Contacts: Crete, Egypt, and the Near East circa 2000 B.C.

This essay examines the interaction between Minoan Crete, Egypt, the Levant, and Anatolia in the twenty-first and twentieth centuries B.C. and briefly thereafter. Of course contacts began much earlier. The appearance en masse of pottery of Anatolian derivation in Crete at the beginning of Early Minoan (EM) I, around 3000 B.C., together with some evidence of destructions and the occupation of refuge sites at the time, suggests the arrival of settlers from Anatolia. The “International Age” of the mid-third millennium B.C. saw the arrival in Crete of imports of gold, faience, ivory, Egyptian stone vases, and a silver cylinder seal from Syria. A foot amulet-seal from a tomb in the Mesara clearly depends on Egyptian prototypes. A piece of hippopotamus tusk, probably from Egypt, was found in an EM IIA fill above the West Court House at Knossos.

In EM III the picture changed, with international trade apparently sharply diminished in some areas. The change may have resulted in large measure from a major desiccation event ca. 2250–2050 B.C. and its consequences in the form of movements and invasions. In Anatolia the arc of destruction included Troy, where the great walls of Troy II–III fell into ruin and Troy IV suffered six destruction levels; sites in Cilicia proper and across the Taurus Mountains at the metallurgical site at Göltepe; and Kültepe to the east. In the Khabur Valley in northeastern Syria, the major Akkadian site at Tell Leilan and many of its neighboring sites were abandoned ca. 2200 B.C. Many other Syrian sites were abandoned early in Early Bronze (EB) IVB, with the final wave of destruction and abandonment coming at the end of EB IVB, about the end of the third millennium B.C. In Canaan there was a precipitous decline in the number of inhabited sites in EB III–IVB, including a hiatus noted at Ugarit. In Cyprus, the Philia phase of the Early Bronze Age, “characterised by a uniformity of material culture indicating close connections between different parts of the island” and linked to a broader eastern Mediterranean interaction sphere, broke down, perhaps because of a general collapse of overseas systems and a reduced demand for Cypriot copper. With respect to Egypt, Donald Redford states that “[t]he incidence of famine increases in the late 6th Dynasty and early First Intermediate Period, and a reduction in rainfall and the annual flooding of the Nile seems to have afflicted northeast Africa with progressive desiccation as the third millennium draws to a close.”

Contact between regions clearly suffered. At Byblos there are no Egyptian pharaonic inscriptions between those of Pepi II at the end of Dynasty 6 in EB II and Dynasty 12 in the Middle Bronze Age. Evidence of Egyptian contact with Sinai and Nubia in this period is practically nonexistent. Crete also experienced a period of drier climate in EM III, perhaps beginning in EM IIB. Around the end of EM IIB, a number of settlements and cemeteries were destroyed or abandoned and not reoccupied, while refuge sites appeared on hilltops where access was extremely difficult. Crete seems to have recovered relatively quickly, however, with late EM III–Middle Minoan (MM) I witnessing site nucleation and the beginning of monumental architecture at the major centers of Knossos, Phaistos, and Mallia.

In the Aegean, the International Age of EB II was followed by a wave of destructions, associated on the islands and at sites along the mainland coast with the arrival of
new groups from Anatolia, perhaps set in motion by the climatic factors mentioned above. Some settlements were abandoned and others were established in more remote and defensible positions with fortifications, for example at Kastri on Syros, built when the great Early Cycladic (EC) I–II cemetery went out of use, perhaps suggesting the arrival of new inhabitants. The manufacture of marble objects ceased or declined sharply, and cist tomb burial went out of fashion.

Beginning in Early Helladic (EH) II in the northern Cyclades and central Greece, and continuing into EB III as far as Aigina and the southern Cyclades, metal forms and burnished pottery of western Anatolian shape, known as the Kastri group or EC IIIA intrusive ware, appeared.

