

Egypt, the Aegean and the Levant

Interconnections in the Second Millennium BC

Edited by
W. Vivian Davies and Louise Schofield

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from Tell el-Dab'a. Drawing by Lyla Pinch-Brock.
Back cover: Ivory cosmetic box and bronze bowl
from a grave at Tell es-Sa'idiyeh.

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MINOAN CRETE AND PHAEOONIC EGYPT

Peter Warren

*In memory of J D S Pendlebury (1904-1941)
who excavated in both countries and gave his life for one of them*

Relationships between Egypt in the Pharaonic period and the contemporary Aegean world form a large and complex subject, supplied by a wealth of evidence. The complexity is increased because relationships were, it will be argued, both direct and influenced by intermediaries, the rulers, merchants and artists of the Levantine states.

Our understanding has been formed through more than a dozen major studies and *corpora* by (in order of publication) A J Evans (1921-35), F Matz (1928), J D S Pendlebury (1930), H Kantor (1947), A Furumark (1950), H Groenewegen-Frankfort (1951), J Vercoutter (1956), W S Smith (1965), F Schachermeyr (1967), W Helck (1979), W Ward (1971), B J Kemp and R S Merrillies (1980), J Crowley (1989), and C Lambrou-Phillipson (1990). There are in addition scores of studies on specific topics, such as ivory, Ta-ut iconography or stone vessels. Recent studies specifically on New Kingdom-Aegean Late Bronze Age relationships have been published by S Wachsmann (1987), P Haider (1988a; 1988b; 1989; 1990), E Cline (1987; 1990-91; 1994; and this volume, 91-115), while the doctoral dissertation of J Phillips (1991a, to be published) massively updates Pendlebury's *Aegyptiaca* (1930) and also discusses Egyptizing works in the Aegean. To be added to all these studies are the outstandingly important discoveries by M Bietak of the wall-paintings of Minoan form and subject at Tell el-Dab'a (Bietak, this volume, 19-28, Plates 1-4).

How, first, to review the evidence? This can be done in different ways, each with advantages and disadvantages. Broadly we can either examine the evidence for relationships chronologically, or by material categories, or by interpretative constructs of functional groupings such as gift exchange goods. Proceeding chronologically we retain a framework of historical development, but weaken any sense of categories or interpretative groupings. Discussion by categories or interpretations of material reverses the advantages and disadvantages; it fragments any sense of development, while emphasizing the distinctiveness of the categories. On balance it seems preferable to proceed chronologically, followed by proposed interpretative groupings, in order to try to advance understanding of the makers' and users' meanings and intentions in their material, that is the cognitive correlates of the incomplete, surviving products, Aegean and Aegeanizing in Egypt, Egyptian and Egyptianizing.

ianizing in the Aegean. We end with a summary of the historical development of the exchanges.

Chronologically, contacts can be simplified into three stages: (1) the Cretan prepalatial Early Bronze Age and the Egyptian Early Dynastic, Old Kingdom and First Intermediate Period, c. 3000-1900 BC; (2) the Minoan Cretan Palace Period (Middle Minoan IB-Late Minoan IB) and the Egyptian Middle Kingdom and early New Kingdom down to Tutmosis III, c. 1900-1425 BC; (3) the Mycenaean Period, beginning with Mycenaean Knossos, the contemporary Aegean and Amenophis III, and continuing with Mycenaean Mainland contacts with the later New Kingdom in the 14th and 13th centuries. This third stage is largely beyond the scope of the present study. It has been thoroughly discussed recently in the works of Cline and Haider.

1. Cretan Prepalatial Early Bronze Age - Early Dynastic, Old Kingdom and First Intermediate Period
Raw materials came in small quantities to Crete, probably but not certainly from Egypt: hippopotamus ivory (worked lower canine at Early Minoan IIA Knossos, c. 2600 BC [Krzyszowska 1984]), carnelian and amethyst (for which stones see below, p. 6). Gold for jewellery may also have come from Egypt (see pp. 2 and 6); the strongest argument against a north-west Anatolian/north-east Aegean source, where gold was used quite plentifully at EBA Troy and Poliochni, or against north Aegean or Siphnian sources for the gold used in EM Crete, is its non-use in the intervening Cyclades. Not only did ivory come as raw material, but a few EM ivory seals have Egyptian shapes, like the squatting ape (Vandervondelen 1994) and perhaps the fly and the pyramid (Sakellarakis 1967, 276 and fig. 4; Sakellarakis and Sapouna-Sakellarakis 1991, 100 and figs. 69, 70, 76). There are also Egyptian designs such as the tête-bêche arrangement and that of back to back cynocephalus apes (Evans 1921, 119, 123-4; Matz 1928, 31, 33).

Stone vessels also arrived from Egypt (Warren 1969, 105-12). Several are known from Knossos, ranging in date from Predynastic to 6th Dynasty. Although only three are from early contexts (two at Knossos, one from the large tholos at Aghia Triadha [Warren 1980, 493-4; 1981; Warren and Hankey 1989, 125]), some fine bowls in unstratified or in later contexts (sometimes adapted into Minoan shapes at those later dates) may well have been very desirable heirlooms, which had reached Crete

at the time of their own *floruit* in Egypt, i.e. in the third millennium BC. In addition to acquiring Egyptian stone vessels the Minoans imitated some Egyptian forms in local Cretan stones, the miniature amphora and small cylindrical jar with everted rim and base (Warren and Hankey 1989, 125-7, figs. 3-4 and pl. 2).

Tiny beads of faience, disk, globular and spherical, are found in Early Minoan round tombs in southern Crete (Xanthoudides 1924, 31, 124 and pls. xxvii, xxviii, lvi, lvi). Both the shape, simple though it is, and the technology are new in EM Crete, but had been used in Egypt since Predynastic times (Lucas and Harris 1962, 44-6). It may well be that the Minoans adopted both from Egypt for their own manufactures, as Evans also proposed (1921, 85, 488).

Egyptian scarabs of the First Intermediate Period and onwards reached Crete in Middle Minoan IA and, more importantly in terms of impact, encouraged the production of Minoan scarabs close to those of Egypt in shape, but with Minoan motifs (Warren 1980, 494-5; Yule 1980; 1981, 78-80; Warren and Hankey 1989, 129; Pini 1989).

A recently discovered object is of greater importance for our subject. This is the clay sistrum from the Middle Minoan IA funerary building 9 in the Arkhanes Phourni cemetery (Sakellarakis and Sapouna-Sakellarakis 1991, 121-2 and fig. 99) (Plate II.1). Hol-low and light in weight to assist sound, this is very probably a Minoan piece (rather than an import), made in clear imitation of the Egyptian instrument (Hayes 1953, 248 for an example in blue faience from the pyramid of Amenemhat I [1963-1934 BC, Kitchen 1989, 153] at el-Lisht). The importance of the Arkhanes sistrum is that it surely implies knowledge of the use and purpose of the Egyptian instrument; in other words we observe symbolic transfer taking place.

A purely decorative transfer seems to have taken place in the opposite direction, since a heart-shaped spiraliform design found on the painted ceiling of the tomb of Hepzefa at Assiut (time of Sesostris I [1943-1898 BC, Kitchen 1989, 153]) is plausibly derived by M C Shaw from Minoan Crete (Shaw 1970; Barber 1991, 345-6 and fig. 15.23), building on the earlier work of H Kantor (1947, 29). Shaw also argues convincingly for a common denominator for the Cretan and Egyptian patterns, namely (exported) Minoan embroidered or woven patterned textiles (Shaw 1970, 28). Such exports of primary goods in MM IA, including fine pottery like the MM I vase from Qubbet el-Hawa tomb 88 (Warren and Hankey 1989, 130), could be the major economic reality behind the bric-à-brac or secondary material of the contemporary Egyptian scarabs in Crete, though the Arkhanes sistrum might reflect a more substantial exchange.

2. Cretan Palace Period - Middle Kingdom to Earlier New Kingdom (Tuthmosis III)

A. Cretan Protopalatial Period - Middle Kingdom, 1900-1700/1550 BC

Scarabs continue to reach Crete, of Middle Kingdom date and in Middle Minoan contexts (Warren and Hankey 1989, 134, 214), and to be both adapted and imitated (Evans 1921, 199-201. Also refs. above). Gold, used notably at Mallia on the hilts of daggers and swords and for the famous pendant with two conjoined insects, might have had an Egyptian source; it appears to have been little used north of Crete, in the Cyclades or on the Mainland, in the Middle Bronze Age. The extensive supplies and mining of gold in Egypt in Middle and earlier New Kingdom times are documented by Lucas and Harris (1962, 224-31) (see also p. 6).

Mallia has further clear Egyptian connections in Middle Minoan II, 18th century BC, namely the Egyptianizing terracotta plaques, notably that of a sphinx, from Quartier Mu, Building D room 4 (Poursat 1978; Poursat in Detournay, Poursat and Vandenberghe 1980, 116-24) (Plate II.2). We have here an entirely new level of evidence for relationship. Like the earlier Egyptian stone vessels and the Minoan sistrum the plaques are symbolic material but a major iconographical dimension is added. This may be analyzed in terms of the processes of iconographical transfer (Warren 1985a). What is involved is the transfer and modification of meaning between one culture and another. A series of steps may be postulated.

(1) Existing (Egyptian or Minoan) thought or belief.

(2) Transfer of thought, belief or ideology by an artist/craftsman (Egyptian or Minoan) into visual form, e.g. in relief carving, painting, metalwork, terracotta or jewellery, with consequent symbolic value.

(3) Viewing, or indirect perception through description or pattern books, of an (Egyptian) image or object by a (Minoan or Aegean) artist or by an (Aegean) intermediary, traveller or trader, communicating with an (Aegean) artist, or, vice versa, viewing of a Minoan image by an Egyptian.

(4) The relating by an (Aegean) artist of his or her understanding of the (Egyptian) image to the beliefs or ideology of his or her own (Aegean) world, and then the expression of this understanding and the now modified (Aegean) belief in the visual terms of (Aegean) iconography and its own structural principles, or vice versa by an Egyptian artist.

(5) Finally our understanding of what the Aegean/Egyptian artist was trying to convey, with an awareness that our structuring of reality may very well be different from that of the ancient Aegean or Egypt, just as the Aegean structuring may itself have been different from that of Pharaonic Egypt and vice versa. Herein lies one intellectual challenge within cognitive archaeology.

On the Mallia sphinx plaque (Plate II.2), we observe a predominantly Egyptian sphinx, with Osirian beard and tail, while the head is purely Minoan. Here then is knowledge of Egyptian art and symbolism, perhaps adopted by the model stages just described as an Egyptianizing symbol of authority, possibly Minoan priestly authority, as has been argued on other grounds for the buildings of Quartier Mu, Minoan ceramic vessels with Egyptianizing appliqué decoration of a female with sagging breasts (*Gravidentlasche*-type [Brunner-Traut 1970], for an actual imported Egyptian alabaster example from Katsamba, see Evans 1928, 255-8 and fig. 150). (Plate II.3-5), and of cats, come from the same room in Building D (Poursat 1980 *ibid.*). Phillips has argued (1991b) that the cats are a purely indigenous creation, but the find context and the Egyptianizing case should not be abandoned.

