

AEGAEUM 18

Annales d'archéologie égéenne de l'Université de Liège et UT-PASP

THE AEGEAN AND THE ORIENT IN THE SECOND MILLENNIUM

**Proceedings of the 50th Anniversary Symposium
Cincinnati, 18-20 April 1997**

Edited by Eric H. CLINE and Diane HARRIS-CLINE

Université de Liège
Histoire de l'art et archéologie de la Grèce antique
University of Texas at Austin
Program in Aegean Scripts and Prehistory

1998

INTERNATIONAL STYLES IN IVORY CARVING IN THE BRONZE AGE*

Introduction

In three major articles in 1947, 1956, and 1960, Helene Kantor squarely addressed one of the most problematic aspects of interconnections in the Bronze Age between the Aegean and the eastern Mediterranean: the question of style as it related to the ivories trade.¹ Since then, an enormous amount of work has been completed on the subject of ivory working in the Aegean and the corpus of ivories available for study has expanded greatly. O. Krzyszkowska, A. Caubet, and D. Reese have made important contributions differentiating among hippopotamus ivory, elephant ivory, and bone,² and D. Evely includes a chapter on ivory working in *Minoan Crafts: Tools and Techniques*.³ In a pair of volumes, J.-C. Poursat has presented a major study of Mycenaean ivories and has published much of the collection in the National Museum at Athens.⁴ A. Xenaki-Sakellariou has published the ivories from the chamber tombs at Mycenae excavated by Tsountas in the 19th century.⁵ I. Tournavitou has

-
- * We are grateful to Eric Cline, Diane Harris-Cline, and to the University of Cincinnati for the invitation to contribute to this conference. We would also like to thank the graduate students at the conference for their questions and discussion, and to acknowledge the assistance we received from J. Aruz, A. Caubet, E.L. Ertman, J. Green, C. Lilyquist, J.B. Rutter, and especially O. Krzyszkowska.
- 1 KANTOR; *Eadem*, "Syro-Palestinian Ivories," *JNES* 15 (1956) 153-74; *Eadem*, "Ivory Carving in the Mycenaean Period," *Archaeology* 13 (1960) 14-25. See also the useful comments by *Interconnections*, *passim*, and esp. 48-49 and 109-110.
- 2 O. KRZYSZKOWSKA, *The Bone and Ivory Industries of the Aegean Bronze Age: A Technological Study*. Ph.D. Dissertation, University of Bristol (1981); *Eadem*, "Ivory in the Aegean Bronze Age: Elephant Tusk or Hippopotamus Ivory?," *BSA* 83 (1988) 209-234; A. CAUBET, "Ivoires de Cappadoce," in D. CHARPIN and F. JOANNÈS (eds.), *Marchands, diplomates et empereurs: études sur la civilisation mésopotamienne offertes à Paul Garelli* (1991) 223-25; A. CAUBET and F. POPLIN, "Les objets de matière dure animale: étude du matériel," in M. YON (ed.), *Ras Shamra-Ougarit III: Le centre de la ville* (1987) 273-306; A. CAUBET and F. POPLIN, "La place des ivoires d'Ougarit dans la production du Proche Orient Ancien," in J.L. FITTON (ed.), *Ivory in Greece and the Eastern Mediterranean from the Bronze Age to the Hellenistic Period*. British Museum Occasional Paper 85 (1992) 91-100; D.S. REESE, "Hippopotamus and Elephant Teeth from Kition," in V. KARAGEORGHIS, *Excavations at Kition* V.2 (1985) 391-409: Appendix VIII (D); *Idem*, "A Hippopotamus Tooth from Hala Sultan Tekke, Cyprus," in P. ÅSTRÖM *et al.*, *Hala Sultan Tekke* 10. *SIMA* 45.10 (1988); *Idem*, "Cypriot Hippo Hunters No Myth," *JMA* 9.1 (1996) 107-112.
- 3 R.D.G. EVELY, *Minoan Crafts: Tools and Techniques. An Introduction*. *SIMA* 92.1 (1993); *Idem*, "Towards an Elucidation of the Ivory-Worker's Tool-Kit in Neo-Palatial Crete," in FITTON (*supra* n. 2) 7-16.
- 4 J.-C. POURSAT, *Les ivoires mycéniens. Essai sur la formation d'un art mycénien*. BEFAR 230 (1977); *Idem*, *Catalogue des ivoires mycéniens du Musée National d'Athènes*. BEFAR 230 bis (1977). As Poursat makes clear, there are some ivories in the collection of the museum which were unavailable to him or which could not be located at the time of his study. Some of the missing material from Asine has since been located and is being published by O. KRZYSZKOWSKA: "Asine Chamber Tomb I:2: The Ivories," in R. HÄGG, G.C. NORDQUIST and B. WELLS (eds.), *Asine* III (1996); we are grateful to the author for sending proofs of her contribution prior to publication. The ivories from Spata published by Poursat are under restudy, along with the other contents of the tombs, by A. GRAMMENOY, *Οι Μυκηναϊκοί τάφοι στα Σπάτα Αττικής - Ανασκαφή Παν. Σταματάκι*. Unpublished Ph.D. Dissertation, University of Athens (1977); *Idem*, "The Ivories from Spata in Attica," in FITTON (*supra* n. 2) 45-56; *Idem*, "The Mycenaean Chamber Tombs at Spata in Attica: New Research on an Excavation of 1877," *BICS* 41 (1996) 140-41.
- 5 A. XENAKI-SAKELLARIOY, *Οι θαλαμωτοί τάφοι των Μυκηνών. Ανασκαφής Χρ. Τσουόντα (1887-1898)* (1985).

published the "Ivory Houses" uncovered outside the walls of the citadel at Mycenae in the 1950s.⁶ R.D. Barnett has undertaken a major survey of ivory carving in the eastern Mediterranean, including a short chapter on the Aegean.⁷ In addition, the discovery of worked and unworked ivories on the late 14th century BC Uluburun shipwreck has provided a wealth of new evidence on the ivory trade, and E.H. Cline has catalogued and discussed the imported ivories among the known Orientalia in the Aegean.⁸ The projected Corpus of Minoan-Mycenaean Ivories, an ambitious undertaking, should add much to our understanding of ivory carving in the Aegean.⁹

Important questions remain, however. Among these are the nature and direction of trade in raw and finished ivory, the style, iconography and chronology of the finished products, and the ongoing investigation of how ivory fits into the "larger picture" of intercultural contacts in the Bronze Age, a subject that has been the concern of all the scholars being honored in this volume: Kantor herself, Carl Blegen, Marion Rawson, and James Muhly.

The major problems with Bronze Age ivories still concern style and chronology mainly because most pieces have not been comprehensively published with detailed technical information about all worked and unworked faces. Few ivories exhibit the pure stylistic traits of the regions they are found in; instead, their styles are often mixed. We thus find it difficult to answer questions concerning provenience and artistry, questions that also seem to demand statements concerning the cultural identity or ethnicity of craftsman and consumer.

Iconography is another problem, since there is strong evidence that the repertoires of images were freely exchanged among all parts of the eastern Mediterranean. Ivories found on Crete and the mainland often depict sphinxes and griffins, for example, but the iconographic origins of both creatures ultimately lie in Egypt or the Near East.

Another problem is that it has been impossible to construct a coherent stylistic chronology for Aegean ivories based on the contexts of the finds. As precious objects, carved ivories were often kept in circulation for years, even centuries after their manufacture, and there is evidence from the workshops of the "Ivory Houses" at Mycenae for the reuse and resetting of earlier ivories.

We believe that the most hopeful approach to resolving these problems, or at least framing them, is to make known our assumptions. These include the following.

1) We accept as a working hypothesis the concept of the evolution of style over time, even in the Bronze Age, even with ivories. Where identifiable, later, deliberate, imitations of earlier styles are considered *archaizing*.

2) At the same time, we hypothesize that as precious works, ivories often remained in circulation for considerable periods of time. Although it is clear that different styles could coexist, it is probable that old pieces also remained in circulation.

3) For the purposes of stylistic analysis, we assume that the typologies established in other media (like sealstones) may be valuable as guides to ordering the ivory corpus.

4) We accept the existence of regional styles which may be identified on the grounds of specific traits and techniques of workmanship local to a region, and we accept that certain types of objects may be specific to a particular region (e.g., rivet-handled mirrors in the Aegean versus tang-handled mirrors in Cyprus and the eastern Mediterranean).

5) On the other hand, many ivories exhibit stylistic traits and technical features drawn from two or more regions; we shall retain Kantor's hyphenation system in labeling these (e.g., Levanto-Mycenaean style).

6 I. TOURNAVITOU, *The 'Ivory Houses' at Mycenae*. BSA Suppl. 24 (1995).

7 R.D. BARNETT, "Phoenicia and the Ivory Trade," *Archaeology* 9 (1956) 87-97; *Idem*, "Phoenician and Syrian Ivory Carving," *PEQ* (1939) 4-19; *Idem*, *Ancient Ivories in the Middle East*. QEDEM 14 (1982).

8 SWDS.

9 The Greek-French ivories project (permit issued 4 Feb. 1997) is tentatively called the *Corpus of Minoan and Mycenaean Ivories/Corpus Μινωϊκών και Μυκηναϊκών ελεφαντίνων αντικειμένων*. The project, under the guidance of Prof. J. Tzedakis, will involve the three Cretan Ephors (Drs. Vlasaki, Karetsou, and Papadakis) and Prof. J. Sakellarakis; the French contributors will include Profs. Etienne, Poursat, and Poplin. In presenting the corpus, the project should fulfill for ivories the function served for seals by the CMS.

6) We will make no claims about the ethnic origins, however defined, of the individuals who carved the ivories.

7) And we do not assume that Aegean access to ivory sources remained constant over time.

Sources of Ivory and the Ivory Trade

The two major sources of ivory for the inhabitants of the eastern Mediterranean were hippopotami and elephants.¹⁰ Hippos flourished in Egypt throughout the pharaonic period, and along the coast of Syria-Palestine until the early Iron Age, and many of the ivories formerly identified as being of elephant ivory may in fact derive from hippo incisors and canines. The African elephant was restricted to Africa, and by the middle of the third millennium (3rd Dynasty in Egypt) it was only to be found in areas south of Egypt. Asian elephants were known in Syria-Palestine throughout the third and second millennia, but became extinct in the first quarter of the first millennium. Over time, both hippos and elephants were subjected increasingly to pressures by humans on their natural environments, but a general rule is observable: in the second millennium most of the ivory seems to have come from hippos, while in the first millennium elephants were the major source. Thus, the ivories found in the Aegean could come from a variety of sources, none of them native to that area.

In antiquity, just as today, ivory exhibited a tremendous allure: an exotic material whose relative scarcity enhanced its value, it was nevertheless fairly easy to carve, durable, and visually attractive.¹¹ Ivory could be shipped in its raw form, as tusks or teeth, or as finished products. Raw ivory could even be shipped from site A to site B, worked at B, and the finished products shipped back to point A or on to point C. Whether worked or raw, ivory generally had to travel long distances to reach its intended markets, adding to its worth.¹² Ivory was sometimes rubrified (stained red), gilded, or combined with other exotic or precious materials: gold, silver, ebony, cedar, and glass or precious stones.¹³ Thus, we should envision the ivory trade as multidirectional and potentially very complex.

Phase 1: Early Bronze Age to Middle Bronze Age on Crete

We can identify four main phases in the Aegean exposure to ivory during the Bronze Age (Pl. XXV). The Aegean was apparently introduced to ivory roughly a millennium after Egypt and the Near East. Before the end of the fourth millennium BC, Predynastic Egyptians were using ivory for four major purposes: cosmetic utensils, ornamental handles for weapons and status symbols, in furniture, and as inlays – all these uses continued in the Mediterranean until the end of the Bronze Age ca. 1100 BC.

The Badarian and Naqada cultures of Egypt used ivory for female figurines and cosmetic articles, beginning a long tradition for the manufacture of these objects.¹⁴ Late in the Predynastic period, ivory was used for the handle of the massive Gebel el-Arak flint knife

10 P.R.S. MOOREY, *Ancient Mesopotamian Materials and Industries* (1994) 115-16. A number of differences can be observed between hippo and elephant ivory. Elephant tusks contain a pulp cavity which is wide at the base of the tusk but diminishes to a point about half way up. Thus, although the tusks may appear large, only about 60% of the volume of a tusk provides suitable ivory for carving. At the same time, elephant ivory contains oil which adds shine and luster to the material. Hippo ivory, from the animal's canines and incisors, is both harder and whiter than elephant ivory, and consequently is more difficult to carve. The incisors typically grow up to 0.50 m., but in some cases may be up to 1 m. long.

11 G. CLARKE, *Symbols of Excellence. Precious Materials as Expressions of Status* (1986) 13-20.

12 M. LIVERANI, *Prestige and Interest* (1990); M. HELMS, *Ulysses' Sail: An Ethnographic Odyssey of Power, Knowledge and Geographical Distance* (1988); Eadem, *Craft and the Kingly Ideal: Art, Trade and Power* (1993).

13 For a discussion of rubrification, see POURSAT, *Les ivoires* (*supra* n. 4) 48, 204, 216.

14 S. QUIRKE and J. SPENCER (eds.), *British Museum Book of Ancient Egypt* (1992) 32 fig. 19.

whose iconography includes intrusive Mesopotamian motifs like the Master of Lions.¹⁵ The knife thus can be considered one of our first examples of an "international" style in ivory carving. Two ivory boxes from a tomb in Egypt's eastern Delta decorated with niched façades reminiscent of Mesopotamian architectural forms confirm the early influence of foreign styles on Egyptian ivory carving.¹⁶

Ivory cylinder seals and labels of the First and Second Dynasties illustrate a link between the status of early hieroglyphic writing, the process of administration, and precious materials.¹⁷ The inhabitants of the Aegean world were already beginning to acquire ivory from the eastern Mediterranean or perhaps Egypt before the end of the third millennium.¹⁸ On Crete, hippopotamus incisors or lower canines were employed only for seals that date from EM III through MM I.¹⁹ This first use of ivory is thus far more limited in scope in the Aegean than in other areas.

The ivory seals are of distinctive shapes, mostly bifacial stamp cylinders belonging to the Parading Lions/Spiral Complex (EM III),²⁰ and multifacial prisms and cubes, as well as animal forms, in the succeeding Border/Leaf Group (MM I).²¹ Three other materials could simulate ivory: bone, boar's tusk, or a glazed compound (the so-called "white pieces," which may reflect the introduction of Egyptian or Syrian technology),²² but the shapes of seals in these materials are different, geometric and uninspired. Thus, ivory did not compete with these other white materials, but rather developed distinctive styles and forms alongside them.

In addition to their exotic material, a number of the early ivory seals exhibit foreign influences in their shapes (e.g., theriomorphic stamp seals in the shape of monkeys or apes, birds or flies)²³ or in the motifs they carry, like the lions (an animal not native to Crete) that parade on many stamp cylinders.²⁴ It is probable that the shapes and functions of the early Cretan seals were directly related to the trade processes which brought ivory to the Aegean in the first place, along with the first imported Syrian seals.²⁵

It may be significant that it is on the later of these early Cretan ivory seals that the Minoan Hieroglyphic script first appears, apparently in MM IA; several sign groups or words appear on a set of distinctive multifacial cubes from Ayia Triada tholos A and from Archanes

-
- 15 Louvre Museum: handle L. 9.3 cm; *Zeitschrift für Ägyptologie* 71 (1935) pl. I; BARNETT 1982 (*supra* n. 7) pl. 4.
- 16 K. KROEPER and L. KRZYZANIAK, "Two Ivory Boxes from Early Dynastic Graves in Minshat Abu Omar," in R. FRIEDMAN and B. ADAMS (eds.), *The Followers of Horus: Studies Dedicated to M.A. Hoffman 1944-1990* (1992) 207-215.
- 17 E.g., a label of King Den from Abydos: QUIRKE and SPENCER (*supra* n. 14) 34 fig. 21. For recent finds, see G. DREYER, "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhoff 5./6. Vorbericht," *MDAIKairo* 49 (1993) 23-62; G. DREYER *et al.*, "Umm el-Qaab. Nachuntersuchungen im frühzeitlichen Königsfriedhoff 7./8. Vorbericht," *MDAIKairo* 52 (1996) 11-81. For an early Dynastic cylinder seal, see W. NEEDLER, *Predynastic and Archaic Egypt in the Brooklyn Museum* (1984) 376 no. 305, 377 fig. 305.
- 18 For discussion of this period, see L.V. WATROUS, "Review of Aegean Prehistory III: Crete from Earliest Prehistory through the Protopalatial Period," *AJA* 98 (1994) 695-753.
- 19 P. YULE, *Early Cretan Seals: A Study of Chronology* (1981) 195-96; K. SBONIAS, *Frühkretische Siegel: Ansätze für eine Interpretation der sozial-politischen Entwicklung auf Kreta während der Frühbronzezeit*. BAR-IS 620 (1995) 40-65.
- 20 YULE (*supra* n. 19) 208-209; I. PINI, "Ein Beitrag zur chronologischen Ordnung der frühkretischen Siegel," *Πεπραγμένα του Δ' Διεθνούς Κρητολογικού Συνεδρίου I* (1981) 421-35; *Idem*, "Ein frühkretische Siegelwerkstatt?," *Πεπραγμένα του Ζ' Διεθνούς Κρητολογικού Συνεδρίου I* (1990) 115-27.
- 21 YULE (*supra* n. 19) 209-210.
- 22 H. HUGHES-BROCK, "The Early Cretan White Seals in the Ashmolean Museum, Ancient and Modern: Some Enigmatic Materials," *CMS Beiheft* 3 (1989) 79-89.
- 23 Seated apes: *CMS* II, 1, nos. 20 and 249; J. SAKELLARAKIS and E. SAKELLARAKIS, *Archanes* (1991) 120 fig. 97. Birds: *CMS* II, 1, nos. 112, 133, 438. A fly: SAKELLARAKIS and SAKELLARAKIS (*supra*) 116 fig. 76.
- 24 *CMS* II, 1, nos. 224a, 249, 250; SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 102 fig. 77 and 78.
- 25 J. ARUZ, "Syrian Seals and the Evidence for Cultural Interaction between the Levant and Crete," *CMS Beiheft* 5 (1995) 1-21; *Eadem*, *The Aegean and the Orient: The Evidence of Stamp and Cylinder Seals* (1986).

