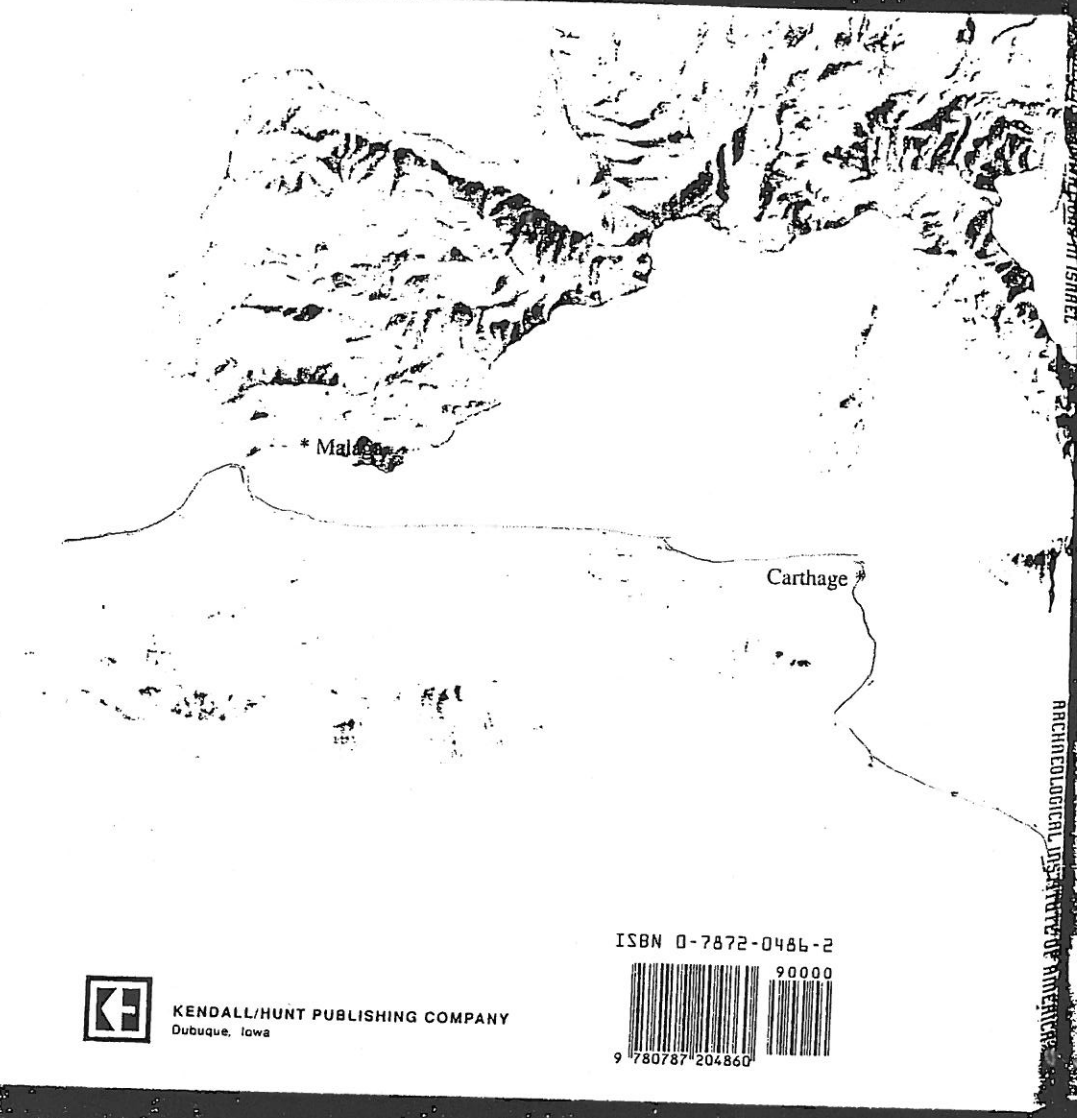


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RECENT EXCAVATIONS IN ISRAEL

A VIEW TO THE WEST

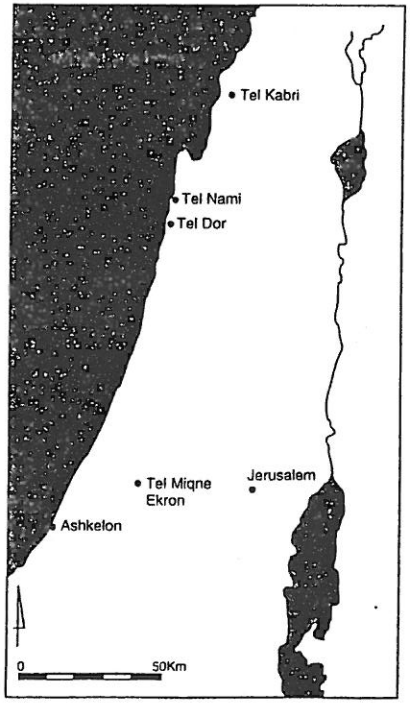
Reports on Kabri, Nami, Miqne-Ekron, Dor & Ashkelon

Gitin (ed)



Edited by Seymour Gitin

Archaeological Institute of America
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1

Tel Kabri: Aegean Fresco Paintings in a Canaanite Palace*

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Archaeologisches Institut, Universität Heidelberg

Tel Kabri, a Neolithic to Iron Age site in the Western Galilee, situated about four kilometers east of the coastal town of Nahariya, is currently under excavation by a joint expedition of the Archaeological Institutes of the Universities of Tel Aviv and Heidelberg under the direction of A. Kempinski and the author.[1]

Two factors probably played a decisive role in the early settlement and the growing importance of this site: the rich local springs which provide altogether 8.6 million cubic meters of water per year,[2] and the site's position on a branch of one of the most important trade routes of the ancient Near East (the so-called Via Maris), which connected such important trading cities as Ugarit, Byblos, and Tyre with Egypt.[3] Kabri reached its acme in the middle Bronze Age when it was a large fortified city covering 32 ha.[4] The Middle Bronze Age city of Kabri ended about 1600 B.C.E., that is in MB IIC, MB III, or, as I would prefer, later MB IIB, depending on the terminology used.[5] At the present, the reasons for the abandonment of Kabri are not yet clear. In the last phase of the palace of the local ruler, which will be discussed subsequently, we have found evidence for destruction by fire and for a subsequent short "squatter" reoccupation.

This palace is under excavation in our Areas D and F (fig. 1.1). As far as it has been hitherto exposed, it seems to have an elongated rectangular appearance similar to that of the so-called Yarim-Lim's palace of Alalakh level VII.[6] To the south and southeast of the Kabri palace there were courtyards with plaster floors. The plastered courtyard to the southeast was excavated in the 1991 and 1992 seasons (see fig. 1.1, in the front left). A sequence of plaster floors of yet another courtyard were discovered by Meqorot water authorities while digging a trench south of Area D in 1961.[7]

*The excavations at Tel Kabri are funded by the German Israeli Foundation for Scientific Research and Development (GIF). Special funds for excavating and restoring the painted floor and fragments of wall paintings from Hall 611 were granted by the Institute for Aegean Prehistory, New York. Furthermore, I would like to thank my partner at Tel Kabri, A. Kempinski, for much information concerning the archaeology of the Palestinian Middle Bronze Age; my wife Barbara for her work on the fresco fragments, for making the drawings and watercolors as well as for fruitful discussions on problems of reconstruction; V. Parker for correcting my English, and S. Gitin for inviting me to take part in the New Orleans conference.

The following abbreviations are used:

Kempinski (1987)	A. Kempinski, ed., *Excavations at Kabri 1: Preliminary Report of 1986 Season* (Tel Aviv 1987) in Hebrew.
Kempinski (1988)	_____ *Excavations at Kabri 2: Preliminary Report of 1987 Season* (Tel Aviv 1988) in Hebrew with English summaries.
Kempinski (1989)	_____ *Excavations at Kabri 3: Preliminary Report of 1988 Season* (Tel Aviv 1989)
Kempinski-Niemeier (1990)	A. Kempinski and W.D. Niemeier, eds., *Excavations at Kabri 4: Preliminary Report of 1989 Season* (Tel Aviv 1990) in Hebrew and English.
Kempinski-Niemeier (1991)	_____ *Excavations at Kabri 5: Preliminary Report of 1990 Season* (Tel Aviv 1991) in Hebrew and English.
Kempinski-Niemeier (1992)	_____ *Excavations at Kabri 6: Preliminary Report of 1991 Season* (Tel Aviv 1992) in Hebrew and English.

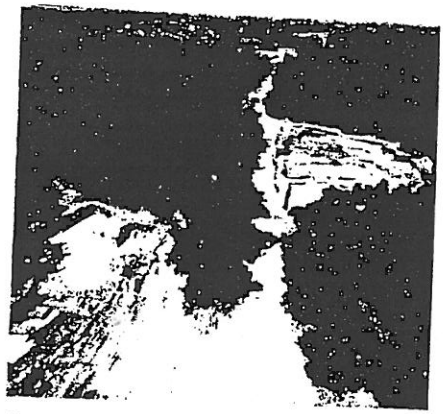


FIGURE 1.1 Tel Kabri, excavations of MB palace in Areas D and F from the northeast, 1992.



FIGURE 1.2 Tel Kabri. MB palace. Area D, Hall 611 with painted plaster floor, from the southwest, 1991.

In the western part of the palace lies a very interesting group of rooms. From the southern courtyard,[8] a doorway with a threshold of sandstone ashlar blocks gives access to Corridor 607. Along this corridor another door with a similar threshold leads, after a right-angled turn, into the large (10 m x 10 m) square Hall 611. (In fig. 1.1, the floor of Hall 611 appears dark gray because it has been covered to preserve the paint of the floor.) From this hall two doorways lead to smaller rooms to the north and west. There is evidence of a ritual function for this group of rooms: In the center of Corridor 607 we found a pithos sunken into the floor and a jug on the floor next to it.[9] Another pithos had been sunk into the center of Hall 611.[10] One of the very few finds from Hall 611 is a miniature cup.[11] This cup is the very same type as those found in Middle Bronze Age Canaanite sanctuaries.[12]

The outstanding feature of Hall 611, excavated during the 1989 and 1990 seasons, is the painted lime plaster covering its floor as well as that of the threshold of the doorway to the east (fig. 1.2). The painting of this floor has been executed in true fresco technique (*buon fresco*) as is clear from tests done at the site by M. Tagliapietra (restorer and fresco-specialist, from Verona) as well as from laboratory analyses of samples of the floor carried out by P. Rosanò, chemist, and P. Cornale, geologist, of Technologie applicate, diagnostica per il restauro artistico, in Padova. In tests for color resistance, made by gently rubbing the painting with dampened cotton wool and soft brushes,[13] the painting of the floor proved resistant. In the microscope section photographs, floor samples show uneven "lines of demarcation" between the penetrated color and the unstained plaster, as is characteristic for true fresco painting.[14] According to microscopic and multi-elementary chemical analyses, red ocher, yellow ocher, carbon, and lime were used for painting the floor; these are natural pigments usual in Near Eastern and Aegean wall painting.[15]

Unfortunately, the floor is in a rather poor condition. The uppermost layer with the paint is frequently broken away. Where the surface is preserved, it is generally rather worn. While we often have problems in distinguishing details within the painting, the general character of the decoration is clear. The floor was painted with a grid pattern of red lines (fig. 1.3). The squares enclosed in this grid have a lateral length of 40 cm. Originally the floor (which in this case was cut along the edges by looters in antiquity in their efforts to rob the orthostates originally lining the lower part of the walls of Hall 611) had more than 600 such squares which undoubtedly were intended to imitate a

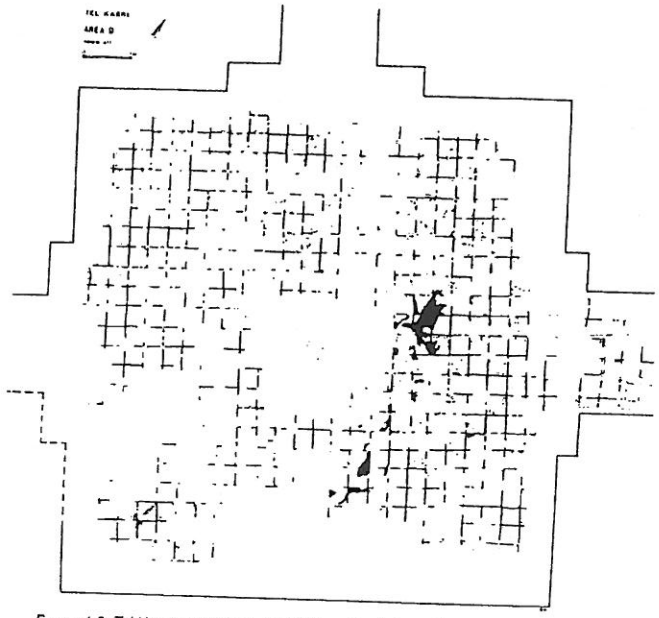


FIGURE 1.3 Tel Kabri, MB palace, Hall 611, painted plaster floor, plan (B. Niemeier).

pavement of stone slabs. This is especially clear in the central area where the decoration of a group of squares imitates the marbling of alabaster (fig. 1.4) as on dadoes imitating alabaster slabs from Knossos and Thera.[16]

Although painted lime plaster floors imitating floors paved with stone slabs existed on Crete from around 2000 B.C.E. on,[17] I know of no exact Cretan parallel for the painted rigid grid pattern on the Kabri floor. Rigid grid patterns with painted imitations of stone slabs do appear, however, in the Mycenaean palaces of the 13th century B.C.E.[18] and have been considered a Mycenaean innovation.[19] As the Kabri floor demonstrates, this cannot be the case.[20] Many Cretan painted plaster floors have been lost or were not recognized in the old excavations,[21] and rigid grid patterns were not unknown to the Minoans: strip-like plaster bands with missing inlays forming a strict grid were found in two rooms of the west wing of the palace at Zakro,[22] situated a distance away from the wall and centered on the floors.

In earlier reports on the floor, I wrote that the squares enclosed by the grid pattern of the Kabri floor are alternating white and yellow in a checkerboard pattern.[23] A thorough investigation has revealed that the yellow color is not a priming coat but comes instead from crowded yellow blossoms painted onto the squares. The dark blue flowers painted in the alternating squares are more easily distinguishable. We can discern single blossoms (fig. 1.5) and chains of stylized linear iris blossoms of the characteristic Minoan "V type" (fig. 1.6) which occurs first in LM IA fresco and vase painting.[24]

In a group of squares near the south wall of Hall 611, the decoration is rather well preserved (figs. 1.7, 1.8). One of the squares is decorated with an elegantly curved spray of more naturalistic iris blossoms, a motif recurring several times on the floor (see fig. 1.3). In addition to the iris spray we recognize yellow crocuses which also have parallels on LM IA wall paintings[25] but which are alien to Canaanite iconography.

Thus besides the technique of painting in *buon fresco* on lime plaster (first invented in Crete in the late 3rd millennium B.C.E.[26] and almost unknown in the ancient Near East)[27] the

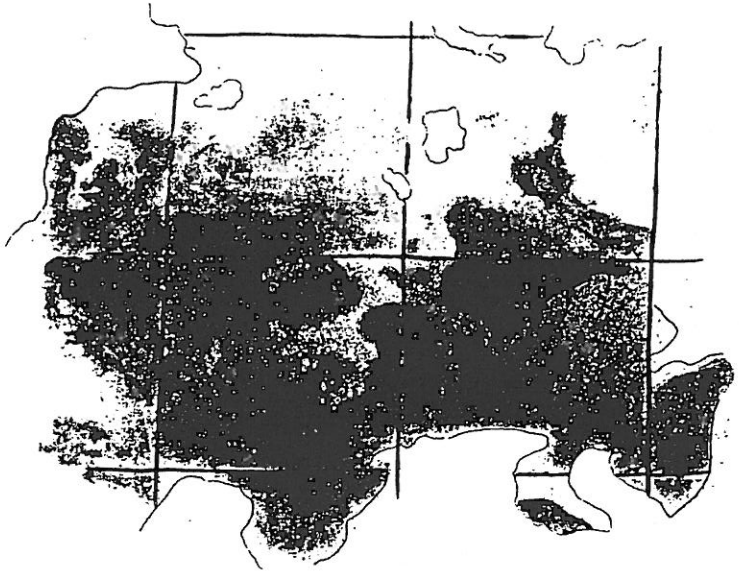


FIGURE 1.4 Tel Kabri, MB palace, Hall 611, painted plaster floor: group of squares near the center with imitation of alabaster marbling. Watercolor by B. Niemeier.

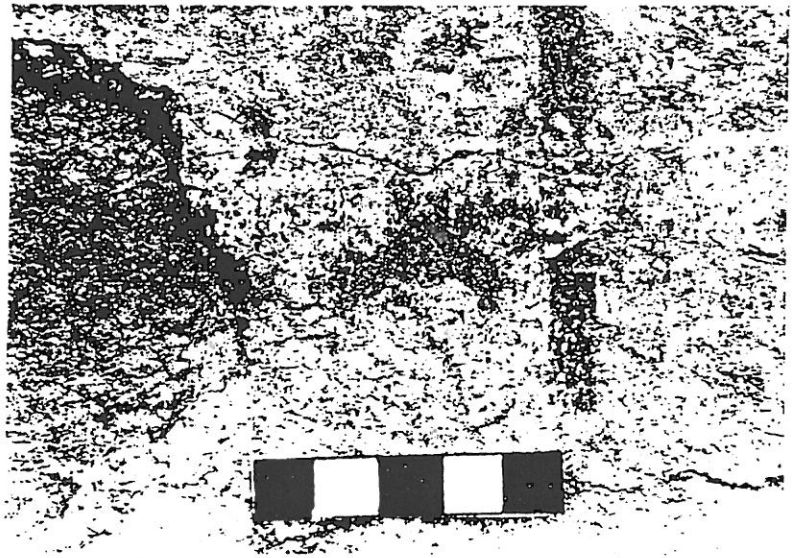


FIGURE 1.5 Tel Kabri. MB palace. Hall 611, painted plaster floor: detail of a dark blue blossom.