How did these developments affect Crete? A cemetery at Hagia Photia on the north-east coast of Crete contained one teapot and a few sherds of Kastri ware, dated around the end of EM II/beginning of EM III, and a single sherd was found in the fill of an MM IA foundation deposit at Knossos, but no other Kastri material has been reported from Crete. Sixty kilometers to the north, at Christiana, the nearest Cycladic island to Crete, the situation is far different. On the saddle of a hill from which Crete is sometimes visible there is a rich scatter of EC IIIA intrusive ware, depas handles included. The boundary between the Cyclades and Crete thus marks the abrupt limit of the expansion of the Kastri group. Pottery of the subsequent Phylakopi I type is also known from Christiana but absent from Crete, again indicating a line of demarcation. Some contact with Cycladic or Attic copper sources in this period may have continued, however. A hilltop on the north coast of Crete at Chrysokamino, with traces of occupation from Final Neolithic through EM III, provides the earliest evidence for copper smelting on Crete. The lead isotope composition of the Chrysokamino fragments from the slag heaps bears some resemblance to that of the ores of the Cycladic island of Kythnos and the mines at Lavrion in Attica. Accordingly, the Chrysokamino evidence neither establishes nor precludes Cretan contact with Cycladic ore sources in EM III.

While there is some evidence of internal disruption in areas of Crete at the end of the EM II period, ca. 2300–2250 B.C., on the whole Crete escaped the great waves of destruction in mainland Greece and the Cyclades. In the following EM III–MM I period, ca. 2100–1900 B.C., Crete began a millennium of intense contact with the cultures of Egypt and the Near East. In sum, the first appearance of monumentality and literacy in the Aegean, in EM III–MM I, with its concentration at the preexisting centers of ritual and production at Knossos, Phaistos, and Mallia, may be seen as the consequence of the happy position of Crete, just far enough apart and with sufficient population relative to size to resist destructive incursions, but within range of a wide variety of stimuli from the civilizations of Egypt and the Near East around the beginning of the second millennium B.C.

Egypt may have recovered from the disarray caused by the low Nile floods of the First Intermediate Period a short time before recovery took hold in the Levant and Anatolia. By the last quarter of the twentieth century B.C., Egyptian expeditions to the Near East, some military in nature, were bringing back enormous amounts of booty, if the Mit Rahina inscription from the court records of Amenemhat II are to be believed. While there is evidence of Cretan contact with the Near East as well in the period just prior to and at the beginning of the Minoan First Palace period, ca. 2150–1925 B.C., the contacts with Egypt seem to have been both earlier and more significant with respect to the emergence of palatial society on Crete. Stimulus diffusion via models of behavior and of technical knowledge, including knowledge of the possible, may have had far greater importance than the specific goods exchanged.

In EM III–MM IA (but perhaps mostly in MM IA, if in the central Phaistos–Knossos
zone that period began before 2000 B.C.)

Egyptian stone vases, scarabs, and faience
were both imported and imitated locally in
Crete. The use of the hand drill in the
manufacture of stone vases and seals may
have followed Egyptian practice. Minoan
seal production appears to have followed the
Egyptian example in the use of ivory and
faience and in the adoption of cylinder and
scarab shapes, and perhaps the button shape
as well. Scarabs were first manufactured in
Egypt in the First Intermediate Period,
ca. 2150–2025 B.C., and arrived on Crete by
at least the latter part of the period, around or
just before the beginning of MM I. Their
findspots both in Egypt and Crete suggest an
amuletic function with strong funerary asso-
ciations. The Cretan versions depict not the
indigenous horned variety of beetle, but
instead reproduce the Egyptian models. A
local technique was used to produce the
designs on the seal faces, however, one of
many instances in which Minoan crafts-
people adapted foreign models to their own
purposes. The rapidity with which Minoans
learned to imitate the technique of Egyptian
blue glaze, even if the results were fugitive,
shows a knowledge of Egypt beyond that
indicated by the copying of imported vases
and scarabs. Daphna Ben-Tor observes that
the ability of Cretan artisans to manu-
facture scarabs using the same material
and manufacturing techniques as the
Egyptians suggests close familiarity
with Egyptian manufacturing of scar-
abs, which could have been attained only by working alongside Egyptian
artisans. This could not take place at
Byblos, where no scarab manufactur-
ing is attested during the Middle
Bronze Age.

While the glazing technique is known in
Syria-Palestine as well, the shape of the
Cretan seals is entirely Egyptian, as is the
inspiration for many of the images. Kostas
Sbonias in his discussion of seal shapes and
images previously unknown in Crete notes
in particular the Parading Lions/Spiral
Complex (fig. 1), of which fifty-six of the
eighty examples on Crete—probably made
from Egyptian hippopotamus tusk—were
found in the Mesara Plain in south-central
Crete at the site of Platanos. Seals of the
"White Piece" group, with more than one
hundred examples, some of scarab shape,
are a Minoan innovation with no precedent
in Egypt. They are made, however, from
what appears to be heated talc (steatite),
used for imports from Egypt and for
Minoan imitations, some with scarab form
and Egyptian-type designs, hence indicative
of an early case of technological and artistic
transfer in, and limited to, the late Pre-
palatial period in Crete. Several partial
impressions of a Parading Lions seal were
found in an EM III context at Knossos. Lions are not native to Crete, nor are they
likely to have been imported by sea for
zoos. The great majority of those viewing
the seals or seal impressions depicting
highly stylized lions surely had not observed
them firsthand. Rather, the portrayal and
intended perception were likely that of a
mythical beast signifying power.

