive of consumption.
- 4.) In EM, bovid as well as sheep and goat models were offered as gifts at the tombs;⁹ on the larnax, calves or bull-models are brought to the deceased and both the goat and bovid are represented as sacrificial animals.
- 5.) In EM, boat models were offered as funerary gifts;¹⁰ on the limestone larnax, a boat model is the lead gift brought as an offering to the supposed deceased.

Notable, above all else, is the consistency of a boat or something representative of a boat

⁵ Personal conversations with members of *La Missione Italiana a Festos*, headed by Profs. V. La Rosa, P. Carrinci and P. Militello, are the source of the attribution of this late date. It would seem that some LM IIIc *skutelli* (cups) were found within the wall construction of the tomb enclosure which had held the larnax. (July - August 2001)

⁶ Cat. A: 87

⁷ e.g. Cat. A: 4, 5, 23, 24

⁸ e.g. Cat. A: 25

⁹ e.g. Cat. A: 31, 33, 36

¹⁰ e.g. Cat. A: 15, 16

being required in the final rites accorded a community member from EM through LM, i.e. for nearly two millennia. This boat may be decorated with HC,¹¹ look like HC,¹² or crescent-shaped with twin peaks.¹³ The conception and offering of these boat models may have been deemed both natural and necessary by the very geography of this civilization, as well as a basic belief that the next world lay over some watery horizon. To this other world beyond the seas may be attributed the name Elysion,¹⁴ which has long been connected to BA Crete through the traditional presence of the mythic Rhadamanthys on that blessed isle.¹⁵ This Elysion is in contrast to the Greek conception of a shadow-like Hades, but is well in harmony with funerary monuments and finds of Minoan Crete.¹⁶ However, even Hades is reached by ferrying across the Styx in Charon's boat. It would seem that just as the original NL settlers and BA inhabitants of Crete needed to be mariners of a sort, so too the Minoan deceased. As the end is oft reflected in a beginning, we see that as Minoan ancestry lies elsewhere than on Crete within the greater Eastern Mediterranean Basin, and so too does the Minoan afterlife lie elsewhere beyond some sea's horizon.

As extra-insular parallels also exist in the use of boat models as offerings within funerary contexts, hence a belief in the attainment of the next world by crossing a body of water, whether river, lake or sea from the fourth and third millennia,¹⁷ it is not surprising to find the same within the context of this island culture. A Minoan belief may then be imagined in which death's journey was taken by boat, or that a boat was required in that other world, consistently from EM through to the final phases of LM. Funerary practices seem to have changed little, at least conceptually, throughout these periods despite changes in the form of tombs and society itself. If the Minoan Elysion was as restrictive as the Greek understanding of it, i.e. a land for exceptional

¹¹ Cat. A: 16

¹² Cat. A: 15

¹³ Cat. A: 87

¹⁴ See Burkert: 1961: for a discussion of Elysion's etymology.

¹⁵ Huebeck, West and Hainsworth: I: 227

¹⁶ *Ibid.*

¹⁷ e.g. Cat. A: 133, 135, 137

individuals rather than a general land of the dead, then perhaps Sir Arthur Evans' interpretation of the deceased individual on the Agia Triada Sarcophagus as a Sea Captain may not be so off the mark.¹⁸ However, as boat models are not restricted to wealthy burials, it seems more likely that we are dealing with a general conception of a land of the dead, rather than a Valhalla of some sort, though the latter, and concepts of merit and judgment involved in the access to such a land, cannot be presently discounted.

With this concept of a final voyage over the sea, the iconographic affiliation of the symbols HC, DA and [HC+DA] with the sea, as represented by boats, fish, mollusks, algae, watery spirals, and aquatic birds within funerary contexts is understandable, given the economic importance of the sea for its bounty (i.e. fish and fruit), navigation (i.e. trade and exploration), the direct connection between the exploitation of this watery element and death caused by the natural dangers and unavoidable losses *per annum* of work upon it, as well as its constant presence. HC's maritime affiliation is the clearest of all, as it is not only directly applied to boat models, but boat models and depictions themselves take HC forms.

Within funerary sites from EM to LM, boat models may also be present in abstracted forms, whether as pyxides, zoomorphic pouring vessels, or horned cups. Boat models are found in HC forms with peaked prows and/or sterns within the variational bounds of HC,¹⁹ and as early as EM I even found decorated with HC symbols at prow and stern.²⁰ Given this, the decoration of ships from EM III onwards with horned sterns or prows depicted on seals are not fortuitous decorations,²¹ as not only is one of the earliest boat models²² decorated with HC at both ends, but as early as EM II pouring vessels imitating boats are found decorated with horned crania at the prow.²³ Added to this is the similarity between the horned ships depicted on seals and early horn-

¹⁸ Evans: 1964: 438

¹⁹ Cat. A: 15, 47, 91

²⁰ Cat. A: 16

²¹ e.g. Cat. A: 45, 46, 78, 107, 108, 111

²² Cat. A: 16

²³ Cat. A: 33, 36

rimmed cups,²⁴ being both aesthetically and conceptually horned-vessels. Altogether, there are more links between HC and the boat or ship than exist between HC and any other ‘thing’ including animal horns. If HC need remain the horns of some animal, that animal may likely be a conceptual one, such as that of a sacred boat perhaps thought of as a navigable *KHTOΣ*.

Furthering this analogy between HC and the sacred boat are the earliest architectural examples from Mallia with their single-horn construction.²⁵ The single pronounced peaks of these objects, as noted above, are comparable, if not equivalent to boat models with single high prows,²⁶ which are more similar to these examples of HC than even most other HC variants. The closest HC variants to them are the asymmetrical examples from EM Mochlos and LM Agia Triada,²⁷ which accentuate one horn more than the other in a similar fashion. These asymmetricals themselves are however also comparable to other boat depictions for their asymmetrical peaking, profiles and curved bases.²⁸

In EM, DA is predominantly a haft-less twin-triangular motif, which when cross-hatched,²⁹ is evocative of depictions of textiles on contemporary anthropomorphic and zoomorphic vessels and figurines.³⁰ Between EM and MM, the earliest hafted examples appear, and though they are more recognizable as axes,³¹ are not quite axes. These twin trapezoidal expressions, though from funerary contexts, may also have had an economic significance. DA is already a part of funerary paraphernalia and symbolism between EM and MM I,³² and by MM II,

²⁴ e.g. Cat. 2. 4, 5, 23, 24, 43

²⁵ Cat. A: 54

²⁶ Cat. A: 15 b., 18 g., 33, 47, 48, 112

²⁷ Cat. A: 21, 103; PLS. II, VI

²⁸ e.g. Cat. A: 47 and 112

²⁹ e.g. Cat. A: 25, 37

³⁰ e.g. Cat. A: 6b, 27, 31

³¹ Cat. A: 39, 51, 59, 62

³² e.g. Cat. A: 25; PL. II and see Soles: 1992: 239

we have our earliest double-bitted axe DA motif applied outside of a funerary context.³³ The decorative motifs applied to DA by LM, illustrate both marine and vegetal affiliations, with a continued connection to textile patterning. The presence of this axe-like motif within funerary symbolism and deposits is suggestive of a concept relating to the severing of life, but its vegetal relation suggests the motif is also one of renewal, continued life after death, or a cycle of life and death.³⁴