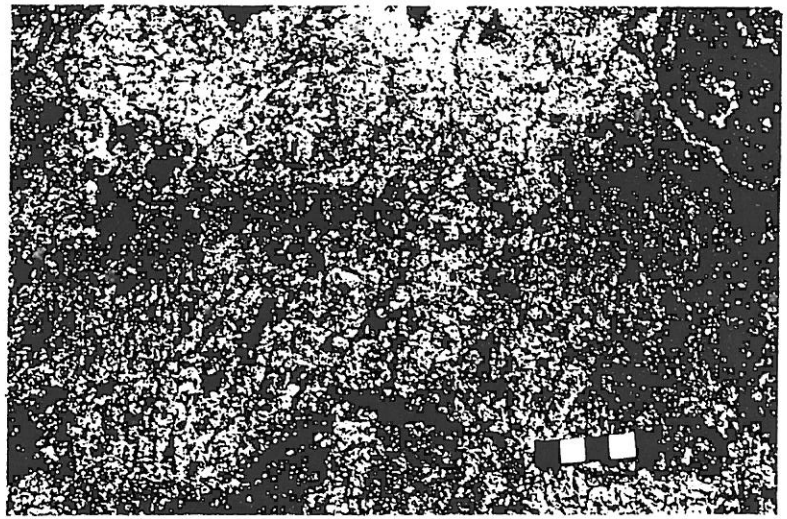


FIGURE 1.6 Tel Kabri, MB palace, Hall 611, painted plaster floor: detail of an "iris V"-chain.

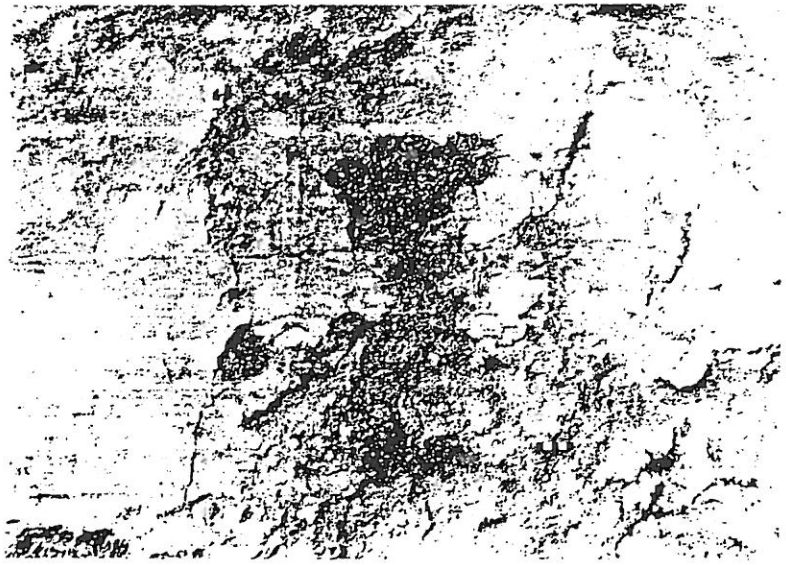


FIGURE 1.7 Tel Kabri. MB palace. Hall 611: group of squares with a floral design next the the southern corner.

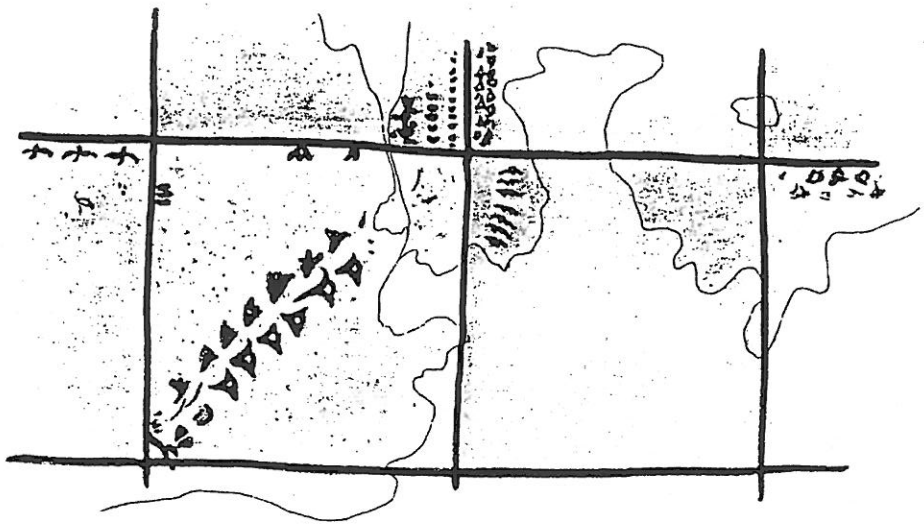


FIGURE 1.8 Tel Kabri, watercolor by B. Niemeier of the design shown in fig. 7.

decoration of the floor also points to an Aegean origin. What is the meaning of the flowers painted as strewn or laid down in sprays on the floor? They probably had a symbolic value similar to that of the so-called Garland Fresco from Knossos. The excavator of the Knossos fresco, P.M. Warren, has interpreted it as perpetuating a festive decoration or flower offerings in connection with a fertility cult.[28] By analogy the flower motifs painted on the Kabri floor may be interpreted as perpetuating flower blossoms and sprays placed on the floor during fertility rites. Pithoi sunk into the floor of the Corridor 607 and Hall 611 may also have played a role in such rites.

On the very last day of the 1990 season we had found the first fragments of wall painting in the doorway leading out from Hall 611 to the north. During the campaigns of 1991 and 1992 we thoroughly investigated the doorway in question. Here we found a filling of stones and lumps of soft mud lime. From this filling more than 2000 fragments of wall painting were recovered, most of them very small pieces. By courtesy of the Israel Authority of Antiquities we were allowed to take the fragments with us to Heidelberg for restoration and study and to send some of them for analysis to Italy. Although very tiny, the fragments show a much finer quality of both lime plaster and painting than the floor. The analyses have demonstrated that the wall painting technique was also true fresco painting with some details added in tempera.[29] Further evidence for the use of the *buon fresco* technique was provided by the existence of a thin final coating of very fine lime plaster, the *intonaco*.[30] The lime plaster had been laid upon mud backing plaster with straw as a binder, impressions of which are visible on the backs of the wall painting fragments (fig. 1.9). This is a technique well known from Crete and Thera.[31] The same color pigments used in the paint on the floor were used here also, with one exception: in the wall painting fragments there appears an Egyptian blue, a compound of silicon, copper oxide, and calcium oxide.[32]

The work on the fresco fragments at Heidelberg is very time-consuming and often frustrating. Unfortunately, our initial impression during the recovery of the fragments proved to be correct: The fragments were not found as fallen from the wall, but in a secondary context, completely jumbled. Since most of the fragments are very small and also rather worn at the edges, only a few joins have been successfully made to date. Nevertheless there are already

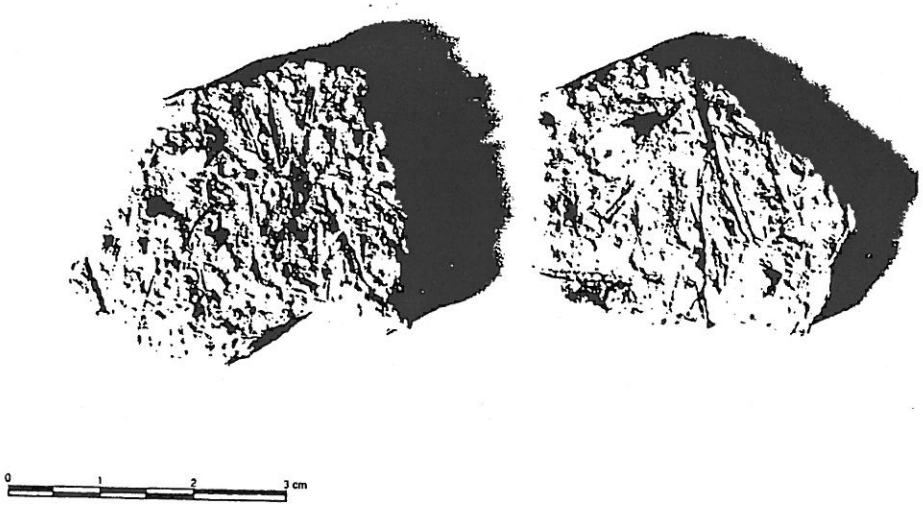


FIGURE 1.9 Tel Kabri, MB palace, doorway leading from Hall 611 to the north: back face of painted wall plaster with the impressions of a straw binder.

interesting and important results: Most of the fragments belonged to an Aegean-style miniature fresco, as known from Crete,[33] Kea,[34] and Thera,[35] the best preserved example. The best parallels for the motifs we have so far distinguished are to be found in the miniature fresco from the West House at Akrotiri in Thera. For example, we were able to distinguish red-brown rock motifs with knob-like protuberances at the edges (fig. 1.10) which are very similar to those of the Theran miniature fresco, where we even find the wavy strip left white within the rocky ground.[36] In the Theran fresco the knob-like protuberances mark the shore, and this was a widespread Aegean convention appearing also on the impression of a gold ring, the so-called Master-Impression from Khania, and on the silver Siege Rhyton from Shaft Grave IV at Mycenae.[37] On the latter two examples the sea is represented by a net pattern in accordance with another characteristic Aegean convention which also appears in wall painting.[38] On the north wall of the Theran miniature fresco, the sea is represented in a totally different manner by stippling the white ground with short, loop-like gray strokes.[39] We find the exact same technique on a series of our fragments from Kabri (fig. 1.11). The curved thick lines on the same fragments probably belong to boats or ships.[40]

On other fragments, ashlar masonry blocks and rounded "beam's ends" are distinguishable (fig. 1.12). Comparable are the ashlar masonries of the houses of the "Departure Town" as well as of the "Arrival Town" of the Theran miniature fresco,[41] especially the gate of the "Arrival Town" showing beam's ends decoration and ashlar masonry.[42] Furthermore, there is the charming miniature representation of a flying swallow (fig. 1.13). The swallow is a very popular theme in Theran wall painting and vase painting,[43] although hitherto it has not been found in miniature frescoes.

Where had this miniature fresco been situated? As mentioned earlier, the fragments were found in a secondary context, in a filling laid down during a short "squatter" phase[44] after the ashlar blocks had been removed, (and which most probably had also formed the threshold of this doorway). The fresco fragments extend farther below a late coarse plaster floor in the corridor leading from Hall 611 to the north. Therefore I think that the fill material, including the fresco fragments, was not brought from elsewhere, but was formed

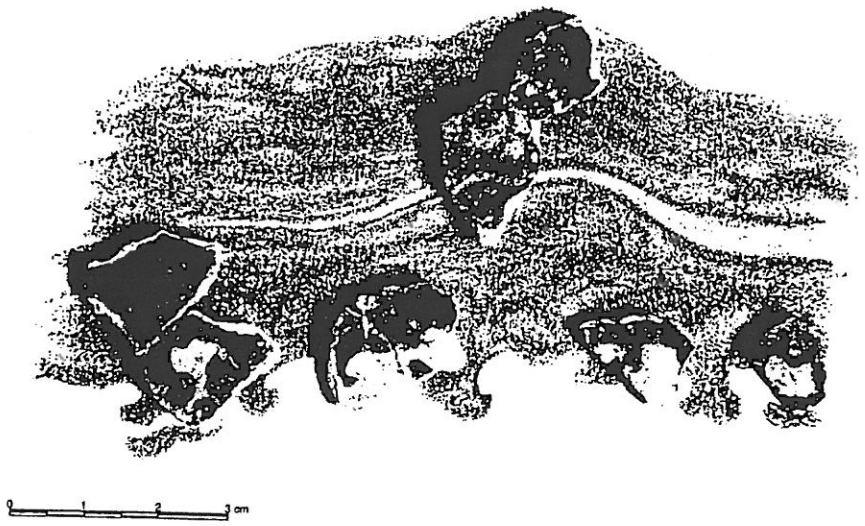


FIGURE 1.10 Tel Kabri, MB palace: fresco fragments with representation of rocks.

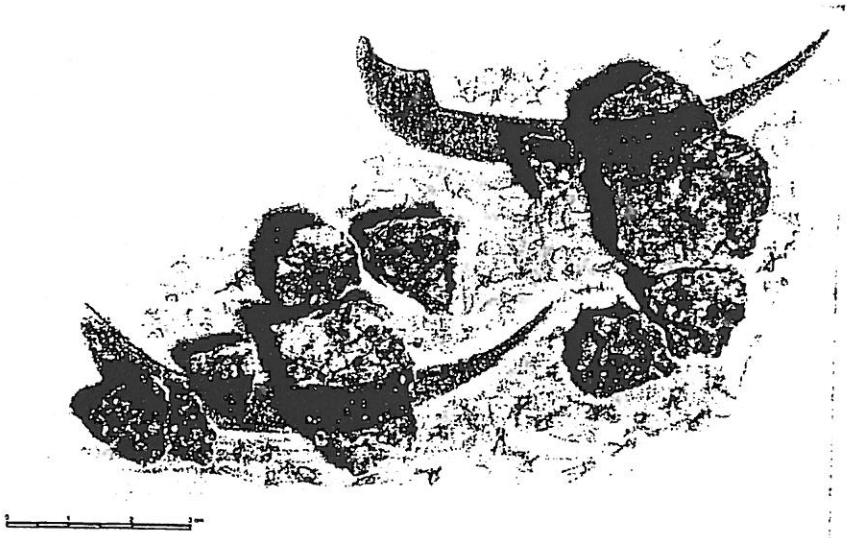


FIGURE 1.11 Tel Kabri, MB palace, doorway leading from Hall 611 to the north: fresco fragments showing sea and boats.

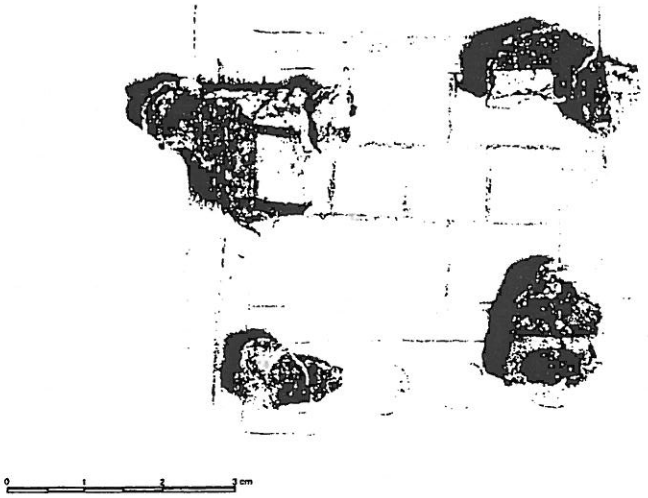


FIGURE 1.12 Tel Kabri, MB palace: fresco fragments showing architecture, W. of reconstructed square, ca. 5.7 cm.



FIGURE 1.13 Tel Kabri, MB palace: fresco fragments with miniature representation of flying swallow, PH. ca. 3.7 cm.

by debris from this area. Thus the miniature frieze probably ran along the wall in the zone above the door (fig. 1.14) in a position similar to the miniature fresco from the West House at Akrotiri.[15] If this reconstruction is correct, the miniature frieze of Kabri had a length of 40 m, whereas the Thera miniature frieze was about 12 m long.

Both the floor and the fresco appear to have belonged to a decorative program for transforming Hall 611 into a "Minoan hall" within the Canaanite palace of Kabri. However, only the decorative program is Minoan, for the architecture is of a purely Canaanite tradition as is that of the entire palace.

Within Israel, the Aegean fresco paintings are unique. If we look beyond the borders of present-day Israel into other areas of "Greater Canaan," as one may term (with R. Amiran) the area between the Amuq plain to the north and the deserts to the south and east during the Middle and Late Bronze Ages,[16] the Kabri floor still remains unique, but not the wall frescoes. Wall frescoes of the Late MB have been discovered at Alalakh and in the Hyksos capital Avaris in the eastern Nile Delta.

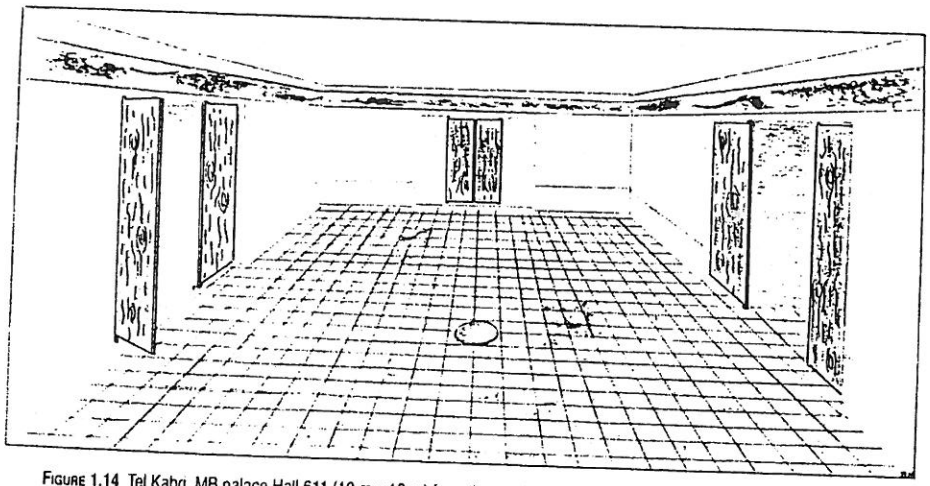


FIGURE 1.14 Tel Kabri, MB palace Hall 611 (10 m x 10 m) from the southeast: reconstruction with painted plaster floor and miniature fresco (B. Niemeier).