Another example of iconographical transfer in operation is seen in J Weingarten's detailed study (1991) of the Minoan adoption and adaptation of the Egyptian hippopotamus goddess Ta-urt (Taweret) into a Minoan fertility spirit or goddess who waters vegetation and sacred stones. There happens to be a particularly fine example of the fully-fledged Minoan form in the genii carved in relief on an MM III-LMI serpentine triton shell rhyton from Mallia (Baurain and Darque 1983).

At the same time, MM IB-II/12th Dynasty, there are Minoan links in Egypt. Fine polychrome pottery is well known from Qubbet el-Hawa, Kahun (also from here a very probably Minoan stone vase lid of serpentine, Kemp and Merrillies 1980, pl. 9 upper - excellent photograph). Haragah, Ahydos and el-Lisht, while a recently found MM II cup from Tell el-Dab'a is in a 13th Dynasty context (Walberg 1991a), as is a probably Minoan gold pectoral with opposed dogs (Walberg 1991b and Briet, this volume, 19-20, Plate 14.1).

The great treasure of 153 silver cups and bowls stored in four copper chests in the stone foundations of a temple at Tod has been much discussed. Two of the chests bore the name of Amenemhat II, third king of the 12th Dynasty (1901-1866 BC [Kitchen 1989, 153]). Some writers, notably E Davis (1977, 69-79) and B J Kemp and R S Merrillies (1980, 290-6), have argued against a link to Crete. R Lafneur (1988) and J Maran (1987) have argued for an Aegean link, but with the early Mycenaean, Shaft Grave, culture (16th century BC). The present writer and V Hankey have recently presented a detailed case, supported by new ceramic evidence from Knossos, that many of the Tod vessel forms have very close ceramic parallels in MM IB-II Crete, sufficient to indicate a Minoan origin or at least strong Minoan influence upon the silver vessels (Warren 1980, 495-7; Warren and Hankey 1989, 131-4 and pls. 5-11). The diorite statuette of the traveller User (Evans 1921, 286-90, Edel 1990) (Plate 12.1-4), while it had no chronological context at Knossos, obviously did have some meaning when it first arrived there. E Uphill

(1984) showed how the statuette fitted into a wide distribution of similar Middle Kingdom statuettes of ambassadors, officials, merchants or craftsmen. Possibly User visited Knossos and left his statuette to mark his presence. Whether the reference to the goldcaster in the inscription of the statuette has any connection with any visit by User remains unknown (Edel 1990, 133), but we have already noted both the Egyptian connections and the extent of goldworking at Mallia in Middle Minoan II; in Cretan terms, this is the date of User.

The next connections widen the already remarkably varied range of materials. They come from the period of rule by the Hyksos, 1648-1540 BC. At Knossos there is the alabaster (calcite) lid inscribed with the cartouche of Khyan, the first Hyksos king: the reliability of its stated Middle Minoan III A context, in the 'Initiatory Area' of the North-West Lustral Basin of the palace, has been questioned but should be accepted (Evans 1921, 418-21; Hankey and Warren 1989, 136 with references, and pl. 14, A). Presumably its alabaster jar came with it, though it has not survived. Khyan sent named objects elsewhere outside Egypt, notably an obsidian vase to Bogazköy (Smith 1963, 28). The intention behind these royal objects may have been to cement or to advance trading exchanges of primary mass-produced goods, or they may have been gift exchange or not directly reciprocal diplomatic gifts in order to stabilize inter-state relationships; on occasion, a single royal gift could cover both functions, as when the Pharaoh sent more than a thousand alabaster jars of sweet oil to Babylonia (Amarna Letter 14, iii, 46; information from S. Dalley). Clearly assignment of an object to any of the above categories can be questioned on several grounds, not least the unknown quantitative factors involved in survival through time and in modern discovery. But where imported/exported objects have a highly distinctive or unique character, they can reasonably be understood as the material component of exchanges between rulers or high-ranking officials. By contrast a Hyksos period scarab from the city of Knossos (Warren 1980-81, 89 and fig. 47) continues the earlier instances of surely secondary material acquired by travellers or traders engaged with primary goods or official business.

That artistic connections existed between Crete and Egypt in the Hyksos period is evidenced by the well known jug from shaft tomb 879 at el-Lisht, decorated with birds and dolphins, the latter under Minoan inspiration (Kemp and Merrillies 1980, 220-5 and pls. 29-30; Warren and Hankey 1989, 135-6 and pl. 13). Had the decorator of the el-Lisht jug seen Minoan wall-paintings with dolphins or pithoi decorated with them, like those from Pachyramphos? Iconographical transfer may have been complex, since the jug form itself is Syro-Palestinian MB II and birds occur on other pieces of Tell el-Yahudiyyeh ware and its imitations in Cyprus. Artistic and iconographical links in this period have now been raised to a new level by the discoveries of

wall-paintings covering a wide range of Minoan subjects in Minoan styles and techniques at Tell el-Dab'a. Their fragmentary remains lay in the destruction debris of the Hyksos capital Avaris, over gardens beside the platform of a huge building (70m x 45m), which they are presumed to have decorated, in areas H/I and H/II of the 'Ezbeq Helmi part of the site (Bietak 1992: 1993; this volume, 20-3, Plates 15-17). The destruction of the city by Ahmose is dated c. 1540 BC, some eleven years after he became the ruler of Egypt and founder of the 18th Dynasty in 1550 BC.

Some of the fragments have a red ground, in that respect like the 'Saffron Gatherer' fresco from Knossos, which is usually dated the earliest of the Minoan figural paintings. Subjects include bulls and bull-leapers, one astonishingly close to the well-known 'Taureador Fresco' from Knossos (Bietak 1992, 26; lower; this volume, 23, Plate 2.1; Hawkes 1968, pl. 9), one associated with a labyrinth pattern viewed from above (Bietak, 1992, 27; upper; this volume, 23, Plate 1.1), a scene with an acrobat beside a palm tree (Bietak, this volume, 24, Plate 3.1), the pose of the tumbler closely recalling the scene on a chalcidion sealstone from Knossos (Boardman 1970, 100 and pl. 60; 39, col. pl. 13); a leopard (Bietak this volume, 24, Plate 4.2); the Minoan flounced skirt of a large female figure; the arm and hand of a female with flowers resembling Cretan daffodil (*Origanum dictamnus* L.); fragments of a large male figure with black hair and blue scalp like the shaved heads of Thera figures (Bietak this volume, 24, Plate 3.2); a foot fragment with white boot like those of the acrobat; blue papyrus with brown stem like the depictions on the river scene of the miniature fresco from Thera Akrotiri, West House (room 5 east wall); part of a conical rhyton with handle; a possible river flowing diagonally across a labyrinth painting, and a fine fragment of a griffin's wing (Bietak, this volume, 24, Plate 4.3), its detail closely recalling the wing of the griffin supporting the seated goddess from the painting above the Lustral Basin of Ashlar Building 3 at Akrotiri (Plate 4.4).

Analysis of these astonishing discoveries has scarcely begun. Also to be taken into account are the newly discovered (1992) hundreds of fragments of paintings from an area some 200m distant from the paintings just described (Bietak, this volume, 23). But what is most striking about the paintings from beside the platform is the diversity of elements. Some of them could well have religious connections (griffin, rhyton, skirt of the large female figure), while the remarkable labyrinth depictions recall a closely similar fragment of labyrinth painting from the palace of Knossos (Evans, 1921, 356-7 and fig. 256) and another, part of a magnificent frieze, from the town site of Phaistos. Chalaras, of MM III date (Levi 1967-8, 152 and n. 1, and fig. 108).

The Minoan connections are many and obvious, but whether Tell el-Dab'a derived the depictions from Crete (Knossos), or vice versa, is a matter for discussion, with

major implications for our understanding of the development of Minoan painting. The Tell el-Dab'a paintings come from the destruction stratum preceding the stratum which in all probability corresponds in time to the eruption of Thera (p. 13). The paintings are, therefore, at least as early as, and probably a little earlier than, those at Thera.¹ They were from a great building destroyed in Ahmose's sack of Avaris, c. 1540 BC, and so existed in early LM IA in Cretan terms (Warren and Hankey 1989, 138-40). In order, therefore, to derive the Tell el-Dab'a paintings from Crete, we have to accept well-established figural and naturalistic frescoes in Crete by this date, or earlier, in MM III. But almost no naturalistic or figural painting in Crete can be dated any earlier or even so early, on stratigraphic grounds (Evans 1921, 536-7 and col. pl. VI for a lily fresco on a red-brown ground, possibly MM III), although the Saffron Gatherer was plausibly dated to MM III by Evans for stylistic reasons, notably its red ground and conical rhyton decorated with white spots (Evans 1921, 265-6), and to MM III/IB/LM IA by Immerwahr (1990, 170). So the strength of the case for derivation from Knossos is (1) the extraordinary range and variety of the wholly Minoan subjects at Tell el-Dab'a, (2) the absence of any Egyptian background for the Dab'a paintings, in the subject matter, and the use of red ground and buon fresco technique for ground colours. Evans always postulated a strong MM III range of Minoan wall-paintings at Knossos (e.g. 1928, 680-2). This may then be the origin of the Tell el-Dab'a paintings (as also of those at Tell Kabri).

However, to derive paintings from a place for which the relevant evidence is no earlier, and is probably (the Saffron Gatherer and the Phaistos labyrinth perhaps excepted) a bit later, than the supposed derivations must leave some doubts, and certainly leaves the newness of figural and naturalistic painting in Crete unexplained. Evans himself did not derive Cretan monumental figure painting, which he assigned to MM III, from Egypt. He did derive the 'grandiose conception' of the later processional scheme from there, but at the LM IB stage and in relation to the Minoan processions in the Tombs of the Nobles (1935, 880-1). Immerwahr rightly points to the small size of these Egyptian representations (1990, 90), but does derive the monumentality of Minoan figural painting from Egypt, though on the basis of acquaintance with Middle Kingdom painting (1990, 50-3, 90, 159-60). At the same time she recognizes the difficulty for this proposal, that figural painting is unknown in the protopalatial period in Crete, contemporary with the Middle Kingdom (1990, 160). Indeed it is not known in Crete until another 150-200 years have elapsed.

It is therefore now worth airing an alternative view to that of the Knossian origin of the Tell el-Dab'a paintings, namely that the frescoes there are indeed Minoan, in subject, style, ground colour and technique (these last two with a long Minoan ancestry) and were painted at Avaris to Minoan order (it is not easy to imagine

otherwise), but were based on knowledge of Egyptian figural painting, and were the first such Minoan frescoes to be painted, providing a model for such work in Crete, to be taken up immediately in early LM IA.

Avaris was no Minoan trading post and no Minoan pottery or other finds are so far reported from the destruction period. Functional analysis of the adjacent large building whose platform alone survived (Bietak 1992, plan p. 28; this volume, 20, Plate 15.1-2) and from which the paintings may have come will be critical. Bietak 1992 (and see this volume, 26) and V Hankey (1993) have already aired the possibility that the queen of one of the last Hyksos rulers was a Minoan.