Excavations of cave deposits at Hagios
Charalambos and Trapeza in the mountain
chain surrounding the Lasithi Plain in east-
central Crete have produced EM III–MM
IA objects made from hippopotamus tusks,
including seals, human figurines, mini-
ture knife handles, a pommel, pendants,
beads, an abstracted double-headed animal,
apes, and an ivory foot amulet, a type that
originated in Egypt. The cave at Hagios
Charalambos served as a site of secondary
burial; the place of primary burial and the
location and nature of the settlement(s) of
those buried are still unknown. The recov-
ery of so many objects of foreign origin in
so remote an area in the Prepalatial period
came as a surprise, and should serve as a
warning about how the accidents of discov-
ery may affect our distribution maps. One of
the hippopotamus-ivory seals from Hagios
Charalambos is ape-shaped, as are some
of the seals from south-central Crete; they
have designs on their bases that are similar to the designs on the bases of ape-shaped seals found in Egypt. Such seals belong to a special tradition in Egypt, with what are likely religious connotations. Monkey/ape seals and pendants have been found in late Prepalatial levels at Hagia Triada, Matalo, and Phourni, as well as at the Hagios Charalambos and Trapeza caves. Joan Aruz suggests that the seals may have come via the Levant, where such seals have also been found, and Keith Branigan proposed in 1973 that Minoan trade in Egyptian goods in general was conducted via Syria, but the Levant in the twenty-first and early twentieth centuries B.C. was still struggling. Moreover, direct voyages between Egypt and Crete appear more feasible both nautically and logistically, as will be discussed further below.

Egyptian forms and motifs clearly influenced Minoan crafts, but in all cases they were subject to Minoan selection and transformation, whether of vase shapes or images of animals. In MM IA, burial practices in elite Minoan tholos tombs in the Mesara Plain included the adoption or adaption of some Egyptian funerary practices and equipment, such as the use of clay coffins, stone cosmetic palettes, stone vases of types used in Egypt for funerary purposes, and clay models of bread loaves. In this period the Phourni cemetery at Archanes, on the slopes of Mount Jouktas, not far from Knossos, also shows strong Egyptian connections, including a stone vase, two scarabs, and a clay sistrum. Five clay sistra and fragments of another, believed by the excavator to be MM IA in date, were deposited in the MM II secondary burial deposit in the Hagios Charalambos Cave. The clay appears to be Cretan, but not local to the region. It is the idea of the sistrum that is imported. While sistra have been found in the Near East, the ultimate source was in all likelihood Egyptian. The image of a sistrum became a sign in the Linear A script. Phourni gives every indication of pronounced social stratification, with four monumental tombs containing many imported elite objects alongside very simple burials with few grave goods. This distribution suggests that high social status and access to foreign prestige goods and knowledge were intimately connected. The Phourni cemetery in this period (MM IA) has also produced what may be the earliest version of a Cretan Hieroglyphic script. The stimulus for this form of writing in all likelihood was Egyptian, and a few of the signs, such as the respective wine ideograms, are quite similar.

The question of possible foreign influence on the architecture of the Minoan palaces has long been debated. Construction techniques, architectural designs, and the possible spur to aspiration resulting from awareness of buildings in Egypt and/or the Near East require consideration. About 2030 B.C. on the Middle Chronology, Mentuhotep Nebhepetra built his great funerary temple at Deir el-Bahri, perhaps about the time of the imposing structure at Chrysolakkos at Mallia, where evidence of a monumental orthostat predates, by about a century, the construction of the impressive western facades of the palaces at Phaistos and Knossos. Chrysolakkos was also "bounded by a rubble and mudbrick wall topped by a series of rounded capping stones.