Phourni funerary building 5, while a unique 14-faced "baton" comes from Archanes Phourni funerary building 6.²⁶ Both these funerary buildings, and others, also produced other ivory objects, seals, amulets, a comb, and a knife with an ivory handle.²⁷

The development of a local, Hieroglyphic script probably accompanied a tentative administration at Knossos that may have been using sealings,²⁸ but when Crete develops its own regional centers, the first palaces, in MM IB and adopts wholeheartedly the Near Eastern system of administration,²⁹ ivory seals drop out and, with rare exceptions,³⁰ do not reappear in the Aegean until the Geometric or Orientalizing periods.

The early international contacts of the Phourni cemetery are illustrated by another ivory object. A unique folded arm figurine (FAF) from Tholos C at Archanes has been dated to EM III,³¹ but its shape imitates that of earlier Cycladic figurines. An unusual detail of the Phourni statuette is the pattern of drilled holes from waist to upper thighs for the insertion of inlay in another material, a good example of the combining of several materials that ivory use seemed to encourage. Since this pattern extends across both hips, it must represent a patterned garment rather than an attempt to emphasize the pubic region.

The Aegean, however, seems strangely unaffected by the lively trade in ivory characteristic of the MBA in the east and in Egypt. When the first palaces arose on Crete in MM IB, and when Linear A was developed as an administrative tool at Knossos in MM IIA,³² there are virtually no ivories. The Minoan Protopalatial period is contemporary with an era of increasing urbanization in the Levant, with numerous small, quasi-independent polities, and the Middle Kingdom in Egypt (Dynasties 11-13). In the Middle Bronze Age, an "international" style in ivories is well documented, and ivory had become important in international trade networks outside the Aegean.

A few examples will suffice. From the "Palazzo Settentrionale" at Ebla (ca. 1750-1650 BC) come a series of incised plaques of hippopotamus ivory which were used as inlays.³³ These carry Egyptianizing motifs: a profile head wearing the *atef* crown, a representation of the crocodile god, Sobek, antithetic Horuses, and other figures. Slightly earlier are ivory objects from the "Tomb of the Lord of Goats" (1750-1700 BC). Funerary "standards" of hippo ivory with appliqué figures are interesting because the iconography of some of the figures appears slightly later in Minoan art, notably the "scalloped robe" and axe with lunate blade.³⁴

-
- 26 Cubes: CMS II I, nos. 64 from Ayia Triada tholos A, and 393 and 394 from Archanes Phourni funerary building 5; and the baton CMS II, I, no. 391 from Archanes Phourni funerary building 6 (SAKELLARAKIS and SAKELLARAKIS [*supra* n. 23] 103 fig. 79).
- 27 Ivory seals from Archanes funerary building 5: CMS II, I, nos. 386 and 388; and building 6: CMS II, I, nos. 379-385, and 387. For other ivory objects from these buildings, see SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 98-106, and AR (1972) 20.
- 28 J. WEINGARTEN, "The Sealing Structures of Minoan Crete: MM II Phaistos to the Destruction of the Palace of Knossos. Part II: The Evidence from Knossos until the Destruction of the Palace," OJA 7 (1988) 1-25.
- 29 J. WEINGARTEN, "Three Upheavals in Minoan Sealing Administration: Evidence for Radical Change," Aegaeum 5 (1990) 105-120.
- 30 E.g., an ivory ring from a tomb at Phylakopi on Melos: CMS I, no. 410; J.G. YOUNGER in C. RENFREW *et al.*, *The Archaeology of Cult. The Sanctuary at Phylakopi*. BSA Suppl. 18 (1985) 295-96 (with other examples), pl. 55 a-c.
- 31 SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 118, 117 fig. 94.
- 32 At Knossos, a Linear A tablet and one or two nodules/*noduli* have been excavated from a MM IIA deposit below the South West House: E. HALLAGER, *The Minoan Roundel and other Sealed Documents in the Neopalatial Linear A Administration*. Aegaeum 14 (1996) vol. I, 57; AR 39 (1993) 68.
- 33 P. MATTHIAE, F. PINNOCK, G.S. MATTHIAE, *Ebla. Alle origini della civiltà urbana. Trent' anni di scavi in Siria dell'Università "La Sapienza"* (1995) 458-61 nos. 372-78 and figs., 476-77 col. figs.
- 34 MATTHIAE *et al.* (*supra* n. 33) 462 nos. 379-81 and figs., 505 no. 470 and fig. 529 col. figs. One figure seated on a campstool holds a curved staff, like the older man on the Ayia Triada Harvester Vase. See also P. MATTHIAE, "Two Princely Tombs at Ebla," *Archaeology* 33 (1980) 9-17.

From the same tomb comes a mace with an ivory shaft and calcite head. Its handle of bronze, gold, and silver is decorated with baboons and hieroglyphs spelling out the name of Hotepibra, a 13th Dynasty pharaoh.³⁵ Since the mace is less than 25 cm. long, it can only have served as a ceremonial object, but it stands squarely within a tradition of royal luxury goods exchanged by Egypt with Byblos and other principalities of Syria-Palestine.³⁶ Other Egyptianizing ivories have been found in Palestine and Jordan.

An important ivory industry can be documented in Anatolia during the Assyrian Colony Period, when textiles and tin were being traded for silver (ca. 2000-1750 BC).³⁷ From Acemhöyük come a sawn elephant tusk in MB levels,³⁸ an ivory box from the 18th century BC palace, carved out of a single piece (evidently of elephant tusk) and decorated with studs of gold, iron, and lapis lazuli,³⁹ and important examples of worked hippo ivory. Hippo ivory has also been found at Kültepe,⁴⁰ while whole elephant tusks come from level VII at Atchana in northern Syria.⁴¹

But there is little evidence of ivory carving on Crete at this time, all from Mallia: an ivory arm found at the Chrysolakkos (Protopalatial or early Neopalatial),⁴² and one relief plaque decorated with a spiral band and two ivory seals and two disks (only one of them engraved) from Quartier Mu (MM II).⁴³ Nevertheless, these and other finds from Mallia support the notion that the site was open to eastern influences at this time: the well-known leopard stone axe from the palace (which has Anatolian affinities),⁴⁴ and, from Quartier Mu, decorated weapons (with parallels at Byblos)⁴⁵ and eagles or falcons on terracotta mold-made lids (cf. the ivory bird *en face* from Acemhöyük).⁴⁶ A terracotta male sphinx appliqué from Mallia seems related in general style to an ivory female sphinx furniture support from Acemhöyük,⁴⁷ as do the profile head terminals on a gold collar from the Aegina Treasure, which show more Syrian than Aegean affinities.⁴⁸ Minoan visitors to the coast of Syria or Anatolia in the first half of the second millennium must have been exposed to these artistic influences, and

35 MATTHIAE *et al.* (*supra* n. 33) 464-65 and figs., 478 col. fig.

36 C. Lilyquist has suggested (personal communication) that the mace may be of Syrian origin, imitating an Egyptian object.

37 BARNETT 1982 (*supra* n. 7) 32-33.

38 MOOREY (*supra* n. 10) 117.

39 N. ÖZGÜÇ, "An Ivory Box and a Stone Mould from Acemhöyük," *Bulleten* 40 (1976) 555-60.

40 CAUBET (*supra* n. 2).

41 L. WOOLLEY, *Alalakh: An Account of the Excavations at Tell Atchana in the Hatay, 1937-1949* (1955) 289, pl. XVI a, b.

42 J.-C. POURSAT, "Ivory Relief Carving in Minoan Crete (2000-1450 B.C.)," in FITTON (*supra* n. 2) 3 and n. 6.

43 POURSAT (*supra* n. 42) 5 pl. 1.

44 S. MARINATOS and M. HIRMER, *Crete and Mycenae* (1960) pl. 68; E.N. DAVIS, *The Vapheio Cups and Aegean Gold and Silver Ware* (1977) 85.

45 B. DETOURNAY, J.-C. POURSAT and F. VANDENABEELE, *Fouilles exécutées à Malia. Le Quartier Mu. Et Crét* 26 (1980) color frontispiece, 147-49 no. 219 (HM 1019).

46 HM 18712: DETOURNAY, POURSAT and VANDENABEELE (*supra* n. 45) 119-20, 120 fig. 169. For the Acemhöyük ivory, see K. BITTEL, *Les Hittites* (1976) 72 fig. 47; BARNETT 1982 (*supra* n. 7) pl. 25 a. J. Aruz (personal communication) informs us that the Acemhöyük ivories in the Metropolitan Museum are in preparation for publication; in the meantime, see also P.F. DORMAN, P.O. HARPER, and H. PITTMAN, *Egypt and the Ancient Near East* (1987) 119, figs. 83-85.

47 HM 19818: DETOURNAY, POURSAT and VANDENABEELE (*supra* n. 45) 116-18 no. 169, 117 figs. 164-165. Poursat considers the Mallia piece to be Egyptianizing, incorrectly in our opinion. For the Acemhöyük ivory, see BITTEL (*supra* n. 46) 70 fig. 44.

48 R.A. HIGGINS, "The Aegina Treasure Reconsidered," *BSA* 52 (1957) 42-57; C. GATES, "Iconography at the Crossroads: The Aegina Treasure," in R. LAFFINEUR (ed.), *Transition. Le monde égéen du Bronze moyen au Bronze récent. Aegaeum* 3 (1989) 215-25.

perhaps artistic creations resulted that employed a mix of traits, as illustrated by the silver vessels from the royal tombs at Byblos⁴⁹ and from the Tôd Treasure in Egypt.⁵⁰

During the Protopalatial period, the iconography of a minor Egyptian goddess, Taweret, was adopted on Crete as the Minoan "genius," either through direct Minoan contacts with Egypt or secondarily through sites like Byblos where Egyptian influence was strong.⁵¹ In Egypt, curved ivory wands with incised representations of Taweret were carved out of hippo incisor,⁵² and some of these traveled as far as Byblos. Since she was a goddess of fertility and protectress of mothers and children, the wands are thought to have served an apotropaic function. But no such wands have been found on Crete.

Phase 2: The Neopalatial Period and Shaft Grave Era

After the dearth of imported ivory throughout much of the Protopalatial period, Crete evidently gained access to ivory sources during the Neopalatial era (MM III-LM I).⁵³ According to the modified high chronology adopted here, the Neopalatial period began ca. 1700 BC, contemporary with the late 13th Dynasty in Egypt, and continued through the Hyksos period into the early 18th Dynasty. The destructions on Crete at the end of LM IB (ca. 1490 BC) coincide with the creation of an Egyptian empire that extended into Syria-Palestine after the expulsion of the Hyksos; thus, it should not be surprising that Egyptian tombs of this time begin to depict Syrian tributaries and Keftiu, presumably Aegean natives.⁵⁴

Six large, unworked elephant tusks come from the LM IB destruction level of the Zakros palace,⁵⁵ whose location at the east end of the island was ideally suited to exploit trade with the eastern end of the Mediterranean.⁵⁶ Significantly, the Zakros tusks were stored with bronze ingots, a combination of materials which recurs in the scenes from the tomb of Rekhmire slightly later, where Syrians present their tribute to pharaoh.⁵⁷ Worked ivories

-
- 49 C. VIROLLEAUD, "Découverte à Byblos d'un hypogée de la deuxième dynastie égyptienne," *Syria* 3 (1922) 273-90; E. NAVILLE, "Le vase à parfum de Byblos," *Syria* 3 (1922) 291-95; C. CLERMONT-GANNEAU, "Note additionnelle," *Syria* 3 (1922) 295-97; E. POTTIER, "Observations sur quelques objets trouvés dans le sarcophage de Byblos," *Syria* 3 (1922) 298-306; W.F. ALBRIGHT, "The 18th Century Princes of Byblos and the Chronology of Middle Bronze," *BASOR* 176 (1964) 38-46; C. LILYQUIST, "Granulation and Glass: Chronological and Stylistic Investigations at Selected Sites, ca. 2500-1400 B.C.E.," *BASOR* 290-291 (1993) 29-94, esp. 41-44: "Excursus on Byblos Royal Tombs."
- 50 There is an enormous bibliography discussing the Tôd Treasure: J. VANDIER, "À propos d'un dépôt de provenance asiatique trouvé à Tôd," *Syria* 18 (1937) 174-82; F. BISSON DE LA ROQUE, *Tôd, 1934-1936. Fouilles de l'Institut français du Caire XVII* (1937); *Idem, Catalogue général des antiquités égyptiennes du Musée du Caire, no. 70501-70754. Le trésor de Tôd* (1950); F. BISSON DE LA ROQUE, G. CONTENAU, F. CHAPOUTHIER, *Le trésor de Tôd* (1953); F. CHAPOUTHIER, "L'influence égéenne sur le trésor de Tôd," in *Trésor de Tôd* (*supra*) 21-35; E. DAVIS (*supra* n. 44) 69-79; E. PORADA, "Remarks on the Tôd Treasure in Egypt," in M.A. DANDAMAYEU *et al.* (eds.), *Societies and Languages of the Ancient Near East: Studies in Honor of I.M. Diakonoff* (1982) 285-303; J. MARAN, "Die Silbergefässe von el-Tôd und die Schachtgräberzeit auf dem griechischen Festland," *PZ* 62 (1987) 221-27; R. LAFFINEUR, "Réflexions sur le trésor de Tôd," *Aegaeum* 2 (1988) 17-30; LILYQUIST (*supra* n. 49) 35-36; G. PIÉRRAT, "À propos de la date et de l'origine du trésor de Tôd," *Bulletin de la Société Française d'Égyptologie* 130 (June 1994) 18-25; K.R. MAXWELL-HYSLOP, "A Note on the Anatolian Connections of the Tôd Treasure," *AnatSt* 45 (1995) 243-50.
- 51 J. WEINGARTEN, *The Transformation of Egyptian Taweret into the Minoan Genius: A Study in Cultural Transmission in the Middle Bronze Age*. SIMA 88 (1991).
- 52 Good illustration in QUIRKE and SPENCER (*supra* n. 14) 83 and fig. 59. See also W.C. HAYES, *The Scepter of Egypt*, I (1943) 248-49, 249 fig. 159.
- 53 For discussion of this period, see P. REHAK and J.G. YOUNGER, "Review of Aegean Prehistory VII: Neopalatial, Final Palatial, and Postpalatial Crete," forthcoming in *AJA* 102 (1998).
- 54 P. REHAK, "Aegean Breechcloths, Kilts and the Keftiu Paintings," *AJA* 100 (1996) 35-51.
- 55 N. PLATON, *Zakros. The Discovery of a Lost Palace of Ancient Crete* (1971) 61 fig.
- 56 The use of Giali obsidian in Neopalatial Crete confirms this trade with the east: P.P. BETANCOURT, "The Trade Route for Ghyali Obsidian," in *Techne*, 171-75.
- 57 N. de G. DAVIES, *The Tomb of Rekh-mi-Re at Thebes* (1943, reprinted 1973) pl. XXIII.

imported into Crete are still relatively rare, however: one of the few pieces is an egyptianizing, sphinx-shaped furniture ornament from house Zb at Mallia.⁵⁸

The high point of Minoan ivory carving came in the Neopalatial period. Both the importation of the raw material and the workshops that produced finished pieces were probably under the control of the major palaces. At Knossos, important workshop areas have been identified along the north and south sides of the Royal Road. Another workshop for ivory, faience, and rock crystal was discovered in the South Wing of Zakros palace.⁵⁹ It has been harder to identify actual workshops at other Minoan sites, but Archanes Tourkogeitonia and Palaikastro remain possibilities since worked ivories have been found in both locations.⁶⁰

The main characteristics of Neopalatial art are miniature scale, use of exotic materials combined for color and texture contrast, the creation of portable objects, and a sharing of artistic techniques and iconography among different media.⁶¹ Many of these objects appear to have been employed for ritual and display purposes and stored in closets or cists when not in use.