Although technically of New Kingdom date, two further pieces must be mentioned here because of their close Hyksos connection. These are the axe of Ahmose, conqueror of Avaris and the Hyksos, and the dagger of his mother Ahhotep, both found in her tomb (Evans 1921, 550 and fig. 472; 714-5 and fig. 537; Kantor 1947, 63-4 (dagger); Smith 1965, 155 and fig. 37; Morgan 1988, 53 and pl. 63; Hankey 1993). The griffin on the axe blade has wings decorated with the 'notched plume' motif. The Minoan origin of this proposed by Evans and with details noted by Morgan (1988, 53, 187, n. 112; this volume, 38) is now well confirmed by the notched plumed wings of the almost contemporary griffin guard-rail of the seated goddess who presides over the crocus gatherers in the painting in Ashlar Building 3 at Akrotiri, Thera (Douras 1992, pls. 122, 128; Bietak, this volume, Plate 4.4). The Aegean origin of a lion chasing a bull in a flying gallop position in a rocky setting on Ahhotep's dagger remains clear, again as proposed by Evans (cf. Kantor 1947, 63-4). Of less clear, though very possibly Aegean, origin is the flying gallop position of animals attacked by a human figure on the gold-plated hit of the dagger of the Hyksos king Apophis (Evans 1921, 718-9 and fig. 540; Smith 1965, 155). The Egyptian works of the late Second Intermediate Period and earliest New Kingdom present a mirror image of the sphinx plaque at Mallia some 150 years earlier. The plaque showed Egyptian royal symbolism adopted and adapted in Crete, the axe shows a powerful symbol of Minoan religion adopted and adapted as a symbol of political power in Egypt (even though the griffin as such was earlier established in Syria and Egypt [Morgan 1988, 50]). The lion motif of the dagger, locally engraved, expresses the Aegean mode of symbolizing power and speed. Processes of iconographical transfer of ideology expressed in symbols are continuing between the two areas.

While the number and form of contacts throughout the Pharaonic period thus far brought undoubted benefits to both civilizations, they do not appear to have had profound effects on the civilizations as a whole. There are clear limits to Aegeanizing or Egyptianizing effects. But the Hyksos period and perhaps too the inception of the New Kingdom may have been different in this respect. One has the impression, greatly strengthened

ened by the discoveries at Tell el-Dab'a, that contacts between Knossos and the Delta were more profound at this time than they had previously been or were to be even among the exchanges under Tutmosis III.

B. Cretan Neopalatial Period (Late Minoan I) - earlier New Kingdom - 1550-1425 BC

Whereas symbolic and iconographic connections stand out in the Hyksos period and the reign of Ahmose, the following century (1525-1425 BC) yields a spate of essentially economic and political contacts at least as wide-ranging as those of the Middle Kingdom.

Raw materials reached Crete, for which Egyptian sources must be considered. Alabaster (calcite), used for Minoan vases (Warren 1969, 125-6, 143), certainly came from Egypt. Whether rock crystal (used for vases, gems, beads and inlays), amethyst (used for beads, occasionally for seals and for at least one vase, see below) and carnelian (for seals and jewellery) also did so needs discussion.

Small rock crystals occur in Crete (Marinatos 1931), but no Cretan crystal is known that is anywhere near as large as that from the palace of Zakros, which measures c. 8.4 x 7.0cm (Platon 1974, 206, fig. 121), or is large enough to have made the rhyton (height 16.5cm) from the same site (Platon 1974, 122 and fig. 71), or other rock crystal vases (Warren 1969, 136-7, 144), or the disk (10.8cm in diameter) from the Temple Repositories at Knossos (Evans 1921, 471 and fig. 337 G). On the other hand, there is a tantalizing find described to me (1996/5) by the Cretan geologist M. Dialinas of a vein of rock crystals, including ones large enough for the Zakros rhyton, among iron ores near Arolithi in the Rethymno province (Warren 1969, 137), though no such crystals have been collected. While there are occurrences of rock crystal in Egypt (Lucas and Harris 1962, 403) and there are large crystals in northern Yemen (Grohmann 1922, 180; Yule 1981, 197), its use throughout the Pharaonic period seems to have been mainly for small objects, including small vases (Lucas and Harris 1962, 403). Also to be noted is Anatolia, since several rock crystal objects are known from Troy (Schliemann 1880, 428, no. 547; Evans 1921, 471). But we must also not omit reference to the famous rock crystal bowl with reversed duck's head from Mycenae Grave Circle B, Tomb O (Mylonas 1973, 203-5 and pls. 183-5; Marinatos and Hirmer 1960, pl. 212 lower; Warren 1969, 104). While almost certainly a Minoan work, as G. Mylonas and the writer independently argued, since neither Egyptians nor Mycenaeans were producing rock crystal vases in the 16th century BC, the bowl is equally clearly under Egyptian influence. Wooden bowls of very similar form, with reversed heads, are (or were in 1964) exhibited in the Egyptian Museum, Cairo, Room 34 Upper. Such vessels might have been copied by a Minoan lapidary in rock crystal, derived, like the shape, from Egypt.

Amethyst sources and uses are well documented in

Egypt, especially in the Middle Kingdom (Lucas and Harris 1962, 388-9; Shaw and Jameson 1993; Shaw 1994) and the raw material could well have come from there to the Aegean. The previously known amethyst vase fragment from the acropolis of Mycenae (Sakellariakis 1976, 181 and pl. VII, 20) has now been joined by a second piece, from the acropolis of Midea (K. Demakopoulou, Conference Lecture, Rewley House, Oxford, 16 April, 1994). The Midea fragment, found in 1991, was in a Late Helladic III B2 context. Both fragments are shown by Demakopoulou to be from the upper part, namely the lip, of a triton shell rhyton (Warren 1969, 91, type 35). It is even conceivable that they could be from one and the same vase, the fragments, still considered valuable as such, becoming separated and dispersed after breakage. But whether there was originally one vase or two, the original(s) must have been extraordinarily fine, valuable and precious. The shape is entirely Minoan (Warren *ibid.*; Baurain and Darque 1983). The original(s) was (were) very probably Minoan work created from raw amethyst imported from Egypt in Late Minoan I, the vessel(s) being subsequently conveyed to the Argolid. It (or they) can thus be thought to stand in remarkably close relation to the rock crystal bowl from Mycenae, two (or three) of the finest lapidary productions of Late Minoan I. Carnelian was used quite frequently for jewellery and seals. Its abundant occurrence and frequent use in Egypt (Lucas and Harris 1962, 391) suggest the source of supply for the Aegean, where sources do not appear to be known.

Hippopotamus and elephant ivory were much used in neopalatial Crete (Krzyszowska 1988), though where the raw material, dramatically evidenced by the tusks from the palace of Zakros (Platon 1974, fig. 25), came from is uncertain. L. Hayward (1990) has drawn attention to Hatshepsut's acquisition of 700 tusks from Tjehenu, that is north-west Egypt/north-east Libya. She suggests that, together with Syria (at least by the time of the 14th century Ulu Burun shipwreck), this area is likely to have been a source of supply for the Aegean, rather than Pharaonic Egypt itself sending Sudanese or other southern ivory to Crete. Syrian or western Asiatic ivory also went to Egypt (Krzyszowska 1988, 226-8).

Gold continued to be used. In neopalatial Crete it was a material for jewellery, seal fittings, objects in sheet form (Arkalokhori cave miniature axes), and was used as leaf covering on stone vessels carved in relief, likewise on seals, and as adjuncts and fittings to objects in other materials. How much it was used for vessels is unknown, at least in part because of the dearth of LM I tomb deposits. E. Davis (1977) showed an apparent Minoan preference for silver, in contrast to early Mycenaean preference for gold, though at least one of the two Vaphio gold cups is surely Minoan. Where the metal came from is also unknown, but Egypt remains, as in the earlier periods, a distinct possibility

(Shaw 1994, 110 for mining areas in Egypt). Tuthmosis III's average annual income, at least during a certain part of his reign, was no less than 259kg (Vercoutter 1959). It should also be noted that analysis of Minoan gold pieces has shown them to align with a relatively restricted group of pieces from Syria-Palestine, Cyprus and Rhodes in being free of traces of tin or platinum, a freedom also characteristic of gold from Egyptian mines (Muhly 1983, 6-7, with references), though the correspondence does not prove derivation.

Logs of fine wood, African ebony (*Dalbergia melanoxylon*), were reaching the Aegean in the 14th century (Ulu Burun) (Knapp 1991, 34 for its sources), but whether they were so doing in earlier New Kingdom times is not known. Cedar of Lebanon was used for the shafts of two bronze double-axes (MM III - LMI) from the Arkalokhori cave (Netolitzky 1934), but will of course have come from Lebanon, not Egypt.

Ostrich eggs came to Crete in LM I, to be cleverly adapted into rhytons by the Minoans, who probably sent on the finished products found at Thera and Mycenae (Sakellariakis 1990). Marsa Matruh seems a likely exit port for the eggs (see p. 11), though the known Aegean pottery there is later, LMLH III (Hulin 1989). A more exotic possible export from Egypt is the *Tridacna* shell. D. Reese has discussed their origin - Red Sea, Persian Gulf, Indo-Pacific area - and Mediterranean distribution (1988, 1991). Part of one has been found in a Late Minoan IB (15th century BC) context at Knossos (Stratigraphical Museum excavations, directed by the writer, *exc. no. 2025*) and part of a remarkable work, an imitation tridacna in malachite, was found by Evans in the palace at Knossos (Evans 1935, 933 and fig. 905; Shackleton in Shackleton, Hood and Musgrave 1987, 286). The source of the malachite is not known and the mineral occurs in Crete itself (specimens from three places shown to the writer by M. Dialinas, geologist, 9/9/65). But whether Cretan pieces could be extracted which were large enough to make the copy of the shell (even the fragment, which appears from Evans's illustration to be less than a quarter of the whole, measures about 4.8 x 3.4 cms) is uncertain. Malachite occurs quite widely in Sinai and was mined in Pharaonic times (Lucas and Harris 1962, 203-5, 461-2). It is doubtless found in other places in the Aegean and Near East. But the combination of finds and shape at Knossos, actual shell (very possibly from the Red Sea, the nearest source) and imitation shell in a mineral abundant in Egypt, suggests a possible Egyptian origin for both pieces. Moreover, the chronology of the distribution of unmodified tridacna shells carefully set out by Reese (1988, 40-1 and n. 58) allows us to suggest Tell el-Dab'a as a possible point of departure, though other coastal sites cannot be excluded.

Live animals appear to have been brought to the Aegean. The strongest case is that of monkeys, so carefully painted at Knossos (Cameron 1968, 3, 5) and Thera (Dourmas 1992, pls. 85-9). Although the subject-matter

of the panels with monkeys in the House of the Frescoes at Knossos is also found in Egyptian paintings (Evans 1928, 447; Cameron 1968, 19; N. Marinatos 1987, 418 and figs. 1 and 6 [for the Egyptian type of column shown on the Thera fresco with monkeys]), the extraordinary variety of poses (Cameron *ibid.*) and anatomical details mastered by the Knossian and Theraean painter(s) strongly suggests observation of actual animals, identified as *Cercopithecus aethiops aethiops* from Ethiopia or *C. aethiops tantalus* from south of the Sahara (Cameron 1968, 3, 5).