From Yarim-Lim's palace of Alalakh level VII come fresco fragments very close in technique and style to Minoan frescoes.[47] For the excavator, Sir Leonard Woolley, they appeared to represent evidence for a Near Eastern origin of Minoan fresco painting.[48] As I have argued elsewhere, however, the relationship was just the other way around. Woolley's date for Alalakh VII was too high, and with the lower date of Alalakh VII and the new, high date of the eruption of the Thera volcano, Akrotiri and LM IA become contemporary with Alalakh VII in the 17th century B.C.E.[49]

However, most exciting is the recent discovery of Aegean-style fresco fragments with representations of bull leapers and acrobats, floral motifs and animals from the late Hyksos period at Avaris.[50] As is now well established, the Hyksos were Canaanites from Syro-Palestine.[51]

Quite recently, the Avaris and Kabri frescoes have played a role in the controversy concerning M. Bernal's *Black Athena*.[52] I agree with Bernal that the Hyksos' period was a suitable period for cultural transmission between the Levant and the Aegean. However, I cannot see any Egyptian influence in the Theran frescoes, and the frescoes from Avaris and Tel Kabri are Minoan (or Aegean)—without the inverted commas which Bernal hangs about them. The relationship between the Kabri, Avaris, and Theran frescoes cannot be used as an argument for a Hyksos' invasion of the Aegean as supposed by Bernal. Instead, the exact opposite occurred and an astonishing pattern is emerging (fig. 1.15) naniely, Aegean fresco paintings in Canaanite palaces of the Hyksos' period. I use the term "Aegean" instead of "Minoan" because of the apparent affinities of the Kabri miniature fresco fragments to the miniature fresco from Thera. There seems to have existed a Cycladic school of fresco painting with some peculiarities distinguishing it from the Cretan school,[53] though politically, the Cyclades appear to have formed a unit with Crete.[54]

At least at Tel Kabri and Avaris these fresco paintings were not simply "exotic" decorative art destined to adorn the palaces of the rulers or of other high officials, but apparently had a ritual function. At Kabri this is clear from the context in which the fresco paintings were found; at Avaris from the ritual character of the bull-leaping represented.[55] M. Bietak, the excavator of Avaris, thinks "that the ritual significance of the wall paintings would point to the conclusion that Minoans lived in Avaris and in close contact with the ruling class there, and that they were able to pursue their own ritual life."[56] In a lecture at the Archaeological Society in Athens in June 1992, he suggested that a Minoan princess was given in marriage to the

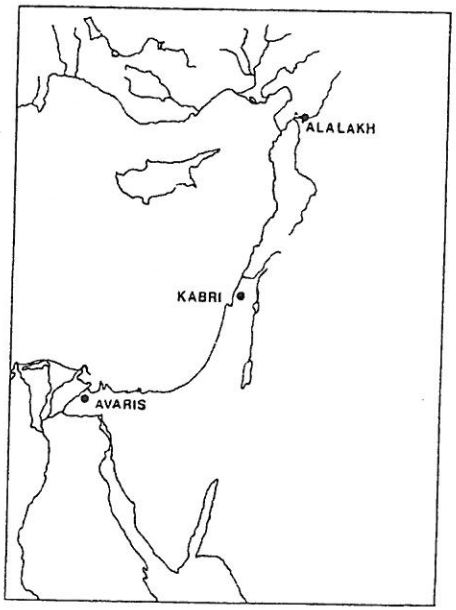


FIGURE 1.15 Sketch map showing location of Canaanite palaces of the Hyksos' periods with Aegean fresco paintings.

Hyksos' court at Avaris. This could explain a single case, but it appears unlikely to me that at about the same time other Minoan princesses were given in marriage to the courts of Tel Kabri and Alalakh. The absence of any other contemporary Minoan type artifacts and, above all, of pottery, in contrast to the abundant Cypriot pottery, militates against the existence of Minoan enclaves in those residences.[57]

In connection with the Aegean frescoes in the Canaanite palaces, a tale in the mythological poetry of Ugarit is pertinent. In it the goddess Anat sends the divine messenger, Qadesh-wa-Amrur, over the sea by way of Gabal (Byblos) to the god of handicrafts, Kothar-wa-Khasis, who is brought from his throne in Kptr (almost unanimously identified as Caphtor = Crete) to build a splendid palace for the god Baal and to furnish it with precious works of art.[58] The tablets in question were written in the first half of the 14th century; the myth itself, however, most probably dates back to the Middle Bronze Age.[59]

As A.S. Kalpelrud has stated, the factual basis of Kothar-wa-Khasis is the highly skilled specialist as he is found in the Near Eastern courts of this time.[60] As it now appears, such specialists were summoned from the Aegean to Canaanite courts for painting ritual frescoes in the palaces, just as in myth Kothar-wa-Khasis was called to furnish the palaces of the gods. All this points to more than mere trading connections between the Levant of the Hyksos' period and the Aegean ruled by Minoan Crete.

In this connection, the Canaanite imports of the Hyksos' period in the Aegean must also be taken into consideration. These include gypsum vessels,[61] tripod stone mortars,[62] Canaanite jars,[63] as well as the lid of an alabaster pyxis from Knossos bearing the cartouche of the Hyksos' pharaoh Khyan,[64] probably sent as a gift.[65] Quite recently, P. Muhly has pointed to the parallel phenomenon of warrior burials in both regions which could possibly also be understood in this context of intercultural relations.[66] Further excavations and research will, I hope, throw more light on the exciting problem of Aegean-Canaanite relations during the Hyksos' period.

NOTES

1 For preliminary excavation reports, see Kempinski (1987), (1988), (1989), Kempinski-Niemeier (1990), (1991), (1992); A. Kempinski and E. Miron, "Kabri 1986-1987," *IEJ* 37 (1987) 175-177; A. Kempinski and W.-D. Niemeier, "Kabri 1989-1990," *IEJ* 41 (1991) 188-194; W.R. Wolf, "Archaeology in Israel." *AJA* 95 (1991) 505-506.

2 See T. Tsuk in Kempinski-Niemeier (1990) 6-7.

3 J. Rogerson, *Atlas of the Bible* (London 1987) map on p. 24.

4 For maps showing the extent of the Middle Bronze Age city, see Kempinski and Miron (supra n. 1) 176 fig. 1; Kempinski-Niemeier (1991) fig. 2.

5 On the absolute date of the end of the MB II city of Kabri, see A. Kempinski, "Two Scarabs of Yakubum" in S. Israeli-Groll, ed., *Studies in Egyptology Presented to Miriam Lichtheim* (Jerusalem 1990) 632-634; W.-D. Niemeier, "New Archaeological Evidence for a 17th Century Date

of the 'Minoan Eruption' from Israel (Tel Kabri, Western Galilee)," in D.A. Hardy and A.C. Renfrew, eds., *Thera and the Aegean World III, 3: Chronology* (London 1990) 120-126. On the problem of chronological terminology, see most recently P. Bienkowski, "The Division of Middle Bronze II:B-C in Palestine," *Levant* 21 (1989) 169-179, who comes to this conclusion (p. 176): "The time has come to abandon the use of the subphase MB IIC (or MB III), applicable to the whole of Palestine, since it cannot be supported stratigraphically or ceramically. A more accurate terminology is 'earlier' or 'later' MB IIB."

6 L. Woolley, *Alalakh: An Account of the Excavations at Tell Atchana in the Hatay* (London 1955) 91-99, fig. 35.

7 As observed by M. Prausnitz and A. Kempinski during the work of Meqorot.

8 In earlier reports it has been designated as an inner courtyard, but we no longer think that there was another palace wing to the south of Area D.

9 Kempinski (1988) 36-41.

10 A. Kempinski and S. Giveon in Kempinski (1990) 43-46.

11 Kempinski-Niemeier (1991) fig. 14, no. 6.

12 See, for instance, I. Ziffer, *At the Time the Canaanites Were in the Land* (Tel Aviv 1990) 113, fig. 128 (from Nahariyah sanctuary); E. Oren and Y. Yekutieli and P. Nahshoni and R. Feinstein, " Tel Haror after Six Seasons," *Qadmoniot* 24 (1991) fig. on p. 8 (from MB sanctuary at Tel Haror).

13 See M.A.S. Cameron, R.E. Jones, and S.E. Philippakis, "Scientific Analyses of Minoan Fresco Samples from Knossos," *BSA* 72 (1977) 131, 161-162.

14 Cameron et al. (supra n. 13) 163-164, pl. 15 e-f.

15 See A. Nunn, *Die Wandmalerei unter der glassierte Wandschmuck im Alten Orient* (Leiden 1988) 25-29; M.A.S. Cameron, et al. (supra n. 13) 140-146; W. Noll and L. Born and R. Holm, "Keramiken und Wandmalereien der Ausgrabungen von Thera," *Die Naturwissenschaften* 62 (1975) 92; S.E. Filippakis, "Analysis of Pigments from Thera," in C. Doumas, ed., *Thera and the Aegean World I* (London 1978) 599-604; S. Immerwahr, *Aegean Painting in the Bronze Age* (University Park 1990) 15, fig 5.

16 Knossos: Evans, *PM* IV, 894-896, figs. 873-874. Thera: S. Marinatos, *Excavations at Thera VI* (Athens 1974) color pls. 3-5; C. Doumas, *The Wall-paintings of Thera* (London 1992) 46, figs. 14-17. Imitations of marbling already existed at Knossos in the Old Palace period: Immerwahr (supra n. 15) 22 fig. 6,7. Therefore I agree with J. L. Crowley, *The Aegean and the East* (Jonsered 1989) 282, that the unique marbling motif of the throne podium at Mari (A. Parrot, *Mission archéologique de Mari II.2: Le palais, peintures murales* [Paris 1958] 67-69. pl. 15) is of Aegean inspiration. On other relations between Aegean and the Mari wall paintings, see most recently C. Doumas (supra this n.) 30-31.

17 See E.S. Hirsch, *Painted Decoration on the Floors of Bronze Age Structures on Crete and the Greek Mainland* (Göteborg 1977) 13, no. C 23, fig. 4 (Mallia, MM I).

18 Hirsch (supra n. 17) 24-42 and "Another Look at Minoan and Mycenaean Interrelationships in Floor Decoration," *AJA* 84 (1980) 453-462.

19 Hirsch (supra n. 18) 453 n. 4; 461.

20 See W.-D. Niemeier, "On the origin of Mycenaean Painted Plaster Floors," in *Atti e memorie del II. Congresso Internazionale di Micenologia, Roma-Napoli 1991* (in press)

21 Hirsch (supra n. 17) 5-6.

22 N. Platon, *Zakros. The Discovery of a Lost Palace of Ancient Crete* (New York 1971) fig. on p. 84; see Hirsch (supra n. 17) 21, fig. 11.

23 For instance: W.-D. Niemeier, "Minoan Artisans Travelling Overseas: the Alalakh Frescoes and the Painted Plaster Floor at Tel Kabri (Western Galilee)," in R. Laffineur and L. Basch, eds., *Thalassa, The Prehistoric Aegean and the Sea, Aegeum VII* (Liége 1991) 198.

24 On the "V type," see A. Furumark, *Mycenaean Pottery: Analysis and Classification* (Stockholm 1941) 190. On frescoes as textile pattern: Doumas (supra n. 16) 140, fig. 103 and p. 156, fig. 120; Cameron in Doumas, ed. (supra n. 15) 586-588, pl. 3 C, no. 10. In vase painting: J.N. Coldstream and G.L. Huxley, eds., *Kythera: Excavations and Studies* (London 1972) 121-122, theta 15, pl. 31; S. Marinatos, *Excavations at Thera VI* (Athens 1974) pl. 70.

25 See Evans, *PM* II color pl. X facing p. 447; M.A.S. Cameron, "Unpublished Paintings from the 'House of the Frescoes' at Knossos," *BSA* 63 (1968) 11, fig. 4e, pl. 5,1.

26 See Cameron et al. (supra n. 13) 163, 175-176.

27 See Nunn (supra n. 15) 5-6, 11-12. The only known examples all appear to be of Aegean origin (see infra p.10).

28 P.M. Warren, "The Fresco of the Garlands from Knossos," in *l'Iconographie minoenne*, BCH suppl. 11 (Paris 1985) 187-208.

29 For the existence of this mixed technique in Crete, see S. Hood, *The Arts in Prehistoric Greece* (Harmondsworth 1978) 83; in Thera: Doumas (supra n. 16) 18; in Alalakh: Woolley (supra n. 6) 230. On the Aegean character of the Alalakh frescoes, see infra pp. 10-11 with references.

30 See Cameron et al. (supra n. 13) 154, 173, fig. 15.d; Hood (supra n. 29) 83; Nunn (supra n. 15) 6.

31 See J.W. Shaw, *Minoan Architecture: Materials and Techniques (= ASAtene 49 [1971])* (Rome 1973) 209, 215, figs. 244-245; Cameron et al. (supra n. 13) 175-185, especially nos. 41, 80, 89, 102, 107; K. Asimenos, "Technological Observations on the Thera Wall Paintings," in Doumas (supra n. 15) 573, pl. i.

32 See Nunn (supra n. 15) 27. For Egyptian blue in Knossos, Cameron et al. (supra n. 13) 140; in Thera, Filippakis in Doumas (supra n. 15) 601.

33 Hood (supra n. 29) 62-65.

34 L. Morgan, "Island Iconography: Thera, Kea, Milos," in D.A. Hardy et al., eds., *Thera and the Aegean World III.1: Archaeology* (London 1990) 252-258.

35 L. Morgan, *The Miniature Wall Paintings of Thera: A Study in Aegean Culture and Iconography* (Cambridge Classical Studies, Cambridge 1988); for new fragments and corrections see C.A. Televantou, "New Light on the West House Wall Paintings," in Hardy et al., eds. (supra n. 34) 309-324; new excellent color photographs are in Doumas (supra n. 16) 58-85, figs. 26-48.

36 Morgan (supra n. 35) pl. 9. On possible readings of this white strip, see ibid. p. 34.

37 See E. Hallager, *The Master Impression: A Clay Sealing from the Greek-Swedish Excavations at Kastelli, Khania* (Göteborg 1985) 16, figs. 11-12, 18h.

38 See Hallager (supra n. 37) figs. 11-12,18 c.e., Morgan (supra n. 35) 35-36. R.B. Koehl, "A Marinescape Floor From the Palace at Knossos," *AJA* 90 (1986) 407-417, pls. 24.2, 26. On the origin of this convention see J. L. Crowley, "Patterns in the Sea: Insight into the Artistic Vision of the Aegeans," *Aegaeum 7* (1991) 221-226.

39 See Doumas (supra n. 16) fig. 29.

40 Cf. the boats on the Theran miniature fresco: Doumas (supra n. 16) 79 fig. 38.

41 See Morgan (supra n. 35) 68-72, pls. 103-108.

42 The "beam's ends" pattern is a characteristic Aegean feature which has been interpreted by Morgan (supra n. 35) 74-77, as not representing real ends of wooden beams used for structural purposes and left exposed, but as a symbolic decoration with religious significance.

43 See S.A. Immerwahr, "Swallows and Dolphins at Akrotiri: Some Thoughts on the Relationship of Vase Painting to Wall Painting," in Hardy et al., eds. (supra n. 34) 237-244; J. Vanschoonwinkel, "Animal Representations in Theran and Other Aegean Arts," in Hardy et al., eds. (supra n. 34) 339-341. Good photographs of representations of swallows in Theran wall paintings: Doumas (supra n. 16) 106-107, figs. 72-76; 135, figs. 97-99; 185, fig. 146.

44 Other evidence for this "squatter" phase is formed by storage jars put along the walls of Hall **611** after the theft of the orthostats.

45 See Televantou in Hardy et al., eds. (supra n. 34) 313-314, figs. 4-6. See also the position of the Partridge fresco in the Caravanserei at Knossos. Hood (supra n. 29) 58-59, fig. 40.

46 R. Amiran, *Ancient Pottery of the Holy Land* (Jerusalem 1969) 167-170. Using the term "Canaanite" for this entire area is, of course, not without problems. For instance, the Ugaritians did not look upon themselves as "Canaanites" (see A.F. Rainey, "A Canaanite at Ugarit," *IEJ* 13 (1963) 43-45, and "Ugarit and the Canaanites again," *IEJ* 14 (1964) 101. However, as pointed out by J.C. de Moor, *The Seasonal Pattern in the*

Ugaritic Myth of Ba'lu According to the Version of Ilimilku (Kevelaer 1971) 53: "This hardly proves anything more than that "Canaan" and "Canaanite" are misnomers. As long as no better terms have been coined to indicate the large amount of linguistic, social and religious agreement among the Semitic cultures of modern Palestine, Lebanon and Syria, there is no harm in using them..."

47 Woolley (supra n. 6) 228-234.

48 L. Woolley, *A Forgotten Kingdom* (Harmondsworth 1953) 74-75

49 See Niemeier (supra n. 23) 190-195 with references. For the Minoan origin of the fresco technique of the Alalakh frescoes, see also Nunn (supra n. 15) 13. On the chronological connections between Palestinian MB IIB Kabri, Cypriote Late Bronze I, and Aegean Late Bronze I Thera and Crete, see Niemeier (supra n. 5) 120-126. On the probable 1628 B.C.E. date of the Thera eruption, see most recently S.W. Manning, "The Thera Eruption: The Third Congress and the Problem of Date," *Archaeometry* 32 (1990) 91-100; "Thera, Sulphur, and Climatic Anomalies," *OJA* 11 (1992) 245-253; "Santorini, ice-cores and tree-rings: Resolution of the 1645 or 1628 Debate?" *Nestor* 19 (1992) 2511-2512. On the problem of the dating of Alalakh VII, most recently: T. L. McClellan, "The Chronology and Ceramic Assemblages of Alalakh," in A. Leonard, Jr. and B.B. Williams eds., *Essays in Ancient Civilization Presented to H.J. Kantor* (Chicago 1989) 181-212; M. Heinz, *Tell Atchana/Alalakh. Die Schichten VII-XVIII (= Alter Orient und Altes Testament vol. 41)* (Kevelaer 1992) 142-152, 203-205. As is clear from Heinz's thorough investigation, level VII ended in later MB II before the beginning of the Late Bronze Age. Heinz follows in her absolute dating of level VII between ca. 1650 and 1575 B.C.E. the low chronology as argued by M.-H Gates and M. Bietak. I think, however, that these dates are too low (see Niemeier [supra n. 5] 121-122 with references). Two new sources of evidence will, I hope, contribute to a final solution of the problem of the absolute chronology of the period in question in the Near East and Egypt: (1) The recent establishment of a continuous 1503-year dendrochronological sequence from the mid-23rd to the mid-8th century B.C.E. for the Eastern Mediterranean area by the Aegean Dendrochronological Project. See P. Kuniholm, "A 1503-year Chronology for the Bronze and Iron Ages: 1990-1991 Progress Report of the Aegean Dendrochronological Project," *VII Arkeometri sonuçlari toplantasi* (Çannakale 1991) 121-130. (2) The radiocarbon datings of a series of samples from the destruction level of the palace at Kabri, currently under AMS-analysis by the Institut für Mittelenergiephysik der Eidgenössischen Technischen Hochschule Zürich.