The tendencies outlined above are illustrated by a number of works, including the sumptuous "game board" from the Knossos palace, manufactured of ivory, gold, faience, and rock crystal.⁶² Overlap among media is represented by the creation of nearly identical relief shells in ivory,⁶³ faience,⁶⁴ and rock crystal,⁶⁵ and as relief decoration on pottery and bronzes.⁶⁶ Another iconographic link between ivory and faience production can be discerned in one of the Royal Road inlays⁶⁷ that depicts a house façade reminiscent of the faience Town Mosaic.⁶⁸

There is in addition a small but steadily increasing corpus of Neopalatial ivory plaques, often delicately modeled, that were used to adorn containers or pieces of furniture; a cutout piece in the shape of a bird, worked on both sides, was found in a workshop along the Royal Road (Pl. XXVIa).⁶⁹ Stylistically, the best relief carvings are comparable to contemporary stone relief vessels, which share the similar small scale and techniques of manufacture: compare an ivory plaque with marine rockwork from Zakros with stone relief vase fragments from Knossos.⁷⁰ Related rockwork occurs on an ivory plaque from Palaikastro showing a crested bird, perhaps a heron.⁷¹ The lilies on another Palaikastro plaque⁷² can be compared to those seen in LM IA wall painting. Other Palaikastro plaques may be trial pieces or are

58 *EtCrét* 11 (1959) 76-80, pls. 23.3-5, 30.4; *SWDS*, 133 no. 8.

59 PLATON (*supra* n. 55) 216-17.

60 Hood believes that a rough piece of tusk found at Palaikastro indicates that ivory was being carved there: S. HOOD, *The Arts in Prehistoric Greece* (1978) 120-21. For the Archanes material, see SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 42, 44.

61 P. REHAK, "Aegean Art Before and After the LM I B Cretan Destructions," in *Techne*, 51-65; R. LAFFINEUR, "Craftsmen and Craftsmanship in Mycenaean Greece: For a Multimedia Approach," in *Politeia*, 189-99; J.G. YOUNGER, "The Mycenae-Vapheio Lion Workshop, III," *TUAS* 6 (1981) 67-71.

62 *PM I* 469-82, pl. V.

63 Zakros palace: HM 334: POURSAT, *Les ivoires* (*supra* n. 4) pl. XI.7.

64 PLATON (*supra* n. 55) 219 fig. (above).

65 P. METAXA MUHLY, *Μινωϊκός λαξευτός τάφος στον Πόρο Ηρακλείου* (1992) 91 no. 249, pl. 27.

66 H. MATTHÄUS, *Die Bronzegefäße der Kretisch-Mykenischen Kultur*, *PBF* II.1 (1980).

67 S. HOOD, *The Minoans* (1971) pl. 23.

68 K.P. FOSTER, *Aegean Faience of the Bronze Age* (1979) 99-115.

69 E.g., small fragment from Kephala: POURSAT, *Les ivoires* (*supra* n. 4) pl. VIII.4.

70 For ivories from Zakros, see L. PLATON, "Ελεφάντινα πλακίδια από τὸ ανατολικὸ κτήριο στὴ Ζάκρο," in *ΕΙΛΑΠΙΝΙ. Τόμος τιμητικός για τον καθηγητή Ν. Πλάτωνα* (1987) 209-226, figs. 1-9. For Knossos vases, see B. KAISER, *Untersuchungen zum minoischen Relief* (1976), Knossos 2 and 17, Abb. 1 b and d, 15 b.

71 For the Palaikastro plaque with rockwork and bird: HOOD (*supra* n. 60) 121 fig. 109; L. PLATON (*supra* n. 70) fig. 7; MARINATOS and HIRMER (*supra* n. 44) pl. 109 (above); *Idem*, *Kreta, Thera und das mykenische Hellas* (1986) pl. 113 (above); *BSA* 11 (1904) 285, fig. 14 b. For the head of a similar crested bird, in lapis lazuli, found at Thebes, see S. SYMEONOGLOU, *Kadmeia I. Mycenaean Finds from Thebes, Greece. Excavation at 14 Oedipus St.* *SIMA* 35 (1973) pl. 90 fig. 267.5.

72 *BSA* 11 (1904) 285, fig. 14 a.

unfinished (Pl. XXVIb).⁷³ Some small ivory double axes from the Zakros palace have shafts that are drilled at the top, perhaps so they could be suspended as ornaments.⁷⁴

On stylistic grounds, a number of ivory plaques from later contexts on Crete and the mainland should probably be dated to the Neopalatial period. A distinctive feature of LM I seals with lions, bovids, and caprids is the "almond" shape of their eyes, a shape that changes in LM II to simple dotted renderings; these two traits are easily visible hallmarks of two large stylistic groups of seals, Almond-Eyes and their successors Dot-Eyes.⁷⁵ These traits may be useful for dating other media than just gems; bovids with almond eyes also appear in terracotta⁷⁶ and similar antelopes and cows appear on faience plaques from the Knossos Temple Repositories.⁷⁷ It seems likely, therefore, that the almond-eyed agrimia on a plaque from Archanes Phourni building 3⁷⁸ and on three plaques from Thebes⁷⁹ are thus also Neopalatial in date. An ivory mirror handle from Tholos A at Archanes, however, shows a bovid with a distinctive dot-eye,⁸⁰ on the basis of comparisons to seals, this work should be dated to the very end of the Neopalatial period or slightly later, in LM II/LH IIB.

A development of the Neopalatial period is the use of ivory for cosmetic containers and related objects. Cylindrical pyxides, usually formed from a section of elephant tusk, sometimes carry pictorial decoration. Pyxides from Katsamba and Ayia Triada show that both low relief carving and engraving coexisted for the decoration of such vessels; another pyxis reported from Archanes has not been published.⁸¹ The Ayia Triada pyxis (Pl. XXVIc)⁸² shows engraved girls in short skirts garlanding pavilions (shrines?) set on architectural platforms, a composition which is related to large-scale fresco painting.⁸³ Similar girls are depicted in the Thera frescoes and on gold foil ornaments found in the Mycenae Shaft Graves.⁸⁴ The pyxis from Katsamba,⁸⁵ by contrast, shows a relief scene of bull-hunting in a rocky landscape with palm-trees recalling the broad Knossian interest in bull-sports during the Neopalatial period,⁸⁶ as also illustrated by the gold Vapheio Cups.⁸⁷

-
- 73 R.C. BOSANQUET and R.M. DAWKINS, *The Unpublished Objects from the Palaikastro Excavations*. BSA Suppl. 1 (1923) 127, 126 fig. 109.
- 74 PLATON (*supra* n. 55) 131 fig.
- 75 J.G. YOUNGER, "Aegean Seals of the Late Bronze Age: Stylistic Groups IV. Almond- and Dot-Eye Groups of the Fifteenth Century B.C.," *Kadmos* 24:1 (1985) 34-73; *Idem*, "A Large Stylistic Group of the Late XVth Century," in *CMS Beiheft* 3 (1989) 339-53.
- 76 MARINATOS and HIRMER (*supra* n. 44) pl. 90, above: Pseira.
- 77 *PM I* 510-11, figs. 366, 367.
- 78 SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 109 col. fig. 84.
- 79 SYMEONOGLOU (*supra* n. 71) pls. 63-68.
- 80 HM 352: POURSAT, *Les ivoires* (*supra* n. 4) pl. VI.1.
- 81 SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 44.
- 82 F. HALBHERR, E. STEFANI and L. BANTI, "Haghia Triada nel Periodo Tardo Palazziale," *ASAtene* 39 (1977) [1980] 97-98, 97 figs. 64, 65. For the incised decoration of the Ayia Triada pyxis, cf. now the fragments of an ivory pyxis from Miletos (illustrated by W.-D. Niemeier at the Cincinnati conference; he reconstructs the scene as a seated woman in a flounced skirt next to a rocky outcrop).
- 83 E.g., the shrine painting from room 14 at Ayia Triada: P. REHAK, "The Role of Religious Painting in the Function of the Minoan Villa: The Case of Ayia Triada," in R. HÄGG (ed.), *The Function of the Minoan 'Villa': Proceedings of the Eighth International Symposium at the Swedish Institute at Athens, 6-8 June 1992* (1997) 163-75; P. MILITELLO, "Uno Hieron nella villa di Haghia Triada?," *Sileno* (1992) 101-113.
- 84 MARINATOS and HIRMER (*supra* n. 44) pl. 205 (bottom row, center). For the Thera frescoes, see C. DOUMAS, *The Wall Paintings of Thera* (1992) pls. 118, 120, 122, 123. On the representation of children, see E.N. DAVIS, "Youth and Age in the Thera Frescoes," *AJA* 90 (1986) 399-406; D. WITHEE, "Physical Growth and Aging Characteristics Depicted in the Thera Frescoes," *AJA* 96 (1992) 336 (abstract); J.G. YOUNGER, "Representations of Minoan-Mycenaean Jewelry," in *EIKΩN*, 288-89.
- 85 HM: AR 9 (1963) 64, and 10 (1964) 26 and fig. 32; S. ALEXIOU, *Υστερομινωϊκοί τάφοι λιμένος Κνωσού (Κατσαμπά)* (1967) color frontispiece, pls. 30-33. An ivory figure-eight shield in relief may have been the handle of the lid. For a color illustration, see J.-C. POURSAT, "Les ivoires mycéniens," *Les Dossiers de l'Archéologie* 195 (1994) 90 col. fig. The pyxis was found in a LM II-IIIa context, but is probably LM IB.
- 86 B. and E. HALLAGER, "The Knossian Bull - Political Propaganda in Neo-Palatial Crete?," in *Politeia*, 547-56.
- 87 NMA 1758, 1759: Davis (*supra* n. 44) 1-50, 256-58; for recent work, see A. XENAKI-SAKELLARIOU, "Αναζήτηση του εργαστηρίου των χρυσών κυπέλλων του Βαφειού," *ArchEph* 130 (1991) [1993] 45-64.

Other toilet articles of possible Neopalatial date are combs and mirror handles. Because many of these are found in later contexts, they have often been considered Mycenaean works, but a thorough survey of the evidence by A. Papaefthimiou-Papanthimou indicates that most of the surviving pieces are likely to be Minoan Neopalatial creations.⁸⁸

A rectangular comb with two superimposed registers of addorsed "crocodiles," couchant-regardant, their tails interlocked in a spiral, was found in a LM IB context in a house at Palaikastro (Pl. XXVIId).⁸⁹ Their almond eyes are comparable to those appearing on LM I sealstones. A similar animal, carved in the round and also couchant-regardant, was found in a LM IIIA/B context at Milatos, but should also be dated before the end of the Neopalatial period.⁹⁰ These may be the same creatures as those adorning the sterns of some of the ships in the LM IA flotilla fresco from the West House at Akrotiri on Thera.⁹¹

A second type of comb prevalent during the Neopalatial era has a slender handle which angles off to one side. The earliest (undecorated) example of this type was found on the mainland in Grave Circle B at Mycenae.⁹² A similarly shaped one from Routsis shows cats hunting ducks, a motif which seems indebted to Minoan models if not actually the product of a Cretan workshop.⁹³

The discovery in Neopalatial contexts of disk-shaped bronze mirrors with two or three rivet holes for the attachment of handles suggests that some of the ivory handles found in mainland contexts may have been manufactured before the end of LM IB on Crete.⁹⁴ One of these, the handle of a mirror from Tholos 2 at Routsis, introduces the motif of palm leaves at the top of the handle, supporting a decorated area which masks the rivets holding the handle to the mirror disk.⁹⁵ In this example, the area above the palm leaves contains three rosettes, separated by lily blossoms. An ivory mirror handle from a IIIA context in a chamber tomb at Pankalochori on Crete⁹⁶ is probably of Neopalatial date as well. Here, the area above the palm leaves carries an unusual composition with three Taweret figures or genii: one stands to left of a rocky cairn and two to right holding libation pitchers. The small genius in the center has a well-preserved almond-eye which should suggest an LM I date.

On three mirror handles found in later contexts at Mycenae, rivets anchor the handle to the bronze disk, their heads ornamented with lapis or glass disks surrounded by gold granulation, emphasizing the luxurious nature of these objects (Pl. XXVIe).⁹⁷ On all three handles, pairs of young girls in short skirts and short coiffures hold flowers or ducks. Their hairstyles and costumes resemble those of the girls on the Ayia Triada ivory pyxis and the girls in the Thera frescoes.

-
- 88 A. PAPAETHIMIOU-PAPANTHIMOU, *Σκεύη και σύνεργα του καλλωπισμού στον κρητομυκηναϊκό χώρο*. Ph.D. Dissertation, Aristotle University, Thessalonike (1971); cf. A.P. ILIAKI, *Mycenaean Ivories: A Study of Three Classes of Objects - Combs, Pyxides, and Mirror Handles*. Ph.D. Dissertation, Bryn Mawr College (1976). An ivory comb has been reported from a LM IB context along the Royal Road at Knossos: *AR* (1961) 27. Add a bronze mirror with a decayed ivory handle from the Nichoria tholos: W.A. McDONALD and N.C. WILKIE, *Excavations at Nichoria in Southwest Greece*, II. *The Bronze Age Occupation* (1992) 302 no. 1013, pl. 5-55 (from pit 3).
- 89 BOSANQUET and DAWKINS (*supra* n. 73) 127, 126 fig. 108.
- 90 C. DAVARAS, *Hagios Nikolaos Museum* (n.d.) col. fig. 74.
- 91 DOUMAS (*supra* n. 84) pls. 36, 37, 39.
- 92 NMA 8560: POURSAT, *Catalogue* (*supra* n. 4) 65 no. 227, pl. XIX.
- 93 NMA 8357: POURSAT, *Catalogue* (*supra* n. 4) 138 no. 410, pl. XLI; MARINATOS and HIRMER (*supra* n. 44) pl. 222 (below). Compare the fresco from Ayia Triada showing cats hunting: S. IMMERWAHR, *Aegean Painting in the Bronze Age* (1990) 180, A.T. no. 1c, pl. 17.
- 94 PAPAETHIMIOU-PAPANTHIMOU (*supra* n. 88).
- 95 MARINATOS and HIRMER (*supra* n. 44) pl. 222 (above).
- 96 Rethymnon Museum: on display, but unpublished. Autopsis, summer 1996.
- 97 The mirror handles are: 1) NMA 2899 (Mycenae chamber tomb 55): POURSAT, *Catalogue* (*supra* n. 4) no. 300; 2) NMA 2898 (Clytemnestra tholos dromos), POURSAT, *Catalogue* (*supra* n. 4) no. 331; 3) NMA 2900 (Clytemnestra Tholos dromos), POURSAT, *Catalogue* (*supra* n. 4) no. 332. Cf. a gold disk with central lapis surrounded by granulation from the Tomb of the Lord of the Goats at Ebla, ca. 1750 BC: MATTHIAE *et al.* (*supra* n. 33) 481 no. 400, 523 col. fig. A related disk was found at Byblos: MOOREY (*supra* n. 10) 228-31. See also LILYQUIST (*supra* n. 49) 29-94. Our illustration does not show these ornaments.

The most exciting and problematic Neopalatial ivories are the anthropomorphic figurines carved in the round and usually pieced together from several pieces of hippopotamus incisor; some of these figurines, especially those identified as bull-leapers, may have been used to form vignettes.⁹⁸

The recently discovered Palaikastro ivory youth (misleadingly called a "kouros"), now on display in Siteia, illustrates the preference of Neopalatial art for combining miniature scale, imported materials, and polychromy. The figure had ivory flesh, inlaid nipples, crystal eyes, scraps of gold clothing, and a "wig" of black steatite, a concept borrowed from Syria or Mesopotamia.⁹⁹ Despite the combination of materials for color contrast, at least one arm was overlaid with gold foil, and perhaps the entire figure was once gilded.¹⁰⁰

The ivory figure's pose with elbows bent and hands clenched below the pectorals mimics that of MM II terracotta figurines from the Petsofa peak sanctuary nearby, and it recurs on a miniature ivory statuette found at Mycenae and on a LM IIIA sealstone.¹⁰¹ His distinctive hairstyle, a shaved head with a single, thick, lock of hair braided down the middle, makes him an adolescent youth rather than an adult.¹⁰² Compare the youth in a LM IA fresco from Akrotiri on Thera, who wears a similar hairstyle.¹⁰³ We cannot tell with certainty whether the Palaikastro figure represents a god or a mortal, or whether he was meant to stand alone or form part of a group.

A difficulty is that the upper half of the figure, which does not directly join the lower half, seems proportionately too small for the legs. If the upper and lower halves do not belong together, we may be dealing with two ivory figures, each of which has been only half-preserved.

The modeling of the Palaikastro figure is incredibly detailed, with finger and toenails indicated with cuticles, and veins on hands and feet in relief. The thumbs are oddly elongated, overlapping the fingers of the clenched fists. We associate these traits with Knossian manufacture, since they occur on portable ivories from the palace and the Royal Road,¹⁰⁴ as well as on stationary works like the "Priest King" or "Lily Prince" relief fresco.¹⁰⁵

None of the ivory figurines from documented archaeological contexts on Crete is immediately identifiable as female, and K. Lapatin has suggested that most, if not all, of the

98 *PM* III, figs. 294-300. An unstratified ivory foot found near the Knossos palace wears a sandal like those of bull-leapers represented in the frescoes: *PM* II 2 727 fig. 455. The arm of a figurine holding an unidentified triangular object in the hand may also represent a bull-leaper although the object seems too thick to be a bull's horn: *AR* (1961) 29 fig. 40.