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that are unparalleled outside of Egypt and contained pointed-bottomed cups of a shape quite common in Egypt but otherwise without parallel in Crete. With respect to the architecture of the first palace at Knossos, Alexander MacGillivray has noted that the wall of the northwest platform, perhaps the earliest surviving part of the palace and on a different alignment from the rest, was made of small cut limestone blocks laid in regular courses, suggesting that the builder may have been familiar with mudbrick construction. Small cut stones were also used in the wall flanking Royal Road West at Knossos. Egypt, where building with small cut stones had been practiced since Dynasty 3, may have provided a stimulus in the form of buildings such as the Amenemhat I pyramid at Lisht (ca. 1990–1970 B.C.). During the reign of Amenemhat large structures of cut stone were also erected in the Nile Delta, a likely point of initial contact between Minoans and Egyptians. Whether any foreign inspiration occurred is open to question, however, since the Mesara tholoi show that in EM I Minoan stonemasons could already work and face building stone and lay it in courses.

This method of construction was quickly superseded by the erection of palace facades at Knossos and Phaistos, built first on large ashlar vertical orthostats, then on long rectangular courses. The origin of ashlar orthostat construction is problematic. Though rare in Egypt, such construction does exist, for example, in the pyramid temple of Sahure. At Ebla in Syria, orthostat construction may be seen in the southwest city gate, but this may be later than the Cretan examples. At most, however, it is the idea of monumentality, plus perhaps the technique of quarrying and transporting large stones and the employment of control marks (see the Minoan "masons' marks"), that Crete adopted. In the Minoan Prepalatial period there is no evidence of imitation of foreign architectural plans in general.

The use of the potter's wheel may also derive from Egyptian example. The low, block-like slow wheel appears in wall paintings of Dynasty 5 (ca. 2475–2300 B.C.). During Dynasty 6 and the First Intermediate Period, the presence of a central spiral on cups indicates that they were placed on a wheel at some point during the process of manufacture. By at least late in the reign of Senwosret I, around 1925 B.C. (and hence overlapping the beginning of the Cretan Old Palace period), a somewhat higher and more slender wheel stem was introduced. Dorothea Arnold has noted that the depiction of this wheel in the tomb of the nomarch Amenemhat at Beni Hasan closely resembles that of an MM IB wheel found in the excavation at Mallia in Crete. One detail is of particular interest—the oblique parallel lines observable on the wheel-top in the painting, which find their analogue in the incised lines on the Minoan wheel (figs. 2, 3). The appearance in vast numbers in cultic and other contexts in Crete of the archetypal Minoan vessel, the conical cup, may also be of Egyptian inspiration. Farther away, in Mesopotamia, the conical cup replaced the beveled-rim bowl as the standard mass-produced vessel, but the Mesopotamian cups are generally larger, and their method of manufacture is different.

What might Egypt have received from Crete in MM I, about the time of the construction of the first palaces? Silver found in Egypt in Dynasty 10 to 12 contexts contains traces of lead consistent with sources in the Cyclades and the Lavrion field on the coast of Attica. Timber, spices, medicinal herbs, and decorated fabrics are obvious possibilities for Minoan exports to Egypt. The design of the ceiling from the tomb of Hapzefa in the reign of Senwosret I was linked by Helene Kantor and subsequently by Maria Shaw to the influence of Minoan textiles, in this case perhaps tapestries. Egypt has limited grazing land for sheep, and linen does not easily accept dyes; accordingly Minoan fabrics may have been particularly prized. Elizabeth Barber has suggested that the Early Minoan spinning bowls found at Myrtos–Fournou Korifi, on the south coast of Crete, might
indicate a Cretan origin for the flax-spinning method employed later in Egypt.63 The spiral decoration on some Egyptian seals, together with the use in Egypt of stamp seals in the First Intermediate Period, may reflect links with Crete as well.64 A stele of Senwosret II refers to the Horus Keftiu.65

Were contacts between Egypt and Crete in the twenty-first and early twentieth centuries B.C. direct, or did ships travel from Egypt to Crete by making a counterclockwise circuit via the Near East, Cyprus, and the Dodecanese? None doubt the relative ease of direct voyages from Crete to Egypt given the prevailing winds and currents, but some have questioned the nautical feasibility of direct Egypt-to-Crete sea travel.66 Such voyages appear practicable at certain times of the year, however, particularly by following the African shoreline from the Nile Delta to Cyrenaica and then turning toward Crete. Sailing vessels traveling at normal speeds would have been out of sight of land for only one day before coming within sight of the White Mountains of Crete, with Egyptian knowledge of the night sky surely serving as an aid to navigation. Direct voyages would have avoided the practical and political problems of arranging for safe anchorage and provisioning for ships voyaging up the Levantine coast and then to Cyprus and/or the Dodecanese before reaching Crete and making their way along its south coast.67