50 M. Bietak, "Minoan Wall-paintings Unearthed at Ancient Avaris," *Egyptian Archaeology* 2 (1992) 26-28.

51 M. Bietak, "Avaris and Piramisse: Archaeological Exploration in the Eastern Nile Delta," *Proc.BritAc* 65 (1979) 225-290, "Canaanites in the Eastern Nile Delta," in A.F. Rainey ed., *Egypt, Israel, Sinai: Archaeological and Historical Relationships in the Biblical Period* (Tel Aviv 1987) 41-56, and "Der Friedhof in einem Palastgarten aus der Zeit des späten mittleren Reiches und andere Forschungsergebnisse aus dem östlichen Nildelta (Tell el-Dab'a 1984-1987)," *Ägyten und Levante* 2 (1991) 53-72; W.G. Dever, "Relations between Syria-Palestine and Egypt in the 'Hyksos' Period," in J.N. Tubb, ed. *Palestine in the Bronze and Iron Ages: Papers in Honour of O. Tufnell* (London 1985) 69-87.

52 J.E. Coleman, "The Case against Martin Bernal's *Black Athena*," *Archaeology* 45 (1992) 51; M. Bernal, "The Case for Massive Egyptian Influence in the Aegean," *Archaeology* 45 (1992) 53.

53 See Morgan (supra n. 34) 252-266; E.N. Davis, "The Cycladic Style of the Thera Frescoes," in Hardy et al., eds., (supra n. 5) 214-227.

54 See W.-D. Niemeier, "Crete, Egeo e Mediterraneo agli inizi del Bronzo Tardo," in M. Marazzi, S. Tusa, and L. Vagnetti, eds., *Traffici micenei nel Mediterraneo* (Taranto 1986) 245-269; M.H. Wiener, "The Isles of Crete? The Minoan Thalassocracy Revisited," in Hardy et al., eds. (supra n. 5) 128-160; W.-D. Niemeier, "Mycenaean Elements in the Miniature Fresco from Thera?" *ibid.* 279.

55 For the ritual function of bull leaping, see N. Marinatos, *Minoan Religion: Ritual, Image, and Symbol* (Columbia, SC 1993) 218-220.

56 Bietak (supra n. 50) 28.

57 After the imports of Kamares pottery to the Near East and Egypt, there is a gap in Aegean pottery imports to this region until LM IB/LH IIA.

For Kamares imports, see B.J. Kemp and R.S. Merrillees, *Minoan Pottery in Second Millenium Egypt* (Mainz 1980) 1-219; G. Walberg, *Provincial Middle Minoan Pottery* (Mainz 1983) 141-146; Niemeier (supra n. 54) 250, fig. 19; and most recently G. Walberg, "The Finds of Tell el-Dab'a and Middle Minoan Chronology," *Ägypten und Levant* 2 (1991) 115-116; see also the probably Aegean gold pendant from Tell el Dab'a, see G. Walberg, "A Gold Pendant from Tell el-Dab'a," *Ägypten und Levant* 2 (1991) 111-112. For the gaps of Aegean pottery imports between the end of MM II and LM IB/LH IIA, see I. Vinventelli and F. Tiraddritti, "La presenza egea in Egitto," in Marazzi et al., eds. (supra n. 54) 327-334, especially the table on p. 334; B. Gregori and G. Palumbo, "Presenze micenee in Siria-Palestina," *ibid.* 365-386.

58 See H.L. Ginsberg in J.B. Pritchard, ed., *Ancient Near Eastern Texts Relating to the Old Testament* (Princeton 1969) 132-138. Only J.L. Gibson, *Canaanite Myths and Legends* (Edinburgh 1978) 55 n. 2, remains skeptical about the identification of Kptr as Crete.

59 See W.F. Albright, *Yahweh and the Gods of Canaan* (London 1968) 4 n. 9; de Moor (supra n. 46) 47-52.

60 A.S. Kapelrud, *Baal in the Ras Shamra Texts* (Copenhagen, G.E.C. Gad 1952) 85-86.

61 See P.M. Warren, "The Stone Vessels from the Bronze Age Settlement at Akrotiri, Thera," *ArchEph* (1979) 106-107.

62 H.G. Buchholz, "Steinerne Dreifussschalen des ägäischen Kulturkreis und ihre Beziehungen zum Osten," *JdI* 78 (1963) 1-76, and "Some Observations Concerning Thera's Contacts Overseas during the Bronze Age," in C. Doumas, ed., *Thera and the Aegean World II* (London 1980) 228-229. On the other hand, Warren (supra n. 61) 108, argues for Theran manufacture.

63 S. Marinatos, *Excavations at Thera VII* (1976 Athens) 30, pl. 49b.

64 Evans, *PM* I, 417-422, fig. 304b.

65 See H. Stock, "Der Hyksos Chian in Bogazköy," *MDOG* 94 (1963) 73-80. As has been convincingly argued by L. Pomerance, "A Note on the Carved Stone Ewers from the Khyan Lid Deposit," in P.Åström, L.R. Palmer, and L. Pomerance, *Studies in Aegean Chronology* (Gothenburg 1984) 15-17, the carved stone ewers found with the Khyan lid afford a *terminus post quem* not higher than LM I for the stratification of the lid. With the new high chronology of the Theran eruption, putting LM IA in the 17th century and Khyan contemporary with LM IA, it is not necessary to think that the lid derived from the loot of tomb robbers of the 18th Dynasty as Pomerance did.

66 P. Muhly, "Μινωϊὸς λαξευτὸς τάφος στὸν Ἡρακλείου," in *Acts of the 7th Congress of Cretan Studies* (Rethymnon 1992) 169-175.

2

Nami: A Second Millennium International Maritime Trading Center in the Mediterranean*

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Introduction

The Mediterranean coastline in Israel is very straight, sandy, and shallow, and it possesses very few bays of any substantial size. In the period in which Tel Nami was settled, the second millennium B.C.E., the knowledge of artificial harbor construction was not yet known; thus the ancients had to find other means for anchoring their vessels in this well traveled coast. A. Raban[1] suggests that ancient river estuaries may have been used as anchorage areas. This theory is based on a geomorphological reconstruction of the shore rather than on present conditions, since nearly all the rivers and springs are silted today and thus are not useful for navigation even by small craft. Support for the theory exists in the paleogeographical studies at Akko where the Belos River might have supplied the ancients with a natural harbor[2] and at Dor.[3]

The Nami region is situated 15 km south of Haifa (fig. 2.1). It is surrounded by the Carmel Mountain Range and the sea. The coastal strip west of the Carmel Mountain Range is characterized by a wave-like series of low parallel sandstone ridges separated by basins filled with clayey alluvium. Tel Nami is part of the westernmost ridge which is broken and partially submerged. Nami rises to a height of more than 8 m above standard sea level. It is connected to the mainland by what seems to be a broad *tombolo* of sand which at times is inundated by water during winter storms. To the east there are two more ridges. On the adjacent ridge, the "middle" ridge, on its northernmost tip which is situated southeast of the tell, across the fishponds, a settlement of Middle Bronze IIA was found. Yet another habitation was discovered under the sand dunes, a mere 75 m east of the peninsula (fig. 2.2). The latter site, which is referred to as Nami East, displays remains datable to the Late Bronze II as well as the Middle Bronze IIA, the two periods manifested on the main tell.[4] The important feature of this area—archaeologically, hydrologically, and geomorphologically—is the course and outlet of the Me'arot River, originating in the Carmel Ridge, which crosses the eastern *kurkar* (sandstone) ridge and discharges into the sea in the vicinity of Tel Nami. The location of its estuary in ancient times is of the utmost importance in the study of the area. Of equal interest is a marshy basin lying between Nami East and the second *kurkar* ridge. This basin, now largely submerged by a series of artifical fishponds, is still surrounded by thickets of reeds and other hydrophytes, suggesting that the basin must have been a natural swamp, a shallow or brackish lake, or a lagoon.

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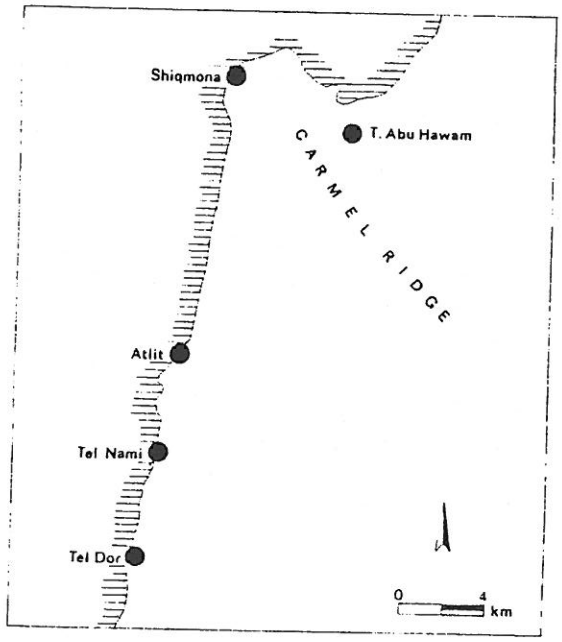


FIGURE 2.1 Sketch map of Carmel coast (Photo: M. Artzy).



FIGURE 2.2 Tel Nami, a view from Nami East (Photo: M. Artzy).

MIDDLE BRONZE IIA

The dearth of data from Middle Bonze IIA coastal sites in the Israeli part of the Mediterranean has led scholars as recently as 15 to 20 years ago to believe that contact with the Canaanite coast came overland during the time of the Twelfth Dynasty, in the first part of the second millennium B.C.E., even though Egypt had revived its sea trade by that time.[5] For the Syrian and Lebanese coast during this period there are ample archaeological data.[6] It is only in the last few years that more historical and archaeological information about the coast of Israel has emerged. Renewed analysis of the Execration Texts by D.B. Redford, of the Mergissa, Berlin, and the slightly later Saqqara Groups has shown that in the early part of the MB IIA there was already activity along the Canaanite coast.[7] Archaeological excavations along the coast or in connection to it, such as at Tel Akko,[8] Tel el-Ifshar,[9] Tel Aphek,[10] and Tel Kabri,[11] have yielded important information on the MB IIA in this area. Now, yet another site, Tel Nami, is generating new data from this early period concerning contacts of a maritime site along the Canaanite coast with Egypt, Syria, Cyprus, and the Aegean.[12]

Nami's contact with Egypt can best be exemplified by a MB IIA scarab seal impressed "loomweight."[13] This conical terracotta object (fig. 2.3) is pierced horizontally one third of the distance below its apex, where the scarab impression is found. It was discovered in 1988 in Area D,[14] on the southeastern edge of the tell. The weight can best be dated to the beginning of Amenemhet III's reign, during the second half of the 19th century or the beginning of the 18th century B.C.E.[15] It is hard to imagine that the relations with Egypt are to be assigned to any form of military expansionism on the part of the Twelfth Dynasty rulers. Rather, the relations with Egypt must have been economic in nature, as best discussed by Redford.[16] The presence of this scarab-sealed "loomweight" in a well-stratified ceramic assemblage provides an important synchronism for the absolute chronology of the MB IIA period. The appearance of the weight is especially important when one considers the varied objects found in the same general strata, whether at Tel Nami or Nami East.

Area D is also the source of a few pieces of Middle Cypriote pottery in habitation levels which are securely datable to the Middle Bronze IIA period.[17] The wares include Composite Ware, White Painted Cross Line and Pendant Line types, and general White Painted III-IV family.[18] All the sherds found thus far are from handmade vessels. In the small excavated area of Area D in which clear Middle Bronze IIA habitational strata appear, already three pieces of bronze have been found. The bronzes include a dagger, a pin (toggle pin or long needle?), and a broken element which seems to be part of a figurine, probably that of a goddess much like the ones found in the cult area in Nahariya and at Byblos. Could these bronzes have been part of the new trade with Cyprus? The answers will necessarily be forthcoming once the metal from these objects is checked by means of a lead isotope test.



FIGURE 2.3 Weight with scarab seal (Photo: D. Evan).

The coastal Syrian contacts are further seen in a group of Levantine Painted Ware pieces which were excavated in 1992 in Nami East. The group, from a grave, comprises pieces contemporary with the Amuq/Cilician Painted Wares.[19] In the assemblage there are juglets, bowls with red slip, as well as decorated pitchers and handleless jars (fig. 2.4).[20] The contacts between Egypt and Syria, especially Byblos, in this period have been well documented. The contact was necessarily by sea, and the Palestinian coast had to play a role since most of the traffic went in one or two day spurts.[21] Nami in its coastal setting was no doubt part of this trade system.

Nami's contacts seem not to have been limited to the Syrian, Cypriote, and Egyptian trade along the coast. There are signs of connections with the Aegean also, consisting mostly of data from the last few years which show contact between the Aegean, the Near Eastern coast as well as farther inland.[22] Byblos[23] and Ugarit[24] were in contact with the Aegean during this early period and through them with Mari.[25] The evidence is scant and has been just recently summarized,[26] although since the writing of that paper and its publication, new evidence has appeared. However, contacts between Egypt and Byblos are well documented. It is possible that through the northern Syrian sites contact from Crete extended to Egypt. Although they are not numerous, material contacts in Twelfth Dynasty context have been shown previously to exist.[27]

A vetchling of Aegean origin has been recovered from a storeroom at Nami (fig. 2.5).[28] This particular legume, *Lathyrus clymenum* , was found in situ in storage jars as well as scattered on the floors of two rooms dated to MB IIA. These seeds are not a usual agricultural import, and it is difficult to understand the reason for their demand by the local population if only because of their toxic property. They were probably brought by people who had acquired the taste for them, either as natives to, or through familiarity with the Aegean region.[29] Before they had been found at Nami, they were reported from only two or three places, among which are jars in the Admiral's House at Akrotiri, Thera,[30] which was destroyed by the volcanic eruption now dated to 1628 B.C.E.[31]

In the spring of 1990, a well was located in Area O (fig. 2.6) on Nami East. The latest finds in it can easily be dated to the MB IIA, at which



Figure 2.4 Ceramic MB IIA assemblage from tomb (Photo: D. Evan).

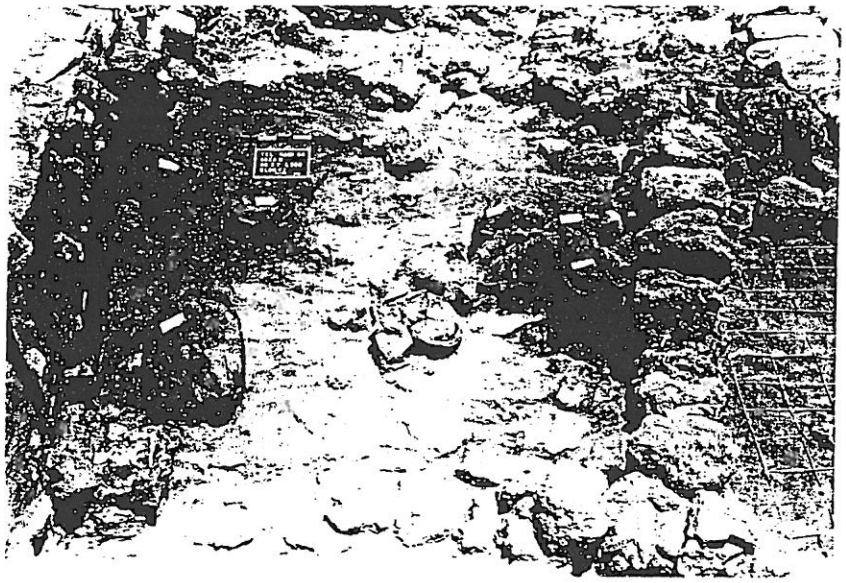


Figure 2.5 MB IIA storeroom in Area D (Photo: A. Friedman).



Figure 2.6 MB IIA water well in Area O (Photo: M. Artzy).

point the well was phased out.[32] The well itself is rectangular with rounded corners. Its measurements are approximately 1.50 m x 2.20 m on the inner side. It was built in a spiral fashion, probably as the shaft was dug out. At the time of excavation a dark stain on the stones at a regular height was noted around the circumference of the well. This stain may represent the top level of the water while the well was in use and thus could help us in the establishment of the level of the groundwater, and hence the sea level, during this period.[33] Although its study has not been completed, evidence points to a slightly lower groundwater level and thus sea level than today. Square or rectangular wells are known from Middle Egyptian sources,[34] but the one Bronze Age depiction of a well comes from the West House in Akrotiri. In the miniature scene on the northern wall depicting a military landing, women are portrayed returning from a rectangular well with jars balanced on their heads.[35]

The data presented above of recently discovered finds indicate that persons involved in the contacts between the Aegean and Egypt found a common anchorage at Nami. We do not know who these people were. For that matter, we do not know who first settled in Nami in the early centuries of the second millennium B.C.E. We can do nothing more at this juncture than guess the identity of the possessors of the storage jars with the legume *Lathyrus clymenum*, and we can only wonder if they were the same as the original settlers. We have to keep in mind the possibility that the ancient "superpowers" chose and in their own way supported Nami, an obvious maritime site for their economic networks.