By MM III, DA is iconographically connected with women rather than men,³⁵ as only women are seen to hold the symbol in hand, suggesting that its representative power falls within a feminine jurisdiction. That feminine jurisdiction was certainly expressed within ritual activities by having women preside over rites, whether funerary or other, but the source of the empowerment of women within the religious sphere likely had some social, economic and/or political basis. DA is seen to have had some sort of economic significance by its presence on seals and sealings, as well as a socio-political nuance in terms of its production in materials of prestige and incorporation into a palatial iconography, and of course a religious application. As it is linked to a feminine sphere of influence, that sphere must have been equally of an economic, political and religious nature. What links all these aspects of DA's associations together is possibly reflected through its connection to textile. Textiles not only served in the fabrication of clothing for local use, whether elaborately decorated fine wares of prestigious quality or day to day work clothes, but was also an article of export which could be traded for such things as gold and tin. Furthermore, this textile industry would have been essential to trade and fishing by the very fact that without sails, ropes, stays and nets, those two maritime industries would suffer. Within this scheme, not only is DA's connection to the sea and sea life corroborated, but even DA's vegetal essence can be included, as vegetal fibres, namely flax, are not only transformable into cloth, but also better suited than wool to a naval application.

Variability notwithstanding, HC and DA are recognizable symbolic expressions, regardless of the particular form of any single occurrence, as easily as are all representations of

³³ Cat. A: 42: PL. III

³⁴ For an extended discussion of DA as a symbol of renewal see: Dietrich: 1988

³⁵ e.g. Cat. A: 59, 126

boats and ships whatever the vessel's particular form. Whatever the various forms HC, DA or boats take, they are nonetheless recognizable as what they are, whether to the modern archaeologist or BA Minoan. There seems to have existed a substantial leeway within the artistic renderings of these symbols, suggesting a less centralized and formalized symbolic language than might be found in contemporary Egypt or Mesopotamia, where power, wealth and iconography were held within the hands of single individuals or groups.³⁶ Perhaps, each variant has its own significance, creating a complexity of hidden metaphors, but the generalizations made above are in line with our present evidence.

B: HC and DA Defined

HC may then be identifiable with a *sacred horned boat* which conveyed the deceased to the next world, and by metaphoric extension, ritual participants into the realm of religious experience for five primary reasons:

- 1.) Boats, as painted, plastic, or metaphoric forms within funerary contexts throughout the BA, are found in similar forms as HC.³⁷
- 2.) A pyxis in the form of a flat-bottom boat,³⁸ with a variant of HC at both prow and stern, connects it with ships depicted on seals with horned applications at either prow or stern, as well as connecting HC decoration with boats as early as EM I, and binding boats and HC together within funerary paraphernalia from that early period onwards.
- 3.) Ships depicted on seals with horned decorations at stern or prow³⁹ are also comparable to early ceramic vessels with the same type of horned decoration,⁴⁰ and again connect HC variants with vessels.
- 4.) As HC is so often present in funerary contexts, it must represent something which links the

³⁶ Koehl: 1992: 35: Suggests that the palace rulers of Crete were *Primi Inter Pares* rather than absolute monarchs.

³⁷ e.g. the boat models Cat. A: 15a, with its peaked prow and stern curved outwardly comparable to Outwardly Splayed variants of HC, and Cat. A: 15b with the single peaked HC variants from Mallia: Cat. A: 54

³⁸ Cat. A: 16

³⁹ Cat. A: 45, 46, 49, 50, 53

⁴⁰ Cat. A: 2, 4, 5, 23, 24, 43

dead to the next world; while, its further connection to ships suggests a metaphoric vehicular connotation. The creation of an illusory motion achieved through the jointed or slightly spaced repetition of the symbol,⁴¹ also accords with this idea of the symbol as representative of a boat, where that repetition would represent the abstraction's movement as opposed to abstracted waves or mountains.

5.) Aquatic motifs are seen in ritualistic and sacred locations, and are closely associated with HC and death related iconography.

Taken congruously, these points express an association between HC and passage to, or communication with, some 'other world' by means of a metaphoric vehicle, the sacred boat. The use of a boat as conveyer of the deceased to the next world is well attested in the Eastern Mediterranean Basin,⁴² and only more natural in a place which is surrounded by water, dependant on the sea as grove, hunting ground, highway, and for many a sailor served as place of burial.

DA may plausibly be identified with a Minoan textile industry, which was in all practical and metaphorical aspects, one of the civilizations main life-lines, for six primary reasons:

- 1.) DA's early appearance on seals and sealings give it a potential economic significance.
- 2.) DA shares decorative motifs with textiles, and is found represented with textiles.⁴³
- 3.) DA's vegetal expression is relatable to its textile associations,⁴⁴ as vegetal matter can be used to produce fabric.
- 4.) DA's marine affiliations and decorations, which include a direct iconographic relation with ships,⁴⁵ do not detract from this textile connection but rather further the case.
- 5.) DA is literally seen in the hands of women, who may at the same time be holding textile.
- 6.) Even less abstract examples of DA, as cast metal double-bitted axes, may be found with incised textile motifs, whether bundles or sacral knots.

⁴¹ e.g. Cat. A: 44, 47, 54, 90, 102, 122, 127, and several others not fully illustrated in the Plates: 104, 106, 107, 123, 124

⁴² e.g. Cat A: 133, 135

⁴³ e.g. Cat. A: 25, 37, 59, 78, 85, 108 a-g

⁴⁴ e.g. Cat. A: 73, 75, 77-9

⁴⁵ Cat. A: 39, 51, 74, 97, 108 a-b

HC, DA and [HC+DA], may then each represent a combination of technologies and useful things necessary to these BA islanders, which are also in line with a likely Earth/Sea dichotomy⁴⁶ evident within the iconography. Naturally, as HC and DA are combined into a single motif, the question arises as to what could a motif which combines aspects of a textile industry with that of a sacred boat signify. We may again cite the importance of textiles in terms of trade, but as noted, cloth, sheets and ropes also have a more direct application and use upon ships. Of course, we would require a third element in order to join our sacred boat, HC, to a possible representation of the sail, DA, and that is a mast. One wonders then, whether the vegetal sprigs which often sprout out of HC, and likewise, those sprigs which support a DA atop or amidst them, were not intended to represent such a mast. One might muse upon the significance of certain variants of the possible 'pillar cult' noticed by Evans⁴⁷ in this light, and come to the conclusion that pole-like pillars were not so much revered in and of themselves, but as representations of the mast.⁴⁸ The mast may in this way find a relation with the Slim-trunked tree or vegetal sprig found between LM examples of HC.⁴⁹

At present, we see that the connections between the bull, goat or ram with both HC and boats, incorporate several particularly important industries together, namely herding, tanning, the fishery, and overseas trade. Industries connected to DA include agriculture, textile production and even metallurgy, which themselves also include aspects of the fishery and trade.