Antelopes, seen on the walls of Building Beta room 6 at Akrotiri (Dourmas 1992, pls. 82-4) and probably on faience plaques from the Temple Repositories at Knossos (Warren 1975, col. pl. p. 97 and caption p. 96 for possibility of antelope), may well have come from Egypt. S. Marinatos (1972b, 42-3) identified those in the Theraean paintings as *Oryx beisa* from East Africa; the scimitar-horned oryx of North Africa (*O. dammah*) also seems possible, given its location and horns. Egyptian painting rather than live animals might have been the source for those in the Theraean painting, and L. Morgan has argued that the Theraean antelopes include elements of the Cretan agrimi (wild goat) (1988, 59). Nevertheless, details of pose, liveliness and naturalism, as well as the considerable differences between the Theraean and Knossian representations, suggest knowledge of actual oryxes.

An exotic bird, the Sudan crowned crane, *Balearica pavonina ceciliata*, may have reached Crete on its own or have been transported there in captivity from Egypt, if the carefully rendered bird with a distinct crested head on an LM I lentoid seal from Knossos is thus identified (Warren 1991a). Although this bird has not been documented north of Khartoum it may well have had more northerly habitats in the somewhat moister climate of the Bronze Age.

Aegean raw materials may have gone to Egypt. S. Wachsmann has well argued that Egyptian composite bows were made from the imported horns of the Cretan agrimi, *Capra aegagrus cretensis*, based on the depictions of bows in the tombs of Puimre (Theban Tomb 39) and Menkheperreseneb (Th. T 86), i.e. under Tuthmosis III (1987, 78-92), an interpretation brilliantly anticipated by Evans (1935, 832-6). It may be added, again starting from Evans (1928, 537 and fig. 339), that the vase with goat's head protome depicted in the tomb of Rikemire (Th. T 100) has LM I analogies in pottery in Crete (Evans 1928, fig. 341; Sackett and Popham 1970, 217, 238 [with refs.], fig. 9 left and pl. 57, a).

The Kefiu-bean is recorded in the Papyrus Ebers (Vercoutter 1956, 40). Whether this is the common *Vicia faba* (Broad bean), the smaller *V. faba equina* (Horse bean) or another bean, *Vigna sinensis* (Merrillees and Winter 1972, 112-5; Manniche 1989, 153-4), none of which need be Aegean, the fact of the name remains - Kefiu-bean. If Kefiu is accepted as Crete, some kind

of bean or pulse was presumably exported from there to Egypt, if only originally, before any local growth in Egypt. As for oil, Merrillees and Winter (1972, 114-5) argued that Cretan olive and sesame oils could be considered particularly suitable substances for trade with Egypt.

A further plant to be considered is the lichen or lichens found with burials of the 11th and late 12th/early 13th Dynasties (Merrillees and Winter 1972, 111-2) and in mummy abdomens of the 19th-21st Dynasties (Lucas and Harris 1962, 312; Merrillees and Winter 1972, 112). The lichen from the mummies was identified as *Parmelia furfuracea* (Lucas and Harris *ibid.*). While it seems that Syria or Asia Minor could have supplied this species to Egypt (where it is absent), no botanical identification in those areas is specifically documented by Merrillees; moreover, the species does occur in the Aegean, including Crete (Rechinger 1943a, 45; 1943b, 40). The fact that lichen has not been found in archaeological contexts in Crete is a weak argument against Bronze Age export to Egypt, since it is most unlikely to have survived in the soil of Crete. The island, therefore, can be considered a possible source, but it must be noted that species identification of the pre-19th Dynasty lichens does not appear to have been made, and more distant Aegean origins like Samos, where the species also occurs (Rechinger, 1943a, 45), cannot be ruled out (cf. Murray and Warren 1976, 50, n. 43).

Plants may have been involved if another likely form of contact took place, namely the communication of Cretan medical knowledge and practice (at least magical practice) to Egypt. Given the extensive attention to medicine by the Egyptians themselves (Dawson 1942; von Deines, Grapow and Westendorf 1954-73), it is all the more interesting that the London Medical Papyrus (British Museum EA 10059) contains a formula against the 'Asiatic disease' in the *language of the Kefiu* (Vercoutter 1956, 82-5; von Deines, Grapow and Westendorf 1958 (IV, 1) 258, (V) 440; Press 1978, 6). The Kefiu language must, therefore, have been understood, for medical purposes at least, in Egypt. Although the medications over which this formula was to be recited are not specified, they could well have been plants, so extensive was their use in Egypt (Manniche 1989, 58-167). It is also more likely that a Kefiu formula believed to have efficacy in Egypt was recited over Kefiu plants rather than, in this instance, Egyptian. The London Medical Papyrus is a copy from the end of the 18th Dynasty, deriving from an older original which is dated in the period from the end of the Second Intermediate Period to the time of Amenophis III (Vercoutter 1956, 82) or even from the end of the third millennium BC (Press *ibid.*, citing von Deines, Grapow and Westendorf *ibid.*).

It was in the time of Tuthmosis III that the people and country of Kefiu were most frequently referred to in Egyptian records, although they had been known to the Egyptians since the end of the third millennium;

among numerous studies Vercoutter's remains fundamental (1956, 33-122, 369-95; for an excellent recent review, see Sakellariakis and Sakellariakis 1984). I follow these authors (and the great majority of scholars) in the view that the land of Keftiu was specifically Crete (Vercoutter's conclusion, 1956, 394-5). In relation to the foregoing discussion on the possible use of Keftiu, i.e. Cretan, medicinal plants in 18th Dynasty Egypt, we may recall that the island was the source *par excellence* of such plants throughout Greek and Roman antiquity.

While most of the raw materials, living creatures, exotic eggs and shells can be derived from, or argued to have been sent to, Egypt with only more or less probability, this is not the case with Egyptian finished products. These certainly came to Crete in the 16th and 15th centuries BC (MM III-LM I). The main evidence consists of alabaster (calcite) vases, brought perhaps along with the raw alabaster used to make Minoan vessels. While a majority of Egyptian vessels in Crete come from contexts in the next major historical period, Late Minoan II-IIIa/mainly Amenophis III, such as the superlative group in the 'Royal Tomb' at Isopata just north of Knossos (Evans 1906, 146-9 and fig. 125; Warren 1969, 112-3), it is possible that some of these arrived in Crete earlier in New Kingdom times and were there for a few decades before interment in LMII - IIIA1. One thinks especially of the small alabaster amphora with the cartouches of Tutmosis III from the LM III A1 tomb B at Katsamba (Plate 13.3-4) (Alexiou 1967, 46 and pl. 10; cf. the alabaster vase of Tutmosis III in the tomb of his grandson Tutmosis IV [Carter and Newberry 1904, 19 no. 46092, called aragonite]). Other alabaster vases certainly arrived in early New Kingdom times at Aghia Triadha, Knossos, Mallia (see below), Palaikastro and Zakros in Crete, while those in the Vapheio tholos and the Argive Heraion tholos probably came via Crete (Warren 1969, 112-4; 1989).

In addition to these New Kingdom alabaster vessels, there is a magnificent series of Egyptian stone vessels adapted into Minoan shapes in Crete, as well as others on the Greek Mainland which were very probably worked on in Crete and sent on from there (Warren 1969, 44 [Mycenae NM 3080], 103 [Mallia], 104 [Mycenae], 107 [for Shaft Grave I read VI], 109 [Zakros, A3 A81; 1992, 289 and n. 22 [Knossos: Isopata]; Phillips 1989; 1991a). While those from Knossos: Isopata and Zakros are Early Dynastic or Old Kingdom bowls, which could have been adapted at any time down to and including LM I-II (their context dates), the others, for example, from Mallia and Mycenae, started as New Kingdom alabastrons.

As well as adapting Egyptian stone vessels, the Minoans also copied Egyptian forms in local stones. This had begun already in the late prepalatial period (First Intermediate Period in Egyptian terms). Imitations subsequently came to be made in hard stones in Crete, probably already in the Middle Minoan period,

with the copying of beautiful enameled bowls of Chephren diorite (Plate 13.1) and in white-spotted obsidian (from Giali) (Plate 13.2) (Evans 1921, 85-8 and figs. 54-5; Warren 1969, 75 III). By MM III-LM I imitation seems to have reached its height, when a range of Cretan diorites and gabbros was used for high-shouldered bowls copying much older Egyptian forms (Warren 1969, 74-5). The main contribution made by the adapted Egyptian originals and by the Minoan copying in local and imported stones, over a long period, is to extend knowledge of the brilliant Minoan lapidary technology, inspired in these cases by Egyptian forms. In addition, the Egyptian alabaster originals, before adaptation, add to the numbers imported and to arguments based on those numbers.

Recent discoveries at the Minoan port town of Kommos have shown that another and quite different class of Egyptian object was being imported, namely pottery storage amphorae (and their contents, not known). Excellent publication by L.V. Watrous shows that the jars arrived from Late Minoan times onwards, with most known from Late Minoan III A1, the time of Amenophis III (Watrous 1992, 162-3, 172 [arrived in Middle Minoan thought likely], 175). Also imported from Egypt were bowls and pot stands of faience and blue frit, found at Knossos in LM IB and LM II contexts (15th century BC) (Cadogan 1976).

The early New Kingdom in turn received finished goods from the Aegean. Fine LM I and LM II pottery and its probable contents have been much discussed (e.g. Evans 1928, 497-8, 507-10; 1935, 265-80; Furumark 1950, 203-15; Merrillees and Winter 1972, 101-5, 108-9, 115-7; Kemp and Merrillees 1980, 226-45; Warren and Hankey 1989, 137-44. See also Knapp 1991, 42-3, for a discussion of textual evidence for the ingredients of perfumed oils, summarizing earlier studies). Other valuable Aegean materials, vases of metal and perhaps stone, are documented in the mural decorations of the tombs of Senemut (Th. T 71), Useramun (Th. T 131), Menkheperreseneb (Th. T 86) and Rahnire (Th. T 100) at Thebes (Furumark 1950, 223-39; Vercoutter 1956; Wachsmann 1987; Matthäus 1991).

Although none survives, it is as good as certain that textiles with elaborately woven patterns were exported from Crete in the early 18th Dynasty. We have already noted the indirect evidence of the ceiling patterns in the tomb of the 12th Dynasty nomarch Hepzef (p. 2). III and Tutankhamun, and on down to Amenophis III here) E Barber, building on Kantor (1947, 25, 29, 56-61), has produced a brilliant and detailed analysis (1991, 311-48, though without reference to a fundamental source book by Vilimková and Fortová-Sámalová (1963)). She demonstrates that a considerable number of painted motifs in tombs, notably those of Anief (Th. T 155), Amenemhet (scribe and chief steward of Useramun) (Th. T 82), Hapuseheb (Th. T 67), Amenmose (Th. T 251) and Menkheperreseneb (Th. T

86), will have been derived from Aegean textiles (including mats) and probably decorated leather. Textiles themselves are among the fine materials brought by the embassy (Minoan or from Mycenaean Knossos) depicted in the tomb of Menkheperreseneb. The Egyptians are also likely to have been stimulated by motifs on the kilts of the Cretan emissaries (Vercoutter 1956). Barber has considered too the immediate source of the Aegean textiles and has suggested that in the 12th Dynasty Aegean women weavers may have been resident at Kalun (1991, 33). This somewhat strengthens the previously rather slight case, based on pottery, for Minoan workers at Kalun and Harageh (discussed by David 1986, 186-9, 192-3). In the early 18th Dynasty Tutmosis III brought back textiles and workers after the sack of Megiddo, whose products would have been added to imports from Crete. Dress patterns depicted on Late Minoan I and contemporary Thera frescoes leave no doubt about the quality and the extent of complex embroidered and woven garments in the earlier neopalatial period.