Available evidence suggests that the first voyages between Egypt and Crete were under Egyptian control, even if the crews and shipwrights may have been Levantines familiar with working cedarwood and sea voyaging.68 Expeditions to Byblos are recorded in Egypt by the mid-third millennium B.C. The "ship kit" buried in the Khufu pyramid has been reassembled into a ship 43 meters in length.69 A ship of Dynasty 12 whose remains were excavated at an Egyptian Red Sea port has an estimated length of 30 meters or more (see Ward essay, pp. 46–53).70

A Minoan seal found in an MM IA context (ca. 2000 B.C.), at the close of the Prepalatial period, depicts a sailing vessel.71 Of course we cannot be certain that the vessel is Minoan, nor that such vessels did not exist earlier. In any event the seal owner clearly wished to signal a role in seafaring. The creation of a sailing vessel was a complex and costly undertaking, requiring the accumulation of extensive knowledge regarding construction, equipping, and seamanship, plus the capability of organizing the labors of various crafts. It seems highly likely that those who directed the shipbuilding and the voyages belonged to the ruling elite in Crete. Mary Helms has provided the classic anthropological discussion of how travel to and knowledge of distant places may have been perceived as conferring special...
powers, and how foreign goods may have been seen as supernatural and powerful.\(^7\)

The late Prepalatial period in Crete saw the nucleation of settlement, with Knossos reaching an estimated 33 hectares and Phaistos 27 hectares.\(^7\) With respect to Knossos, Todd Whitelaw concluded "that this relatively short phase was a period of very rapid and significant expansion of the community."\(^7\) Regarding Phaistos, Simona Todaro observes that in EM III "a major building project took place which filled in all structures belonging to the previous phase and substantially changed the appearance of the Palace hill."\(^7\) Monumental mortuary structures appeared at Archanes Psounta and in south-central Crete. A locus of authority sufficient to command the leveling of the summit of the Kephala hill at Knossos, including a large number of houses; the creation of the Royal Road, 5 meters wide and almost 1 kilometer long;\(^7\) and the monumental construction of the Old Palace is clearly present. Cretan contact with Egypt appears to have played a prominent role in the marked intensification of complexity in Minoan society at the beginning of the second millennium B.C.

Notwithstanding the importance of Cretan contact with Egypt and its chronological precedence to major contact with the Near East, by the twentieth century B.C. the significance of contact with western Asia, in particular with regard to metallurgy and the search for metal sources, seems clear. Crete has no significant metal resources and was thus dependent on foreign sources for copper and tin, the essential constituents for a Bronze Age society. An interruption of regular access to sources in the Cyclades may have provided an added spur to a search for metals in the east. We may note in this connection the Cilician-Syrian inspiration of Minoan daggers,\(^7\) the appearance of Minoan daggers and an MM IA bridge-spouted jar in tombs at Lapithos and Vounous on the north coast of Cyprus, a Cypriot sherd in an MM I context at the south-coast port of Kommos in Crete, the presence of EM III-MM I sherds at Karpathos and Kos, the MM I pottery reported from Rhodes and Knidos,\(^7\) and the appearance at Knossos of a Cypriot amphora.\(^7\)

Anatolian models may have provided the inspiration for Minoan relief-decorated pottery in EM III-MM IA,\(^7\) and by MM IB-IIA Anatolian influence can be seen in fluted kantharoi and animal-headed rhyta.\(^8\)

The Tôd Treasure, found in Egypt in copper chests with the cartouche of Amenemhat II and thus dated around 1900 B.C., consists of 153 silver vessels and many silver chains and bars. Peter Warren and Vronwy Hankey thought the treasure Minoan, citing a closely parallel clay cup from the Stratigraphic Museum excavations at Knossos with repoussé circles in the bottom painted white in possible imitation of silver and other Minoan pottery comparanda, whereas Ellen Davis and Vance Watrous have contended that the treasure is typically Anatolian:\(^7\) "[T]he Tôd bee seal-amulet suggests at least an awareness of Minoan work."\(^8\)