99 Siteia Museum, on display. H. SACKETT and J.A. MacGILLIVRAY, "Boyhood of a God," *Archaeology* 42.5 (1989) 26-31; J.A. MacGILLIVRAY *et al.*, Excavations at Palaikastro, 1988," *BSA* 84 (1989) 426-27, 427 fig. 7 (left foot), 428 fig. 8 (drawing of upper body), pls. 62, 63; H. SACKETT, "A Chryselephantine Kouros from Palaikastro - Disiecta Membra Conserved and United: Their Provenience and Stratigraphic Contexts," *AJA* 95 (1991) 293 (abstract); *AR* 37 (1991) 74-75, 75 fig. 72 (figure completed with legs); J.A. MacGILLIVRAY *et al.*, "Excavations at Palaikastro, 1990," *BSA* 95 (1991) 121-47, esp. 141-44; J.H. MUSGRAVE, "The Anatomy of a Minoan Masterpiece," in FITTON (*supra* n. 2) 17-23 (with good details); J. WEINGARTEN, "Measure for Measure: What the Palaikastro Kouros Can Tell Us About Minoan Society," in *Politeia*, 249-61. For steatite hair, cf. H. WEISS (ed.), *Ebla to Damascus. Art and Archaeology of Ancient Syria* (1985) 166-67 nos. 73, 74. New restorations to the piece, as of summer 1996, include: gold soles of sandals, unburnt tip of right foot, burnt tip of left foot (tips of both feet were made separately and doweled into place), a band of gold around the top of the thighs.

100 Cf. CLARKE (*supra* n. 11) 14-15.

101 Ivory statuette: POURSAT, *Catalogue* (*supra* n. 4) 87 no. 286 (NMA 2471), pl. XXVI; sealstone: *CMS* V, no. 201. Cf. the pose of a male figure with a leashed griffin on an ivory plaque from Dendra on the mainland: POURSAT, *Catalogue* (*supra* n. 4) 116 no. 359 (NMA 7359), pl. XXXVIII.

102 DAVIS (*supra* n. 84).

103 DOUMAS (*supra* n. 84) pls. 109, 113.

104 On the Royal Road, see *AR* (1961) 25-29. For pieces from the palace, see *PM* III 428-35.

105 Priest King's elongated thumb: *PM* II 2 780 fig. 508. See also J. COULOMB, "Le 'Prince aux lis' de Knossos reconsidéré," *BCH* 103 (1979) 29-50.

ivory "goddesses" on the art market early in the 20th century BC are fakes.¹⁰⁶ A possible Minoan Neopalatial work, featuring females, however, is the Ivory Triad from Mycenae representing two women and a child.¹⁰⁷ Although the Triad comes from a probable IIIB context, it is likely to be a Minoan work of Neopalatial date on the basis of the textile patterns in the costumes of the two larger figures,¹⁰⁸ both of whom wear Minoan ritual robes which were well understood by the artist, in contrast to many Mycenaean works where the garment is not accurately rendered.¹⁰⁹ The child, moreover, is probably a girl since it wears a robe, whereas small boys in Aegean art are usually shown nude, their genitals prominently displayed.¹¹⁰ On the one preserved woman's head, the eyebrow is incised into the surface, as it was on the Palaikastro youth, and the pupil is drilled for the insertion of a piece of another material. A twisted lock of hair over her right temple, falling in front of her ear, has a parallel on a bronze figurine of a female votary,¹¹¹ but the rest of her head appears shaved. One of the most evocative aspects of the Triad is the intimacy of body contact among the figures. The cloak draped about the shoulders of the two women further serves to unify the composition. The child leans against the knees of one woman, and links its arm with the arm of the other woman.

-
- 106 E.g., L.D. CASKEY, "Chryselephantine Statuette of the Cretan Snake Goddess," *AJA* 19 (1915) 237-49. K. LAPATIN gave a talk, "Minoan and 'Minoan' Chryselephantine Statuary: a Material and Historiographical Re-appraisal," at the TECHNE conference, 18 April 1996.
- 107 NMA 7711: A.J.B. WACE, *ILN* 16 Dec. 1939, 903 and 905; *Idem*, "Mycenae, 1939," *JHS* 59 (1939) 210, pl. XIV b; *Idem*, "Mycenae 1939-1956, 1957," *BSA* 52 (1957) 197; *Idem*, *Mycenae. An Archaeological History and Guide* (1949) 83, figs. 101-103; H. WACE, *Ivories from Mycenae* (n.d.); KANTOR 1960 (*supra* n. 1) 14-25, 24 fig. 22; MARINATOS and HIRMER (*supra* n. 44) pls. 218 (back view), 219 (front view); *Idem* (*supra* n. 71) pls. 242 (back view), 243 (front view); G.E. MYLONAS, *Mycenae and the Mycenaean Age* (1966) figs. 129-30; *Idem*, *Mycenae Rich in Gold* (1983) 119 col. fig. 90 (front view), 227 col. fig. 185 (back); BARNETT 1982 (*supra* n. 7) 37, pl. 28c; POURSAT, *Catalogue* (*supra* n. 4) 20-21 no. 49, pl. IV; HOOD (*supra* n. 60) 124-26, 125 fig. 114: "probably LH IIIA," but Hood notes (*supra* n. 60, 124) that the triad shows "all the grace and attention to detail characteristic of Cretan figurines of the best period before ca. 1450" (i.e., before the end of LM IB); POURSAT (*supra* n. 85) 92 col. fig. [the caption gives a date of LH II]; I. OZANE, *Les Mycéniens* (1990) 169 col. fig.; D. VASILIKOU, *Μυκηναϊκός πολιτισμός* (1995) 293, 295, 294 fig. 227 (front view), 228 (back view). Date is given as ca. 1300 BC.
- 108 At the TECHNE conference in Philadelphia, April 1996, E. Barber informed us that on the basis of dress patterns she thinks the Triad is unlikely to be later than LH II.
- 109 The scale pattern on the dress of one figure recurs on a number of ivory pyxides (NMA 2465, 2477), a Minoan stone relief vase fragment with archer (HM 257), the Mycenae silver Siege Rhyton (NMA 481), and a silver cup (NMA 3121), faience inlays, and the costume of one of the "Ladies in Blue" from a Knossos fresco of LM I date (*PM* I 545 fig. 397; *PM* II 2 731 fig. 457) and a fragment of the costume of a processional figure from Knossos (*PM* III 297 fig. 194). The scale pattern also decorates the edge of the roof of one of the ship cabins in a LM IA fresco from the West House at Akrotiri: DOUMAS (*supra* n. 84) pls. 55, 58. For the net pattern on textiles, cf. the sleeves of the so-called priestess from West House room 4 at Akrotiri: IMMERWAHR (*supra* n. 93) pl. 21; DOUMAS (*supra* n. 84) pls. 24, 25. As a textile pattern, this design occurs as early as MM II on a gold repoussé sword guard with the figure of an acrobat from Mallia: O. PELON, "L'acrobate de Malia et l'art de l'époque protopalatiale en Crète," in P. DARCQUE and J.-C. POURSAT (eds.), *L'iconographie minoenne. BCH Suppl.* 11 (1985) 36 fig. 1.
- 110 Ivory figurines from Palaikastro: *PM* III 446 fig. 310 a, b. For nude boys with exposed genitalia in the Thera frescoes, see DOUMAS (*supra* n. 84) pls. 18, 19, 79. The penis is clearly indicated on one drowning man from the Miniature Fresco of the West House at Akrotiri: DOUMAS (*supra* n. 84) pl. 29. At this conference, J. Green of the Harvard Semitic Museum noted the resemblance of the crouching Palaikastro ivory boy to later "Temple Boys" on Cyprus, a resemblance that had also been noted by T. HADZISTELIOU-PRICE, "The Type of the Crouching Child and the 'Temple Boys,'" *BSA* 64 (1969) 95-111, esp. 95.
- 111 *PM* I 507 fig. 365.

Smaller ivory figures of boys or youths have been found in Neopalatial contexts at Archanes¹¹² and Palaikastro.¹¹³ It is not clear what purpose these served, though the Archanes pieces may have formed part of a group, since two heads, three feet, and a hand were found together in area 17, while an ivory arm and miniature foot, and even an ivory fish were found nearby in area 22.¹¹⁴ Because the base for a double axe was also found nearby, the excavators have suggested that the ivory figures formed part of the equipment of a shrine. The tapering necks of the Archanes heads formed tenons, presumably for insertion into another material, and the ivory limbs were found with remnants of burnt wood and gold and silver foil, suggesting that the bodies may have been of wood with ivory attachments – true chryselephantine statues.

Distinctive shared stylistic traits of the Archanes and Palaikastro figures is the stippling of the short hair, perhaps to indicate a shaved skull as on the Thera frescoes, and the carving of the eyes as a featureless, raised almond-shape by cutting back the ivory surface around them: this last is a feature shared by some contemporary bronze figurines, which were modeled in wax and then cast using the *cire perdue* technique, as well as stone relief vases. One of the Archanes heads, however, has a raised horizontal band across the forehead which shows traces of rubrification: this band is very similar to the one worn by the youth with a sword on the Chieftain Cup from Ayia Triada.¹¹⁵

This peculiar treatment of the eye tends to give the figures a blank, staring expression which might have been mitigated if the pupils were indicated in paint. Stylistically, however, these eyes represent the earliest examples of this treatment which continues in later ivories.¹¹⁶

Mainland developments during the Neopalatial period

Before the end of the Neopalatial period, the Mycenaeans on the mainland began to acquire and perhaps commission ivories, though the actual mechanisms for either process are uncertain. It is hard to imagine that initially the mainlanders had access to ivory sources except through Crete, though the unworked tips of tusks were included among the contents of the Shaft Graves at Mycenae. A popular Mycenaean use for ivory is to decorate weapons, especially sword pommels and hilt guards for blades of various sizes. The earliest of these are found in the Shaft Graves at Mycenae, as on a sword from Grave Delta in Circle B,¹¹⁷ but they continue to be found, often in funerary contexts, until near the end of the Bronze Age.¹¹⁸

The first distinctively mainland style of ivory carving is the use of “rope and pulley” decoration¹¹⁹ characteristic of the Shaft Grave era at Mycenae (LH I), but not earlier or later. Designs of this type occur on bone and metal objects from the graves, as well as on ivories. One unusual ivory “wand” with such decoration from SG V may have been a weaving shuttle.¹²⁰ Lyre fittings found in Mycenae chamber tomb 81 are decorated in a similar manner.¹²¹ Heirloom examples of ivories in these LM/LH I styles also appear in much later

112 *BCH* 105 (1981) 873, 874 fig. 200 (male head); *BCH* 106 (1982) 625, 623 fig. 173 (right leg of statuette); *BCH* 107 (1983) 827, 828 fig. 151; *Ergon* (1982) [1983] 54-58; E. and J. SAKELLARAKIS, “Ανασκαφή Αρχανών 1986-1988,” *ArchEph* (1991) 169-218, esp. 212-18, 214 fig. 44; SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 42, 44, 46-47 figs. 24-25.

113 MARINATOS and HIRMER (*supra* n. 44) pl. 109: seated boy.

114 SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 44.

115 MARINATOS and HIRMER (*supra* n. 44) pl. 100, 102 left (detail).

116 E.g., plaques with sphinxes and a figurine group of two embracing men found in the tholos tomb at Phylaki Apokoronou: L. GODART and Y. TZEDAKIS, *Témoignages archéologiques et épigraphiques en Crète occidentale du Néolithique au Minoen Récent IIIB. Incunabula Graeca* 93 (1992) pl. LVI 1-4.

117 MYLONAS 1983 (*supra* n. 107) 101, fig. 96.

118 See POURSAT, *Catalogue* (*supra* n. 4) for examples. More recent additions to the corpus include one found by G. Walberg in a LH IIIC context at Midea: *AR* 42 (1996) 11.

119 G. KARO, *Die Schachtgräber von Mykenai* (1930/33) 267-76.

120 H.-G. BUCHHOLZ and V. KARAGEORGHIS, *Prehistoric Greece and Cyprus. An Archaeological Handbook* (1973) 50 no. 507, pl. 507.

121 NMA 3117: POURSAT, *Catalogue* (*supra* n. 4) nos 307-309, pl. XXXIII; XENAKI-SAKELLARIOU (*supra* n. 5) 230 no. 3117, pl. 108.

contexts, like the two ivory handles (?) found in a LM III larnax burial from Palaikastro¹²² and a fragment of a "diadem" (perhaps a hair-comb?) and a disk with a lion from LH III contexts in the New Kadmeion at Thebes.¹²³

Different styles sometimes coexisted. While the LH IIA Kakovatos tholos included a comb decorated with a delicately carved garland of waz-lilies and beads, a motif reminiscent of the garlands draped on the stern cabins of a LM IA fresco from the West House at Akrotiri,¹²⁴ other objects from the tomb include bone ornaments¹²⁵ also decorated in the "rope and pulley" style, a style that was probably local to the Argolid.¹²⁶ By contrast, a contemporary ivory pyxis from Kea is carved in low relief with running spirals which have rosette centers that resemble the plaster relief rosettes from the Zakros palace (LM IB).¹²⁷

Some of the early ivories from the Argolid were produced by the Mycenae-Vapheio Lion Group of Minoan-trained artisans who may have made their home on the mainland, like a pommel with four lions in a torsional design that may derive from Minoan compositions but in a style found mostly on the mainland.¹²⁸ The difficulty in separating "Minoan" from "Mycenaean" elements remains a problem from this point on, foreshadowing the later problem in separating Mycenaean from Levantine styles.

A slightly later development of the Mycenae-Vapheio Lion Group is the series of ivory plaques with sinewy running or hunting lions found in a later context in the House of Shields (Pl. XXVIf); their almond-eyes should date them LH I-IIA.¹²⁹ New features include a distinctive trefoil ear and a tufted rosette embedded in the fur of the mane. The latter detail recurs on a sealing from Knossos.¹³⁰ Lions with these traits next appear on the gold foil decoration of the hilt of a C_i sword from a LM II context in the "Chieftain's Grave" near Knossos (Pl. XXVIg).¹³¹

Phase 3: the Mycenaean Age and 18th Dynasty

The third, and most complex, phase of Aegean ivory work commences at the end of the Neopalatial period. The widespread destructions on Crete at the end of the LM IB pottery phase (ca. 1490 BC) seem to have dealt a major blow to the production of carved ivories there, and probably caused the dispersal of some ivory carving workshops as well.¹³² Between LM/LH II and IIIA, ivory workshops were established on the mainland, certainly at Mycenae and Thebes, and perhaps at a few other sites as well.

-
- 122 BOSANQUET and DAWKINS (*supra* n. 73) 128 fig. 110.
 123 K. DEMAKOPOULOU and D. KONSOLA, *Archaeological Museum of Thebes* (1981) col. pl. 15, lower right. For shape, cf. the undecorated example from the Mycenae acropolis: NMA 1028: POURSAT, *Catalogue* (*supra* n. 4) 11 no. 13, pl. II.
 124 DOUMAS (*supra* n. 84) pls. 59, 62.
 125 POURSAT, *Catalogue* (*supra* n. 4) 141 nos. 414, 5675, 5677, 5679, pl. XLIII.
 126 B. KLING, "Evidence for Local Style on the Shaft Grave Diadems," *TUAS* 6 (1981) 29-38.
 127 W.W. CUMMER and E. SCHOFIELD, *Keos III. Ayia Irini: House A* (1984) 95 no. 1083, pl. 41; cf. PLATON (*supra* n. 55) 172, 173 fig.
 128 J.G. YOUNGER, "The Mycenae-Vapheio Lion Group," *AJA* 82 (1978) 285-99; POURSAT, *Catalogue* (*supra* n. 4) 60 no. 208, pl. XVII.
 129 NMA 7399, 7400; POURSAT, *Les ivoires* (*supra* n. 4) 236; *Idem.*, *Catalogue* (*supra* n. 4) 23-24 nos. 51-53, pl. VI. These were discussed by J.-C. POURSAT, "Ivoires de l'Artémision: Chypre et Délos," *Études Déliennes. BCH Suppl.* 1 (1973) 415-25, and are considered further below.
 130 M.R. POPHAM and M.A.V. GILL, *The Latest Sealings from the Palace and Houses at Knossos*. *BSA Studies* 1 (1995) 41, s.n. N1, pl. 5. It should be noted that this hair rosette is different in shape from those depicted on the later ivories.
 131 A. EVANS, "The Prehistoric Tombs of Knossos," *Archaeologia* 59.2 (1905) [1906] 57 fig. 59; *Idem.*, *PM IV* 2 856-66, 866 fig. 851; MARINATOS and HIRMER (*supra* n. 44) pls. 112, 113 (above).
 132 REHAK (*supra* n. 61). On the cause of these destructions, see the recent discussion by O. DICKINSON, "Minoans in Mainland Greece, Mycenaean in Crete?," *Cretan Studies* 5 (1996) 63-71.

The latter half of the Late Bronze Age, ca. 1500-1300 BC, roughly contemporaneous with the 18th Dynasty, marks the emergence of the Mycenaean kingdoms in the Aegean and increasing evidence for Greek exchanges with the Near East and Egypt. This two-hundred year period saw the creation of an Egyptian empire in Syria following the expulsion of the Hyksos, with the establishment of spheres of influence as far north as Ugarit and contacts with the superpowers of Mitanni, Hatti, and Mesopotamia. By the end of this period, the power of Mitanni had waned and Hittite and Assyrian influence were increasing at the expense of the Egyptian empire.