What of wooden chests for the textiles? Argument is unavoidably complicated, since it involves both Crete and Egypt, dating, the materials of objects and function. It is commonly and rightly accepted that Minoan terracotta lamarkes of LM III A were based on wooden originals, in fact, the rectangular wooden coffin on four legs is found in LM II-III A1 graves around Knossos (recently Watrous 1991, 286). Xanthoudides was the first to argue (long before remains of LM II-III A1 wooden coffins were found) that the terracotta lamarkes reproduced the wooden chests of household furniture (1904, 10-12; cf. Rutkowski 1968, 223). Evans, in accepting this argument, added that they derived from Egyptian wooden household furniture, known from its subsequent funerary use (1906, 9). Watrous, in a most useful study which builds on Evans's view with much additional evidence and illustration (1991, 287-8), argues that the Minoans are likely to have copied the Egyptian chests in LM I, the Mycenaeans of the Shaft Graves (LH I) deriving the form from contemporary Crete. A connection with Egyptian wooden linen chests seems convincing, although those with gabled lid from the tomb of Kha and Meryt cited by Watrous and used by Barber (1991, 345-6) are of early 14th century date, one, plan (plus a decorated miniature), from Sediment tomb 62-4, for a full discussion and dating of Sediment T 254). Barber's argument is that some of the painted patterns on the sides of the chests of Kha and Meryt (Watrous 1991, pl. 81, c-e) look like copies of textile patterns. But while accepting the Egyptian connection proposed by Evans and redeveloped by Watrous, one may ask which way round it was. Rutkowski (1968, 223) argued that the early LM wooden coffin (I would prefer to say simply wooden chest) was a combination of the older MM terracotta chest and new carpentry skills. Following Barber's argument, we may ask whether Minoan

wooden chests went to Egypt, containing exported Minoan textiles, such chests perhaps being initiated or independently paralleled (as in Sediment T 254) by Egyptian examples. As Barber says, linen chests would be most appropriately decorated with textile patterns. Original Cretan household chests in wood do not seem at all unlikely, as Xanthoudides and Rutkowski argued. Cretan chests of cypress wood were a notable export from the island in the 16th century AD (Moryson 1617, I, 256).

There remains symbolic material. Here too we find that the exchanges on this deeper level, begun already in the early Middle Kingdom and MM IA Crete, continue (in the Aegean at least) in neopalatial times. Three examples of iconographical transfer may be cited. The first is the depiction of large papyrus plants (Warren 1972, *pace* Doumas 1992, 34) in the House of the Ladies at Thera, argued by N. Marinatos to be derived from the Egyptian iconographical form (1984, 92, 94, 96). The papyrus, often represented in triad form (and as such the hieroglyph for the Land of Lower Egypt), was a major symbol of fertility and regeneration in Egypt (J. Yoyotte in Posener 1962, 206). While depiction of flowers and plants in triads is an obvious artistic or decorative device, the particular combination of papyrus and triad is likely to be based on a standard Egyptian form, as S. Marinatos argued (1951, especially 109-10 and figs. 3-4).

The second example is the gold terminal of a large silver pin from Mycenae Shaft Grave III (Marinatos and Hirmer 1960, pl. 200 left; Hawkes 1968, col. pl. 44 [superb photograph]), very probably a Minoan work. It depicts the great goddess of Minoan religion with her papyrus-lily garland (Marinatos 1951; Warren 1985, 200-1). S. Marinatos plausibly derived this representation from Egyptian symbolism, of which the verbal text would be, he argued, 'numerous years of joyful life', here seen as the Minoan goddess bringing continued fertility to the natural world. The Egyptian background of the waz or papyrus stalk in relation to the Minoan 'sacral ivy' motif had already been set out by Evans (1928, 480, 776). The waz-lily was a constant symbol in Minoan religion (Evans and Evans 1936, 93 s.v. waz) and the papyrus a sacred plant (Warren 1985, 201).

Thirdly, there are the tall poles fixed to the facades of Minoan shrine buildings, known from representations on stone vessels with relief scenes (Warren 1969, 174-81 and P 474, p. 476, P 477; Platon 1974, figs. 76-7, 94), wall-paintings and sealings from rings engraved with cult scenes. The poles were interpreted as flag-staffs by St. Alexiou, who argued that they were derived from similar attachments to the exterior facades of Egyptian temple pylons, where they are shown with pinnacles flying (1963, 1969). A pennant in gold sheet from Phaistos, either a votive or an attachment for a model flagstaff, was published by Alexiou. The poles and their pinnacles may have been sun symbols in Egypt; their symbolic value in Crete was in general terms as

in Egypt, namely as markers of sacred space, like the double-axes of sheet bronze set up on freestanding poles in Minoan shrines. They may well have had a more specific meaning too; K. Kardara (1966) suggested they were means of summoning a thunder god and an earth goddess, although this view depends in part on the assumption that the upper section of the pole was of metal.

Interpretation and Conclusions

I. Sea Routes and Direction of Exchanges

A question of fundamental importance for understanding the relationships between Crete and Egypt is the direction of shipment of goods: were there direct exchanges, Crete-Egypt, Egypt-Crete, or were they indirect, conducted through intermediaries of the Levantine states and Cyprus? Minoan foreign connections were developed with Anatolia, Cyprus and the Near East as well as with Egypt, and among all these states of the Middle and Late Bronze Ages there were complex and multiple interconnections in the flow of goods, ideas and influences, as the works cited above (p. 1) demonstrate. Indeed the Minoan (and a little later the Mycenaean) palatial economy is the westernmost manifestation of a form which is essentially the same over the whole area of Anatolia, the Levant, Mesopotamia and Egypt. Each had its distinctive emphases (the Hittites and Mycenaean military and religious, Egypt military and religious with an extraordinary range of technological competence, the Levantine states entrepreneurial, Crete a profound interaction of the aesthetic with the natural environment, through religion), though all were politically pyramidal, palace-centred, redistributive with varying degrees of mercantile interest and freedom, and all promoted interconnections. Within this complex international framework it is nevertheless worth considering whether there were direct Egypt-Crete relationships, since this bears upon the nature and depth of contact between the two civilizations.

Every writer on the subject from antiquity to the present has referred to the wind and sea circulation patterns of the eastern Mediterranean favouring direct sailing south-east from Crete to Egypt, given the prevailing north-westerly summer winds (e.g. recently McCaslin 1980, 88-90; Mantzourani and Theodorou 1991, especially figs. 6-8), and the consequent difficulty of passage north-west from Egypt to Crete (McCaslin 1980, 103-4, 107). In consequence, the anti-clockwise route from Egypt via the Levant coast, Cyprus and southern Anatolia to the Aegean is emphasized in most studies (e.g. Knapp 1991, 40, with references). The Ulu Burun wreck exemplifies such a voyage and its mixed cargo included African ebony. Egyptian goods could then have reached Crete this way. But what of direct passage from Egypt?

We know of direct voyages from Alexandria and Damietta (modern Dumyat) to Crete in the 17th cen-

tury AD (Randolph [in Crete 1680] 1687, and reprint Athens 1983, 74-5; Triantaphyllou-Baladié 1988, 207, 301), while in the 18th century the Crete-Alexandria route was the most common from the island (Triantaphyllou-Baladié 1988, 95-6, 100-1). Since the products included snow exported from Crete (op. cit. 265) and butter brought to it (op. cit. 207), one may suppose that the shortest possible times were aimed at. L. V. Watrous has reported pre-World War I sailing caiques from Egypt and Libya trading along the south coast of Crete, though in Cretean products. He has also noted periods of the year when the prevailing wind is from the south (Watrous 1992, 177-8).

Perhaps the most instructive (and dramatic) account is that of the French traveller, Cl. Savary (1788). He sailed from Alexandria for Crete in September 1779. It may be observed first from his text that there appears to be nothing abnormal about such a voyage. He explains that with favourable winds he could have expected to complete it in not much more than five days (1788, 18). His wind was exactly that needed, from the south-east (op. cit. 7), but it was very light and after five days the Zakythiot ship had completed scarcely half the journey. Despite their slowness, Savary estimated that if the light wind continued they would be in view of Rhodes next day, the sixth, and that from there to Crete the passage was not long (op. cit. 11). These details could easily be forgotten, since soon afterwards there was a dramatic change, contrary and strong winds set in, the *zephyr oriental* was gone, and it was to be two months before he landed in Herakleion (op. cit. 127), including eight days on Kos, driven back there when actually making the final passage from the offshore island of Dia into Herakleion harbour!

Given what we know of the substantial size of cargoes (Ulu Burun) and of ships (Thera Akrotiri, West House ships fresco, with crews of forty to fifty implied), and that climatic conditions do not appear to have changed much, if at all, since the Bronze Age (cf. Aignietes 1954; McCaslin 1980, 88), there appears to be no inherent reason why direct voyages could not have taken place from Pharaonic Egypt to Minoan Crete, even if the Levantine-Cyprus-Anatolian route were the more common.

Whether direct voyages did take place can be posited only from the archaeological evidence. Several aspects of it are striking. Down through LM I there is a little Cyprot pottery in Crete and the Aegean (e.g. recently Mantzourani and Theodorou 1991; Watrous 1992, 172) and almost nothing Near Eastern. The Red Lustrous spindle bottle from Gournia may be Syrian, that from Kommos is Cypriot (Watrous *ibid.*). The Canaanite jar (and contents) from Thera and that from Kommos are Syrian (Watrous *ibid.*). There was cedar wood from Lebanon (p. 6), a little lapis lazuli and (in MM at least) tin coming to Crete through Syro-Palestinian ports. Invisibles such as spices may well have come too (Knapp 1991 for a detailed review of invisibles in LBA

trade). Cretean goods also went to Cyprus and the Near East. At the same time there is a relative absence from Cyprus of the types of Egyptian objects found in Crete down to LM I-II (cf. Weinstein 1981, 14-20). The combination of these points - Egyptian material in Crete, Cretean links with Cyprus, relative absence of Egyptian material in Cyprus - strongly suggests that Cyprus was not or not exclusively, on the route from Egypt to Crete. And it is almost inconceivable that ships travelling from the Syro-Palestinian coast to the Aegean, with or without goods from Egypt, would not have called at Cypriot ports *en route*.