Late Bronze II

From ceramics which have been found in fills and in unstratified areas, there seems to have been a 14th century settlement on the peninsula of Tel Nami, but it is the 13th century that we will be presenting in this study. Remains from the Late Bronze Age IIB have been found in Nami and Nami East. The inhabited area on the top of the tell was reduced by the construction of a 13th century rampart still seen on the northern and western sides of the site. The rampart diminished the available inhabitable living space on top of the tell while destroying some of the earlier MB IIA and earlier LB II strata. It is difficult to establish the reason for this construction whose retaining wall follows the contours of the *kurkar* (sandstone). It could have been for defense against attacks from the land or shallow water, much like the defense wall in Maa-Palaekastro[36] in Cyprus or, for that matter, for defense against the elements, at least in the northern part of the tell which borders the sea. This construction would thus be of great help with the higher sea level assumed for the later part of the Late Bronze period. Sections of the earlier structures on the northern side of the site, including walls and floors, were simply washed into the sea.[37] The summit of the rampart, at least a good part of it, was utilized as a sanctuary which included a yard and metal working areas.[38]

The complete plan of the sanctuary is not known yet since not all of it has been excavated. The exposed part that is best preserved is an open air yard in which several architectural elements imply its function.[39] Some of the architectural elements are reminiscent of the local milieu,[40] but goods such as ceramics, bronze, silver, and gold, found strewn on the ground as the result of ferocious destruction, have an international character. These include a kernos (fig. 2.7) which seems to be of Cypriote manufacture, short and long trumpet bases of kraters which may have had something to do with tribute or possibly incense burning, as well as an additional clay incense burner, the clay of which was mixed with ashes and bones,[41] a seven spouted lamp, gold and silver earrings, glass carnelian beads, and silver and gold pendants. The shape of the gold pendant is of the usual Canaanite type, as may be the idea of the decoration.[42] The goddess with intertwined snake legs incised on the pendant is similar to a Mitanni seal, such as the one impressed on a letter of the King of the Mitanni to the Pharaoh in the Amarna letters.[43] Although we do not expect a direct connection between this northern state and Nami, we suggest that the contact was via the port city of Ras Shamra-Ugarit. Among the ceramics is a group of objects, previously bases of jars, which were recycled by smoothing the tops of the broken edges to serve as miniature bowls. These "bowls" were most probably used as ersatz tribute containers, like



Figure 2.7 LB II kernos, height ca. 7 cm. (Photo: D. Evan).

the conical cup found with them (fig. 2.8).[44] The conical cups have been dealt with extensively in literature relating to the Minoan world.[45] Although they appear already in EM I-III,[46] they appear in abundance during the MM period. By the later parts of LM the number of their appearances diminishes, while on the mainland they appear from LH IA to LH IIIA1, according to Wiener.[47] The cups were used in the Minoan world in cultic associations; they are present at peak sanctuaries.[48] The appearance of the conical cups coincides with yet another curious occurrence, that of pumice, found at the main courtyard and its environs. The manifestation of conical cups and pumice in juxtaposition is not unique to Tel Nami. Although the practice is certainly foreign to the coast of Israel, it is not so in Crete.[49] It has been suggested that the practice may have something to do with the volcanic nature of Thera. Evidence from Linear A and B speak of a Cretan goddess, eventually accepted by the Mycenaeans whose name is read *Qe-ra-si-ja*. S. Hiller[50] feels that the goddess might be referred to by the Minoans as the "Theraean one," the goddess of Thera of whom they were duly afraid. "Her revenge was a most horrible one. It was never forgotten after that till the end of the Bronze Age."[51] It seems that this fear followed these mariners across the Mediterranean to the summit of Tel Nami.[52]

A few bronze arrowheads and possibly small spears were found in the precinct of the courtyard as well; most were of the usual laurel leaf type as in the "Temple" at the Amman airport.[53] There is, however, another type which is foreign to this general area but is much like those from Troy and the Mycenaean world (fig. 2.9).[54]

The conical cups and pumice equation has yet another coefficient and that is evidence of metal work: scrap metal, metal working tools (fig. 2.10), and other industrial remains such as parts of crucibles or ovens with traces of metal on them. Evidence for the existence of sanctuaries and metal industries side by side can be seen in Kition,[55] as well as in Atheniou[56] on the island of Cyprus. We wonder if the mariners who may have made use of the summit at Nami knew that metals were a welcome gift to the gods—hence to the priests who could have

H. Matthäus, *Prähistorische Bronzefunde. VIII. pt. 2* (München 1985) 316-321.

24 T. Dothan, "A Double-headed Bronze Linchpin from Tel Miqne-Ekron," *Erlsr* 24 (Malamat Volume) (Jerusalem 1993) (in press) (Hebrew).

25 H. Matthäus (supra n. 23) pl. 108.

26 T. Dothan, "Iron Knives from Tel Miqne-Ekron," *Erlsr* 20 (Yadin Volume) (1989) 154-159 (in Hebrew).

27 A. Mazar, "Excavations at Tell Qasile, Part Two," *Qedem* 20 (1985) 6-8.

28 C.F.A. Shaeffer, "Chronique des Fouilles a Chypre en 1970," *BCH* 95(1971) 337 and "Ausgrabungen in Enkomi-Alasia," *AFO* 24 (1973) 198; J.C. Courtois, *Alasia* 3 (Paris 1984) 26; J.C. Courtois and J. and E. Lagarce, *Enkomi et le bronze recent à Chypre* (Nicosia 1986) 22-23.

Shared Plates for Tel Miqne-Ekron

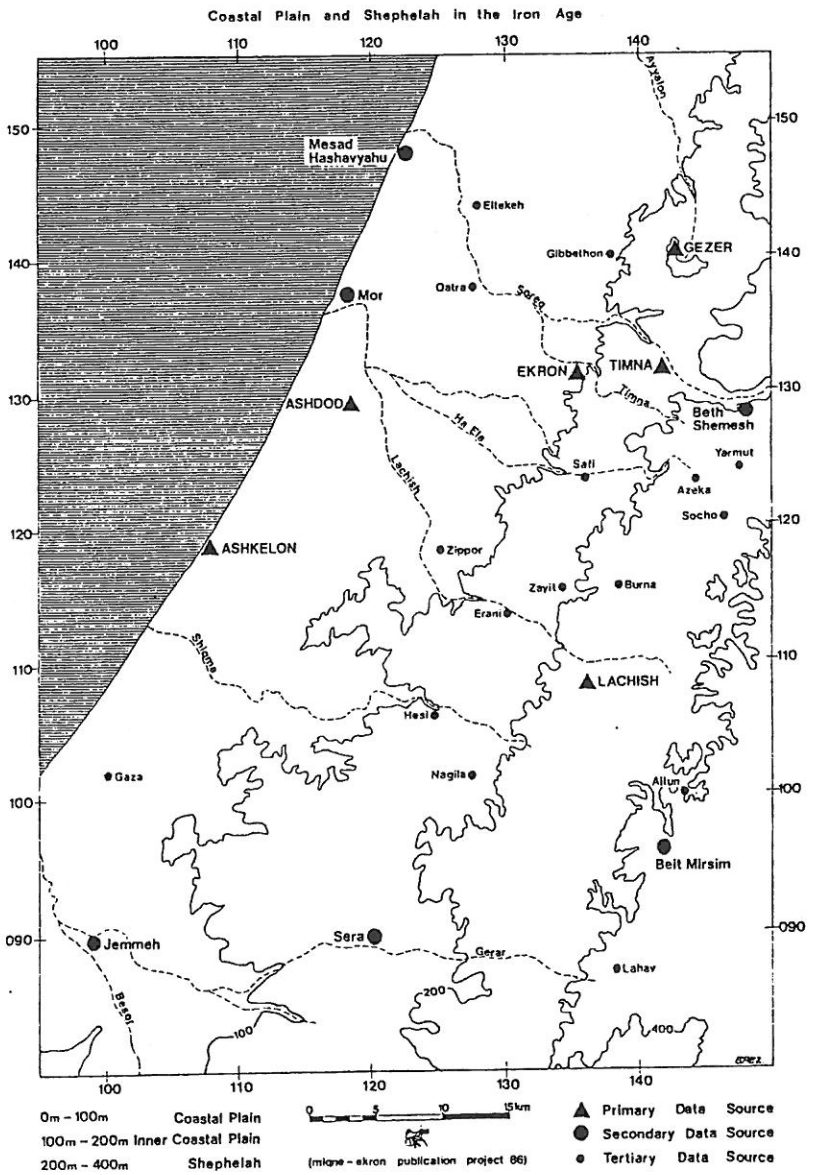


Plate I The coastal plain and the Shephelah in the Iron Age with major Philistine and Judean sites.

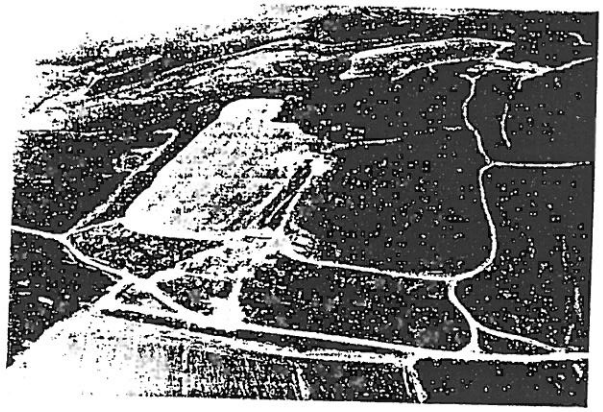


Plate II Aerial view of Tel Miqne-Ekron.

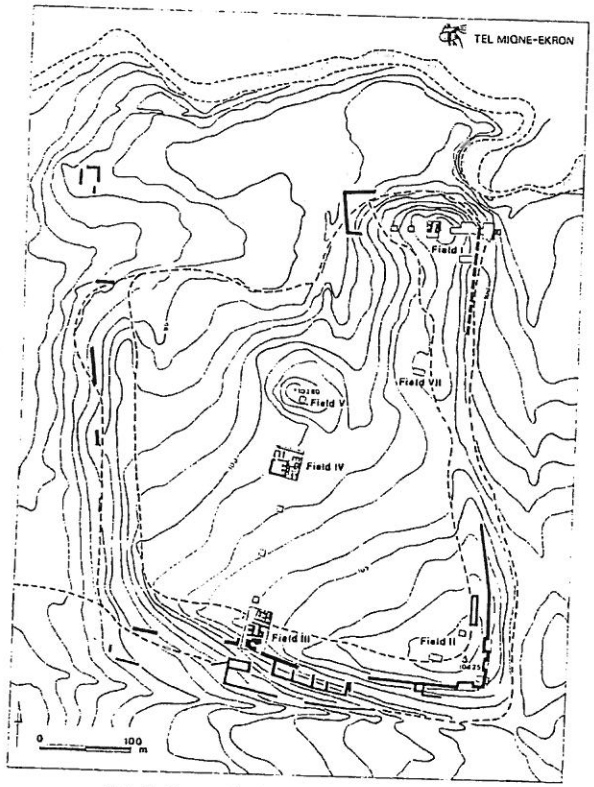


Plate III Topographical plan with fields of excavation.

TEL MIQNE-EKRON		Upper City	Lower City							
General Strata	Periods Dates (BC)	INE,MWSE Sondages Sounding VIINW NE Acropolis	IISE Soundings SE Corner of Tel	IIISE-NE-IVSE Horizontal Exposure South Central Face of Tel	IVSE/SW/NE Soundings, Tel-Center	IVNW/NE Horizontal Exposure	VSW Sounding, NW Acropolis	Survey 1957 vvvvvvvvvv Survey 1985	Historical Context (BC)	Diagnostic Pottery and Objects
	Modern Islamic-Roman	1A Agriculture-Burials 1B Squatters-Pits	1 Erosion	1A Agriculture 1B Erosion	1A Agriculture 1B Erosion		1 Erosion 2-3 Buildings		Village Accaron	
IA	8th c.	2		2 Courtyard – Pillared Building		2 Rooms			Nebuchad-nezzar — 603 —	Coastal Ceramic Assemblage
IB	last quarter 7th c.	3A Rooms Citadel	2 City Wall Offset Inset Bastion Building Complex	3A City Wall Gate Tower Street; Oil Production Reduced	Roadway Domestic Building Courtyard Room	3A-B Elite Building Complex	4A Room	Inner/Outer City Walls Gate House Outer Tower Stables vvvvvvvvvv Industrial Belt Along City Wall 102 Olive Oil Installations	Egyptian Hegemony	Egyptian XXVI Dynasty Objects Inscriptions
IC	1st 3 quarters 7th c.	Inner Wall Line 3B Tower Rooms		3B Oil Industrial Complex; Maximum Oil Production			4B Room		Assyrian Vassal State Sennacherib — 701 —	4-Horned Altars Coastal Ceramic Assemblage East Greek Judean and Assyrian Forms
IIA	2nd half 8th c.	4A Ashlar Faced Tower and City Wall Citadel Tower Drain	—	—	—	3C Public Area	—		Sargon II — 712 —	Imik Handles Scoops
IIB	1st half 8th c.	4B Rooms Courtyards Installation Drain	—	—	—		—		Semi-Independent City State	Coastal Ceramic Assemblage Judean Forms
III	10th–9th c.	4C Rooms	—	—			—			Phoenician–Samaria Ware
IV	2nd half 11th-early 10th c.	5 Rooms	3 Room	4A Gate Tower Tower Rooms Industrial Installation Building		4A-B Elite Monumental Building			City State Philistine Pentapolis	Red Slip and Hand-Burnish, Egyptian XXI Dynasty Objects Debased Philistine
V	1st half 11th c.	6A-B Cultic & Domestic Buildings 7 Domestic Building		4B Platform City Wall Revetment Gate? Plastered Rooms Drainage Installations	Mudbrick Structure	5A-C With Cultic Rooms				Philistine Bichrome Less Elaborate More Elaborate
VI	2nd two-thirds 12th c.	8A-C Revetment Kilns Domestic Building		5 City Wall Rooms		6A-B Monumental Building				
VII	1st third 12th c.	9A-D City Wall Kilns Industrial Areas				7A-B Hearth Sanctuary			Sea People Settlement	Mycenaean IIIC:1b
VIIIA	end 13th c.	10A-B Domestic Areas 10C-D Bronze Industry			—				Canaanite City Egyptian XIX Dynasty	Gray Burnished Ware WP Wheel-made Cypriote Wares
VIIIB	14th/13th c.	11 A–C Domestic Area Vat (Burial)			—					Local Painted BRII, WSII, WSH
IX	15th/14th c.	12 A–C Rooms Installation			—		•		Canaanite City Egyptian XVIII Dynasty	BRI, WSII Monochrome
Late Bronze I Middle Bronze IIA–C Early Bronze I, II Late Chalcolithic		• • • •	• •	• • •	• • •	Burials •	•	•	Ceramic Evidence only • Destruction ——— Abandonment - - - - Occupation Gap —	

Plate IV Stratigraphic and chronological chart.

7

Orienting the Study of Trade in Near Eastern Archaeology

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Introduction

This paper will attempt to set the discussion of trade in the Eastern Mediterranean in a broader context, as well as comment on some specific questions raised by the authors in this collection of papers.

Toward a Definition of Trade

Trade is assumed to be one important aspect of Ancient Near Eastern economies and societies, yet definitions of trade vary widely. Often trade is taken simply to mean the exchange of commodities between individuals or groups. As A.C. Renfrew puts it, trade is "the reciprocal traffic, exchange, or movement of materials or goods through peaceful human agency."[1] Other scholars would broaden this somewhat materialistic definition of "exchange" to include non-material goods, services, or resources, which may yield data on rank, prestige, or power.[2] Furthermore, not all trade or exchange is peaceful, as R.M.C. Adams has shown, and it may involve a certain degree of coercion.[3] As C. Runnels and T.H. Van Andel conclude: "The term should retain its customary meaning of reciprocal transfer or exchange but may be expanded to include the asymetrical and unequal exchanges of deference and obedience for prestige or protection, transactions which may be regarded as applications of power."[4] Above all, the larger *symbolic and social* context of trade, as with all aspects of the economy, must be considered. Yet the question is: To what extent is it possible to recognize trade in the archaeological record? To this point we shall return below.

An Overview of Trade

It is now commonplace to refer to what may be called a relatively new sub-field of anthropology and archaeology, namely prehistoric economics, or economic archaeology. This branch of inquiry, simply put, focuses on the economic processes of production, distribution, and consumption, seeking to explain why changes in the economy take place and what their implications are for other aspects of social organization, settlement types and patterns, and material culture.[5] As T.K. Earle says of the newer approach: "It is carefully non-reductionist inasmuch as it sees the economy as both determining and being determined by the broader cultural context. This general systems approach identifies the economic variables as basic to linking population to population. The dynamics of the system, however, do not derive from any simple changes in the 'infrastructure' but result from a complex set of feedback relationships that interlock environmental, economic, and cultural variables."[6]

Preliminary Observations

It is obvious that a fundamental task within economic archaeology is the study of ancient *trade*. Here several initial observations may be made. (1) Important as it is, the study of trade can contribute to the larger discipline of economic archaeology only as we come to understand particular regional patterns and local sequences more fully: These are the basic "building blocks" upon which any general theory must be built. For many regions of the

eastern Mediterranean world, however, the detailed studies that we need are just beginning.[7] It is true that Mesopotamia and its trading networks in Syria and Anatolia are relatively well known, at least in certain eras such as the Old Assyrian and Old Babylonian periods.[8] Egypt's trade with the Levant has been only sporadically documented; but the Early Bronze I-II, Middle Bronze, and Late Bronze Ages in Palestine have been the subjects of basic treatments.[9] Trade between Cyprus and the Levant has been studied in some detail, but principally for the Late Bronze Age.[10] Wider Aegean trade contacts with the Levant have been explored mostly with regard only to ceramics and copper-bronze production, but also in one recent treatment (Runnels and Van Andel [supra n. 4]) with respect to the origins of agriculture in the Neolithic.[11] Despite these studies, we need many more detailed treatments of *specific* sites and regions where trade can be shown to have been a major factor in the economy, such as M. Heltzer's analysis of Ugarit, based both on texts and artifacts.[12]

For the area closer to the subject of this volume, a collection of papers edited in 1985 by Knapp and Stech is noteworthy.[13] It was one of the first *regionally* focused collections of studies in economic archaeology, but more are needed. For the larger region, one should note also the papers in the volume edited by N.H. Gale.[14]

(2) A second initial observation is that despite the desirability of regional studies of ancient trade, and the growing sophisitication of theoretical models, the archaeological data at our disposal thus far for the southern Levant are distressingly poor. At best, we can show that certain items are imports, and we can sometimes document their provenience. But what about the larger *exchange systems* that were operative in given instances? The data, even when fully exploited (which is rare) are scarcely capable of answering such questions.