The explicitly intimate interrelatedness between the sea, pasture, field and technology expressed through the symbols HC, DA and [HC+DA] symbolically involves several aspects of society, the natural world, and industry of the community at large. These motifs also reflect aspects of power and authority pertaining to a Minoan Palatial elite, or simply an ordered society with a common metaphoric tongue, interests and dependancies.

In short, HC is better defined as an abstracted representation of a sacred boat rather than horns, a horned or hornlike object; DA is also better defined primarily as an abstracted

⁴⁶ Warren and Codagan: 1981:172, 214

⁴⁷ Evans: 1901: 72-3

⁴⁸ e.g. Cat. A: 71: PL. V

⁴⁹ e.g. Cat. A: 123

representation of textile and/or its industry, but whether it may be representative of a raised sail or an emblematic masthead is unclear, though possible, as [HC+DA], which is yet to be recognized as a separate symbol from its constituents, would be then definable as a sacred sailing vessel. Of course, this latter interpretation would depend on the unified symbol [HC+DA] to be formed not of two symbols, but of a trinity: HC as a traditional/sacred boat, DA as linen sail, and the connective 'mast' element permitting that unification. By LM, that trinity would incorporate numerous industries into a single motif, and reveal the significance behind its relationship with the dead by serving as the metaphoric vehicle to the next world, a sacred sailing vessel.

C. Summary:

HC and DA have been long recognized as sacred symbols of Minoan Crete. They are two of the most easily recognizable Minoan symbolic exports to the Aegean, with evidence of their application in the Cyclades, the Greek mainland and within the Eastern Mediterranean Basin as far as Cyprus.⁵⁰ The significance and reasons for which these sacred symbols were of such potency in Crete for the entire BA, and for which they might have been adopted by other cultural areas within the Aegean and Eastern Mediterranean Basin, have long been shrouded in a veil of abstraction, and open to interpretation and debate, but just as Minoan origins are to be understood primarily in Cretan terms, so too is the significance of these symbols to be understood within a Minoan framework, as testified by their use, application and associations in BA Crete.

Both HC and DA are found within a variety of sacred contexts throughout the BA and across the greater part of the island. It may be inferred that a certain socio-religious cohesion existed in BA Crete with both a common symbolic language to express ideas of sacrality, as well as a general belief system. A less centralized or formalized symbolic language is however suggested by the variety of forms of either motif from EM through LM, allowing for an expressive diversity in outward forms without loss of intrinsic significance or recognizability.

⁵⁰ Gaerte: 1922 and Nilsson: 1971

Naturally, the symbols' significances would have had their nuances across the island, but the observable constants throughout the island and the BA, particularly within the funerary and palatial spheres, suggest a common understanding and usage of these motifs.

The EM I pyxis from a tomb of the Messara,⁵¹ offers the earliest clue to HC's significance. As other HC examples are also relatable to boats, and a relation exists between boats and similar ritualized and/or sacred contexts as HC, including shared forms, suggests the HC motif may be an abstraction of the boat. HC would then be significant not only as a representation of a utilitarian thing, but also of the industries involved in boat construction, and those industries which depended on navigable vessels. By extension, the 'sacred boat' provided the dead with the necessary transport to the next life.

By EM II, DA is already representative of other industries, namely textile production and metallurgy. From MM into LM, it becomes apparent within the iconography that the textile represented, being connected and interchangeable with vegetation, was more probably derived from vegetal fibre. DA's use increases in MM, reaching its apogee in LM when it is also united with HC, which coincides with the rise of the palatial centres, as well as a substantial increase in trade between Crete and other parts of the Eastern Mediterranean Basin.

DA is found exclusively handled by women;⁵² its symbolic power and authority must then fall within a feminine jurisdiction. Its decorative elements are primarily derived from textile patterns and it is often depicted as a plant of some sort. This vegetal essence is easily relatable to its textile patterning, and in turn associable to a feminine jurisdiction. The symbol's fabrication in metal, whether gold, bronze or silver, must somehow also be congruent to the whole. Metal is a prestigious material and representative of power, wealth, and authority. This is due to its relative rarity, cost, strength and utility, as well as the skill and organization required at all levels, from extraction to trading, smelting and working. As metal production and the importation of

⁵¹ Cat. A: 16

⁵² e.g. Cat. A: 59, 128

precious materials,⁵³ such as tin,⁵⁴ were likely controlled by the palaces to a large degree,⁵⁵ that power, prestige and authority, was likely linked to these palatial centres. When metallic objects are fashioned into sacred symbols, as is DA, those objects, made of an already prestigious material, attain a sacred nuance. As DA is directly associated with women⁵⁶ rather than men, and innately an object of prestige when made of metal, it may represent some social, political, religious and economic empowerment of women within the Minoan elite. Women depicted with DA in hand, and at times with added textile-like motifs,⁵⁷ may be representative of the control of a prosperous and essential textile industry, affording them the power and authority to influence not only other industries and trade in precious materials, but also certain aspects of society which include religious authority and ritual activity.

If DA was indeed representative of power and authority due to its attachment to a textile industry which produced fabric for use both at home and for export, and upon which sailing depended, it follows that a particular social group within the Minoan elite controlled or were responsible for that industry which also facilitated other industries such as fishing and trading. It is in part from these practical concerns and economic realities that the symbol's religious implications possibly emerged, culminating in the coupling of DA to HC. Of course, DA was already a part of funerary assemblages in its metallic form by EM, so it is not so surprising to find two traditional motifs, HC and DA, combined by LM within their traditional findspots.

⁵³ Moody: 1987: 240

⁵⁴ Warren: 1987: 50

⁵⁵ Chrysoulakis and Platon: 83

⁵⁶ Cat. A: 59, 128

⁵⁷ e.g. Cat. A: 59

Part VII: Conclusion

Sea-faring technology not only permitted the settling of Crete sometime in the eighth to seventh millennia, but also afforded those settlers and their descendants goods unavailable on the island, foreign markets for local goods, and of course a food supply. The boat thus had a traditional and ancestral significance in BA Crete related to origins, but coupled to an ever present economic reality.

Until now, the only recognized iconographic evidence for the use and symbolic application of sea-faring vessels have been boat models, representations of boats in painted depictions, and seal stone carvings, mostly from funerary contexts. Within an economic setting, representations of ships on seals are understandable, as extra-insular trade could only have taken place over sea routes, but what of the boat models and painted depictions from funerary contexts? We might accept a simplified economic interpretation of these models, directly associating them with the occupation of the deceased in life, such as sea captain, merchant or fisherman, but it is argued they had a more symbolic application, having as much to do with traditions and beliefs as they do with economy, and thus related to interests at sea as well as in the afterlife.