To support this case against, or against the exclusivity of, the Levantine-Cyprus route as that for Egyptian materials in Crete, there is now the evidence of Egyptian storage amphorae at the south Cretan port of Kommos from at least Late Minoan I onwards (p. 8), to be added to the already striking quantity of Egyptian material and iconographical influences in Crete (and the Peloponnese, perhaps via Crete). Watrous has built the Kommos evidence into an entirely convincing case for a direct route from Egypt to Crete (1992, 172-3, 175-8). The links with Tell el-Dab'a in the 16th century strengthen the case yet further and indeed raise the conjectures themselves to an unsuspected level. It would, therefore, appear that there are good archaeological grounds, supported by climatic conditions and explicit sailing evidence from later periods, for accepting direct voyages from Crete to Egypt and vice versa, at least from the Middle Minoan period/Middle Kingdom onwards. This was the 'western route' argued by J. Vercoutter some years ago (1954, 24-5) and later by W. Helck (1979, 38 sqq.). E. Cline too has argued in detail for direct communication (1991, 245-6, 255-6, 260-1; 1994).

A subsidiary matter is the point or points of departure from the Egyptian coast. Watrous supports a route due south from Crete (1992, figs. 10-11) to the Libyan coast (190 miles/305km), though this in turn would mean a long land route to and from Egypt. A port such as Marsa Matruh, nearer to the Pharaonic cities, must also be considered, lying as it does south of the Nile and south-east of Crete. Any direct relationship between Crete and Marsa Matruh is not easy to argue. In favour are the following: Marsa Matruh is nearer to Crete than the Delta ports (250 miles/400km from Zakros as against 338 miles/540km from Zakros to Alexandria); summer winds from the north-west would have been as favourable for voyages to Marsa Matruh as to the Delta and southerly winds, in September especially, would have been likewise for voyages back to Crete; it was a likely outlet port for ostrich eggs to reach Crete (many fragments having been excavated at Marsa Matruh [Conwell 1987]), and also for the Egyptian storage vessels at Kommos. Against, on the other hand, is the minuscule amount of Minoan pottery at the site (three fragments, with nothing pre-LM III) as opposed to substantial quantities of Cypriot and Egyptian and some

Mycenaean and Palestinian (Huili 1989; White 1989); also against is the fact that the Egyptian pottery at Kommos could as easily have come from Delta ports. Direct linkage between Crete and Marsa Matruh thus remains unproven, though it could well have existed. Tell el-Dab'a, at least in Hyksos times, favours links through Delta ports.

II. Explanatory Hypotheses

How, then, may the Crete-Egypt connections be interpreted? So far we have considered them in terms of the material evidence (by no means every detail of it), and on a chronological basis. As a next step we take that evidence as a whole and suggest division of it into four categories, although there would certainly have been overlaps between them.

A. *Primary Exchanged or Traded Materials*. (1) Raw materials (e.g. from Egypt, fine and probably semi-precious stones, fine woods, perhaps gold, ostrich eggs and shells, animals and perhaps birds, probably ivory; from Crete, possibly goat horn, plants and plant products); (2) finished products (e.g. from Egypt, alabaster and faience vessels, pottery storage jars [and their contents - see Watrous 1992, 175 for a possible list]; from Crete, fine pottery [and its contents, probably fine oils] and very probably metal vessels and textiles); (3) organic goods (Knapp 1991) almost certainly formed a significant part of the exchanges. We know from textual evidence that Crete (Captara) exported grain, fermented beverage, oil, decorated weapons and clothing to Ugarit and Mari (Knapp 1991, 37-8, 42); there is no inherent reason why such items could not have gone to Egypt too. The surviving inorganic residues of the two regions are simply a partial representation of the actual or primary economic purpose of the exchanges.

B. *Political or Diplomatic Materials*. These take the form of gifts of individual, high-quality objects, personal (with names) or general, designed to cement or advance trading exchanges of primary goods or other forms of relationship such as royal visits or even dynastic connections. Fine Egyptian vessels in hard stones or alabaster vessels with royal cartouches or inscribed hard stone statuettes (User) may be so interpreted. Metal vessels (shown in the Tombs of the Nobles) and fine textiles could well have represented the Cretean contribution. No clear line can be drawn between such political gifts and primary economic exchanges (cf. Liverani 1983; Zaccagnini 1987); the latter two would have been under royal or partly-dependent merchant control. Note, for example, that on one occasion the Pharaoh sent to Babylon more than a thousand stone vessels of 'sweet oil' together with stone vessels not containing oil (Amarna Letter 14, iii, 46).

C. *Symbolic Material*. This category comprises the evidence for political, religious or artistic influences by

one country as seen on the products of the other, Aegeanizing in Egypt, Egyptianizing in Crete. The influences will have come about by processes of iconographical transfer such as the model proposed above. The Arkhanes sistrum, the Mallia plaque, the Minoan Ta-urt or genius, Ahmose's axe and Ahhotep's dagger, textile designs transferred to tomb decoration in Egypt, probably the Thera triadic papyrus fresco and the gold pin terminal, probably Minoan, from Mycenae, and the Minoan waz-lily motif comprise such symbolic material. Here too there is overlap with a political category, since there surely must be political and ideological content behind the Mallia and Ahmose/Ahhotep pieces. The paintings at Tell el-Dab'a appear to promote such symbolic evidence to a new level, very possibly providing visual expression of dynastic or religious connection between Hyksos kingship and Minoan Knossos. Finally, this symbolic material may be seen as more interesting and more significant than the exchange of primary goods, the economic category, since it penetrates, interlocks and modifies to a certain degree the beliefs, ideologies and thinking of each culture.

D. Secondary Material Accompanying Primary Trade Goods. To this category may be assigned scarabs and trinkets, brought back as personal talismans or mementos of those carrying out economic or political exchanges. The existence of such a category is supported by the later evidence of the Ulu Burun and Gelidonya shipwrecks, the contents of which can plausibly be divided into primary economic goods and personal possessions. Finally, it should be noted that this category too has overlap: Egyptian scarabs in Crete occasioned local scarabs or scaraboids with Egyptianizing Minoan motifs, and as such made a contribution to Minoan decoration.

III. Crete and Egypt. Historical Summary.

With the quadripartite model of the material evidence, the historical development of the interconnections may be summarized.

- (1) The earliest evidence, not extensive, dates from at least Old Kingdom/Early Minoan IIA times, c. 2600 BC. It may have begun even earlier if the Predynastic-Archaic Period/Dynasties I-II stone vessels arrived in Crete around the time of their *floruit* in Egypt. The evidence itself belongs to categories A and B, that is raw materials (if the hippopotamus ivory, semi-precious stones and faience technology came from Egypt) and fine individual stone vessels, the obsidian vase and diorite bowl from Knossos and the pyxis of Chephren diorite from the Aghia Triadha large round tomb (EM II-MM/II context) (Warren and Hankey 1989, 125 and pl. 1).

This Egyptian material, because of its context-dates in Crete, poses an interesting question. The Crete-Egypt connections in the second millennium, from the Mid-

dle Minoan/Middle Kingdom period and onwards, are explicable as interchanges between Early State societies of some complexity, based on palatial centres and with socio-political hierarchies. But what was the corresponding socio-political framework of the preceding prepalatial Cretan Early Bronze Age of the third millennium? Egypt had by then developed full statehood and had built significant trade with rulers throughout the Syro-Palestinian region (Klengel 1984, 11-13). But to whom in Crete did Egyptian rulers of the Old Kingdom send fine stone vessels, either directly or by final decisions of Levantine intermediaries such as rulers of Byblos (Warren 1980, 493-4, for early Egyptian stone vessels in Near Eastern contexts)? Stone vessels and perhaps also, at this date, raw materials, such as ivory, look like prestige items; they presuppose demand and a sufficient level of social status and of organization in Crete to promote demand. Egypt, for its part, must have seen some economic *desideratum* in Crete, despite the apparent political imbalance. Knossos was probably the key. Not only does most of the evidence in Crete for third millennium contact come from there, but it was the one site in Crete that was at least proto-urban by the mid-third millennium (Warren 1981) and was presumably a place of sufficient size and importance for foreign rulers to have dealings with, in the form of raw materials and political gifts of high quality. Nothing is known of its political structure in Early Minoan IIA, c. 2600 BC, but, although it was 'prepalatial', some form of urban organization is probable, emerging from its previous four thousand year history. What may have gone in exchange to Egypt at this early date is also unknown, though textiles are one possibility.

- (2) By the end of the third millennium and early in the second (First Intermediate Period and early Middle Kingdom, late prepalatial in Crete), the continued supply of primary material to Crete is implied by secondary materials, the scarabs. At the same time, somewhat more complex relationships emerge with Minoan imitations of small Egyptian stone vessels and of locally made scarabs. If these were no more than artistic or decorative levels of transfer, there is also clear evidence of the transfer of more complex ideas and symbolism seen in the Minoan sistrum from Arkhanes, in a funerary context as in Egypt.

- (3) In the Middle Kingdom, very fine decorated Cretan pottery appears in Egypt, as it does in the Near East. Some vessels, bridge-spouted and other jars, may have gone with scented oils as contents, though cups must have gone for their intrinsic ceramic value. These could have been primary traded goods rather than political or diplomatic gifts, appearing as they do at a number of sites. The Tod treasure appears to be a much more valuable consignment, perhaps a major gift to Amenemhat II, unless the silver vessels betoken a more complex situation of Minoan influence on metalwork of a third

region. In any case, the silver itself would have to have been imported into Crete in the first place. Meanwhile the statuette of User, if it arrived at the time of this *floruit*, suggests a diplomatic or commercial visit. The Mallia sphinx plaque is discussed under category C above.

- (4) In the Hyksos or Second Intermediate Period, connections appear to have extended well beyond the economic or primary category to the political and symbolic. Most are noticed under C above - Apophis's dagger, Khyan's inscribed lid (and presumably the alabaster jar too) and the paintings of Tell el-Dab'a comprising the evidence, while a Hyksos period scarab from Knossos, probably 15th Dynasty, belongs to the class of secondary materials (Warren 1980-1, 89 and fig. 47; Lambrou-Phillipson 1990, 211, no. 68, and pl. 45, no. 68; Phillips 1991a no. 173).

- (5) Despite the major change of dynasty with the inception of the New Kingdom, c. 1550 BC, and the destruction of the Hyksos capital, Avaris, c. 1540 BC, contacts continued in the early New Kingdom. The dagger of Ahhotep and the axe of Ahmose are decorated with Aegean symbolic information, while the axe motifs combine Egyptian conquest of the Hyksos through the medium of an Aegeanizing motif, the Minoan form of griffin. Connections with the reigns of the kings following Ahmose, that is Amenophis I, Tutmosis I and II, are restricted to a fragment of a decorated Late Minoan I vase from Memphis, dated to the period of Ahmose-Amenophis I by J. Bourriau (Warren and Hankey 1989, 139 [for RAT, 590 read RAT, 530]) and to Egyptian influences behind wall-painting at Late Cycladic I (=LMIA) Thera and on objects like the gold pin terminal from Mycenae. Pumice at Tell el-Dab'a in the building level of workmen's houses, which succeeded the city destroyed by Ahmose, provides a connection of a different sort. If the pumice is demonstrated chemically to be from the great Thera eruption, its stratified position and association with numerous royal name scarabs will place the eruption after the reign of Ahmose and before that of Tutmosis III (i.e. within 1525-1479 BC) (Bietak 1992, 28, 1993; Rohl 1991-2, 75 and fig. left).