(3) Third, it may be suggested that good evidence on ancient trade is scant not so much because the archaeological record is inadequate, but because our research designs (if any) have been badly flawed. Particularly in "Biblical" and Syro-Palestinian archaeology, we have focused on what I call "political history"; cultural history has lagged behind; social history is just now being discovered; and economic history is nonexistent.[15] I can scarcely think of a single recent field or research project in Syro-Palestinian *historical* archaeology that has been designed specifically to address economic considerations. Eric Higgs's pioneering "Cambridge Environmental Project on the Early History of Agriculture" should have pointed the way. But then Palestinian archaeologists working in the Bronze Age, Iron Age, and Classical periods have never profited as much as they should from the more sophisticated ecological and technological orientation of their colleagues in prehistory. Perhaps they think that having texts will solve all their problems. However, as Norman Yoffee, an Assyriologist who has dealt both with economics and the rise of social complexity, observes: "Even under the most (*sic*) optimum circumstance of preservation, recovery, and publication ... texts can offer only disparate and highly focused episodes in the structure of society."[16] I would add that a genuinely *systemic* approach to ancient trade is required, utilizing all data at our disposal, including the textual facts, but also artifacts and ecofacts. Even then, the paucity of really useful data will likely be disconcerting.

One promising project may be singled out, the "Madaba Plains Project" in Jordan, sponsored by Andrews University. There the cultural anthropologist on the core staff, Øystein LaBianca, has almost entirely reconstructed what was originally a very conventional excavation around the central concept of "food systems," analyzed in the light of long-term oscillations in the economy and settlement-history on the Transjordanian plateau.[17] Food production is, of course, only one aspect of subsistence, but it is arguably the most basic aspect of the economy. It is also pertinent to the question of trade since, at least for Palestine, food was one of the most commonly traded commodities (albeit difficult to trace in the archaeological record).

(4) Finally, I would observe that if economic research designs are not to remain simply *ad hoc, post factum* improvisations in archaeology (the "let's wait to see what we find" school, we must educate ourselves to some degree in *economic theory*. It is a truism that in archaeology we see only what we are conditioned to see; and, unfortunately, our myopia usually means

that what we fail to see is badly excavated and recorded, and therefore irrevocably destroyed. How can we sensitize ourselves to phenomena that may have implications for the economy and trade? How do we learn to observe not only isolated "exotic" artifacts, but also the ecological and social context that alone could give them cultural significance? In considering trade in its wider dimensions, do we really know what to *look* for archaeologically?

An Excursus on Economic Theory

Specialists in economic anthropology and archaeology commonly identify two primary schools: (1) substantivism; and (2) formalism. (1) Substantivism is a *structural* approach that sees economic behavior, even that of individuals, as influenced primarily by the institutions of society. Economic behavior is "embedded" in the society as a whole. Thus there is a direct correlation between differing types of societies and forms of economic behavior, on a sort of ascending evolutionary scale: "tribes" are characterized by simple reciprocity; "chiefdoms" by more complex "redistribution"; and "states" by true market economies." These categories derive principally from K. Polanyi's classic work (with C.M. Arensberg and H.W. Pearson), *Trade and Market in the Early Empires*.[18] The logic of substantivist models, as Earle points out, generally appeals to archaeologists because changing forms of production and exchange seem to be identifiable in the archaeological record and can even be reduced to convenient typological classifications.[19] Thus Renfrew develops a sort of "trait list" that should serve to identify various modes of exchange archaeolo-gically.[20] The goal of such substantivist approaches is "to describe different economic institutions as linked to specific social formations."[21]

(2) Formalism, derived from microeconomic theory, makes certain assumptions about *individual* decision-making and economic behavior that are held to be universal. Among these is the principle of "least effort," or the complementary notion that human beings always strive to "optimize" their returns by adopting the most efficient means of production and exchange. The formalist approach is less congenial to most archaeologists, if for no other reason than that it is exceedingly difficult, if not impossible, to isolate the individual in the archaeological record, much less to deal with ideological factors such as those implied by the presupposition of individual "choice." How can we *ever* know what an individual's economic options were in the past?

Earle suggests that the substantivist and formalist approaches "represent two perspectives of the same problem." Substantivism concentrates on the opportunities and goals of the society, as these are derived from its institutional forms. "In other words, the substantivist studies the constraints of the economic system but does not consider the individual as active participant working within these constraints. But "formalism does not seek to explain what choices are available or what are the goals of the participants." Earle believes that the papers in Knapp and Stech mark a departure, "a clear redirection with an explicit formalist orientation that helps to balance investigation in prehistoric economics."[22] I am not so sanguine, however, or so sure that a formalist approach is even possible in archaeology.

What *is* possible? Polanyi is often used as a starting point. Yet, as G. Dalton and J. Knocke point out, Polanyi failed to "create an important analytical link in his system; he neglected to show the necessary connections that exist 'between patterns of integration'" (that is reciprocity, redistribution, and market exchange).[23] Polanyi did distinguish these categories, and he also developed a hierarchical paradigm that attempted to relate "gift trade" to cultural norms; "administered trade" to diplomacy; and "market trade" to supply and demand. Again, the problem is linkage. Are Polanyi's distinctions, or stages in economic evolution, merely *typological* categories? If so, they remain somewhat arbitrary; they are certainly devoid of explanatory potential; and, like so many models, they impede, rather than enhance, the growth of our knowledge of what it was *really* like in the remote past.

Finally, on recognizing and understanding trade in the archaeological record, several scholars have recently addressed the issues.[24] Among many considerations, we might mention simply (1) that the most readily recognizable evidence will probably be that of simple down-the-line or long-distance trade in specific items such as a type of ceramics. (2) Exchange or trade in raw materials, in such commodities as

foodstuffs, or in services, will likely be somewhat more difficult to isolate. (3) Exchange in items of symbolic or ideological significance may remain enigmatic, despite our best efforts at interpretation. (4) The actual *mechanisms* of trade—that is, why and how items were exchanged, what containers may have contained, and how their value was determined—will also remain somewhat elusive. That is, market systems are less amenable to archaeological investigation than is simple redistribution. (5) Above all, it is in *systemic* analysis of trade items, that is in the larger context, that our best hope of understanding exchange lies.

The Individual Papers

Tel Kabri

Professor Niemeier has provided us with much detail and an authoritative analysis on the extraordinary Minoan-style frescoes found at Kabri, for which we have all been waiting since we first heard reports of the discovery in 1989. Such clear evidence of what Professor Niemeier calls a "Minoan hall" speaks, it seems to me, not only (as he prefers) of an "Aegean origin and style," or a "Cycladic school" of fresco painters somewhere in the eastern Mediterranean, but of the actual presence in Palestine of Cretan or Cretan-trained craftsmen. A "school" requires a teacher. I suspect that Bietak is right in seeing Minoan painters present at Tell el-Dab'a in the Egyptian Delta during the Middle Bronze Age (although not necessarily brought there as a result of diplomatic marriages). Such Minoan or Aegean influence is even more remarkable in the Middle Bronze Age in Canaan, paralleled as it is only at Alalakh in the Level VII palace. Otherwise, there are no Minoan imports, at least in Palestine, until a Late Minoan I krater from Fosse Temple I at Lachish, ca. 1500-1450 B.C.E.

I would take issue with Professor Niemeier, however, on the vexing problem of the date of Alalakh VII, which is surely later than the Kabri fresco. First, there is good evidence that Alalakh VII should be placed ca. 1650-1550 B.C.E., not in the "17th century B.C.E." as several of us have pointed out. Second, raising the date of Late Minoan I to before ca. 1628 B.C.E. on the basis of the proposed new dates for the eruption of Thera, even if these dates turn out to be correct (and that is much debated at present), need not force a revision of Late Bronze *Palestinian* dates so high. There is no reason to assume that LM I wares were imported into Palestine at the beginning of their *floruit* on Crete or elsewhere. So the beginning of Palestinian LB IA can still be as late as 1500 B.C.E. Certainly the Thera evidence for raising Late Bronze Age chronology must be weighed against the growing, almost universal pressure from Egyptologists to lower New Kingdom dates. One cannot have it both ways.[25]

On a small point, Professor Niemeier's attempt to see in the Kabri frescoes not only cultural, but also symbolic and even religious influence from the Aegean world seems sound to me. "Exchange" in the larger sense certainly must be broadened to include not just economic trade, but the diffusion of ideology, as in this case. These frescoes, as he rightly says, are not "mere decoration" (any more than are those at Tell el-Dab'a). They are, in a sense, cultural "statements."

Finally, Professor Niemeier is absolutely correct in saying that the direction of Minoan-Cycladic influence to Palestine completely reverses Martin Bernal's argument for "Hyksos invasions" of the Aegean.[26]

Tel Nami

Professor Artzy's paper provides much new information about an important north Palestinian Middle Bronze Age port, of which few have been aware. I would single out first her isolation of Middle Cypriot wares—Composite, Cross Line Pendant, and White Painted III-IV—in secure Middle Bronze IIA contexts. This is the first good *stratigraphic* confirmation of such an early date for Cypriote imports into Palestine that we have had—although I would have been gratified had Professor Artzy acknowledged that I first posited such an early date for these wares in 1976 (followed by Salz in 1977 and Johnson in 1982).[27] In 1976, I also advanced the same date for the Levantine Painted wares, now found in MB IIA contexts, arguing that they were closely related to 'Amûq and Cilician painted wares, and represented extensive trade between Palestine and North Syria already in MB IIA. Jonathan Tubb has sought to refute that argument; but Professor Artzy and her new evidence show that Tubb's central thesis of

entirely local production for these wares is indeed weak.[28]

Professor Artzy's attempt to create a model of extensive hinterland trade in the Late Bronze Age, with Tel Nami as a principal port of entry, is a step in the right direction in keeping with my call above for larger explanatory models. Without such efforts at synthesis, both the quantity and quality of international imports at Tel Nami will remain inexplicable.

Tel Miqne-Ekron (Dothan)

It is exciting to see still more of the Philistine material that Professor Dothan has shown us from ancient Ekron. Her main focus has been on the Aegean cultural background, and even the actual provenience of a number of items of Philistine material culture. On this point, I believe that Professor Dothan is absolutely correct. Indeed, the evidence is steadily mounting in favor of seeing the "Sea Peoples" as intruders in Palestine in the 12th century B.C.E.—a view that she has maintained for many years. Opposing views, such as those of John Brug, James Muhly, and Shlomo Bunimowitz, simply fly in the face of archaeological evidence.[29] Of course, Aegean influence in Palestine in this case is the result primarily of cultural and ideological diffusion, even of conquest-not of trade. Nevertheless, such influence is, as we have seen, also a form of exchange—in this case, of fundamental significance for the emergence of a distinct cultural amalgam in Palestine in the Iron Age. Elsewhere I have argued that a number of items in what has been regarded as the "Israelite" Iron Age material culture are probably of Philistine or "Sea Peoples" origin, such as the characteristic dromos bench-tomb, ashlar masonry, perhaps even some versions of the so-called four room house.

Tel Miqne-Ekron (Gitin)

Professor Gitin's paper illuminates a fascinating phenomenon that was suspected, but until recently was not well documented. That is the "afterglow" of Philistine culture along the coast of Palestine well beyond its *floruit* in the classic expression of the 12th-11th centuries B.C.E., clear down to the Assyrian destruction at the end of the 7th century B.C.E. I would suggest that in this Iron Age coastal culture we have a *unique* amalgam of older, largely assimilated Philistine features; more recent Phoenician influence (from ca. 10th century B.C.E. onward); continuing Israelite and Judean features; Neo-Assyrian political hegemony; and even Greek/Aegean elements. Already the inscriptions at Tel Miqne (and now in Ashkelon) have suggested to some the name "Neo-Philistine" for this southern coastal culture.[30] I would suggest, however, that "Southern Phoenician" might suit the overall culture better, as well as serving to relate this assemblage to that of Iron Age Dor farther north.

That leads to a second observation. In seeing "strong Phoenician influence" in both the inscriptions and the cult at Miqne, Professor Gitin seems to imply that here we have additional foreign elements in Miqne's broader exchange system. But none of this need imply anything other than *local* cultural developments. Even if the script of the inscriptions were clearly Phoenician, the language is almost certainly not Phoenician, but more likely a coastal dialect of Judean Hebrew (as the inscribed weights clearly are). The "Asherah" invocations would then refer not to a Phoenician goddess "Asherat," but rather to the local Asherah, whose cult is now very well known in Israel and Judah. It is worth noting that the consonants of the formula *'asrt* at Miqne are exactly the same as those of the blessing-formulae at 8th century Kh. el-Qôm and Kuntillet 'Ajrûd, which can hardly be Phoenician and must refer to the local cult of the Mother Goddess Asherah.[31] Only further excavation and research, however, will enable us to clarify the problem of proper classification and of culture contact and change in these new materials.

Professor Gitin has made an extremely significant point, however, in connecting the impressive olive oil processing industry at Miqne with the cult. It has long been suspected that in ancient Palestine religion was somehow bound up with the economy, perhaps even in the form of crown-supported business enterprises, as was demonstrably the case with ancient Mesopotamia (and also Egypt). Yet actual archaeological evidence has usually been lacking.[32] Now we see that at Miqne rituals involving horned incense altars played a very prominent role in the olive oil industry. That fact opens up entirely new avenues for pursuing in ancient Israel the age-old relationship of commerce and religion.

Professor Gitin proposes that the "engine" that drove Miqne's trade in olive oil was the expansion of the Neo-Assyrian empire and the necessity that created for new markets, systems of production, and means of transfer. Here we have a truly explanatory model, without parallel anywhere, one that deserves further testing and indeed promises to clarify what would otherwise be an enigmatic industry. Also commendable is Professor Gitin's attempt to relate the means of both household and industrial production not simply to "vulgar materialism" (as Marx was falsely accused of), but also to *ideology*—in this case to the cult (presumably) of Asherah. Here again, "exchange" involves not only goods and services, but also ideology.

Finally, the suggestion that the silver used as the medium of exchange in the Neo-Assyrian empire may have been mined in Spain is intriguing. If lead-isotope analysis should be able to prove the hypothesis (in contrast with our failures in sourcing the copper used in bronzeworking, because of remelted raw materials), that would be significant. It would constitute a stellar example of the collaboration of archaeology and new analytical procedures derived from the natural sciences in confirming trade patterns in antiquity.

Tel Dor

There is little to which I can respond in Ephraim Stern's paper, except to congratulate him on finding such a rich assemblage of Greek and Cypriote ceramic imports at Dor. The large repertoire of late 11th century White Painted I and Bichrome I wares from Cyprus, whose date is closely fixed and whose origin has been confirmed by neutron activation analysis, is unique thus far and of very great significance. The later occurrence of Greek imports, stratigraphically well dated to the period of the Assyrian conquest in the late 8th century B.C.E., also opens up new vistas, as does the shift from East Greek to Attic Ware in the 5th century B.C.E.

These finds from a flourishing Iron Age-Persian period port along the eastern Mediterranean are all the more important because so few of such ports have been excavated farther north. As has often been observed, Phoenician sites elsewhere in the Mediterranean have been excavated, such as Carthage; but few sites in the Phoenician homeland are well known. Among the few Levantine coastal sites excavated thus far would be Tyre, Sarepta, Byblos, Arvad, Khaldé, Tell Sukas, Râs al-Bassit, Ras Ibn Hani and Ugarit, and Al Mina.[33] Only Tell Sukas, however, has been relatively well excavated and published through Iron Age levels. Thus Dor in the period of Phoenician expansion becomes a *critical* site for our knowledge of trade and international contacts along the Levantine coast and in the wider Mediterranean world.

Ashkelon

Professor Stager and his colleague Dr. Johnson argue that Ashkelon was a major exporter of wine in the Byzantine era. In their view, much of the trade was in "wine from the Holy Land," shipped abroad under Christian influence for liturgical purposes. This may not be an entirely "sober" argument; but it is so ingenious that I am prepared to accept it—on the well-known principle in textual criticism of Biblical manuscripts, namely *lectio difficilior*, the most difficult reading of a text that has been altered somewhat in transmission is the most likely.

Taking up a number of other points, the authors' genuinely multidisciplinary approach to Ashkelon's trading network, all too rare, is salutary. Here older typological studies of pottery are coupled with sophisticated interpretation of obscure texts and even neutron activation analysis to produce brilliant results. And the attempt to trace Ashkelon's wine trade from the Late Bronze Age through the Byzantine era—a period of some 2,000 years—is one of the most promising *detailed* applications yet of Braudel's *la longue durée* in Palestinian archaeology.[34] I like their efforts to "gentrify" the Philistines from loutish beer-guzzlers to genteel sippers of white wine—no doubt, properly chilled and accompanied by just the right brie. I have always thought it unfortunate that the Philistines got such bad press in the Bible. After all, if one compares their sophisticated material culture in the 12th century B.C.E. with the rather primitive culture of the "proto-Israelites," who were the real Philistines? (Of course the later Israelites did make up for their undistinguished origins by producing a literary masterpiece.)

Conclusion

In the foregoing discussion, I have noted the dearth of good regional surveys of trade in the eastern Mediterranean. It is hoped that the stimulating papers in this volume will provide the impetus for future studies in trade that will begin to fulfill the potential that this branch of archaeological research has recently demonstrated.

Notes

1 A.C. Renfrew, "Trade and Culture Process in European Prehistory," *CurrAnthr* 10 (1969) 151-169.

2 H.K. Schneider, *Economic Man: The Anthropology of Economics* (New York 1974); A.C. Renfrew, "Alternate Models for Exchange and Spatial Distribution," in T.K. Earle and J.E. Ericson eds., *Exchange Systems in Prehistory* (New York 1977) 71-90.

3 R. McC. Adams, "Anthropological Perspectives on Ancient Trade," *CurrAnthr* 15 (1974) 239-249.

4 C. Runnels and T.H. Van Andel, "Trade and the Origins of Agriculture in the Eastern Mediterranean," *JMA* I/1 (1988) 93.