The funerary use of the boat suggests there existed in BA Crete a concept of a sacred sea-faring vessel which transported the dead to the next world, and this from at least EM through LM. Depictions of the sacred vessel were not limited to realistic models but also took abstracted forms, and it is here that HC acquires its significance.

The textile patterning of DA, from EM through LM, has long been overlooked, and no attempt, to the author's knowledge, has been made to correlate this evidence with its evident vegetal derivation. The significance of either women's role within DA's iconography, or that of the sea, have likewise been sidestepped. It has however been shown that DA was significant as a representation of a textile industry, which was as important locally as it was for export, and without which navigation would have been limited to paddling and rowing.

The combination of HC and DA, into the symbol [HC+DA], may within this scheme become entirely intelligible. If HC is accepted as an abstracted sacred vessel, then the

combinative symbol may naturally represent that sacred boat fitted with mast and sail. This interpretation allows for the incorporation of a multitude of BA industries and the symbols' economic value, but most importantly it affords a glimpse into both the pragmatic and spiritual outlooks of the Minoans, who seem to have looked to the sea's horizon both for their prosperity and their final journey.

BIBLIOGRAPHY

- Alexiou, Stylianos and Warren, Peter. 2004. The Early Minoan Tombs of Lebena, Southern Crete. *Studies in Mediterranean Archaeology* 30.
- Andreadaki-Vlasaki, Maria. 2000. *The County of Khania Through its Monuments: From the Prehistoric Period to Roman Times*. Pergamos SA, Athens.
- Andronicos, Manolis. 1984. *National Museum*. Ekdotike Athenon S.A., Athens.
- Aruz, Joan and Wallenfells, Ronald. 2003. *Art of the First Cities: The Third Millennium B.C. from the Mediterranean to the Indus*. Yale University Press, New Haven and London.
- Athanssakis, Apostolos N.. 1976. *The Homeric Hymns*. John Hopkins University Press, Baltimore and London.
- Barber, E.J.W.. 1990. *Prehistoric Textiles: The development of cloth in the Neolithic and Bronze Ages with special references to the Aegean*. Princeton University Press, Princeton, New Jersey.
- Barber, Elizabeth Wayland. 1994. *Women's Work: The first 20 000 years, women, cloth, and society in early times*. W.W. Norton & Company, New York and London.
- Bass, George F. ed.. 1972. *A History of Seafaring Based on Underwater Archaeology*. Thames and Hudson, London.
- Bates, Oric. 1914. *The Eastern Libyans: An Essay*. MacMillan and Company Limited, London.
- Bass, George F.. 1986. A Bronze Age Shipwreck at Ulu Burun (Kaş):1984 Campaign. *American Journal of Archaeology* 90: 269-296.
- Betancourt, Philip P.. 1985. *The History of Minoan Pottery*. Princeton University Press, Princeton, New Jersey.
- Betancourt, Philip P. and Davaras, Costis. 1988. Excavations at Pseira. *Cretan Studies* 1:35-37.
- Betancourt, Philip P. and Simpson, Richard Hope. 1992. The Agricultural System of Bronze Age Pseira. *Cretan Studies* 3:47-54.

- Bietak, Manfred. 1996. *Avaris, The Capital of the Hyksos: Recent Excavations at Tell el-Dab 'a*. British Museum Press, London.
- Blegen, Carl, Caskey, John L., Rawson, Marion and Sperling, Jerome. 1950. *Troy, General Introduction, The First and Second Settlements*. Princeton University Press, Princeton, New Jersey.
- Bloedow, Edmund F.. 1990. The Sanctuary Rhyton from Zakros: What do the goats mean? *Aegeum* 6: 59-78.
- Bloedow, Edmund F..1991. Evidence of an Early Date for Cretan Zeus. *Kernos* 4: 139-171.
- Bosanquet, R.C. and Dawkins, R.H..1923. The Unpublished Objects from Palaikastro: Excavations 1902-1906. Part I. Supplementary Volume. *The British School at Athens*. Macmillan and Co. Ltd. London.
- Branigan, Keith. 1968. Copper and Bronze Working in Early Bronze Age Crete. *Studies in Mediterranean Archaeology* 19.
- Branigan, Keith. 1970. *The Tombs of the Messara : a study of funerary architecture and ritual in southern Crete, 2800-1700 B.C.*. Gordon City Press Limited, Hertfordshire.
- Branigan, Keith. 1988. *Pre-Palatial: The Foundations of Palatial Crete: A survey of Crete in the Early Bronze Age*. 2nd Updated Edition. Adolf M. Hakkert, Amsterdam.
- Buchholz, Hans-Günter. 1959. *Zur Herkunft der kretischen Doppelaxt. Geschichte und auswärtige Beziehungen eines minoischen Kultsymbols*. München, Germany.
- Burke, Brendan. 1996. The Organization of Textile Production on Bronze Age Crete. *Aegeum* 16: *Techne: Craftsman, Craftswomen, and Craftsmanship in the Aegean Bronze Age: Proceedings of the 6th International Aegean Conference/ 6e Rencontre égéenne internationale: Philadelphia, Temple University, 18-21 April, 1996: Edited by Robert Laffineur and Philip P. Betancourt: Liège: Université de Liège, Histoire de l'art et archéologie de la Grèce antique: Austin: University of Texas at Austin: Program in Aegean Scripts and Prehistory, 1997.* 413-422.
- Burke, Brendan. 2003. The Spherical Loomweights. in Knossos: The South House. *The British School at Athens*, Supplementary volume 34. 195-198.
- Burkert, Walter. 1961. Elysiion. *Glotta*, 39: 208-213.
- Cadogan, Gerald. 1987. What Happened at the Old Palace of Knossos? *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the*

Swedish Institute in Athens, 10-16 June, 1984: Robin Hägg and Nanno Marinatos editors: *Scripta utgivna av Svenska Institutet i Athen*, 40: 35. Paul Åströms Förlag: Stockholm. 71-74.