Various documentary and archaeological sources shed light on the ivory trade in the east during this period: Egyptian historical records on their conquests in Syria (Thutmose I and III), the depiction of Syrian and Keftiu "tributaries" in tomb paintings (Hatshepsut to Amenhotep II), and in the second half of the 14th century BC, the Amarna Letters, contents of the tomb of Tutankhamun, and finds from the Uluburun shipwreck. In the Aegean, this period coincides with the pottery phases LM II/LH IIB - LM/LH IIIB1.

Egyptian sources underscore the elite, primarily royal, involvement in the acquisition and exploitation of ivory as a material. Thutmose I and II hunted elephants in Syria and presumably acquired the tusks of the animals they killed and brought them to Egypt.¹³³ The annals of Thutmose III at Karnak record the acquisition of spoils that include ivory furniture from defeated Syrian princelings like the ruler of Megiddo. The tomb of Rekhmire, vizier in the reigns of Thutmose III and Amenhotep II, includes scenes of both Syrian and Keftiu (presumably Aegean) tributaries. Among these figures are Syrians offering a large pair of tusks and a small elephant.¹³⁴ Since the tiny creature has tusks, which juvenile elephants lack, their addition to what would otherwise be called a baby elephant may be meant to call to mind the importance of the animals in producing ivory.¹³⁵

The tomb of Menkheperresoneb at Thebes, also of the time of Thutmose III, likewise illustrates the presentation of "tribute" to pharaoh by Syrians and Keftiu.¹³⁶ Now members of both ethnic groups hold tusks: this may imply a circular trade, tusks originating in Egypt/Syria, passing through the Aegean on their way back to Egypt. There is a danger in taking the paintings too literally, however: one of the tusk-bearers in the tomb wears a Keftiu-style kilt, complete with a pattern of running spirals, but he has the hairstyle and beard of a Syrian.¹³⁷

A painting from the tomb of Sobekhotep at the time of Thutmose IV shows Syrian envoys presenting tribute: one holds what seems to be an ivory horn ornamented at its wide end with a gold band and at its tip with the bust of a woman.¹³⁸ Thus finished works were exchanged as well as raw materials.

Another important source of evidence for the trade of worked ivories comes from the Amarna tablets dating to the reigns of Amenhotep III, Akhenaten, Smenkhkare, and Tutankhamun.¹³⁹ Although fragmentary and incomplete, these tablets document diplomatic exchanges between Egypt, its Syrian dependencies, and the other major powers of the Near East, especially Hatti, Mitanni and Babylon. Worked ivory objects played an important role in these exchanges in both directions.

For example, tablet EA 5 records gifts from Amenhotep III to Kadašman-Enlil of Babylon for his new palace: "1 bed of ebony, overlaid with ivory and gold, 3 beds of ebony overlaid with gold, 1 *uruššu* of ebony, overlaid with gold; 1 large chair of ebony overlaid with

133 CAUBET and POPLIN 1987 (*supra* n. 2) 273-306, esp. 298.

134 DAVIES (*supra* n. 57) pl. XXIII (upper left).

135 I.J. WINTER, *North Syria in the Early First Millennium, with Special Reference to Ivory Carving*. Ph.D. Dissertation, Columbia University (1973) 264.

136 N. de G. DAVIES, *The Tombs of Menkheperresoneb, Amenmose, and Another* (1933) pl. V.

137 DAVIES (*supra* n. 136) pl. I (color).

138 QUIRKE and SPENCER (*supra* n. 14) 199 fig. 153; E. DZIOBEK and M.A. RAZIQ, *Das Grab des Sobekhotep*. *Theben Nr. 63* (1990) pl. 3c, fig. 33b.

139 W.L. MORAN, *The Amarna Letters* (1992).

gold; 5 chairs of ebony overlaid with gold; 4 chairs of ebony overlaid with gold... In addition, 10 footrests of ebony...[...] footrests of ivory, overlaid with gold." Another letter, EA 11, discusses the dowry negotiations between Akhenaten and king Burnaburiaš of Babylon for the delivery of a Babylonian princess to Egypt. Burnaburiaš requests trees and plants of Egypt to be made of ivory and tinted. EA 14 continues with an inventory of gifts sent by Egypt to Burnaburiaš as part of the same transaction (III.75-IV.19):

- 9 boxes, of ebony and ivory, delicate work.
- 2 boxes, of ebony and ivory, delicate work, called *za*.
- [...]..., of ebony and ivory, delicate work.
- 6 pairs of animal paws, of stained ivory.
- 9 plants, of stained ivory, [...]...
- 10 plants, various sorts, of stained ivory.
- 29 "cucumbers," containers of oil, of stained ivory.
- 44 containers of oil, decorated with apples, pomegranates, dates, and *kurumanu*, of stained ivory.
- 3 *kukkubu*-containers, of stained ivory; *kuba* is its name.
- 3 oxen, containers of oil, of stained ivory.
- 3 ibexes, containers of oil, of stained ivory.
- 1 small container of aromatics, of stained ivory, and [...] in its center, and 1 ox on top. [...]..., of stained ivory.

Other letters mention a variety of ivory objects: gifts from Tušratta of Mitanni include horse-trappings decorated with ivory (ivory blinkers) in EA 22 which recall the ivory cheekpieces mentioned by Homer centuries later.¹⁴⁰ Other items include bread shovels of ebony or ivory, 5 small horn-rhyta of ivory (EA 25, line 41), chests of boxwood or ebony ornamented with silver, gold, with ivory figures (EA 25, lines 25-31), and Amenhotep III's gift of 10 chairs of ebony inlaid with ivory and 100 beams of ebony as part of the negotiations for a Hittite princess (EA 31).

Although the tomb of Huy,¹⁴¹ viceroy to Tutankhamun, shows Nubians presenting tribute but no ivory, the contents of the tomb of Tutankhamun himself allow us to visualize many of the items mentioned in the Amarna letters, and provide important evidence for the styles of Egyptian ivory carving in the last quarter of the 14th century BC. Ivory was used extensively in pieces of furniture:¹⁴² elaborate chairs and footstools, gameboards and gaming pieces, boxes and chests, and small personal items. Containers,¹⁴³ like a small casket meant to contain gold rings, might be made entirely of ivory, while larger chests combined several materials, including cedar wood, ebony, ivory, gold and silver. Personal items of ivory¹⁴⁴ include fan stocks set with ostrich feathers, headrests, and writing palettes.

140 *Iliad* 4.141 and 5.583.

141 N. de G. DAVIES, *The Tomb of Huy, Viceroy of Nubia in the Reign of Tutankhamun (No. 40)* (1926) pls. XXIII, XXVII-XXX. Nubian ivory subsequently appears, however, on a temple relief of Ramses II at Beit el-Wali: QUIRKE and SPENCER (*supra* n. 14) 202.

142 C. DESROCHES-NOBLECOURT, *Tutankhamun; Life and Death of a Pharaoh* (1965) 198 fig. 117, pls. XII (so-called "ecclesiastical throne"), and XLIA a (ebony and ivory senet board on sledge runners).

143 *Ibid.* pls. XXIII b and XLIX a.

144 *Ibid.* 148 fig. 47 (ivory papyrus smoother or burnisher), 203 fig. 123 (ivory fan), and 288 fig. 187 (antithetic addorsed lions with shoulder rosettes and rib striations; cf. the tinted ivory folding headdress ornamented with Bes heads: pl. XLI b).

The Uluburun ship,¹⁴⁵ wrecked off the southwest coast of Turkey (Lycia) near the end of the 14th century BC, included worked and unworked hippo and elephant ivory, as well as other goods that we see in the Egyptian tomb paintings: ebony, gold, metal ingots.¹⁴⁶ The wood preserved in the Uluburun wreck dates the ship and its contents to 1305 BC or shortly after, about the time of the LM/LH IIIA2 - B1 transition, and thus contemporary with the final years of the 18th Dynasty in Egypt (reign of Horemheb).¹⁴⁷

The wreck furnishes important evidence for the types of ivory current in the eastern Mediterranean at this time. Two duck-shaped cosmetic containers of ivory with moveable wings were probably of Syro-Palestinian or Cypriot manufacture, but they recall 18th Dynasty Egyptian cosmetic vessels.¹⁴⁸ Other objects are more easily recognized as Levantine: several ivory scepters with ivory finials; a bone finial in the shape of a pomegranate was perhaps once attached to one of the shafts,¹⁴⁹ and an ivory acrobat carved in the round. One of the most unusual objects was a *shofar*, or ritual horn, carved to resemble a twisted ram's horn but made of hippo incisor. Unworked hippo ivory and elephant tusks and sections suitable for the carving of circular pyxides could have received surface decoration in any region of the eastern Mediterranean. Ivory was even used in a minor capacity as part of the hinge mechanism on two writing diptychs found on board the wreck; the remainder of these was made of boxwood, probably from North Syria.¹⁵⁰

When viewed against this background of sumptuous exchanges among the great kingdoms of the east, Late Bronze Age ivory carving in the Aegean looks distinctly peripheral.

-
- 145 Uluburun is the actual location of the wreck; Kaş is the cape nearby. Bibliography includes: G.F. BASS, "A Bronze Age Shipwreck at Ulu Burun (Kaş): 1984 Campaign," *AJA* 90 (1986) 269-96; *Idem*, "Oldest Known Shipwreck Reveals Splendors of the Bronze Age," *National Geographic* 172.6 (December 1987) 693-733; C. PULAK and C. HALDANE, "Ulu Burun. The Late Bronze Age Shipwreck: The Fourth Excavation Campaign," *INA Quarterly* 15.1 (1988) 2-4; C. PULAK, "Excavations in Turkey: 1988 Campaign," *INA Quarterly* 15.4 (1988) 12-17; *Idem*, "Ulu Burun: 1989 Campaign," *INA Quarterly* 16.4 (1989) 4-11; *Idem*, "Ulu Burun: 1990 Campaign," *INA Quarterly* 17.4 (1990) 8-13; *Idem*, "The Late Bronze Age Shipwreck at Ulu Burun, 1991 Field Season: 'Ingot Summer'," *INA Quarterly* 18.4 (1991) 4-10; *Idem*, "The Shipwreck at Ulu Burun, Turkey: 1992 Excavation Season," *INA Quarterly* 19.4 (1992) 4-11, 21; *Idem*, "Dendrochronological Dating of the Uluburun Ship," *INA Quarterly* 23.1 (1996) 12-13; G.F. BASS, C. PULAK, D. COLLON, and J. WEINSTEIN, "The Bronze Age Shipwreck at Ulu Burun: 1986 Campaign," *AJA* 93 (1989) 1-29; C. HALDANE, "Organic Goods from the Ulu Burun Wreck," *INA Quarterly* 18.4 (1991) 11; C. PEACHEY, "Conservation" in "Continuing Study of the Uluburun Shipwreck Artifacts," *INA Quarterly* 23.1 (1996) 4-7; M. FITZGERALD, "Laboratory Research Analysis," *INA Quarterly* 23.1 (1996) 7-9; P. SIBELLA, "The Copper Oxhide and Bun Ingots," *INA Quarterly* 23.1 (1996) 9-11. Cf. C. BERGOFFEN, *A Comparative Study of the Regional Distribution of Cypriote Pottery in Canaan and Egypt in the Late Bronze Age*. Ph.D. Dissertation, New York University (1989); I. KILIAN, "Überlegungen zum spätbronzezeitlichen Schiffswrack von Ulu Burun (Kaş)," *JRGZM* 40 (1993) 333-52. The Mycenaean pottery on board has tentatively been identified as LH IIIA2 (developed stage, but before the actual transition to IIIB1, which must have occurred about the time the vessel sank).
- 146 BASS *et al.* 1989 (*supra* n. 145) 11, fig. 20.
- 147 P.I. KUNIHOLM, B. KROMER, S. MANNING, M. NEWTON, C. LATINI, and M.J. BRUCE, "Anatolian Tree Rings and the Absolute Chronology of the Eastern Mediterranean, 2200-718 B.C.," *Nature* 381 (27 June 1996) 780-83; P. KUNIHOLM, *Aegean Dendrochronology Project December 1997 Progress Report* (1997) = World Wide Web site <http://www.arts.cornell.edu/dendro/97adplat.html>.
- 148 E.g., A.P. KOZLOFF and B.M. BRYAN, *Egypt's Dazzling Sun. Amenhotep III and His World* (1992) 347-48 no. 75, col. pl. 75, where a sky goddess holds the duck. Egyptian cosmetic vessels often combine ivory, ebony, and boxwood, all of which were found on the Uluburun vessel.
- 149 Cf. the pomegranate-headed pin from Tomb 9 at Kition in Cyprus: BUCHHOLZ and KARAGEORGHIS (*supra* n. 120), 163 no. 1747, pl. 1747.
- 150 G.F. BASS, "A Bronze Age Writing Diptych from the Sea off Lycia," *Kadmos* 29 (1990) 169; R. PAYTON, "The Ulu Burun Writing-Board Set," *AnatSt* 41 (1991) 99-106; P. WARNOCK and M. PENDLETON, "The Wood of the Ulu Burun Diptych," *AnatSt* 41 (1991) 107-110; D. SYMINGTON, "Late Bronze Age Writing-Boards and Their Uses: Textual Evidence from Anatolia and Syria," *AnatSt* 41 (1991) 111-23. Aziru promises to ship boxwood to Egypt in *EA* 160.

Proximity may have played an important role, since Cyprus appears to have become a major maker of ivory items for these exchanges,¹⁵¹ as well as centers along the coast of Syria-Palestine. Hippo teeth have been found on Cyprus at Hala Sultan Tekke,¹⁵² along with raw hippo and elephant ivory at Kition.¹⁵³ The rich Cypriot tombs at Ayios Dhimitrios currently being excavated have already revealed some of the same types of objects as the Uluburun wreck. Tomb 11, for example, contained parts of two ivory rods with finials, a duck pyxis, and a circular pyxis lid decorated with an incised rosette and a guilloche band.¹⁵⁴

In the Aegean, the first part of this period, LM II/LH IIB - IIIA1/2, marks the transition from Minoan to Mycenaean supremacy and the emergence of the Mycenaean kingdoms on the mainland. Not surprisingly, the period presents a typical (con)fusion of styles. Knossos seems to have remained the premier palace center in Crete in LM II-III A1, with other regional powers operating in the Mesara Plain and at Khania. This period ended with a major destruction at Knossos early in IIIA2, although the palace seems to have continued to function as a Mycenaean administrative center into LM IIIB.¹⁵⁵ Coinciding closely with the first Knossos destruction at the LM IIIA1/2 transition is the appearance of the first major citadels on the mainland and the construction of the Atreus tholos at Mycenae. Changes in architecture and material culture on Crete suggest that a major wave of mainland settlers may have arrived on Crete at this point, and rich chamber tombs in the Argolid include material that may have been acquired on Crete.¹⁵⁶

In the immediate aftermath of the earlier, LM IB destructions, there is little evidence of ivory work on Crete except at the Unexplored Mansion.¹⁵⁷ There, a number of small pieces have been recovered, including possible game counters, decorative inlays for furniture, and a sword pommel. It is not clear whether these represent new products or heirlooms of Neopalatial date. On Crete, stylistically similar Neopalatial ivories were found along the Royal Road at Knossos both in LM IB and LM IIIA destruction levels, the latter probably survivals at the time they were finally deposited.

From LM II-III contexts, primarily in warrior graves, come a number of other ivory objects. Funerary Building 3 at Archanes Phourni produced at least 25 ivory plaques, four of which show running lions¹⁵⁸ in poses reminiscent of the animals on the Mycenae plaques from the House of Shields, described above. The LM IIIA tholos tomb at Phylaki Apokoronou in western Crete was particularly rich in ivories including pins, inlays, and a comb.¹⁵⁹ Several rectangular furniture plaques with sphinxes with displayed wings stand to left, and a footstool was decorated with warrior's heads and figure-eight shields.¹⁶⁰ An unusual piece represents two kneeling, embracing youths (twins?) surmounting a tenon, perhaps for insertion into another object.¹⁶¹ Another ivory footstool decorated with warrior's heads was found in the rich burial of a high-status woman in tholos A at Archanes, dating to LM IIIA2.¹⁶²

151 L. ÅSTRÖM, *Studies on the Arts and Crafts of the Late Cypriote Bronze Age* (1967) 77-84.

152 REESE 1988 (*supra* n. 2).

153 REESE 1985 (*supra* n. 2).

154 A. SOUTH, "Late Bronze Age Society in Cyprus," *Minerva* 8.2 (1997) 28-33, especially 32 fig. 15.

155 REHAK and YOUNGER (*supra* n. 53).

156 E.g., an ivory plaque with relief decoration of argonauts from a LH IIIA1 context in the Kokla tholos in the Argolid: K. DEMAKOPOULOU, "The Burial Ritual in the Tholos Tomb at Kokla, Argolis," in R. HÄGG and G.C. NORDQUIST (eds.), *Celebrations of Death and Divinity in the Bronze Age Argolid* (1990) 113-23, esp. 119 and fig. 16; *Eadem*, "Argive Mycenaean Pottery: Evidence from the Necropolis at Kokla," in *Wace and Blegen*, 57-75, esp. 59 and n. 25, pl. 1d.