The reign of Tutmosis III (1479-1425 BC), which concludes approximately with Late Minoan IB, appears to have been the next period of strong contact with Crete (cf. above pp. 7-8 on Kefiuf). Primary traded goods in the form of raw materials (possibly including gold), finished products (alabaster, faience and pottery vases) and probably live animals came to Crete, and the reception and modification of Egyptian symbolic iconography is likely to have continued. Cretan raw materials and finished products, noted under category A above, went to Egypt, on the evidence of pottery finds, some of them Mycenaean (LH II A), and objects shown brought by Aegeans in the Tombs of the Nobles. Moreover, the reigns of Hatshepsut and Tutmosis III are the

only period in Egypt when contemporary visiting Minoan ambassadors are depicted, in the tombs of Senmut, Antef, Usernamun, Menkhepereseneb and Rhekmute. These depictions appear to mark at least three separate embassies from Crete (recently Wachsmann 1987; Barber 1991, 331-6). The purpose of the embassies was surely economic - to bring goods for exchange or to establish exchange contracts supported by diplomatic gifts such as fine textiles - and/or political, to arrange visits or even dynastic links.

The evidence for import of alabaster vessels to Knossos in particular, in the early New Kingdom and perhaps chiefly in the time of Tutmosis III, also raises the question of the status of those bringing in the vessels. At Knossos the number of vessels, actual and estimated, and their wide distribution there are such to suggest trade by independent or semi-independent merchants, alongside the clearly revealed palace-centred or 'royal' trade (Warren 1989; 1991b; for palace-controlled trade, Alexiou 1953-4; 1987; Kopeke 1987; Wiener 1991). E. Cline has argued independently, and on the basis of the total range of known Late Bronze Age contacts between Egypt and Crete, for the same interpretation, a combination of royal and private commercial exchanges (1991, 251-3; cf. Zaccagnini 1987, 57), though he may be going too far in proposing that formal, ruler-to-ruler relations with the Aegean may have been initiated by Amenophis III, beyond earlier simple Crete-Egypt trading systems (Cline 1990-91; for an extended discussion of the opposite view, namely royal gradually giving place to mercantile, Sherratt and Sherratt 1991). Although the 'combination' interpretation is argued here, I do not think that distribution of alabaster vessels through the city of Knossos from the palace, the view of St. Alexiou, can yet be entirely ruled out.

Exchanges were to continue after the great destruction of the Minoan civilization in Late Minoan IB, down through the reigns of Amenophis II, Tutmosis IV and Amenophis III, 1427-1342 BC (Late Minoan II-IIIa). Barber has emphasized textile-based design links between Aegean kilts and tomb decoration in the tomb of Menkhepereseneb (Th. T. 86), on the one hand, and LM III A I pottery from Knossos on the other (1991, 348). Menkhepereseneb was active in the reign of Amenophis II (1427-1400 BC). Links may indeed have been even stronger, if the Kom el-Hetan base from the funerary temple of Amenophis III (Cline, this volume, **Plate 6.1**), with its list of Cretan and Aegean place-names, headed by names for the Greek Mainland and Crete, means that the great ruler actually visited the Aegean, as his inscribed faience plaques at Mycenae would confirm (recently, Hankey 1981; very useful update in Cline 1990-91 and this volume, 94, **Plate 6.3**). We referred earlier to overlap between the purely economic and the political definition of foreign goods. Might the magnificent collection of alabaster vessels in the 'Royal Tomb' at Isopata (p. 8) have been a gift

sent or even brought to Knossos by Amenophis III? Finally, we may note too the famous ceiling fresco from his palace at Malkata. Thebes (Barber 1991, 348-9 and fig. 15, 24), showing bulls' heads (with a rosette between the horns) placed between rosette-centred spirals. This is perhaps the strongest of the building's Aegean decorative features. It could have been inspired by what he saw on his likely visit, if not by imported Aegean textiles or other media discussed by Barber.

In assessing the form and purpose of exchange between the economies of the Near East, Egypt and the Aegean, one can ask as we did for the third millennium contacts, *cui bono*? The evidence, certainly from the palace periods of each country, indicates a continuum of benefit from ruler and elite officials through merchants to producers and others. While ruler-benefit (royal trade) is always apparent, it is of interest to consider how far down the political, social or economic pyramid the receipt of prestige or other goods extended. For example, the four hundred bronze-smiths of the Mycenaean kingdom of Pylos clearly benefited (if only in the provision of work) from the import of copper and tin. As far as Egypt is concerned in respect of goods, materials and decorations imported from Minoan Crete, the impression is that benefit did not extend beyond ruler and elite (e.g. the owners of the various Tombs of the Nobles). As far as Crete is concerned, both the distribution of Egyptian goods, at Knossos anyway, and the range of imported raw materials suggest the benefits may have extended somewhat further, to include at least some producers.

Minoan civilization undoubtedly derived benefit from Egypt in the different forms we have examined. But those benefits, on the surviving evidence, appear to have formed only a small part in the totality of the Minoan achievement. There are, however, large unknowns among the raw materials, invisibles and perishable goods, including degrees of uncertainty as to whether many of them came from Egypt rather than the states of the Syro-Palestinian area. But some materials and objects certainly did come from Egypt.

Egyptian civilization does not appear to have needed much from Crete, though Cretan pottery and its contents, probably metal vessels, bows and textiles and complex abstract design-motifs must have given pleasure as well as supplying functional requirements. Not needed much? Those words must now be heavily qualified by the discoveries at Tell el-Dab'a. But Avaris was Hyksos and Hyksos were intruders in the great Pharaonic traditions of Abydos, Memphis and Thebes.

Notes

1. It should be noted that the Theraan paintings we see today were not the earliest there, earlier painted plaster having been covered over in at least one place in preparation of the surface for the existing frescoes (Marinatos 1972a, 37 and pls. 91, b-92a). But the earlier Theraan paintings have not shown evidence of figures or other naturalistic depictions.

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CONNECTIONS BETWEEN EGYPT AND THE MINOAN WORLD NEW RESULTS FROM TELL EL-DAB'A/AVARIS

Manfred Bietak

force, doubtful. Nevertheless, it seems highly likely to me that this sherd too was deposited in the palace compound during its late occupation, as Middle Minoan sherds do not occur at Tell el-Dab'a outside this palace area. Only the inhabitants of this official palace had access to foreign luxuries. In the living compounds of the lower classes not a single Minoan sherd has been found. This post-Kamarens sherd seems to me, therefore, to have a special significance.

It is no coincidence that the palace tombs also reveal contacts with the Aegean. The plundered tomb F/1-p/17-no.14 contained, besides other jewellery, a golden pendant⁹ (Plate 14.1), which measures 3.6 x 3.8 cm and has a thickness of 0.12 cm. The pendant was produced in repoussé technique and was sealed at the back with a gold sheet. The motif of the pendant shows two antithetical beasts, most probably dogs, in heraldic arrangement, with muzzles joined, and each raising one paw. Their tails are curled. Around each of their necks is a rope, which is twisted around their bodies and fastened onto their tails. They stand on individual bases, which look like sledges or inverted columns, ending in volutes. One front paw and one hind leg of each rest on the volutes. The second hind leg of both animals rests on a ball in the centre of the base. By comparison with the 'Master of the Animals' from the Aegina Treasure¹⁰ the base can be identified as a field out of which lotus-flowers grow. Our pendant gives a simplified version with the petals missing, although the buds are still shown.

The size of the paws and a suggestion of a mane on the neck give the impression of a feline beast, a lion. However, the pointed nose and curled tail make the identification of the animal as a dog more plausible. It should also be noted that the bodies of the animals are shown as very well muscled. The ears have the shape of a heart or an ivy leaf. On top of the heads tangential spirals meet in the central axis of the pendant. On top of the spirals a loop allows the pendant to be attached to a chain. This necklace probably contained other beads, which have indeed been found in this tomb, albeit in a displaced position. The beads were globular amethysts most probably mounted between golden tunnel-beads.

In toto, this is a magnificent piece of jewellery, foreign to Egypt, as indicated by the technique and by the individual features, such as the lotus fields at the base and the antithetical composition of the beasts. It has

Early Connections

Contacts between Egypt and the Minoan world as represented within the stratigraphic sequence at Tell el-Dab'a have appeared within two very definite periods (Fig. 1). The first in the time of the early 13th Dynasty (c. first half of the 18th century BC), the second during the period comprising the end of the Hyksos period and the early 18th Dynasty (c. second half of the 16th century BC). There is no proof for any contact in between.

Evidence for the early contacts has been identified within a 13th Dynasty palatial complex, which is situated in the centre of the ancient settlement of Tell el-Dab'a. Within the overall stratigraphy of Tell el-Dab'a, this is str. G/4. Tell el-Dab'a was at this period a specialized settlement near the north-eastern border of Egypt, with land and sea connections to the Levant and the Sinai. The main purpose of this settlement seems to have been to serve as a base for trading with Canaan, Syria and, as it now transpires, with the Aegean during the time of the late Middle Kingdom.¹ As excavations at Tell el-Dab'a have shown, the main bulk of the inhabitants were Canaanites, who were carriers of the Syro-Palestinian Middle Bronze Age culture. To judge from the archaeological evidence, they were in Egyptian service during this period as soldiers, seamen, shipbuilders, trading agents and probably as mining specialists.² The officials who controlled the foreign trade from this base for the early 13th Dynasty, uncovered at Tell el-Dab'a in area F/1. It has emerged from the investigation of the cemetery to the south of this palace that even these officials were of Canaanite origin. This is shown by their burial customs and by the objects in their tombs.³ Their official title was probably *imy-r* (*ḥmwr*, 'overseer of foreign countries').⁴

Within the earlier stratum of the gardens of this palace, fragments of Kamarens Ware were found.⁵ They are from cups belonging to the so-called Classical Kamarens style.⁶ It is the first time that Middle Minoan pottery has appeared in contexts of stratified Egyptian material culture. The earlier finds of Kamarens Ware were all from disputable contexts.⁷

In addition to the Kamarens sherds of MM IIA-IIIa (relative dating), a post-Kamarens sherd of MM IIIa/B was discovered within the palace compound of the 13th Dynasty. It was retrieved, however, from a Ramesside tree-pit and its stratigraphic origin is, therefore,