- Casson, Lionel. 1964. *Illustrated History of Ships and Boats*. Doubleday and Company, Inc., Garden City, New York.
- Cherry, John F.. 1983. Evolution, Revolution, and the Origins of Complex Society in Minoan Crete. *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*. O. Krzyszkowska and L. Nixon editors. Bristol Classical Press, Cambridge. 33-46.
- Chrysoulakis, Stella and Platon, Lefteris: 1987. Relations Between the Town and Palace of Zakros. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*. Robin Hägg and Nanno Marinatos editors. *Scripta utgivna av Svenska Institutet i Athen*, 40: 35. Paul Åströms Förlag, Stockholm. 77-83.
- Cosmopoulos, Michael B..1991. The EB 2 in the Aegean. *Studies in Mediterranean Archaeology* 97. Paul Åströms Förlag, Jonsered.
- Crawford, Sheena. 1983. Re-evaluating Material Culture: Crawling Towards a Reconstruction of Minoan Society. *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*: O. Krzyszkowska and L. Nixon editors. Bristol Classical Press, Cambridge. 47-53.
- Cullen, Tracey ed..2001. Aegean Prehistory, a review. *American Journal of Archaeology*, Supplement I. Archaeological Institute of America, Boston.
- D'Agata, Anna Lucia. 1992. Late Minoan Crete and the Horns of Consecration: A Symbol in Action. *EIKON, Aegean Bronze Age Iconography: Shaping a Methodology: Proceedings of the 4th International Aegean Conference/ 4^o Rencontre égéene internationale: University of Tasmania, Hobart, Australia: 6-9 April, 1992*: edited by Robert Laffineur and Janice L. Crowley: *Aegeum* 8: *Université de Liège, Histoire de l'art et archéologie de la Grèce Antique: 1992*. 247-256.
- Dalley, Stephanie. 1991. *Myths from Mesopotamia*. Oxford University Press, Oxford and New York.
- Davis, Ellen N..1995. Art and Politics in the Aegean: The Missing Ruler. *The Role of the Ruler in the Prehistoric Aegean: Proceedings of a Panel Discussion Presented at the Annual Meeting of the Archaeological Institute of America, New Orleans, Louisiana, 28 December 1992*, edited by Paul Rehak. *Aegeum, Annales d'archéologie égéene de l'université de Liège. et UT-PASP: v. 11. Liège, Université de Liège Histoire de l'art et d'archéologie de la Grèce Antique*. 11-19.

- Davis, Jack L.. 1992. Review of Aegean Prehistory I: The Islands of the Aegean. in Cullen, Tracey ed..2001. *Aegean Prehistory, a review. American Journal of Archaeology* Supplement I. Archaeological Institute of America, Boston. 19-76.
- Deshayes, Jean. 1960. *Les Outils de bronze de l'Indus au Danube (IVe au IIe Millénaire)*. Librairie Orientaliste Paul Geuthner, Paris.
- Diamant, Steven and Rutter, Jeremy. 1969. Horned Objects in Anatolia and the Near East and Possible Connexions with the Minoan 'Horns of Consecration'. *Anatolian Studies* 19:147-177.
- Dickinson, Oliver. 1994. *The Aegean Bronze Age*. Cambridge University Press, Cambridge.
- Dickinson, O.T.P.K.. 1994. Comments on a Popular Model of Minoan Religion. *Oxford Journal of Archaeology* 13:2:173-184.
- Dietrich, B.C. 1988. A Minoan Symbol of Renewal. *Journal of Prehistoric Religion* 2:12-24. Paul Åströms Förlag. Göteborg.
- Evans, Arthur J..1901. *The Mycenaean Tree and Pillar Cult and its Mediterranean Relation*. Macmillan and Co. Ltd., London.
- Evans, Arthur. 1964. *The Palace of Minos: Knossos*. Biblo and Tannen, New York.
- Evans, J.D..1964. Excavations in the Neolithic Settlement of Knossos, 1957-1960, Part I. *The Annual of the British School at Athens*, 59. Oxford University Press: Oxford.
- Evans, J.D.. 1994. *Knossos: A Labrynth of History, papers presented in Honour of Sinclair Hood*. Don Evely, Helen Hughes-Brock, Nicoletta Momigliano editors: The BSA : Alden Press Ltd.: Oxford and Northampton, Great Britain. Chapter 1.
- Evans, John. 1972. The Early Minoan Occupation of Knossos: A note on some new evidence. *Anatolian Studies: Journal of the British Institute at Ankara* 22: 115-128.
- Evely, Don; Hughes-Brock, Helen and Momigliano, Nicoletta. 1994. Knossos, A Labrynth of History, Papers Presented in Honour of Sinclair Hood. *The British*

School at Athens. Alden Press Ltd., Oxford.

- Evely, R.D.G..2000. Minoan Crafts: Tools and Technologies, an Introduction. *Studies in Mediterranean Archaeology* 92.2.
- Evely, R.D.G.. 2003. The stone, bone, ivory, bronze and clay finds. in Knossos: The South House. P.A. Mountjoy, with contributions by B. Burke, K.S. Christakis, J.M. Driesen, R.D.G. Evely, C. Knappett and O.H. Krzyszkowska. *The British School at Athens*, Supplementary volume 34: 2003. 167-194.
- Faulkner, Raymond.1994. *The Egyptian Book of the Dead: The Book of Going Forth by Day*. Chronicle Books, San Francisco.
- Faure, Paul. 1964. *Fonctions des cavernes Crétoises*. École française d'Athènes, Travaux et Memoires des anciens membres étrangers de l'école et de divers savant: Fascicule XIV. Éditions E. De Boccard, Paris.
- Gaerte, W.. 1922. Die Bedeutung der Kretisch-minoischen Horns of Consecration. in *Archiv für Religionswissenschaft*, 21. nach Albreicht Dietrich und Richard Wünsch: verlag B.G. Teuben: Leipzig und Berlin, Krans Reprint ltd., Vaduz. 1965: 72-98.
- Georgoulaki, Eleni. 1990. The Minoan Sanctuary at Koumasa: the Evidence of the Material. *Aegeum* 6: 5-23.
- Gesell, Geraldine C..1981. The Place of the Goddess in Minoan Society. *Society and Cult in the Aegean Bronze Age: Proceedings of the First International Symposium of the Swedish Institute at Athens 12-13 May, 1980*: Robin Hägg and Nanno Marinatos editors: *Skifter utgivna av Svenska Insitutet I Athen, 4* : 35: Paul Åströms Förlag: Stockholm. 93-99
- Gesell, Geraldine Cornella. 1985. Town, Palace, and House Cult in Minoan Crete. *Studies in Mediterranean Archaeology* 67.
- Gesell, Gerladine. 1987. The Minoan Palace and Public Cult. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Robin Hägg and Nanno Marinatos editors: *Skifter utgivna av Svenska Insitutet I Athen, 4* : 35: Paul Åströms Förlag: Stockholm. 123-128
- Graham, Walter. 1962. *The Palaces of Crete*. Princeton University Press, Princeton, New Jersey
- Grumach, Ernst. 1968. The Minoan Libation Formula - again. *Kadmos* 8:7-26.
- Hallager, Erik. 1985. The Master Impression : A Clay Sealing From the Greek-

Swedish Excavations at Kastelli, Khania. *Studies in Mediterranean Archaeology* 69.