157 D. EVELY, "The Other Finds of Stone, Clay, Ivory, Faience, Lead, etc.," in M.R. POPHAM *et al.*, *The Minoan Unexplored Mansion at Knossos*. BSA Suppl. 17 (1984) 223-59.

158 SAKELLARAKIS and SAKELLARAKIS (*supra* n. 23) 108 fig. 83.

159 See BCH 106 (1982) 628, 630 fig. 182 (head of warrior); Y. TZEDAKIS, "Φυλακή Αποκορωνού," *Deltion* 36 (1981) [1988] B2 Chron, 398-99; GODART and TZEDAKIS (*supra* n. 116) 59-60, pls. LV-LVII: ivories.

160 Khania Museum K-29: for a color illustration of one of these heads, see K. DEMAKOPOULOU (ed.), *The Mycenaean World* (1988) 148 no. 104 and col. fig.

161 GODART and TZEDAKIS (*supra* n. 116).

162 A. KANTA, *The Late Minoan III Period in Crete: A Survey of Sites, Pottery and their Distribution*. SIMA 58 (1980) 33.

Ivories from similar contexts come from warrior graves on the mainland. Several fragmentary pieces were found in the rich tombs at Dendra.¹⁶³ These include fragments of burnt ivory perhaps belonging to several containers with unusual iconography.¹⁶⁴ One pyxis fragment appears to show a genius extending vegetation to a rampant goat.¹⁶⁵ A fragmentary head has been identified as that of a male (Pl. XXVIIh): its short curls, however, probably represent instead a female child with short hair, similar to individuals shown in the Thera frescoes and on several ivory mirror handles.¹⁶⁶ A plain bowl of ivory from one of the Dendra tombs was adorned with bands of gold leaf.¹⁶⁷

As mentioned above, one effect of a major Knossos destruction early in IIIA2 may have been the dispersal of workshops and craft personnel¹⁶⁸ (including ivory carvers) to other Aegean centers. The "Ivory Houses" outside the citadel at Mycenae, constructed early in IIIB1 and destroyed at the end of this period, may have served as manufactories for the production of ivory furniture exported to other Mycenaean centers like Tiryns,¹⁶⁹ Pylos, and perhaps abroad. But when the House of Shields at Mycenae was destroyed by fire at the end of LH IIIB1, its workshops included carved ivories of different periods and styles that were being used or reused to create or repair pieces of furniture like those described in the IIIB2 Linear B Ta tablets from the Pylos palace, discussed below.

At the Kadmeion at Thebes, palace workshops that include evidence of ivory carving were destroyed by fire at different dates in LH IIIA2 and IIIB1. Gold, semiprecious stones, and a large amount of ivory were found in an earlier part of the palace at 14 Oidipous St.¹⁷⁰ The later "Treasure Room" (Pindarou and Antigone St.) contained similar materials, as well as a hoard of oriental lapis lazuli cylinders.¹⁷¹ More ivories come from other sites in the Kadmeion, including two carved ivory legs, perhaps from a throne, which resemble Syrian works.¹⁷² The strong eastern connections of Thebes at this time are illustrated by other works as well, like a gold pendant in the shape of the Mitannian "Tree of Life" which is not at all Aegean in style.¹⁷³ A similar Tree of Life appears on a carved elephant tusk from chamber tomb 55 at Mycenae,¹⁷⁴ which is generally agreed to be a Syrian work with strong Egyptian influences.¹⁷⁵

The Thebes finds are especially important, because they indicate that the Mycenaean kingdoms were familiar with the types of ivories used by the more sophisticated contemporary powers of the Near East. Their presence at a Mycenaean palatial center, however, complicates our attempts to separate Aegean from Eastern influences. Kantor provided a series of categories which may help us to distinguish among the ivory works produced in several different areas: Mycenaean works, Syrian works, and Myceno-Levantine works (where Aegean influences predominate) and Levanto-Mycenaean works (where Levantine influences are dominant). Because these labels are inherently subjective, perhaps the term

163 A.W. PERSSON, *The Royal Tombs at Dendra near Midea* (1931); *Idem, New Tombs at Dendra near Midea* (1942).

164 PERSSON 1931 (*supra* n. 163) 41 no. 6, 59 fig. 36, pl. XXVI.

165 P. REHAK, "The 'Genius' in Late Bronze Age Glyptic: The Later Evolution of an Aegean Cult Figure," in *CMS Beiheft* 5 (1995) 215-31, esp. 227 and fig. 9.

166 DOUMAS (*supra* n. 84) pls. 118, 119, 130. For the mirror handles, see *supra* n. 94.

167 PERSSON 1942 (*supra* n. 163) 91 no. 40, 92 fig. 102.

168 The following period, LM/LH IIIA2-B1 sees the last of the hard-stone sealstones, the Island Sanctuaries Group. Because members of the group are evenly dispersed in the Aegean, no one site for the workshop (e.g., Knossos) can be postulated.

169 A miniature ivory column from LH IIIB1 context in lower citadel at Tiryns is very similar to examples from Mycenae: *BCH* 106 (1982) 549, 548 fig. 34.

170 SYMEONOGLOU (*supra* n. 71).

171 E. PORADA, "The Cylinder Seals Found at Thebes in Boeotia," *AJO* 28 (1981) 1-70.

172 DEMAKOPOULOU and KONSOLA (*supra* n. 123) col. pl. 25.

173 *Ibid.* col. pl. 17 (below). Cf. the same motif on a painted chest from Egypt: KOZLOFF and BRYAN (*supra* n. 148) 285-87 no. 53, col. pl. 33.

174 NMA 2916: POURSAT, *Catalogue* (*supra* n. 4) 94-95, no. 301, pls. XXX, XXXI; XENAKI-SAKELLARIOU (*supra* n. 5) 175-76, pl. 73; *SWDS*, 134-35 no. 20.

175 *Interconnections*, 117.

“internationalizing” should be used for works which combine style and iconography from difference sources.

Some effort at defining regional products may be attempted, however, on the basis of the distribution patterns of certain types of object. There is general agreement, for example, that footstools decorated with the heads of warriors wearing boar’s tusk helmets and relief figure-eight shields¹⁷⁶ are essentially “Mycenaean,” though a number of these have been found on Crete. Their backing plates are often engraved with compass-drawn circles and engraved lines which seem to be the lineal descendants of the Shaft-Grave “rope and pulley style.” Parts of three such footstools were found in chamber tomb 27 at Mycenae, one in the House of Shields, another in a chamber tomb at Spata that was rich in ivories. The Cretan contexts include Archanes Tholos A and the tholos at Phylaki Apokoronou. Outside the Aegean, a partial warrior head from such a footstool was found in Enkomi tomb 16 and a helmet fragment has been reported from Sardinia.¹⁷⁷

Also produced in the Aegean were oval or circular pyxides, though the shape was also known from Syria. The pyxides have been hard to date on stylistic grounds since they come from a wide range of contexts. The most common surviving surface decoration consists of bands of argonauts or scale patterns: these appear solely Aegean. But many pyxides carry parading or antithetic sphinxes, a motif at home in the Aegean but deriving ultimately from Syria. A large pyxis from a LH IIIA1 grave in the Athenian Agora presents a griffin attacking a stag, with handles that consist of appliqué relief lions chasing stags.¹⁷⁸ Its chaotic and choppy style is unique in the Aegean, though its abrupt combinations of horizontal and aerial perspective hark back to the embossed gold plates decorating a hexagonal wooden box from Mycenae SG V.¹⁷⁹

Levantine Imports in the Aegean

Distribution patterns of certain types of objects can also be used to identify probable Levantine imports at some Aegean sites. Thus an ivory “boat” from chamber tomb 81 at Mycenae has been considered a Mycenaean work by some,¹⁸⁰ but its shape and the dowel hole in its upper surface should instead indicate that this is the lower half of a duck pyxis or related cosmetic container. The same is true of the “pyxis en forme de barque” found in Zapher Papoura tomb 7 near Knossos (Pl. XXVIIi).¹⁸¹ Several other examples have been identified, all made of hippo lower canines and all unlikely to have been made in the Aegean.¹⁸² Similar examples were found on the Uluburun shipwreck, and all are relatives of Egyptian cosmetic spoons which became especially elaborate in the late 18th Dynasty.¹⁸³ Other duck pyxides have been found at Alalakh in North Syria.¹⁸⁴

Similarly, several unnumbered ivory fragments in the Athens National Museum apparently belong to a carved tusk whose decoration includes several human fingers with the nails carefully indicated in relief.¹⁸⁵ These may belong to a carved tusk (a flask?) terminating

176 Catalogued by KRZYSZKOWSKA, in “The Enkomi Warrior Head Reconsidered,” *BSA* 86 (1991) 107-120, esp. 118.

177 *Ibid.* 118 no. 11: Mitza Pürdia di Decimoputzu (Cagliari Museum): helmet fragment only.

178 S.A. IMMERWAHR, *The Athenian Agora, 13: The Neolithic and Bronze Ages* (1971) 166, pl. 32.

179 MARINATOS and HIRMER (*supra* n. 44) pls. 198, 199 (below).

180 NMA 9506: POURSAT, *Catalogue* (*supra* n. 4) 99 no. 316, pl. XXXIII; J. SAKELLARAKIS, “Ελεφάντινον πλοῖον ἐκ Μυκηναίων,” *ArchEph* (1971) 188-233 incorrectly identifies duck-pyxides as boats.

181 HM 120: EVANS 1906 (*supra* n. 131) 26 no. 7e, 27 fig. 22; POURSAT, *Les ivories* (*supra* n. 4) pl. IX.3 and 4; M. DUCHESNE-GUILLEMIN, “Restitution d’une harpe minoenne et problèmes de la σαμβύκη,” *AntCl* 37 (1968) 5-9, misidentifies this piece as a Minoan lyre.

182 KRZYSZKOWSKA (*supra* n. 176) 117 and n. 41, citing in addition a small neck from Mycenae and a duck head from Asine: P. FRÖDIN and A. PERSSON, *Asine* (1938) 388 fig. 254.

183 E.g., KOZLOFF and BRYAN (*supra* n. 148) 347 no. 75, col. pl. 39.

184 WOOLLEY (*supra* n. 41) pl. LXXV.

185 POURSAT, *Catalogue* (*supra* n. 4) 110 no. 337, pl. XXXVI.

in a human hand similar to an example carried by a Syrian tributary bringing offerings to Thutmose III in the tomb of Rekhmire at Thebes.¹⁸⁶

It is interesting to note that several of these possible eastern imports at Aegean sites occur in contexts which included other imported material. Accompanying the ivory plaque with the "Mistress of Animals" in Mycenae tomb 49 (see below) was a faience vessel with the cartouche of Amenhotep III.¹⁸⁷ A faience plaque with the cartouche of Amenhotep III was found in the Shrine in the Cult Center, which also contained ivories, some again perhaps imports. The carved ivory tusk from tomb 55, mentioned above as a Syrian creation, accompanied a Predynastic Egyptian diorite jar¹⁸⁸ and a braided gold chain (probably Syrian).¹⁸⁹ Two Mycenaean gold rings¹⁹⁰ in the tomb indicate that their owner was a person of rank or high status.

Another object which has been identified as a Levantine import is the small, peg-shaped ivory figurine found outside the lower citadel at Tiryns (Pl. XXVIj).¹⁹¹ The object was discovered with material that had been thrown out of a possible shrine in casemate 7. If correctly identified as an import, the figurine joins the Levantine bronze Reshef figurines that have been found occasionally in other possible cultic contexts in the Aegean, like two from the Mycenaean shrine at Phylakopi¹⁹² and another from the Artemision Deposit on Delos, discussed below.

It is worth noting that there seem to be no imported Egyptian ivories found in the Aegean despite other indications of contacts between the two areas. The converse is also true: relatively few undoubted Aegean ivories have been found at eastern sites. Even the well known plaque with a recumbent griffin from Megiddo,¹⁹³ generally considered Aegean by scholars, has a "feathered" area at the base of the neck which no griffin at an Aegean site shares.

The Appearance of a Levanto-Mycenaean/Myceno-Levantine Style

Despite the relative dearth of identifiable Aegean ivory imports in Syria or Syrian imports in Greece, there are indications of an emerging Levanto-Mycenaean style during LH IIIA-B, roughly the fourteenth and thirteenth centuries BC, an aspect of the increasing East-West trade evinced everywhere at the LM/LH IIIA1/2 transition.

Two pieces that are relevant in this regard are the pair of identical plaques from Mycenae chamber tomb 49 (Pl. XXVIk)¹⁹⁴ and the well-known Minet el-Beida pyxis lid in the Louvre (Pl. XXVIIa).¹⁹⁵ The pyxis lid was found in a tomb dated to the 13th century BC, approximately contemporary with LM/LH IIIB2. The plaques and the lid show a woman to left with frontal torso and profile head and lower body flanked by quadrupeds who nibble at the sheaves of grain she extends in her upraised hands. In terms of pose, hairstyle,

186 DAVIES (*supra* n. 57) pl. XXI.

187 NMA 2491: XENAKI-SAKELLARIOU (*supra* n. 5) 128 Φ 2491, pl. 35; E.H. CLINE, "Amenhotep III and the Aegean: A Reassessment of Egypto-Aegean Relations in the 14th Century B.C.," *Orientalia* 56.1 (1987) 1-36, esp. 8-9 and n. 34; cf. also *Idem*, "An Unpublished Amenhotep III Faience Plaque from Mycenae," *JAOS* 110/2 (1990) 200-212.

188 NMA 2919: XENAKI-SAKELLARIOU (*supra* n. 5) pl. 73; *SWDS*, 201 no. 604.

189 XENAKI-SAKELLARIOU (*supra* n. 5) pl. no. 2882, pl. 70. Cf. a similar braided chain from the Tomb of the Lord of Goats at Ebla, first half of 18th century BC: MATTHIAE *et al.* (*supra* n. 33) 472 fig. 398 and fig., 480 col. fig.

190 *CMS* I, nos. 86 and 87.

191 *BCH* 108 (1984) 760, 758 fig. 43; *SWDS*, 132-33 no. 7. The figurine was found with 239 terracotta psi figurines, 6 thrones, 2 bull rhyta, and faience plaques.

192 RENFREW (*supra* n. 30) 303-310.

193 POURSAT, *Les ivoires* (*supra* n. 4) pl. XVIII.1.

194 NMA 2473, 2475: KANTOR 1960 (*supra* n. 1) 24, fig. 23; POURSAT, *Catalogue* (*supra* n. 4) 93 no. 299, pl. 29; N. YALOURIS, "An Unreported Use for Some Mycenaean Glass Paste Beads," *JGS* 10 (1968) 13 no. 17; HOOD (*supra* n. 60) 130 fig. 122 C; XENAKI-SAKELLARIOU (*supra* n. 5) 129 E 2473, 2475, pl. 35.

195 M.-H. GATES, "Mycenaean Art for a Levantine Market? The Ivory Lid from Minet el Beidha/Ugarit," in *EIKΩN*, 77-84; cf. C.F.A. SCHAEFFER, *Ugaritica* I (1939) frontispiece, pl. XI (detail of seated woman).

proportions, composition, and style, the figures are so similar that we can imagine they derive ultimately from a common source. The pyxis lid adds important details: more of the flanking animals is preserved, showing that they are wild goats, and the woman sits on an incurved base (ultimately of Minoan origin) set in a rocky landscape. The base depicted on the lid helps to explain the protruding buttocks of the figure on the plaque: though standing, she appears to be sitting, a common pose for women in Aegean art, as on a sealing from Khania (Pl. XXVIIb).¹⁹⁶ A comparison of these figures with the woman seated on rocks on another plaque from Mycenae (Pl. XXVIIc) shows how the Aegean “seated” pose has been misunderstood.¹⁹⁷

The degree to which each work is “Mycenaean” or “Eastern” has been the subject of much debate. M.-H. Gates, among the latest to analyze the pyxis lid in detail, argued that it was a Mycenaean work produced for a Levantine market, while others have suggested the opposite, that it is a Syrian product intended for a Mycenaean buyer. A stylistic analysis, however, shows that the lid is not really at home in either culture.

In contrast to most Minoan-Mycenaean representations of women, the figures are plump and stocky, the heads are fully a quarter of the total body height, the hairstyles lack Aegean parallels, and the costumes – while reminiscent of Minoan ritual garments borrowed by the Mycenaeans – clearly have been misunderstood. Both women, moreover, appear to be fully nude above the waist, instead of wearing the Aegean bodice that exposes just the breasts. No preserved figure in Minoan or Mycenaean art actually sits on an incurved base, which was used instead as a support for a platform which might support a throne or column, as on CMS I no. 179 and the Mycenae Lion Gate.¹⁹⁸

Nevertheless, some iconographic elements clearly are borrowed from Aegean art, like the rocky landscape and the incurved base. Representations of the incurved base had an artistic history long after three-dimensional stone examples disappeared: they occur as beads, and a gold foil ornament from Cyprus was pressed into a mold for making this design as part of a repeating pattern. An unpublished ivory plaque from Thebes shows a chariot scene above a decorative border of incurved bases, a most un-Aegean type of framing ornament.¹⁹⁹ Even more telling is the *à jour* technique of the Mycenae plaques from Tomb 49, which is common in Syria and Egypt but otherwise unique in the Greek world.²⁰⁰ It is hard to believe that either the pair of plaques or the lid were produced in a mainland Greek workshop. In this case, the small woman in the Cult Center fresco who holds bunches of grain in a similar pose (Pl. XXVIIId) may reflect eastern influence, though she is accompanied by a single lion rather than flanked by a pair of goats.²⁰¹ In short, we argue that the pyxis lid would seem exotic anywhere in the Aegean or eastern Mediterranean, and that the mixing of styles and iconography may have been a deliberate choice, in order to enhance its appeal in any market.