Conversely, the adoption of bee imagery may have derived from Egypt, where the bee was a pharaonic symbol.\(^4\) The same reign witnessed the arrival in the Nile Delta, at the site of 'Ezbet Rushdi, of MM IB-IIA ceramics of fine quality and bearing some resemblances to some of the silver vessels of the Tôd Treasure.\(^8\)

Lead isotope analysis was not able to distinguish between Aegean and Anatolian sources for the silver vessels tested, but the metal of the chains, which differed in composition from the rest of the silver, was consistent with a source on the island of Thasos or in the mines of Chalcidice in northern Greece.\(^8\) Texts found at Mari on the Euphrates River about a century later speak of the arrival of silver vessels from Kaptara, almost certainly Crete.\(^7\) The uncertainty as to whether the silver vessels in the Tôd Treasure are Minoan or Anatolian (or made locally in imitation of foreign prototypes) reminds us of the close similarity of western Asian and Minoan metallurgy in this period, and of the Minoan dependence on eastern sources of tin and copper
in particular. One of a group of tablets of ca. 1800–1750 B.C.—MM II on Crete—found at Mari refers to the dispatch of one third of a mina of tin to Ugarit, on the Mediterranean, for “the translator [and] the overseer of the merchants from Crete in Ugarit.” Whether the text refers to a permanent colony of Cretan merchants or a group that came in the sailing season, it implies a significant trade in tin. Of the references to Kaptara in the Mari tablets translated to date, ten mention weapons. The armories of Egypt and the Near East produced nothing that could compare with the magnificent Minoan swords of this period found at the Mallia Palace in Crete. While these swords, with their gold pommels, were parade pieces, surely their creation reflected the production of swords for combat as well. Taken together, the evidence suggests that Minoan contact with the Near East involved (inter alia) the importation of tin and the export of bronze weapons.

Cretan contact with the Assyrian colony period metal-trading network in Anatolia and with other Anatolian metal sources also seems likely. A critical question with respect to the significance of the contact is raised by the large cache of sealings discovered in one room of the palace at Phaistos, preserved in the MM IIB destruction level of the late eighteenth century B.C. Of course the chronological level in which sealings are recovered may be considerably later than the time when the sealing system represented first came into use. Sealings, which can be difficult to recognize in any event, are only preserved in Crete if a fire accidentally bakes them and they are protected by a roof collapsing before rain comes. Aruz, noting parallels between the system already employed at Lerna in the Peloponnesse in EH II and that of Arslantepe in Anatolia, has suggested an arrival of administrative, rather than merely decorative, seal use on Crete significantly earlier than the MM IIB destruction deposit at Phaistos. Enigmatic evidence of some kind of seal use is present in EM II at the small village of Myrtos–Fournou Korifi on the south coast of Crete and in EM III–MM IA at the Phourni cemetery. It is of course difficult on such fragmentary evidence to determine the nature of this use. Were the seals initially simply attractive objects whose possession conferred prestige? Were they used only to decorate cloth, pottery, or bodies? Perhaps the next stage was the use of sealings to identify personal, family, or clan property. Administrative use is another matter. Sealings may have been used to indicate the sources of goods coming from farmers, pastoralists, or craftspeople; to seal chests or storerooms; or to do both and supplement writing in the creation of a major system of administration.

Judith Weingarten has argued that by the end of the eighteenth century B.C. the Phaistian sealing system was the same in every detail as the system employed at the site of Karahöyük, near Konya in central Turkey. This is so important an assertion—the proposed complete adoption of a particular foreign administrative system by a major Minoan palace—that it deserves close attention. Stamp seals survived as the form of choice in Crete and in Anatolia, whereas other areas of the Near East employed cylinder seals. Minoan seals of gable shape may derive from gable seals found in this period in Syria/Cilicia and at Kültepe, a key node in the Assyrian trading colony metallurgical network. A number of Aegean seal shapes and motifs have Anatolian parallels at Acemhöyük, Boğazköy, and Alıshar Höyük, as well as at Kültepe and Karahöyük. A small percentage of the sealings at both Karahöyük and Phaistos exhibit some simple designs that are extremely similar if not identical.