5 The bibliography is too vast to cite in full, but for orientation, see G. Dalton, ed., *Tribal and Peasant Economics: Readings in Economic Anthropology* (Lanham, MD 1967) and "Theoretical Issues in Economic Anthropology," *CurrAnthr* 10 (1969) 63-102; M.D. Sahlins, *Stone Age Economics* (Chicago 1972); H.K. Schneider, (supra n. 2); M. Webb, "Exchange Networks and Prehistory," *Annual Review of Anthropology* 3 (1974) 357-383; Earle and Ericson, eds., (supra n. 2); J.A. Sabloff and C.C. Lamberg-Karlovsky, eds., *Ancient Civilization and Trade* (Albuquerque 1977); T.K. Earle and A. Christianson, eds., *Modelling Change in Subsistence Economics* (New York 1980); J.E. Ericson and T.K. Earle, *Contexts for Prehistoric Exchange* (New York 1982); A. Sheridan and G. Bailey eds., *Economic Archaeology: Towards an Integration of Ecological and Sociological Approaches, Bar* (Oxford 1981); S. Ortiz, ed., *Economic Anthropology* (Lanham, MD 1983); A.C. Renfrew, *Approaches to Social Archaeology* (Cambridge, MA 1984); T.K. Earle, "Prehistoric Economies and the Evolution of Social Complexity," in A.B. Knapp and T. Stech, eds., *Prehistoric Production and Exchange: The Aegean and Eastern Mediterranean* (Los Angeles 1985) 106-111. For the Eastern Mediterranean specifically, see essays in Knapp and Stech; J.D. Hawkins, ed., *Trade in the Ancient Near East* (London 1977); M. Heltzer and E. Lipinski, eds., *Society and Economy in the Eastern Mediterranean* (c. 1560-1000 B.C.) (Louvain 1988); N.H. Gale ed., *Bronze Age Trade in the Mediterranean* (*SIMA* 90 Jonsered 1991).

6 Earle in Knapp and Stech eds. (supra n. 5) 106.

7 See, however, the various papers in Knapp and Stech, Hawkins, and Gale (supra n. 5).

8 P. Garelli, *Les assyriens en Cappadoce* (Paris 1963); M.T. Larsen, *The Old Assyrian City-State and Its Colonies* (Copenhagen 1976); N. Yoffee, *The Economic Role of the Crown in the Old Babylonian Period* (Malibu, CA 1977).

9 W.A. Ward, *Egypt and the Eastern Mediterranean World 2200-1900 B.C.: Studies in Egyptian Foreign Relations during the First Intermediate Period* (Beirut 1971); S. Ahituv, "Economic Factors in the Egyptian Conquest of Canaan," *IEJ* 28 (1978) 93-105; B. Kemp and R.S. Merrillees, *Minoan Pottery in Second Millennium Egypt* (Mainz 1980); N. Na'aman, "Economic Aspects of the Egyptian Occupation of Canaan," *IEJ* 31 (1981) 172-185; J.M. Weinstein, "The Egyptian Empire in Palestine: A Reassessment," *BASOR* 241(1981) 1-28; A. Ben-Tor, "The Trade Relations of Palestine in the Early Bronze Age," *JESHO* 29 (1986) 1-27.

10 B.M. Gittlin, *Studies in the Late Cypriote Pottery Found in Palestine* (Ann Arbor 1977); J.M. Muhly, "The Role of Cyprus in the Economy of the Eastern Mediterranean during the Second Millennium B.C.," in V. Karageorghis, ed., *Acts of the International Archaeological Symposium "Cyprus Between the Orient and the Occident"* (Nicosia 1986) 45-62.

11 A. Leonard, "Considerations of Morphological Variation in the Mycenaean Pottery from the Southeast Mediterranean," *BASOR* 241 (1981) 87-101; A.B. Knapp, "Production, Location, and In-

tegration in Bronze Age Cyprus," *CurrAnthr* 31 (1990) 147-176. G. Philip, "Cypriot Bronze working in the Levantine World: Conservatism, Innovation and Social Change," *JMA* 4/1 (1991) 59-107; Runnels and Van Andel (supra n. 4).

See M. Heltzer, *Goods, Prices and the Organization of Trade in Ugarit. Marketing and Transportation in the Eastern Mediterranean in the Second Half of the II Millennium B.C.* (Wiesbaden 1971): see also supra n. 5, with essays by Heltzer and others.

Supra n. 5.

Supra n. 5.

See W.G. Dever, "Impact of the 'New Archaeology'," in J.F. Drinkard, G.L. Mattingly, and J.M. Miller, eds., *Benchmarks in Time and Culture. An Introduction to Palestinian Archaeology* (Atlanta 1988) 337-352.

Yoffee (supra n. 8) 146.

Ø.S. LaBianca, *Hesban I. Sedentarization and Nomadization: Food System Cycles at Hesban and Vicinity in Transjordan* (Berrien Spring, MI 1990).

K. Polanyi, C.M. Arensberg, and H.W. Pearson, eds., (Glenco, IL 1957); cf. also Sahlins (supra n. 5).

Earle (supra n. 5) 106.

A.C. Renfrew, "Trade as Action at a Distance: Questions of Integration and Communication," in Sabloff and Lamberg-Karlovsky (supra n. 5) 1-59.

Earle (supra n. 5) 107.

On the preceding, see Earle (supra n. 5) 107.

G. Dalton and J. Knocke, "The Work of the Polanyi Group: Past, Present and Future," in Ortiz, ed. (supra n. 5) 29.

See I. Hodder, "Regression Analysis of Some Trade and Marketing Practices," *WorldArch* 6 (1974) 172-189 and "Some Effects of Distance on Patterns of Human Interaction," in I. Hodder, ed., *The Spatial Organization of Culture* (London 1978) 155-178; Runnels and Van Andel (supra n. 4).

For Alalakh VII, see W.G. Dever, "The Chronology of Syria-Palestine in the Second Millennium B.C.: A Review of Current Issues," *BASOR* 288 (1992) 14 and references there. For the latest treatment of Egyptian Chronology, see W.A. Ward, "The Present Status of Egyptian Chronology," *BASOR* 288 (1992) 53-66.

26 One wonders why such a charlatan as Bernal is taken seriously at all, when on nearly every point where specialists have checked his work he has been proven wrong. For an orientation to the discussion, one will find several recent issues of *JMA* useful, especially vols. 3/1. 3/2. 1990).

27 W.G. Dever, "The Beginning of the Middle Bronze Age in Syria-Palestine," in F.M. Cross, W.E. Lemke, and P.D. Millers, eds., *Magnalia Dei: The Mighty Acts of God. Essays on the Bible and Archaeology in Memory of G. Ernest Wright* (Garden City, NY 1976) 13, 14; 34-36; cf. Salz, "The Chronology of the Middle Cypriot Period," *RDAC* (1977) 51-70; P. Johnson, "The Middle Cypriot Pottery Found in Palestine," *OpAth* 14 (1982) 49-72.

28 J.N. Tubb,"The MB IIA Period in Palestine: Its Relationship with Syria and its Origin," *Levant* 15 (1983) 49-62.

29 For the latest views of Prof. Dothan, see T. Dothan and M. Dothan, *People of the Sea. The Search for the Philistines* (New York 1992), with references.

30 Oral communications of Prof. Frank M. Cross, shared with me by Prof. Lawrence E. Stager, July, 1992.

31 For orientation to a much larger recent literature, see W.G. Dever, "Asherah, Consort of Yahweh? New Evidence from Kuntillet 'Ajrûd," *BASOR* 255 (1984) 29-37; M.S. Smith, *The Early History of God. Yahweh and the Other Deities in Ancient Israel* (New York 1990) 80-124 and references there; and add now O. Keel and C. Uehlinger, *Göttinnen. Götter und Gottesymbole. Neue Erkenntnisse zur Relgiongeschichte Kanaans und Israels Aufgrund bislang unerschlossener ikonographsicher Quellen* (Freiburg 1992) 199-321.

32 See provisionally, W.G. Dever, "Religion and Cult in Ancient Israel: Social and Economic Implications," *Scienze dell'antichità Storia Archeologia Antropologia* 3-4 (1989-90) 175-180. What is obviously needed is fewer conventional "political histories" of Israel, and a new focus through archaeology *and* texts on a socio-economic history of ancient Palestine and Israel.

33 Bibliography is too extensive to cite, but for an overview see several articles in *BASOR* 279 (1990), an issue devoted almost entirely to the Phoenicians. For the most recent Tell Sukas volume, with references to the preceding volumes, see J. Lund, *Sukas VIII. The Habitation Levels* (Copenhagen 1985). In addition, however, see W.P. Anderson, *Sarepta I. The Late Bronze and Iron Age Strata of Area II Y* (Philadelphia 1988); I.A. Khalifeh, *Sarepta II. The Late Bronze and Iron Age Periods of Area II.X.1.* (Philadelphia 1988).

34 See further W.G. Dever (supra n. 15).

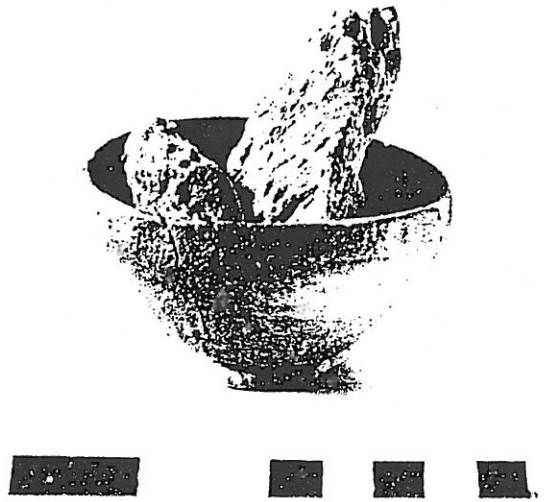


FIGURE 2.8 LB II conical cup with pumice, height ca. 6 cm. (Photo: D. Evan).

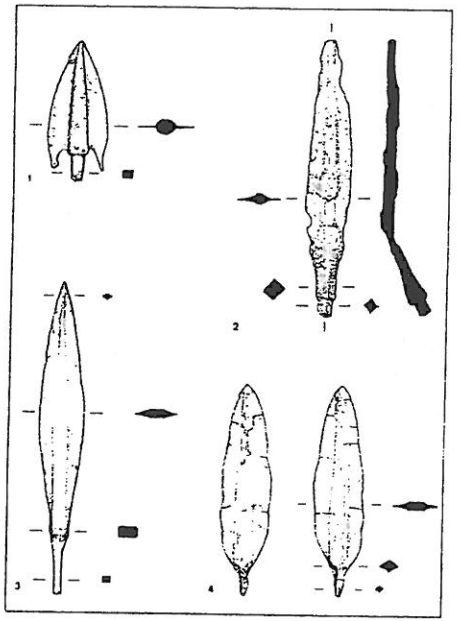


FIGURE 2.9 Bronze arrowheads (drawn by R. Stidsing) Scale 1.

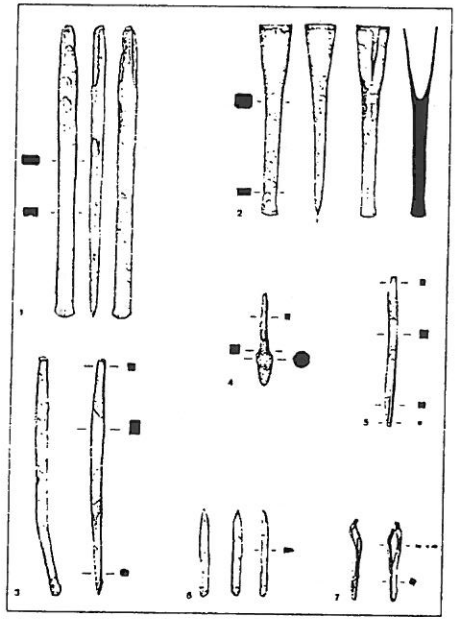


FIGURE 2.10 Metal working tools (drawn by R. Stidsing) Scale 1.

been metal workers—as was the pumice which was useful in smoothing and burnishing metal.

The metal, mostly bronze scraps, was found as if ready to be reused: for instance, small pieces from Cypriote offering tables and a foot and a hand from the same statue. Of course use of pumice assumes that the recycling done at Nami was further translated into production of objects at Nami itself. The bronze tools mentioned above, which included chisels, tweezers, and other artifacts, could easily be interpreted as working tools of some form of metal industry at Nami. One should keep in mind that the recycling of bronze does not necessarily mean production. Bronze could be transported in the form of ingots to yet other production centers. The Cape Gelidonya Shipwreck is a case in point. Among the ingots found aboard were two types: the bun and the slab ingots which are bronze ingots, rather than copper.[57] It is the slab ingots that we would like to consider, which were small in size and weight and were all found in the vicinity of the "captain's cabin" where other personal pieces and pieces for daily use were located. G. F. Bass felt that they may have been used as currency.[58] Indeed, it is quite possible that, for their own benefit, the captain of the vessel and his sailors were involved in a trade distinct from the main load of the ship. We would call this type of trade "sailor's trade" which is a common practice of sailors worldwide even today.[59] A piece of bronze which might be a small section of such an ingot has been found at Nami. Some of the scrap metal from Nami is similar to that of the Gelidonya wreck: for instance, the pieces from incense stands.[60]

The LB IIB necropolis at Nami East shows an amalgamation of burial practices.[61] There are the usual oval and box graves, usually stone lined (fig. 2.11), although at least in one instance pisé or a form of mud brick was used. There are burials on a platform, built graves, and child jar burials. The jar burials, however, were not limited to children. By now, two almost intact pithos burials have been uncovered, and several parts of robbed pithos burials were found as well (fig. 2.12). There was, as far as we can see at this juncture, no standardized burial orientation: skeletons with the head facing south, north, east, and west have been located. Some disarticulated skeletons were found arranged with grave goods in shallow areas, but with no stone lining. These may have been earlier burials taken out to make space for the later burials.

The burial form that interests us in this study is the pithos burial.[62] While the jar burials are usually of babies and small children, there are adult burials at Nami. In one case, the pithos, a Collared Rim Jar, was covered at its mouth by a decorated squat storage jar of Late Bronze vintage. We will not discuss the Collared Rim controversy here, except to say that the jar does appear at Nami, not only in the necropolis but on the summit of the site as well as in an industrially related pit which can belong to the Late Bronze IIB period. This is an unusual form of burial. It seems that except for a few instances, there is no clear evidence of this form of burial in Cis- or Transjordan.[63] In Anatolia of the second millennium, instances of double jar burials have been found and thus there are



FIGURE 2.11 Stone-lined grave (Photo: A. Friedman).

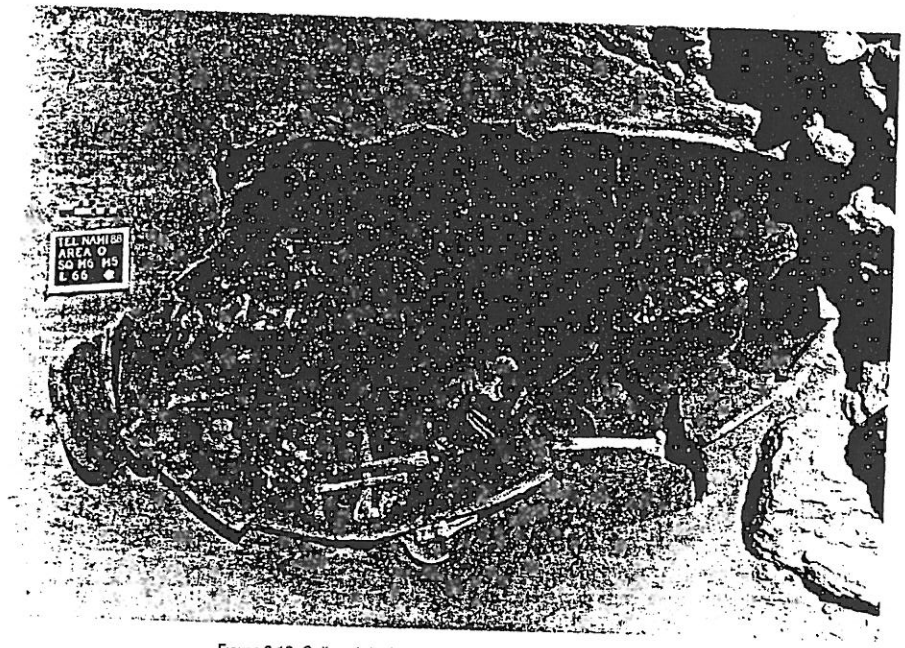


FIGURE 2.12 Collared rim jar (pithos) burial (Photo: A. Friedman).

those who look toward that area as the origin of those buried in jars.[64] J. N. Tubb, following J. B. Pritchard who excavated at Tell es-Sa'idyeh earlier,[65] felt that there were elements of Aegean immigrants (Sea Peoples) buried in these graves,[66] a suggestion that is completely dismissed by Ora Negbi.[67] We would like to emphasize the point that the jar burials at Nami were carried out in Collared Rim Jars, a most unusual occurrence considering the position of Nami on the coast.[68] Most of the burials at Nami hitherto investigated had been robbed in antiquity. Some of the grave robbers were apparently well acquainted with the positions in which the dead were placed and concentrated their efforts on the upper portions of most skeletons, from the pelvis up. In a case of a grave empty of any grave goods, the body was left untouched. We did find, however, some grave goods that were placed from the pelvis down, on the fingers, for instance, and a few unrobbed graves. The burials as a general rule are rich. Gold, silver, ivory, even faience were found, but the amount of bronze was entirely unexpected. Imported pottery accentuates the international nature of the finds.