It is instructive in this context to compare the ivory panels from a bed found in a 14th century BC context in the palace at Ugarit, which illustrate a similar blending of Syrian and Egyptian iconography rather than Aegean and Syrian.²⁰² One panel, for example, shows a frontal goddess nursing a pair of children, a composition indebted to Egyptian iconography where a goddess suckles the youthful pharaoh. The doubling of the children, however, is unparalleled in Egyptian art, and the goddess herself combines Egyptian and Syrian iconographic elements.

196 P. REHAK, “Enthroned Figures in Aegean Art and the Function of the Mycenaean Megaron,” in *Role of the Ruler*, 95-117; J.G. YOUNGER, “The Iconography of Rulership: A Conspectus,” in *Role of the Ruler*, 151-211.

197 NMA 5897: POURSAT, *Catalogue* (*supra* n. 4) 19 no. 48, pl. IV.

198 M.C. SHAW, “The Lion Gate Relief of Mycenae Reconsidered,” in *Φίλια “Επη εις Γ.Ε. Μυλωνάν, Α’* (1986) 108-123.

199 Illustrated by V. ARAVANTINOS in a lecture at Naples in 1996.

200 For *à jour* work, see the round ivory table top from the palace at Ugarit: C.F.A. SCHAEFFER, *Ugaritica IV* (1962) 30 fig. 22.

201 P. REHAK, “Tradition and Innovation in the Fresco from Room 31 in the ‘Cult Center’ at Mycenae,” in *EIKΩN*, 39-62.

202 C.F.A. SCHAEFFER, “Les fouilles de Ras Shamra-Ugarit. Quinzième, seizième et dix-septième campagnes (1951, 1952, 1953),” *Syria* 31 (1954) 15-67, esp. pls. VIII-X; BARNETT 1982 (*supra* n. 7) pl. 24.

The difficulty of distinguishing "Aegean" from "Eastern" styles is even more acute in non-figural works. Thus Kantor considered ivory handles with a scale pattern from the Minet el-Beida tomb that contained the pyxis lid to represent the influence of the Aegean tricurved arch motif.²⁰³ This scale design, however, may derive instead from Syrian metalwork that includes granulation.²⁰⁴

Similar problems are encountered when we try to assess Kantor's "Levanto-Aegean Outline Style" for the depiction of animals, especially lions (Pl. XXVIIe-g). The latter are characterized by strongly drawn outlines; a frontal eye in a profile animal face with dotted pupil and a "heart shaped" outline drawn around the eye. The most distinctive characteristic of the lions is that they have a rosette or "hair star," like a swirl of fur, incised on the shoulder, and usually trefoil ears.²⁰⁵ To these traits we might add the use of parallel incised lines to indicate ribs.

Apart from some of the Delos ivories,²⁰⁶ examples of this outline style are unknown in the Aegean but are well attested in Cyprus,²⁰⁷ the Levant, and Egypt, suggesting that ivories in this style were manufactured in eastern workshops, and that this style was not limited to just one medium. On a gold shrine from the tomb of Tutankhamun showing the king hunting, a leashed lion cub has cheek flaps, arm "bracelets," a pronounced saphenous vein, and a shoulder hair spiral.²⁰⁸ An unguent jar of the king has a similar lion, paired with a dog to attack a bull.²⁰⁹ A pair of similar recumbent lions with shoulder rosettes also occur on an ivory headrest found in the tomb.²¹⁰ At Ugarit, a gold bowl with hunting and chase scenes includes another lion with a shoulder rosette (Pl. XXVIIh).²¹¹ A plaque from Megiddo shows a lion with a shoulder hair-rosette struggling with a griffin which has leaped onto its back.²¹²

Three of the traits of these lions, however, may have been influenced by earlier Aegean ivory carving and other glyptic experiments of LM IB/LH IIA - LM II/LH IIB date: the muscular bodies with pronounced saphenous vein, trefoil ear, and hair rosette, the last not schematized and set into the mane rather than on the shoulder (cf. Pl. XXVIf-g). The eastern outline style creates a different impression than the modeling of the Aegean animals.

Finally, there are issues raised by individual pieces or groups of ivories. The Artemision Deposit on Delos is particularly problematic in this respect, because it contains objects from several periods that were buried within the foundations of the archaic temple of Artemis, apparently at the end of the Geometric period.²¹³ Hundreds of pieces of ivory furniture fittings were found, many of which have good mainland parallels: moldings, strips, figure-eight shields, columns in relief and in the round. The figural pieces, although frequently illustrated, represent a small minority and many of these have their best parallels in Cyprus and the Levant. The well-known plaque with a man wearing a figure-eight shield and holding a spear

203 KANTOR, pl. XXIV F.

204 MATTHIAE *et al.* (*supra* n. 33) 466 no. 385: gold granulated handle from Tomb of the Lord of Goats.

205 H.J. KANTOR, "The Shoulder Ornament of Near Eastern Lions," *JNES* 6 (1947) 250-67; A. VOLLGRAFF-ROES, "The Lion with Body Markings in Oriental Art," *JNES* 12 (1953) 40-49.

206 Incised plaques from Delos with lions fighting: POURSAT, *Les ivoires* (*supra* n. 4) pl. XII.3 and 4. Incised cutout from Delos with lion fighting griffin: shoulder of lion is covered, but other stylistic characteristics are: POURSAT, *Les ivoires* (*supra* n. 4) pl. XII.1 and 2. On the Artemision deposit generally, see H. GALLET DE SANTERRE and J. TRÉHEUX, "Rapport sur le dépôt égéen et géométrique de l'Artemision à Delos, II: Objets d'ivoire," *BCH* 71-72 (1947-48) 148-206; I. TOURNAVITOU, "The Mycenaean Ivories from the Artemision at Delos," *BCH* 119 (1995) 479-527.

207 Animals on pyxis lids: POURSAT, *Les ivoires* (*supra* n. 4) pls. XV.1: Hala Sultan Tekke BM 98.12-1.203; XV: Kition; XV.3 and 4 (drawing): Kition; XV.5 and 6 (drawing): Kouklia, Evretei (*AA* [1969]) 405 fig. 34).

208 DESROCHES-NOBLECOURT (*supra* n. 142) pl. IX B. Cf. the lion attacking a gazelle on a gold dagger sheath from the tomb: pl. XXIa.

209 *Ibid.* pl. XLIII.

210 *Ibid.* 288 fig. 187; BARNETT 1982 (*supra* n. 7) pl. 7 b.

211 C.F.A. SCHAEFFER, *Ugaritica* II (1949) 1-48, pls. II-V, VIII.

212 OIM A 22322, 22335: KANTOR 1960 (*supra* n. 1) 19 fig. 11; POURSAT, *Les ivoires* (*supra* n. 4) pl. XVIII.4.

213 *Supra* nn. 205, 206.

in the "Commanding Gesture" has been identified as a Cypriot product by both Poursat and Krzyszkowska.²¹⁴ Some of the non-figural pieces also have eastern parallels, like the "dominoes" and a spindle with a pomegranate finial, while the tapering ivory columns in the deposit are very close to examples found at Mycenae. Other finds from the deposit are equally diverse: a marble pommel, a red limestone spout (Minoan?), a fragment of a breccia vase (Egyptian?), and a bronze Reshef figurine. Although both Poursat and Tournavitou agree in dating the ivories between 1350-1250 BC (LH IIIA2-IIIB2), they disagree about whether these represent the products of several workshops (Poursat) or a local workshop on Delos (Tournavitou).²¹⁵ Ivory working elsewhere, however, seems to be connected with palatial systems, and so far no Mycenaean palace has been identified on Delos.²¹⁶

Similar mixtures of Aegean and Eastern objects are visible in tombs in Cyprus contemporary with LH IIIB. Tomb 9 at Kition,²¹⁷ to take just one example, contained imported Mycenaean pottery, Levantine pottery imitating Mycenaean shapes and surface decoration, faience, Egyptian (or egyptianizing) scarabs and figurines, cylinder seals in a hybrid style, part of an ivory (pyxis?) lid engraved with the head of a lion and foliage, and an ivory pyxis in the shape of a bathtub.²¹⁸ A faience cosmetic vessel from the tomb imitates a shape known in ivory from Egypt.²¹⁹ In fact, for LM/LH IIIA, cylinder seals present the same problems as do ivories: in IIIA1 and especially IIIA2, cylinders are being produced in hybrid styles.²²⁰ An ivory kouros from Samos, if correctly dated to the Bronze Age, may be the product of an Anatolian workshop influenced by the Aegean.²²¹

Phase 4: The end of Aegean ivory carving

A wave of destructions across the Aegean world toward the end of IIIB1 seems to mark the beginning of the end in terms of artistic production generally in prehistoric Greece. Significant destruction horizons have been identified in the ivory workshops of the Kadmeion at Thebes and in the burning of the House of Shields outside the Mycenae citadel. The recent publication of the "Ivory Houses" demonstrates that at least the House of the Shields served primarily as a manufactory for the production or refurbishment of prestige objects like ivory furniture, stone vessels, and faience. With the destruction of these palatial workshops, there are almost no pieces whose production we can date securely to the succeeding phases LM/LH IIIB2-C. A number of heirloom pieces remained in circulation, however, until the final collapse of the palace system on the mainland, and in a few instances, even beyond.

Several important ivories were preserved at Mycenae in destruction horizons within the Cult Center datable to the end of IIIB1. These include two large ivories, the head of a man wearing nape-length hair and a fillet²²² and a recumbent lion,²²³ both of which were deposited when the "Shrine with the Fresco" passed out of use.²²⁴ A hole in the crown of the man's

214 KRZYSZKOWSKA (*supra* n. 176) 116 and n. 40; POURSAT, *Les ivoires* (*supra* n. 4) 157 pl. XIV. Stylistically, the border of the shield is unparalleled in the Aegean, and the fleshy proportions and beaky nose of the figure seem more Syrian or Cypriot than Aegean.

215 TOURNAVITOU (*supra* n. 206) 527: "A local workshop on Delos with mainland or mainland trained craftsmen would be quite plausible, especially considering the albeit small percentage of unworked/unfinished pieces."

216 The Mycenaean remains on Delos are being restudied by A. Farnoux.

217 V. KARAGEORGHIS, *Kition. Mycenaean and Phoenician Discoveries in Cyprus* (1976) 32-53; Ivory lid: pl. 17.

218 Cyprus Museum: KARAGEORGHIS (*supra* n. 217) pl. 26; BUCHHOLZ and KARAGEORGHIS (*supra* n. 120) 163 no. 1742, pl. 1742.

219 KARAGEORGHIS (*supra* n. 217) fig. 25. Cf. E. RIEFSTAHL, *Toilet Articles from Ancient Egypt* (1943) fig. 10.

220 I. PINI, "Kypro-ägäische Rollsiegel. Ein Beitrag zur Definition und zum Ursprung der Gruppe," *JdI* 95 (1980) 77-108.

221 H. KYRIELIES, "Eine Mykenische Elfenbeinefigur aus dem Heraion von Samos," in *Festschrift für N. Himmelmann: Beiträge zur Ikonographie und Hermeneutik. Beihefte der Bonner Jahrbücher* 47 (1989) 12-21, pl. 2.

222 POURSAT, *Les ivoires* (*supra* n. 4) pl. III.1-3.

223 *Ibid.* pl. III.4.

224 O. KRZYSZKOWSKA, "Cult and Craft: Ivories from the Citadel House Area, Mycenae," in *Techné*, 145-51.

head is actually an enlargement of the hollow core of the elephant tusk from which the piece was carved, and three holes drilled in the neck show that the head was attached to a body, perhaps in another material. The prominent, beaky nose, thin lips, and especially the hairstyle and fillet, are unparalleled in the Aegean, but are stylistically similar to Syrian works. The unusual raised "cosmetic lines" around the eyes recall – at a great remove – the treatment of eyes in Egyptian stone sculpture. These "cosmetic lines" recur on the recumbent lion,²²⁵ suggesting that the two ivories belonged together, perhaps as components of a throne or another piece of furniture.

The lower half of an ivory female figurine, found in another room of the Cult Center, wears the Minoan flounced skirt and an apron with rounded hem of the type worn by one of the Snake Handlers from the Temple Repositories at Knossos several centuries earlier.²²⁶ Far fewer ivories of any sort were found in the Mycenaean shrine at Phylakopi.²²⁷

Among the unpublished ivories from the "Shrine with the Fresco" (room 31) in the Mycenaean Cult Center were hilt-plaques for two Naue II swords.²²⁸ These are important because they represent early evidence for these swords, presumed to have originated in central Europe and to have reached the Aegean only at the end of the Late Bronze Age.²²⁹

The Linear B tablets from Knossos and Pylos record ivory inlays and fittings.²³⁰ Several tablets in the S series at both Knossos and Pylos²³¹ describe chariot fittings and axle terminals of ivory, some enriched with *po-ni-ki-jo*, which may describe the shape (palms or griffins, both iconographic imports from the east) or a stained color (dark red). At Pylos, a special set of tablets, the Ta series,²³² describes furniture, some of which was apparently inventoried on the occasion when Augewas was appointed *damokoros*.²³³ The furniture is of three types, tables with ivory feet or struts and inlaid with ivory, backed chairs ("thrones") with ivory backs and finials and inlaid with ivory figures, and footstools perhaps of ebony inlaid with ivory. Thrones and footstools in fresco and sealstone representations are reserved for important people or divinities.²³⁴

By the end of the Bronze Age, ivory carving appears to have been in decline everywhere in the eastern Mediterranean. Some earlier pieces seem to have been heirlooms, like an element of ivory furniture with volute end from the LH IIIC site of Koukounaries on Paros,²³⁵ or were reused, like the bone inlay in the shape of a bird from a LH IIIB2 context in the lower citadel at Tiryns, probably recarved from a much larger plaque shaped like a figure-eight shield (Pl. XXVIIi).²³⁶ The latest evidence for actual ivory working on the mainland comes

225 We are grateful to O. Krzyszkowska for mentioning this detail (conversation, April 1996).

226 POURSAT, *Les ivoires* (*supra* n. 4) pl. III.8.

227 RENFREW (*supra* n. 30) 323-24.

228 We thank O. Krzyszkowska for this information; cf. her article *supra* n. 224.

229 For recent discussion of this sword type, see R. DREWS, *The End of the Bronze Age. Changes in Warfare and the Catastrophe ca. 1200 B.C.* (1993) esp. 201-206.

230 J. CHADWICK, *Documents in Mycenaean Greek*, 2nd ed. (1973), hereafter *Docs*.

231 KN Sd 4401, 4403, 4408, 4412; Se 1006 (= *Docs* 369, no. 276), 1007, and 1028 (= *Docs* 369, no. 277); PY Sa 793.

232 PY Ta 642 (= *Docs* 339-40, no. 239), 707 (= *Docs* 343-44, no. 242), 708 (= *Docs* 344, no. 243), 713 (= *Docs* 341-42, no. 240), 715 (= *Docs* 342-43, no. 241), 721 (= *Docs* 345, no. 245), 722 (= *Docs* 345-46, no. 246). PY Va 482 (= *Docs* 348, no. 249) records a set of ivory *a-no-po* apparently in the workshop or bureau of Axotas.

233 *Docs* 332-46. Also see M. VENTRIS, "Mycenaean Furniture on the Pylos Tablets," *Eranos* 53 (1955) 109-124; S. HILLER, "Beinhaltet die Ta-Serie ein Kultinventar?," *Eirene* 9 (1971) 69-86; J.-P. OLIVIER, "Le *damokoro*: un fonctionnaire mycénien," *Minos* 8 (1967) 118-22, with comments by L. PALMER, 123-24; *Idem*, "A Mycenaean Tomb Inventory," *Minos* 5 (1957) 58-92; *Idem*, "Tomb or Reception Room?," *BICS* 7 (1960) 57-63; A. HEUBECK, "Da-mo-ko-ro," *Atti e memorie del primo congresso internazionale di micenologia* (1968) 611-15; J. CHADWICK, *The Mycenaean World* (1976) 77. For a recent discussion of the footstools mentioned on the tablets, see J. SAKELLARAKIS, "Mycenaean Footstools," in G. HERRMANN (ed.), *The Furniture of Western Asia, Ancient and Traditional* (1996) 105-110, and the comments on decorated furniture by O. KRZYSZKOWSKA, "Furniture in the Aegean Bronze Age," in HERRMANN (*supra*) 85-103, esp. 99-102.