It would of course have been possible to adopt a foreign sealing system while retaining native iconography. Conversely, it would have been possible to adopt only the idea of affixing seal impressions to objects, doors, or pegs closing chests—the principal elements of the common sealing system Weingarten discerns—without intensive contact between Crete and the Assyrian colony metal-trading network. A prominent
feature of the Anatolian system, the clay crescent stamped by seals, thought to act as a receipt, does not appear in Crete. The Minoan roundel is not a convincing analogue, in view of its different use of seal impressions and its scarcity relative to the crescents. Moreover, in western Asia sealing and writing were often employed jointly, whereas in Crete almost no seals are inscribed, and tablets are not sealed. Significant differences exist between the systems of Karahöyük and Phaistos, and evidence for intense direct contact between administrators at the two sites is lacking.

In any event, the evidence for some type of contact, even if not profound, between Phaistos and the Anatolian trading center at Karahöyük, a site whose principal activity was trade in metal, reminds us again of the dependence of palatial Crete on metal from foreign sources. Forty-two percent of the copper found in the metallurgical workshop of Quartier Mu at Mallia came from Anatolian sources (as did much of the obsidian used in the manufacture of the obsidian blades found in the same deposit). Quartier Mu was destroyed at or close to the time of the MM IIB destruction at Phaistos, which preserved the sealings discussed above. The amount of metal surviving in the archaeological record is of course only a very small fraction of what once existed—as the quantity of metal recovered from the Uluburun shipwreck reminds us—for metal is universally remelted and reused. It appears likely that the cause of the shift in the major focus of Minoan trade from Egypt to the Near East over the course of the First Palace period, culminating in the marked decline of contacts in the Egyptian Second Intermediate Period, lay in the ceaseless Minoan search for the metals that have given the Bronze Age its name. Contact with Egyptian civilization in the period ca. 2100–1950 B.C., however, provided the main source of the new ideas and technologies that led to the creation of the palatial culture of Minoan Crete.

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1. Of recent works addressing the subject across a broad range, those of Joan Aruz (2008), dealing with seals and sealings, and Vance Watrous (Watrous 1987; Watrous 1994; Watrous 2004), encompassing a wide array of data and interpretation, deserve special mention.


17. Davaras and Betancourt 2004, pp. 231–32. I thank Philip Betancourt for the citation and much helpful advice.


23. See, however, Watrous 1987, who notes, inter alia, the appearance as early as MM IA of the goblet and carinated cup vase forms that he believes to be of Syrian/Anatolian inspiration, but who has also discussed the Egyptian cultural impact on Crete in the early Middle Bronze Age (Watrous 1998).

24. The actual amount of exchange is always difficult to estimate in view of the possible trade in perishables, metal that is recycled, or wood that is reused.

29. Pini 2000. I am grateful to Ingo Pini for this citation and for his advice in this regard.
34. Weingarten 2005, pp. 764-65 and n. 34.
37. Aruz 2000, pp. 2-3; Ferrence 2007, p. 171.
38. Ferrence 2007, p. 171.
44. The putative process is discussed in detail in Warren 2005, pp. 223-25.
47. Sakellarakis and Sapouna-Sakellaraki Colburn 2008.
49. For a recent discussion of Cretan Hieroglyphic, see Olivier 2010.
53. MacGillivray, unpublished paper presented at the New York Aegean Bronze Age Colloquium on May 1, 1992 (I am grateful to Alexander MacGillivray for permission to refer to the paper); MacGillivray 1994, p. 49.
54. Branigan 1972, p. 36-37, 41, 143.
57. F. Arnold 1990.
58. Arnold (Dorothea) 1993, pp. 46-49, 51-52; Dorothea Arnold, personal communication.
59. Arnold (Dorothea) 1993, p. 46; Dorothea Arnold, personal communication. See also Hampe and A. Winter 1962, p. 117; Evely 1988, p. 94.
63. Discussed in B. Burke 1939, p. 79, n. 24.

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Yuval Goren. "Levantine-Egyptian Interactions during the 12th to the 15th Dynasties Based on the Petroglyphs of the Canaanite Pottery from Tell el-Dab'a." Ägypten und Orient 14 (2004), pp. 69-100.


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pp. 5-62.


Dietrich and Loretz 1969. In


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C. A. Ward, Zazzaro, and Abd el-Maguid 2010. Cheryl A. Ward,


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This Chronology uses the Middle Chronology for the Near East, the Metropolitan Museum List of Rulers for Egypt, and a modified Traditional Chronology for the Aegean. Modifications to the Egyptian chronology are currently under discussion. All dates are approximate.
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The Metropolitan Museum of Art Symposia

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From Mesopotamia to the Mediterranean in the Second Millennium B.C.

Edited by
Joan Aruz, Sarah B. Graff, and Yelena Rakic

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