- Hamilton, Elizabeth. 1991. Metallurgical Analysis and the Bronze Age of Bohemia: or, Are Cultural Alloys Real? *Archaeomaterials* 5:75-89.
- Hesiod. *Hesiod, Homeric Hymns, Epic Cycle, Homeric*. Translation by Hugh Evelyn White: Loeb Classical Library: LCL 57. Harvard University Press, Cambridge, Massachusetts, London, England. 1995.
- Hodge, A. Trevor. 1985. The Labrys: Why was the Double Axe Double? *American Journal of Archaeology* 89: 307-308.
- Homer. *Odissea*. Traduzione di G. Aurelio Privitera. Arnoldo Mondadori Editore, Edizione Oscar Classici greci e latini. maggio 1991.
- Huebeck, Alfred; West, Stephanie; Hainsworth, J.B.. 1988. *A Commentary on Homer's Odyssey*. Clarendon Press, Oxford.
- Indelicato, Silvia Damiani. 1988. Were Cretan Girls Playing at Bull-Leaping? *Cretan Studies* 1: 39-47.
- Indelicato, Silvia Damiani. 1990. A Forgotten Minoan Imhotep? An Essay on the Origins of Minoan Palatial Architecture. *Cretan Studies* 2: 111-118.
- Joannès, Francis. 2005. La ville au centre du monde. *L'Histoire* 301: 46-53.
- Kanta, Athanasia. 1998. *Phaistos, Hagia Triada, Gortyn*. Adam Editions, Athens.
- Karpodini-Dimitriadi, E.. 1986. *The Peloponnese*. Ekdotike Athenon S.A., Athens.
- Kemp, Barry J. and Merrillees, Robert S.. 1980. *Minoan Pottery in Second Millenium Egypt*. Verlag Philipp Von Zabern. Mainz am Rhein.
- Kenna, V.E.G.. 1960. *Cretan Seals: With a Catalogue of the Minoan Gems in the Ashmolean Museum*. Oxford University Press, Oxford.
- Kenna, V.E.G.. 1969. The Cretan Talismanic Stone in the Late Minoan Age. *Studies in Mediterranean Archaeology* 24.
- Kenna, Victor E.G.. 1969. The Provenience of Seals and Sealings with Hieroglyphic Script. *Kadmos* 8: 103-109.
- Koehl, B.. 1986. The Chieftain Cup and a Rite of Passage. *Journal of Hellenic Studies* 106: 99-110.

- Koehl, Robert B. 1995. The Nature of Minoan Kingship. *The Role of the Ruler in the Prehistoric Aegean: Proceedings of a Panel Discussion Presented at the Annual Meeting of the Archaeological Institute of America, New Orleans, Louisiana, 28 December 1992*, edited by Paul Rehak. *Aegeum: Annales d'archéologie égéene de l'université de Liège et UT-PASP: v. 11. Liège, Université de Liège. Histoire de l'art et d'archéologie de la Grèce Antique.* 23-35.
- Kopcke, Günter. 1987. The Cretan Palaces and Trade. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Robin Hägg and Nanno Marinatos editors: *Scripter utgivna av Svenska Insitutet I Athen, 40*: 35. Paul Åströms Förlag, Stockholm. 71-74.
- Krattenmaker, Kathleen. 1995. Palace, Peak and Sceptre: The Iconography of Legitimacy. *The Role of the Ruler in the Prehistoric Aegean: Proceedings of a Panel Discussion Presented at the Annual Meeting of the Archaeological Institute of America, New Orleans, Louisiana, 28 December 1992*, edited by Paul Rehak. *Aegeum, Annales d'archéologie égéene de l'université de Liège et UT-PASP: v. 11. Liège, Université de Liège. Histoire de l'art et d'archéologie de la Grèce Antique.* 49-58.
- Krzyszkowska, O.H.. 1983. Wealth and prosperity in Pre-Palatial Crete: The Case of Ivory. *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*. O. Krzyszkowska and L. Nixon editors. Bristol Classical Press, Cambridge. 163-170.
- La Grange, M.-J.. *La Crète Ancienne*. Librairie Victor Lecoffre. J. Gabalda & Cie., Paris. 1908.
- Leroi-Gourhan, André. 1971. *L'Homme et la matière*. Éditions Albin Michel, Paris.
- Lindgren, Margareta. 1987. The Function of the Minoan Palaces - Myth and Reality. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Paul Åströms Förlag, Stockholm. 39-42.
- Lloyd, Seton and Mellaart, James. 1962. *Beycesultan*. The British Institute of Archaeology at Ankara, London.
- Macgillivray, J.A.: 1998. *Knossos Pottery Groups of the Old Palace Period*. The British School at Athens Studies 5, Great Britain.
- Macgillivray, J.A.. 1994. in *Knossos: A Labrynth of History, papers presented in Honour of Sinclair Hood*. Don Evely, Helen Hughes-Brock, Nicoletta Momigliano editors. The BSA, Alden Press Ltd., Oxford and Northampton, Great Britain. Chapter 3.

- Macqueen, J.G.. 1986. *The Hittites and their Contemporaries in Asia Minor*. Thames and Hudson, London.
- Marinatos, N. and Hägg, Robin. 1983. Anthropomorphic Cult Images in Minoan Crete? *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*: O. Krzyszkowska and L. Nixon editors: Bristol Classical Press: Cambridge. 185-201.
- Marinatos, Nanno. 1984. *Art and Religion in Thera, reconstructing a bronze age society*. D. and I. Mathioulakis, Athens.
- Marinatos, Nanno. 1986. *Minoan Sacrificial Ritual: Cult Practice and Symbol*. Svenska Institutet I Athen, Stockholm.
- Marinatos, N.. 1987. Public Festivals in the West Courts of the Palaces. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Robin Hägg and Nanno Marinatos editors: *Skifter utgivna av Svenska Insitutet I Athen, 4* : 35. Paul Åströms Förlag, Stockholm. 135-143.
- Marinatos, Nanno. 1993. *Minoan Religion: Ritual, Image, and Symbol*. University of South Carolina Press, Columbia.
- Marinatos, N.. 1995. Divine Kingship in Minoan Crete. *The Role of the Ruler in the Prehistoric Aegean: Proceedings of a Panel Discussion Presented at the Annual Meeting of the Archaeological Institute of America, New Orleans, Louisiana, 28 December 1992, Aegeum, Annales d'archéologie égéene de l'université de Liège. Histoire de l'art et d'archéologie de la Grèce Antique*. 37-47.
- Marinatos, Spyridon. 1960. *Crete and Mycenae*. Thames and Hudson, London.
- Marinatos, Spyridon. 1964. Some Hints About Eastern Mediterranean Mythology. *ΑΡΧΑΙΟΛΟΓΙΚΗ ΕΦΗΜΕΡΙΣ*. περιοδικον της εν Αθηναις Αρχαιολογικης εταιφειας, Athens. 1-14.
- Midant-Reynes, Béatrix. 2005. La Haute-Égypte au IV millénaire: L' ensemble culturel de Nagada et la construction de l'État. *Dossiers D' Archeologie: L'Égypte Prédynastique* octobre 2005: 307:22-29.
- Moody, Jennifer. 1987. The Minoan Palace as Prestige Artifact. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Robin Hägg and Nanno Marinatos editors. *Skifter utgivna av Svenska Insitutet I Athen, 4* : 35: Paul Åströms Förlag, Stockholm. 235-241.