234 REHAK (*supra* n. 196); YOUNGER (*supra* n. 196) 151-211, esp. 191-93.

235 On display in Paros Museum. Autopsis, Summer 1995.

236 *BCH* 107 (1983) 758, 760 fig. 32.

from the east wing of the palace at Mycenae.²³⁷ An ivory spindle incised with compass-drawn circles from IIC context at Perati²³⁸ can be compared with spindles found in the Troad and in the Levant.²³⁹

Overall, however, the decline of ivory working appears less severe in the East than in the Aegean. The rich burial of a man at Hala Sultan Tekke in Cyprus ca. 1175 BC (LC IIIA1/2) included one or more gaming boards decorated with ivory as well as a hoard of metal and faience vessels, agate and lapis beads, and other objects.²⁴⁰ Such exotic items are mostly lacking from graves in the Aegean world by this time.

With the general collapse of many of the cultures in the eastern Mediterranean at the end of the Late Bronze Age, significant disruptions in the ivory trade may have occurred. Heirloom ivories in the eastern Mediterranean seem to have had a better survival rate than in the Aegean, for when ivory carving reemerges in the Levant and Anatolia in the early Iron Age, many echoes of the Bronze Age are visible.²⁴¹ In the Bronze Age Aegean, ivory carving had started late and ended early: in Geometric and Orientalizing times, ivory had to be reintroduced into Greece, once again from the East, often in the hands of the Phoenicians,²⁴² whose Canaanite/Levantine ancestors had plied the earlier trade routes.

Summary and Conclusions

Ivory was only one small item in a much larger network of exchanges that took place in the Bronze Age. Nevertheless, carved ivory seems to be one Aegean art form where foreign influences can never be wholly separated out. Ivory was apparently one of the few media whose exotic provenience elicited exotic imitation. Few pieces found in the Greek world seem purely "Aegean," many pieces in Cyprus seem to fuse Aegean and Levantine styles, and several pieces from the Levant employ Aegean style and iconography. In the international milieu of the eastern Mediterranean in the second millennium BC, ivory was the one of the principle media which illustrate the influences of different cultures upon one another.

Paul REHAK and John G. YOUNGER

-
- 237 G.E. MYLONAS, "The East Wing of the Palace at Mycenae," *Hesperia* 35 (1966) 419-26, pl. 96a (ivory debris); he mentions (425) a total of 778 fragments of ivory, mostly in upper levels, with relatively few on the floors. Found with these were a piece of a rock crystal bowl, resin (orpiment?) and painted plaster offering tables.
- 238 Tomb 152: DEMAKOPOULOU (*supra* n. 160) 242 no. 249 and col. fig. NMA 9027; BUCHHOLZ and KARAGEORGHIS (*supra* n. 120) 50 no. 508, pl. 508.
- 239 K. BALFANZ, "Eine spätbronzezeitliche Elfenbeinspindel aus Troia VIIA," *Studia Troica* 5 (1995) 105-116, with references.
- 240 K. NIKLASSON, "Tomb 23: A Shaft-Grave of the Late Cypriote III Period," in P. ÅSTRÖM *et. al.*, *Hala Sultan Tekke* 8. SIMA 45.8 (1983) 169-213.
- 241 M.J. MELLINK, *Anadolu* 23 (1981-1983) [1989] 47-55.
- 242 E.g., the Phoenician ivories dedicated in the 8th and 7th centuries in the Idaean Cave on Crete: BCH 108 (1984) 835, 836 fig. 188 (pyxis with profile bull), fig. 189 (double heads wearing poloi, with tang for attachment to another object), fig. 192 (rectangular ivory seal). For discussion, see J. SAKELLARAKIS, "The Idaean Cave Ivories," in FITTON (*supra* n. 2) 113-40.

LIST OF ILLUSTRATIONS

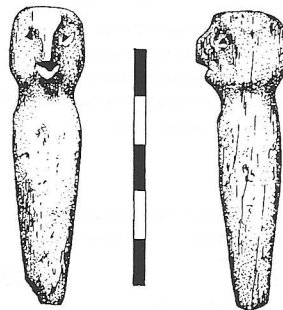
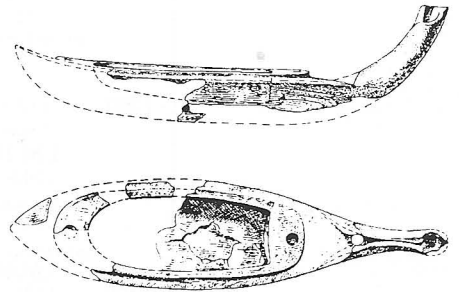
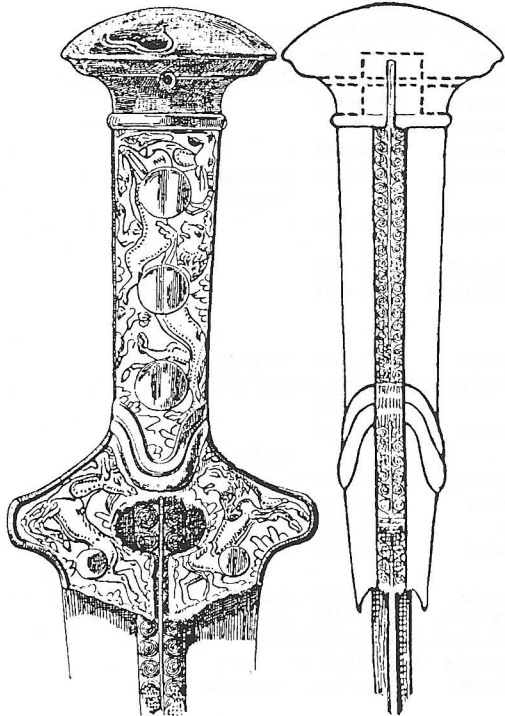
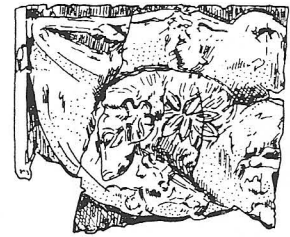
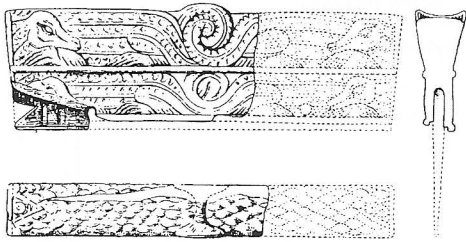
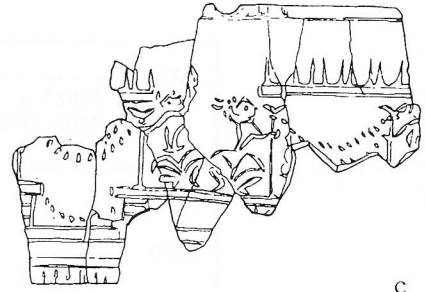
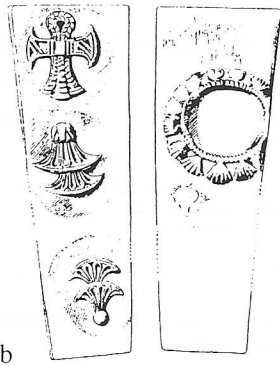
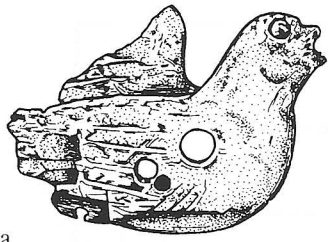
- Pl. XXV Chronological chart (P. REHAK). Revised Aegean High Chronology based on S.W. MANNING, *The Absolute Chronology of the Aegean Early Bronze Age. Archaeology, Radiocarbon and History*. Monographs in Mediterranean Archaeology I (1995) and KUNIHOLM 1997 (*supra* n. 147); Egyptian Low Chronology based on K. KITCHEN, "The Basics of Egyptian Chronology in Relation to the Bronze Age Aegean," in *High, Middle, or Low?*, pt. I (1987) 37-55.
- Pl. XXVIa Cutout bird from Knossos, Royal Road (P. REHAK after *AR* [1967] 27 fig. 30 a).
- Pl. XXVIb Palaikastro trial pieces (after BOSANQUET and DAWKINS [*supra* n. 73] 126 fig. 109).
- Pl. XXVIc Ayia Triada pyxis fragment (P. REHAK after HALBHERR, STEFANI and BANTI [*supra* n. 82] 97 fig. 64).
- Pl. XXVI d Palaikastro ivory comb (after BOSANQUET and DAWKINS [*supra* n. 73] 126 fig. 108).
- Pl. XXVI e Mirror handle, Mycenae chamber tomb 55 (after POURSAT, *Catalogue* [*supra* n. 4] pl. XXII).
- Pl. XXVI f Mycenae lion plaque (P. REHAK after POURSAT, *Catalogue* [*supra* n. 4] pl. VI).
- Pl. XXVI g Gold hilt from the Chieftain's Grave (after *PM* IV 2, 866 fig. 851).
- Pl. XXVI h Burnt ivory head from Dendra (P. REHAK after PERSSON 1931 [*supra* n. 163] pl. XXVI).
- Pl. XXVI i Ivory "boat" from Knossos, Tomb 7 (after EVANS 1906 [*supra* n. 131] 27 fig. 22).
- Pl. XXVI j Ivory figurine from Tiryns (P. REHAK after *BCH* 108 [1984] 758 fig. 43).
- Pl. XXVI k Plaque from Mycenae chamber tomb 49 (after HOOD [*supra* n. 60] fig. 122 C).
- Pl. XXVII a Minet el-Beida pyxis lid (after HOOD [*supra* n. 60] fig. 122 B).
- Pl. XXVII b Khania sealing (P. REHAK after *CMS* V, Suppl. 1 A, no. 175).
- Pl. XXVII c Mycenae acropolis plaque (after HOOD [*supra* n. 60] fig. 120).
- Pl. XXVII d Mycenae Cult Center fresco (reconstruction drawing, P. REHAK).
- Pl. XXVII e-g Lions in outline style from Delos (e,f) and Megiddo (g) (after KANTOR 1960 [*supra* n. 1] figs. 10 a, b, 11).
- Pl. XXVIII h Gold bowl from Ugarit (after SCHAEFFER [*supra* n. 211] pl. VIII).
- Pl. XXVIII i Recarved bone plaque from Tiryns (P. REHAK after *BCH* 107 [1983] 760 fig. 32).

Discussion following P. Rehak and J. Younger's paper:

- A. Caubet: Thank you for a very interesting paper. I would like to take advantage of having both you and Machteld [Mellink] in the room, to ask about the possible emergence of a not very well known workshop somewhere in Anatolia, which would include the Samos [ivory] kouros. I am quite convinced by Kyrieleis' demonstration that it does belong to the Late Bronze Age. Or the Berlin [ivory] lady with the duck head finial, perhaps from Ephesos [Eds.: cf. M.J. Mellink, *Anadolu* XXIII 1981-83 (1989) 47-55]...These share both Minoan elements and Hittite or Hittitizing elements – you didn't mention anything about these. Could you comment on that?
- P. Rehak: Well, the reason I didn't mention them is because we've been furiously cutting this paper to a presentable length. As John and I started working on the ivories, and really ivories are not either one of "our" areas of research specifically, we found that there was so much overlap in terms of styles, that we started to become more and more uneasy about what we could actually identify as stylistic groups belonging to particular areas. And so, what we've tended to do, is to try to identify works that we can fairly surely assign, say, to mainland production, and then to identify other groups for other areas. But then there's a whole group of overlapping ivories, in terms of style, iconography, and find context, that we find much harder to place. These ivories appear in the regions where east and west overlap very directly, like Samos, Rhodes, and Cyprus. [Eds.: Rehak/Younger later reported: "The Samos ivory figurine shows some possible Aegean influences, especially in the pose of the arms and hands which mirrors that of the Palaikastro ivory youth, and in the cinched belt and codpiece. But the plumpness of the figure and its headdress seem more representative of an Anatolian tradition, and therefore we consider this piece to be a hybrid, one of the 'internationalizing' works mentioned in our paper (see *supra*)."]
- M.J. Mellink: Both in the previous paper, when we looked at some of the carved stone vessels, the rock crystal and amethyst conchshell vessels, and with the ivory, one does wonder about the Anatolian participation. This is a good example at Acemhöyük of how, in an Anatolian palace of a fairly early period – it would be Middle Minoan II, probably – there was an active workshop of ivory carvers, which has also been supplemented by the excavations at the palaces. This goes along with the work in rock crystal and obsidian – but not yet, so far as I know, in amethyst – but whenever we're trying to analyze this in Anatolia, we say 'there's more, we're only just beginning to see it, this is not the only place.' But the coverage of the optional sites is not really adequate to do a good job [of investigating] how this may all interact, but all discussions of Acemhöyük will include a paragraph saying that we have to investigate the Aegean connection. That's where it stays at the moment, but with conviction that it will be productive with further investigation, and a bit of luck here and there.
- J. Aruz: I just wanted to make one other comment about the Acemhöyük ivories here. It is not only with the Aegean and the Levant and Cyprus that we have international or intercultural styles. This phenomenon is also very nicely demonstrated in the Near East as well, and especially at Acemhöyük, because what we're looking at there is not a purely Anatolian-style production, but one that relates Anatolia with Syria, and more indirectly with Egypt. If one looks at the seal impressions as well as the ivories, one sees that there was certainly the opportunity for this coming together of different artistic styles.
- P. Rehak: I couldn't agree more. As I was trying to point out, I don't think the ivory really ever comes to the Aegean without associated material and ideas as well.

IVORY IN THE AEGEAN BRONZE AGE

- 2000	MM I A 2000-1900 <i>peak sanctuaries</i>	ivory seals: EM III-MM I B Archanes Phourni cemetery <i>Hieroglyphic develops</i>	11th Dynasty 2080-1937 International Styles in ivory
- 1900	MM I B 1900-1850 <i>protopalatial palaces rise</i>	ivory seals disappear <i>Linear A develops</i>	12th Dynasty 1937-1759
- 1800	MM II 1850-1750 <i>protopalaces destroyed</i>	Quartier Mu ivories	International Styles in ivory <i>royal tombs at Byblos</i>
- 1700	MM III 1750-1700 <i>neopalatial palaces rise</i>	<i>Hieroglyphic ends</i>	13th Dynasty 1759-1606 Ebla ivories
- 1600	LM I A/LHI 1700-1580 <i>Thera eruption ca. 1628</i> <i>Mycenae-Vapheio Lion seals</i>	Shaft Grave ivories line & pulley style	15th (Hyksos) Dynasty 1637-1529 17th Dynasty (Thebes) 1606-1539
- 1500	LM I B/LH II A 1580-1490 <i>Almond-Eye seals</i>		18th Dynasty - 1539-1296
- 1400	LM/H III A: 1 1430-1370 <i>Spectacle-Eye seals</i>	<i>Linear B develops?</i>	Ahmosé I 1539-1514 <i>Hyksos expelled</i> Amenhotep I 1514-1493 <i>Dab'a frescoes</i> Thutmose I 1493-1481 Thutmose II 1481-1479 Hatshepsut 1479-1457 Thutmose III 1479-1425 Keftiu paintings ivory tribute Amenhotep II 1427-1392
- 1300	LM/H III A: 2 1370-1320 <i>hard stone seals end</i>	<i>Knossos destruction;</i> <i>refurbishment follows</i> early Thebes ivories	Akhenaten 1352-1336 Amarna letters Smenkhkare 1338-36; Tutankhamen 1336-27 Ay 1327-1323 Horemheb 1323-1295
- 1200	LM/H III B: 2 1300-1200 <i>Pylos Ta tablets</i> end Mycenaean workshops <i>Mycenaean palaces destroyed</i>	<i>Linear B ends</i>	19th Dynasty - 1295-1186 Ramses I 1295-1294 Seti I 1294-1279 Ramses II 1279-1213 Merenptah 1213-1203 <i>Sea Peoples</i> Amenmesses 1203-1200 <i>Hittites collapse</i> Seti II, Siptah, Tewosret 1200-1186
- 1200	LM/H III C: 1 1200-1150 Perati ivories heirlooms gradually buried	?	20th Dynasty - 1186-1069 Ramses III 1184-1153 <i>Sea Peoples</i>



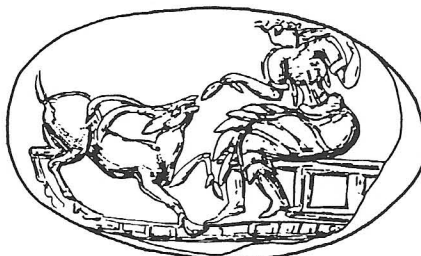
g

j

k



a



b



c



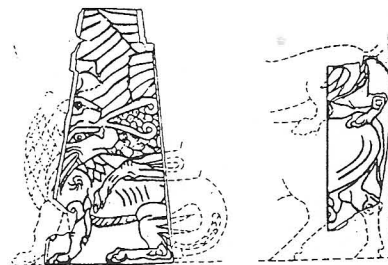
d



e



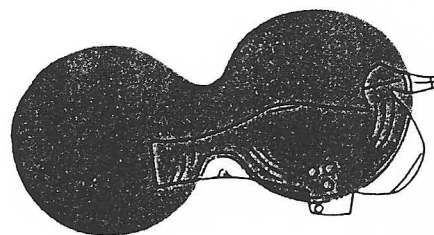
f



g



h



i