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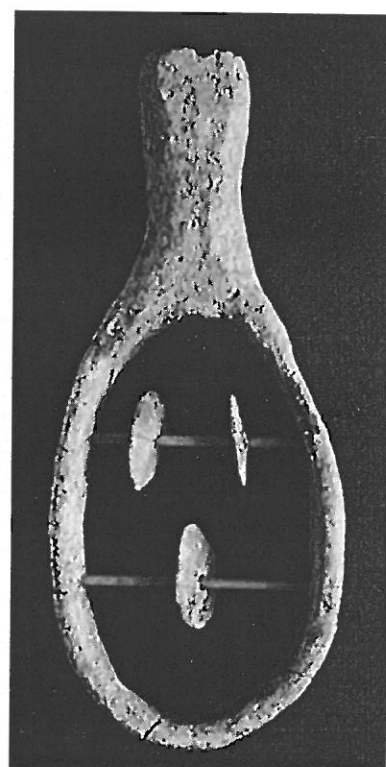
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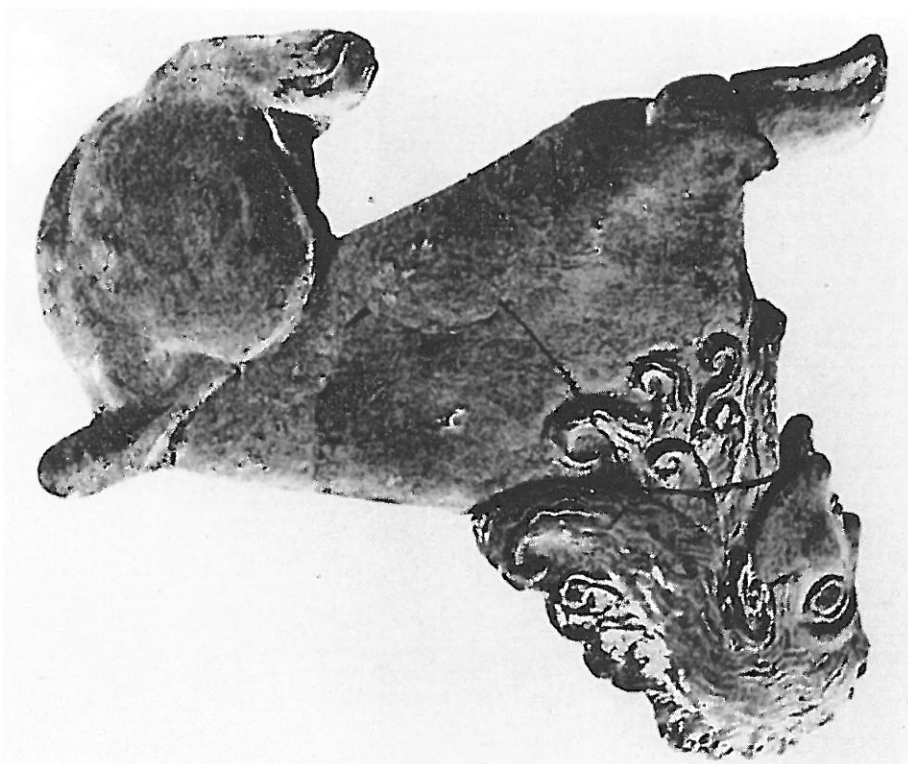
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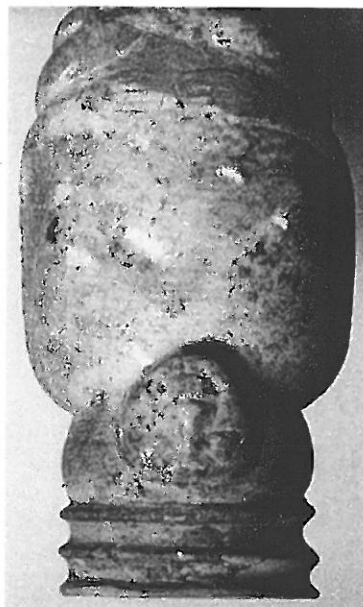
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1. Terracotta sistrum from Arkhanes, Phoumi, Funerary Building 9. Height approx. 10 cm, c. 2000 BC.



2. Terracotta plaque from Mallia, Quarter Mu. Height 6.9 cm, Middle Minoan II, 1700 BC.



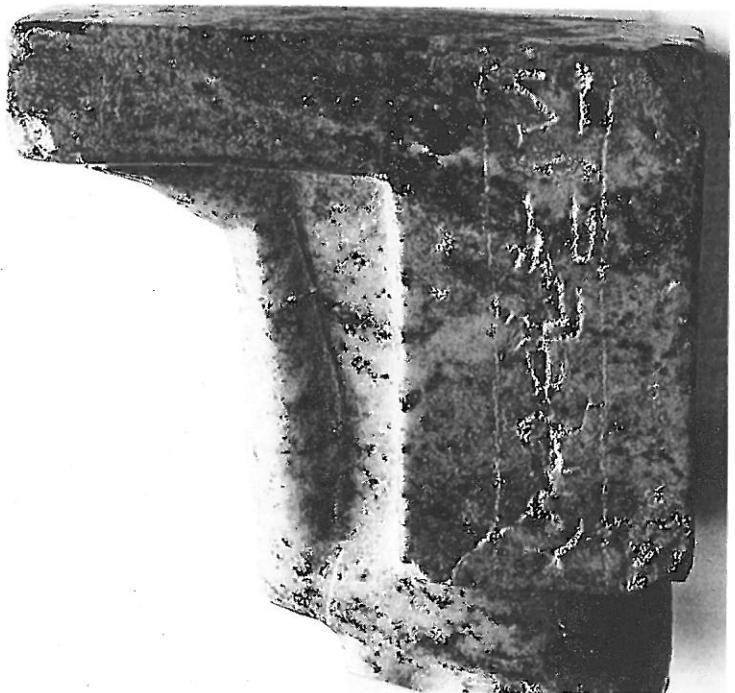
3-5. Egyptian alabaster *Gravidenflasche* from Katsamba, front and side views. Height 14.2 cm, 18th Dynasty.



1.



2.

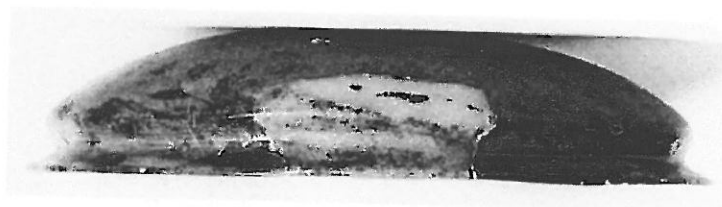


3.



4.

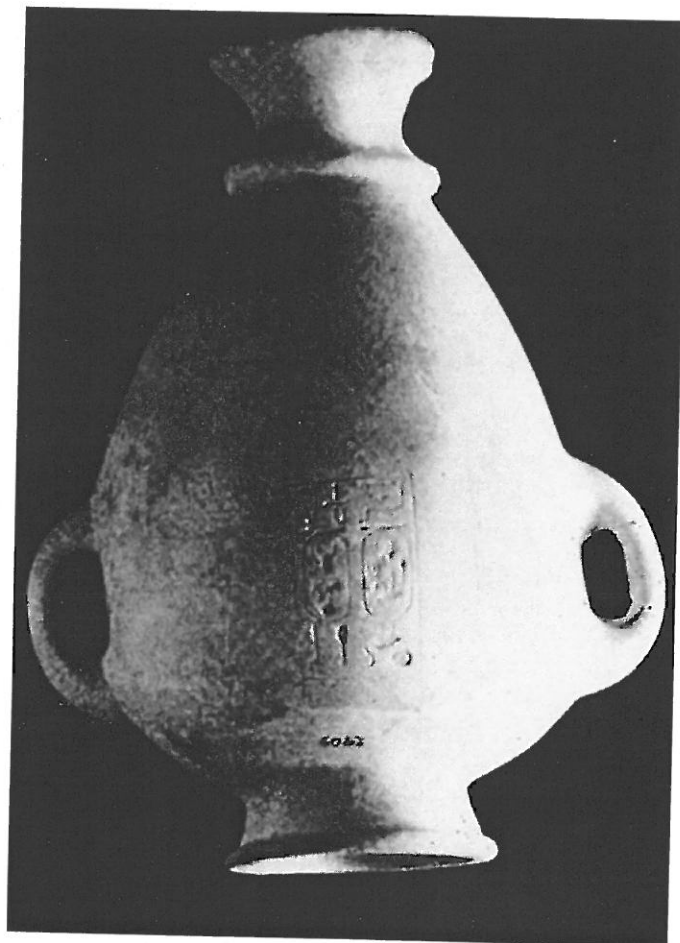
1-4. Statuette of User in Chephren diorite from Knossos, showing front (1), side (2-3) and rear (4) views.
Maximum height approx. 14 cm, Middle Kingdom.



1. Carinated bowl of Chephren diorite from Knossos.
Height approx. 4.3 cm, 4th-6th Dynasties.



2. Carinated bowl of obsidian from Knossos.
Height approx. 4.65 cm, Middle Minoan.

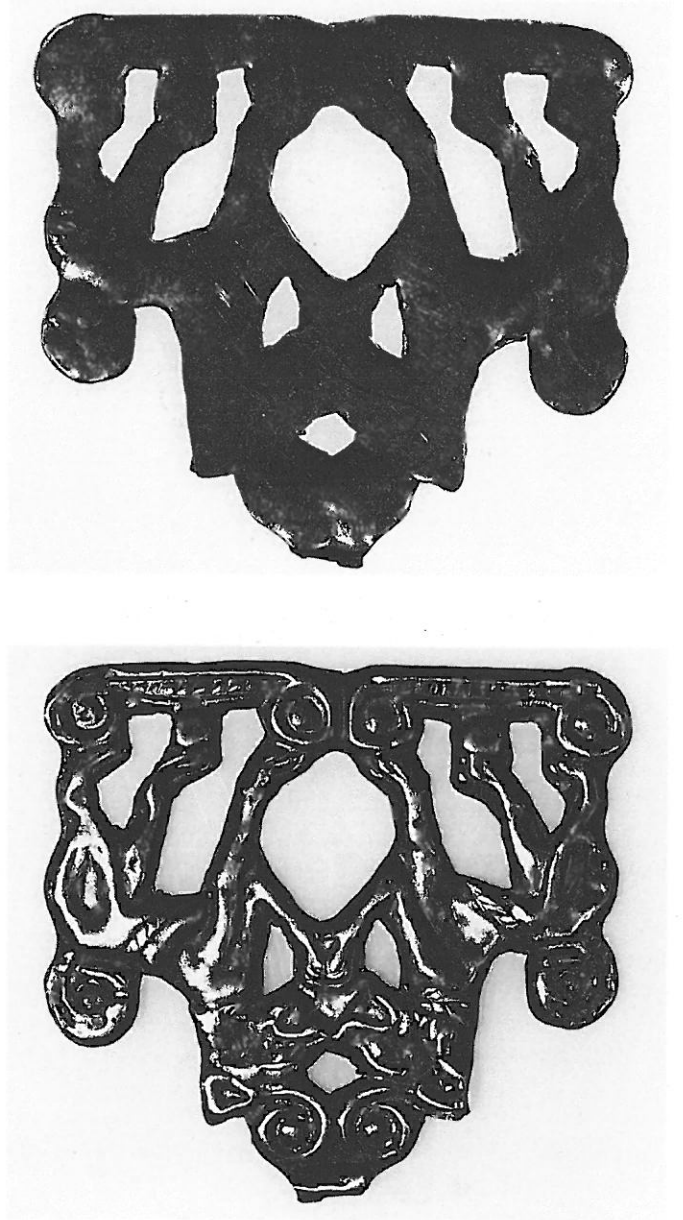


3. Egyptian alabaster amphora inscribed with cartouches of Tuthmosis III
(1479-1425 BC), from Katsamba Tomb B. Height 29.8 cm.



4. Inscription of Tuthmosis III on
same amphora, scale 6/7.

1. Golden pendant from palace tomb F/I-p/17-no. 14
(str. d/I, c. 1750 BC).



2. Dagger with tangential spirals from palace tomb F/I-m/18-no. 3
(str. d/I, c. 1750 BC).