- Muhly, James David. 1973. *Copper and Tin : the Distribution of Mineral Resources and the Nature of the Metals Trade in the Bronze Age*. Archon Books, Hamden.
- Muhly, James D..2005. Mycenaeans Were There Before the Israelites: Excavating the Dan Tomb. *Biblical Archaeology Review* 31:5: 44-51.
- Myers, J. Wilson; Myers, Eleanor Emlen and Cadogan, Gerald. 1992. *The Aerial Atlas of Ancient Crete*. University of California Press. Berkeley, Los Angeles.
- Rackham, Oliver. 2001. *Trees, Wood, and Timber in Greek History: The Twentieth J.L. Myres Memorial Lecture*. Leopard's Head Press, Oxford.
- Newberry, Percy E.. 1908. Two Cults of the Old Kingdom. *Annals of Archaeology and Anthropology* 1: 24-27.
- Niemeier, Wolf Dietrich. 1983. The Character of the Knossian Palace Society in the second half of the fifteenth century B.C.: Mycenaean or Minoan? *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*. O. Krzyszkowska and L. Nixon editors. Bristol Classical Press, Cambridge. 217-236.
- Nilsson, Martin P.. 1971. *The Minoan-Mycenaean Religion and its Survival in Greek Religion*. second revised edition, Biblo and Tannen, New York.
- Panagiotaki, Marina. 1993. The Temple Repositories of Knossos: new information from the unpublished notes of Sir Arthur Evans. *Annals of the British School at Athens* 88: 49-91.
- Panagiotaki, Marina. 1999. The Central Palace Sanctuary at Knossos. *British School at Athens*. supplementary volume 31. Redwood Books. Trowbridge, Wiltshire.
- Peatfield, Alan. 1987. Palace and Peak: the Political and Religious Relationship between Palaces and Peak Sanctuaries. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Robin Hägg and Nanno Marinatos editors. *Scrifter utgivna av Svenska Insitutet I Athen, 4* °: 35. Paul Åströms Förlag, Stockholm. 89-93.
- Peatfield, A.A.D.. 1990. Minoan Peak Sanctuaries: History and Society. *Opuscula Atheniensia* 18: 117-131.
- Pelon, Olivier. 1995. Royauté et iconographie royale dans la Crète Minoenne. *Politeia, Society and State in the Aegean Bronze Age: Proceedings of the Fifth International Symposium of the Swedish Institute at Athens* 12. Paul Åströms Förlag, Stockholm. 309-319.
- Pinsent, J.. 1983. Bull-Leaping. *Minoan Society, Proceedings of the Cambridge*

Colloquium, 1981: O. Krzyszkowska and L. Nixon editors. Bristol Classical Press, Cambridge. 259-271.

- Platon, Nicholas. 1966. *Crete*. Nagel Publishers, Geneva.
- Platon, Nicholas. 1969. *Zakros*. Charles Scribner's and Sons, New York.
- Platon, N.. 1983. The Minoan Palaces: Centres of organization of a Theocratic Social and Political System. *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*: O. Krzyszkowska and L. Nixon editors. Bristol Classical Press, Cambridge. 273-276.
- Platon, Nikolaos; Guanella, Hanni; Reverdin, Olivier; Francke, Klaus D. and Hoelger, Rudolf. 1983. *La Crète: Berceau de la civilisation Européenne*. La Bibliotheque Des Arts. Lausanne, Paris.
- Powell, Judith. 1996. Fishing in the Prehistoric Aegean. *Studies in Mediterranean Archaeology, Pocket-Book 137*.
- Pulak, Cemal. 1988. The Bronze Age Shipwreck at Ulu Burun, Turkey: 1985 Campaign. *American Journal of Archaeology* 92: 1-37.
- Rackham, Oliver and Moody, Jennifer. 1996. *The Making of the Cretan Landscape*. Manchester University Press, Manchester and New York.
- Reese, David S. ed.. 1992. *Pleistocene and Holocene Fauna of Crete and Its First Settlers*. Prehistory Press, Madison, Wisconsin.
- Rehak, Paul and Younger, John G.. 2001. Neoplatial, Final Palatial, and Postpalatial Crete. in *Aegean Prehistory, a review*. 2001. Cullen, Tracey editor. *American Journal of Archaeology* Supplement I. Archaeological Institute of America, Boston. 383-465.
- Renfrew, Colin. 1981. Questions of Minoan and Mycenaean Cult. *Society and Cult in the Aegean Bronze Age: Proceedings of the First International Symposium of the Swedish Institute at Athens 12-13 May, 1980*: Robin Hägg and Nanno Marinatos editors: *Scripta utgivna av Svenska Institutet i Athen*, 4 : 35. Paul Åströms Förlag, Stockholm. 27-33.
- Renfrew, Colin. 1994. The Archaeology of Religion. in *The Ancient Mind. Elements of Cognitive Archaeology*. Collin Renfrew and Ezra B. W. Zubrow eds.. Cambridge University Press. 47-54.
- Renfrew, Colin. 1996. Who Were the Minoans? Towards a population history of Crete. *Cretan Studies* 5: 1-27.

- Rutkowski, Bogden. 1986. *The Cult Places of the Aegean*. Yale university Press, New Haven and London.
- Rutkowski, Bogden. 1991. *Petsophas: A Cretan Peak Sanctuary*. Press “Perl” for Art and Archaeology, Warsaw.
- Säflund, Gösta. 1987. The Agoge of the Minoan Youth as Reflected by Palatial Iconography. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*: Robin Hägg and Nanno Marinatos editors. *Scripter utgivna av Svenska Insitutet I Athen, 40*, 35. Paul Åströms Förlag, Stockholm. 227-233.
- Säflund, Gösta. 1995. Cretan and Theran Questions. *Politeia, Society and State in the Aegean Bronze Age: Proceedings of the Fifth International Symposium of the Swedish Institute at Athens v. 12*: Robin Hägg and Nanno Marinatos editors: *Scripter utgivna av Svenska Insitutet I Athen, 40*: 35. Paul Åströms Förlag, Stockholm. 189-208.
- Sakellarakis, Ianni and Efi. 1980. ΑΝΑΣΚΑΦΗ ΑΡΧΑΝΩΝ. *Πρακτικά τῆς ἐν Ἀθηναίς ἀρχαιολογικῆς ἐταιρείας του ἔτους 1979*. 331-392.
- Scham, Sandra. 2005. The Lost Goddess of Israel. *Archaeology* 58: 2: 36-40.
- Schmidt, Erich F.. 1932. The Alishar Hüyük, seasons of the 1928 and 1929 researches. *Anatolia* 5: 4. University of Chicago Press, Chicago, Illinois.
- Severin, Timothy. 1977. The Voyage of Brendan. *National Geographic* 152: 6: 769-797.
- Soles, Jeffrey. 1992. The Prepalatial Cemeteries at Mochlos and Gournia, and the house tombs of bronze age Crete. *Hesperia*: Supplement 24. American School of Classical Studies at Athens, New Jersey.
- Sourvinou-Inwood, Christiane. 1973. On the ‘Boat’ Ring From Mochlos. *Kadmos* 12: 149-158.
- Stout, Evelyn E.. 1970. *Introduction to Textiles*. 3rd edition. John Wiley & Sons, Inc.: New York, London, Sydney, Toronto.
- Thucydides. 1962. *The Peloponnesian War*. Rex Warner translator. Cassell and Company LTD., London.
- Todd, Ian A..1980. The Prehistory of Central Anatolia I: The Neolithic Period. *Studies in Mediterranean Archaeology* 60.

- Tripathi, D.N.. 1988. *Bronzework of Mainland Greece from c.2600 B.C. to c. 1450 B.C.*. Paul Åströms Förlag, Gothenburg.
- Tyree, E. Loeta. 1974. *Cretan Sacred Caves: Archaeological Evidence*. PhD Diss., University of Missouri, Columbia.
- Ucko, Peter J.. 1968. *Anthropomorphic Figurines of Predynastic Egypt and Neolithic Crete with Comparative Material from the Prehistoric Near East and Mainland Greece*. Andrew Szmidla, London.
- Vagnetti, Lucia.1990. The Final Neolithic: Crete Enters the Wide World. *Cretan Studies* 5: 29-39.
- Van Effenterre, Henri. 1980. *Le Palais de Mallia et la cité Minoenne*. Edizioni Dell'Ateneo, Roma.
- Vasilakis, Andonis. *Heraklion Archaeological Museum : Visitors Guide*: Adam Editions. Kato Chalandri, Athens.
- Verlinden, Collette. 1988. Reflexions sur la fonction et la production des figurines anthropomorphiques minoennes en bronze. *Opuscula Atheniensia* 17: 183-189.
- Vries, Nanny M.W.. 1980. The Central Sanctuaries at Mallia and Megiddo. *Interaction and Acculturation in the Mediterranean* 1: 125-141.
- Walberg, Gisela. 1987. Early Cretan Sanctuaries: The Pottery. *Gifts to the Gods, Proceedings of the Uppsala Symposium, 1985, Upsala Studies in Ancient Mediterranean and Near Eastern Civilizations*: v. 15: Tullia Linders and Gullöf Nordquist editors: Acta Universitatis Upsaliensis. Boreas: Paul Åströms Förlag: Uppsala. 171- 175.
- Walberg, Gisela. 1992. Middle Minoan III - A Time of Transition. *Studies in Mediterranean Archaeology* 92.
- Warren, Peter. 1972. Myrtos: An Early Bronze Age Settlement in Crete. *The British School of Archaeology at Athens*. supplementary volume 7. Thames and Hudson, London.
- Warren, P.M.. 1987. 47-56. The Genesis of the Minoan Palace. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens. 10-16 June, 1984*. Robin Hägg and Nanno Marinatos editors: *Skriptor utgivna av Svenska Institutet i Athen*, 40, 35. Paul Åströms Förlag: Stockholm. 47-56.

- Warren, Peter. 1988. *Minoan Religion as Ritual Action*. Gothenberg University Press. Paul Åströms Förlag, Gothenburg.
- Watrous, L. Vance. 1987. The Role of the Near East in the Rise of the Cretan Palaces. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish Institute in Athens, 10-16 June, 1984*. Robin Hägg and Nanno Marinatos editors: *Scrifter utgivna av Svenska Institutet i Athen, 40*, 35. Paul Åströms Förlag, Stockholm. 65-70.
- Whitelaw, Todd M.. 1983. The Settlement at Fournou Korifi Myrtos and Aspects of Early Minoan Social Organization. *Minoan Society, Proceedings of the Cambridge Colloquium, 1981*. O. Krzyszkowska and L. Nixon editors: Bristol Classical Press: Cambridge. 323-345.
- Wild, J.P.. 1970. *Textile Manufacture in the Northern Roman provinces*. Cambridge University Press, Cambridge.
- Williams, Blanche E.. 1904. Gournia. *The American Exploration Society. Gournia, Vasiliki and other Prehistoric sites on the Isthmus of Hierapetra, Crete. Excavations of the Wells-Houston-Cramp Expedition 1901, 1903, 1904*: by Harriett Boyd Hawes, Blanch E. Williams, Richard B. Seager and Edith H. Hall: University of Pennsylvania: Transactions of the Department of Archaeology I: 1904
- Wilson, D. 1994. *Knossos: A Labyrinth of History, papers presented in Honour of Sinclair Hood*. Don Evely, Helen Hughes-Brock, Nicoletta Momigliano editors. The BSA, Alden Press Ltd.. Oxford and Northampton, Great Britain. Chapter 2.
- Xanthoudides, Stephanos. 1971. *The Vaulted Tombs of Mesarà: 1924*. Gregg International Publishers Limited, England.
- Yakar, Jak. 1991. *Prehistoric Anatolia: the Neolithic Transformation and the Early Chalcolithic Period*. Monograph Series of the Institute of Archaeology, Tel Aviv University. 'Graph-Chen' Press Ltd. Jerusalem.
- Younger, John G.. 1993. Bronze Age Aegean Seals in their Middle Phase (ca. 1700-1550 B.C.). *Studies in Mediterranean Archaeology* 102.
- Zahn, R.. 1914. Kultgerät aus Rhodos. *Fouilles de Vroulia (Rhodes)*. K.F. Kinch. Fondation Carlsberg-Copenhague. Georg Reimer Libraire-Éditeur et Imprimeur. Berlin. 32-34.
- Zois, Antonis A.. 1987. The Function of the Minoan Palace: A contribution to the definition of the main problems or a model for future research. *The Function of the Minoan Palaces, Proceedings of the Fourth International Symposium at the Swedish*

Institute in Athens, 10-16 June, 1984: Robin Hägg and Nanno Marinatos editors:
Scripter utgivna av Svenska Insitutet I Athen, 4^o, 35. Paul Åströms Förlag,
Stockholm. 43-44.

- Harrogate's Hidden Treasures. *Archaeology*: November/ December 2004:13:
Courtesy Harrogate Museums and Arts: Harrogate Borough Council.
- Mairs Geographischer Verlag. 2000. *Kreta West: West Crete* and *Kreta Ost: East Crete*: (1:125 000). *Die Freizeitkarte: Holiday Map*. Allianz: Marco Polo: Printed in Germany.