Several items from the unusually large number of bronze vessels found at Nami are similar to other bronzes found in this area, although one has to stress that the sites in which similar large quantities of bronzes were found are few.[69] There are similar pieces in Cyprus and at Ras-Shamra Ugarit.[70] Among the Nami finds are several bronze bowls, bronze lamps (fig. 2.13),[71] and a wine set with a juglet reminiscent in shape of the Cypriote White Shaved family. The cult objects include two bronze scepters, measuring approximately 30 cm, one with a pomegranate at its head and the other seeming to sport a poppy seed pod (fig. 2.14).[72] The use of pomegranates on bronze cult stands appears in Cyprus,[73] but it is the possible representation of the poppy pod that is of interest here. The poppy derivative, namely opium, has been a topic of discussion among scholars dealing with the Cypriote Base Ring I Juglet since R. S. Merrillees correlated that pottery with the poppy pod and hence opium.[74] This equation

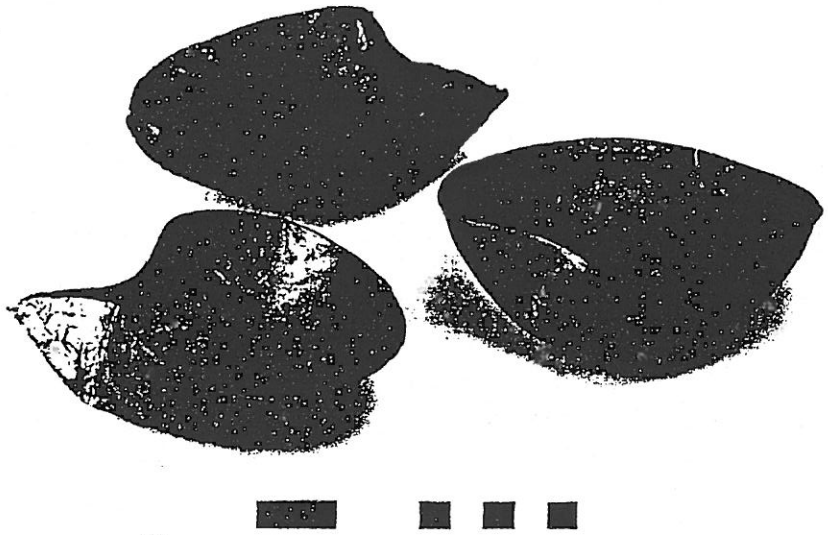


FIGURE 2.13 Bronze oil lamps (Photo: D. Evan).



FIGURE 2.14 Bronze scepters (Photo: D. Evan) Length ca. 30 cm.

has been challenged in the past because of lack of written and botanical sources.[75] Now, however, chromatography tests have revealed some opium residues on Base Ring sherds.[76] The appearance of the pomegranate and the poppy pod side by side is probably not coincidental, although it bears no proof for the usage of opium or its association with the Base Ring Ware.[77]

At this juncture we wish to shift attention from the bronzes to an ivory rod found in proximity to the bronze scepters. This type of scepter, about 20 cm in length, was found in among the remains of a robbed grave in the general vicinity of the bronze scepters. It does not have a pomegranate at its top, but there is a place and arrangement to attach one. The piece *sans* the pomegranate is similar to two others found in Lachish[78] as well as to two from a 13th century context at Enkomi and from Kition in Cyprus.[79] The cult objects include three incense burners as well (fig. 2.15). Similar ones were found in Megiddo, Beth Shan,

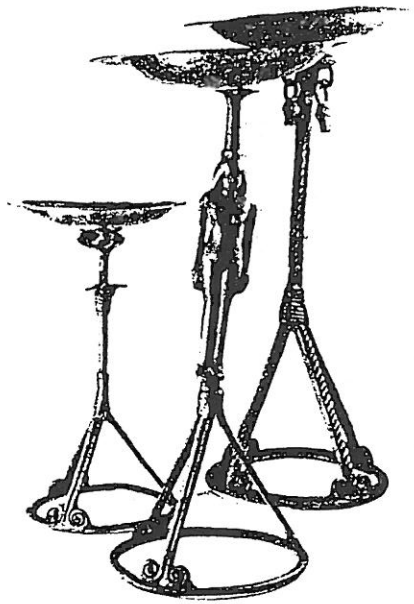


Figure 2.15 Bronze incense burners (Photo: D. Evan).

Ugarit, and in Cyprus[80] and a possible bowl of one of the tombs at Akko.[81] Each object from the Nami group is different: One is similar to a stand from Ugarit;[82] one is a caryatid, a woman holding the incense bowl on her head; and the third is well decorated with a braid motif, has four legs and four bells which may, again, represent poppy seed pods or pomegranates. The function of these scepters has been discussed previously. Suffice it to say that they appear in Egyptian iconography of the Late Kingdom depicting foreigners.[83]

Besides the clearly cult bronze pieces, there were various ornamental pieces in gold, silver, and bronze. One of the more interesting ones is a ring which can be associated with a bronze cultic censor. The ring (fig. 2.16) bears some Hittite hieroglyphs which probably spell a name, possibly of its wearer. Animal motifs on the right side of the ring can be identified as a griffin, while the animal on the left has been identified variously as a boar and a lion. The floral elements in the corners can be seen in other seals of the same class. The seal has counterparts in the latter half of the 13th century in the Hittite realm, especially in northern Syria. Emar-Meskéné has yielded a great number of impressions of this type of ring seal.[84] One gold ring of the same type is attributed to the Hittite royal family.[85] Other rings of the type have royal titles on them, thus they were attributed to aristocratic or royal personages.[86]

Several bronze weapons have been found, including one "mummified" dagger—a practice which is thought to be Mycenaean in origin. Three knives, two of which are riveted, were found in the graves as well. Their shape is usually attributed to Aegean provenance.[87] Two of the three mentioned, one riveted and the other flanged, were found in a built tomb, the roof of which was unfortunately missing because of modern activity in the area. Among the pieces found on the remaining half of the skeleton and its environs were several Mycenaean IIIB stirrup jugs of which at least one is clearly imported. The tomb contained other goods which have not been worked on yet, but include a simple gold and silver diadem, rings, a toggle pin and beads, a possible kylix, and a bronze lamp. Pieces from the lower part of a Mycenaean krater were found strewn around the tomb and may well have been part

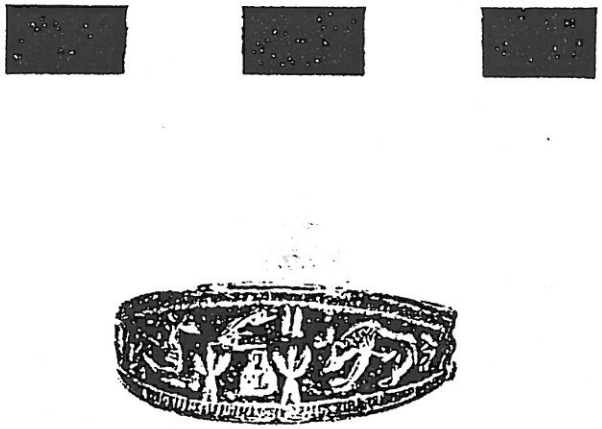


Figure 2.16 Hitlite signet ring (Photo: D. Evan).

of the grave goods that were disturbed. On its inside there are traces of bronze. Possibly a bowl was placed in it or maybe even a snake. A good percentage of the whole pieces of ceramics are either imported or possible imitations produced locally. They include, as mentioned above, Mycenaean IIIB stirrup jars, of at least three ascertainable provenances.[88] There are Cypriote imports such as Base Ring Ware, White Shaved juglets, and White Slip Ware. Some of the bar handle bowls may also have been imported.

While the settlers of the Middle Bronze IIA seemed to have made use of a site located about one km southeast of Nami,[89] there are only a few signs of a Late Bronze IIB agricultural site. It is hard to imagine that those living in the area, involved with the "sanctuary" and the metal trade, or for that matter those who eventually were interred in Nami East, were fed solely with imported food or food brought in as tribute or as payment. About one km north of the Nami peninsula on yet another peninsula which is part of the partially sunken *kurkar* (sandstone) ridge, a hydraulic system was found which may have been used as an anchorage during the Late Bronze Age.[90] We assume that the anchorage system of the MB IIA was situated between Tel Nami and Nami East. Thus the MB IIA and LB IIB populations used different areas for the anchorage of boats, a fact that should not surprise us since the relation of sea to land clearly changed between these two periods. With the rise of the water, the inhabitants of LB IIB Nami had to live on higher ground, so they constructed the rampart mostly against the elements, while Nami East which was placed on lower ground was used solely as a necropolis. An agricultural site should thus be looked for near the possible anchorage about one km north of Tel Nami where, indeed, a hill bordering modern agricultural land but covered by large amounts of sand is a likely location.

The wealth accumulated at Nami during the last part of the Late Bronze Age, which is amazing for the size of the site as it is known today, has no ready explanation. Possible clues to its source might be sought in mapping the other sites where material comparable to that of Nami in the 13th century B.C.E. was found. The major sites are Megiddo, Beth Shan, and Tell es-Sa'idiyeh. Other sites, such as Lachish, Farah South, and some along the coast such as Deir el-Balah, have some comparable material. Negbi is correct in stating that most of these areas show clear signs of Egyptian presence and

Megiddo, Beth Shan, and to the eastern bank of the Jordan river during the expansion in trade mentioned above. We feel that its apex was sometime after the mid-13th century B.C.E. and that it existed as a port for transshipment during that short period marked by great wealth and an abundance of incense burners and sherds. It was destroyed and abandoned not much later than the first years of the 12th century B.C.E. The question remains, however, why it was used during that period? Could it possibly have been an entrepôt of a larger member of the trade network such as Megiddo? And if so, why Nami and not Dor, a close neighbor to the south with a comfortable entrance to Wadi Milek on the way to Megiddo? The answer may be in the geopolitical peculiarities of this enigmatic period. For a short period in the 13th century, Wadi Oren, north of Nami, may have been utilized to cross the Carmel Ridge, where the route could then join the former one used by the trade system to the port of Tell Abu Hawam.[12b] During that short moment in history, Tel Nami became a spot where East met West.

Notes

1 A. Raban, "The Ancient Harbours of Israel in Biblical Times," in A. Raban, ed., *Harbor Archaeology* (*BAR-IS* 275, Oxford 1985) 11-23.

2 D. Sivan, "Paleogeography and the History of the Coast of Akko in the Holocene Period," unpublished M.A. thesis, Department of Maritime Civilizations, University of Haifa, 1981 (Hebrew).

3 Y. Sneh, "The Paleogeography and the History of the Coast of Dor in the Holocene Period," unpublished M.A. thesis, Department of Maritime Civilizations, University of Haifa, 1981 (Hebrew).

4 M. Artzy, "Fortress and Settlement, Anchorage System during the Second Millennium at Tel Nami?" in E. Raban and E. Linder, eds., *Cities on the Sea — Past and Present. 1st International Symposium on Harbours, Port Cities and Coastal Topographies, Summaries, Haifa, Israel, September 22-29, 1986* (Haifa 1986) 14-17; M. Artzy, "Tel Nami," *Hadashot Archaeologiyot* 94 (1989) 17-20; M. Artzy, "Pomegranate Scepters and Incense Stand with Pomegranates found in a Priest's Grave," *Biblical Archaeology Review* 16 (1990) 48-51; M. Artzy, "Conical Cups and Pumice, Aegean Cult at Tel Nami," in R. Laffineur and L. Basch, eds., *Thalassa, the Prehistoric Aegean and the Sea, Aegaeum VII* (Liège 1991) 203-206; M. Artzy, "The Bronze Age Anchorage Site of Tel Nami," *Qadmoniyot* 24 (1991b) 31-38 (Hebrew); M. Artzy, "Nami Land and Sea Project, 1989," *IEJ* 41 (1991c) 194-197; E.S. Marcus "Tel Nami, A Study of a Middle Bronze Period Coastal Settlement," unpublished M.A. thesis, Department of Maritime Civilizations, University of Haifa, 1991; M. Artzy, "Nami, un grand port à l'âge du Bronze," *Le Monde de la Bible* 76 (1992) 42-46; M. Artzy and E. Marcus, "The MB IIA Coastal Settlement at Tel Nami," *Michmanim* 5 (1991) 5-16; M. Artzy and E. Marcus (1992) "Stratified Cypriote Pottery in MB IIA Context at Tel Nami," in G.C. Ioannides, ed., Αφιέρωμα στο Βάσο Καραγιώργη—Essays in Honour of Vassos Karageorghis (Nicosia 1992) 103-110; M. Kislev, M. Artzy and E. Marcus, "Import of Aegean Food Plant to MB IIA Coastal Site in Israel," *Levant* 25 (1993) 145-154; E. Marcus and M. Artzy, "An MB IIA Scarab-seal Impressed 'Loomweight' from Tel Nami," (to be published in *IEJ*); M. Artzy, "The Bronze Age Anchorage Site at Tel Nami," *Proceedings of the Second International Congress on Biblical Archaeology 1991* (in press); M. Artzy, "Late Bronze Burial Practices at Tel Nami," in I. Singer, ed., *Papers in Honour of Prof. Yochanan Aharoni* (in press).

5 W. Dever, "The Beginning of the Middle Bronze Age in Syria Palestine," in F.M. Cross, W.E. Lemke and P.D. Miller, Jr., eds., *Magnalia Dei, the Mighty Acts of God: Essays on the Bible and Archaeology in Memory of G. Ernest Wright* (New York 1976) 78.

6 Ugarit-Ras Shamra, see C.F.A. Schaeffer, *Ugaritica II* (Paris 1949) figs. 99, 100, 102, 106 and J.C. Courtois and Lilian Courtois, "Corpus ceramique de Ras Shamra-Ugarit," in *Ugaritica VII* (Paris 1978) fig. 4; Byblos, see M. Dunand, *Fouilles de Byblos, Vol. II, Tome 2* (Paris 1958); Tell Sukas, see H. Thrane, *Sukas N* (Copenhagen 1978). For a list of other Levantine coastal sites see J. Tubb (infra n. 19).

7 R.B. Redford, *Egypt, Canaan, and Israel in Ancient Times* (Princeton 1992) 87-93.

8 M. Dothan, "Akko: Interim Excavation Report, First Season, 1973/4," *BASOR* 224 (1976) 1-48; "Ten Seasons of Excavations in Ancient Akko," *Qadmoniyot* 18 (1985) 2-24 (Hebrew).

9 S. Porath, "Tel Hefer/Ifshar—a Site in the Sharon Plain from the Beginning of the Middle Bronze IIA Period," *Michmanim* 5 (1991) 11-20 (Hebrew). S. Porath and S.M. Paley are preparing a paper entitled "A Pottery Group from Early Middle Bronze IIA at Tel el-Ifshar" (personal communication).

10 P. Beck, "The Pottery of the Middle Bronze IIa at Tel Aphek," *Tel Aviv* 2 (1975) 27-84; "The Middle Bronze Age Pottery from Aphek, 1972-1984: First Summary," *Tel Aviv* 12 (1985) 181-203.

11 See the bibliography in Niemeier (this volume) n. 1; W.-D. Niemeier, "Minoan Artisans Travelling Overseas," in Laffineur and Basch, eds., (supra n. 4) 189-201.

12 The ancient name of the site is not known. We feel that there is a strong possibility that it was MGR, Mugar, mentioned in both the Mergissa and Berlin groups of Execration Texts as a maritime site (Redford, supra n. 7). The Nami area is situated along the estuary of the Me'arot (caves) River. The Carmel Mountain Ridge is less than four km east of Nami and is readily discernible from the sea. The jaw-like crevice might have lent its shape to the name. There are also numerous caves (Me'arot) in this general area of the Carmel Ridge from which the river emanates, hence its name. S. Ahituv, *Canaanite Toponyms in Ancient Egyptian Documents* (Jerusalem 1984) 133, does not accept the equation MGR with cave.

13 See Artzy and Marcus 1991 (supra n. 4) and Marcus and Artzy *IEJ* (supra n. 4).

14 Directed by E. Marcus, 1986-1992.

15 Artzy and Marcus 1991 (supra n. 4) 13; Marcus and Artzy, to be published in *IEJ* (supra n. 4).

16 Redford (supra n. 7) 80-81.

17 Artzy and Marcus in Ioannides, ed. (supra n. 4).

18 The White Painted and Composite Wares of the Middle Cypriote Period have been found previously on coastal Israeli sites. Unfortunately those found in Tel Akko, Dothan (1976) (supra n. 8) fig. 8, are all from a fill in the rampart. In Dhaharat el-Humraiya, WPPL examples appear in mixed MB IIA and MB IIB contexts: J. Ory, "A Bronze Age Cemetery at Dhaharat el-Humraiya," *QDAP* 13 (1948) 75-89. The Composite Wares and White Painted Wares found at Tel Kabri have been dated so far to the MB IIB period. For further details see Artzy and Marcus 1992 (supra n. 4) 103-110.

19 J.N. Tubb, "The MB IIA Period in Palestine: Its Relationship with Syria and its Origin," *Levant* 15 (1983) 49-62. Tubb divides the Syrian painted ware of the period into two parts: the Amuq/Cilician Ware and the Levantine Painted Ware.

20 The division between the Amuq/Cilician Ware and the Levantine Painted Ware families is not clear as Tubb presents it, since we now have at least two assemblages with both present. Here we would like to take issue with Tubb on his statement that, "There is in fact, nothing in the MB IIA pottery repertoire that can reasonably be attributed to external influence which cannot instead be explained in terms of an indigenous development of preceding traditions." ([supra n. 19] 58-59). Tubb shows that the situation of Syria in the "survival and revival" of the EB IV to MB IIA are not exactly the same in Syria and the Palestinian areas. It is hard to see how the Levantine Painted Ware of the coast could have arisen from any Palestinian ceramic tradition of the 3rd millennium B.C.E. via the EB IV period which was characterized by transhumance society. There are some MB IIA ceramic types with EB characteristics, as Amiran in "Similarities between the Pottery of the MB IIA Period and the Pottery of the Assyrian Colonies, and their Implications," *Anatolia* 12 (1968) 59 cautiously remarked. There are other practices which show some sort of continuity, see K. Prag, "The Intermediate Early-Middle Bronze Age: An Interpretation of the Evidence from Trans-Jordan, Syria and Lebanon," *Levant* 6 (1974) 100-101. Nonetheless, it is hard to accept that the Levantine Painted Ware is of Palestinian EB tradition. This ware is new to the area and the chances are that it is native to Syria where the tradition of painted pottery and the technology associated with it was to be found. We would like to point out the fact that the ceramic traditions of Palestine and of Syria were not identical and variations existed in their evolution. If we are to accept a common tradition to both Syria and Palestine, at least we

that there was no need for "Sea Peoples" to bring in metal work to the area, as Tubb suggests.[91] However, one has to take the geopolitical situation of the period into account when dealing with the changes that started sometime in the mid-13th century B.C.E. The Egyptians, no doubt, were main players in this area, but one has to bear in mind that "Egypt" did not mean by that time the palace alone. The Egyptian temples could trade abroad and could even have control of fleets and merchants as did high officials who traded with foreign lands.[92] At the same time, the Hittite Empire used certain trading areas of Cilicia and Syria for their own benefit, and by the time of the peace accord with the Egyptians, their borders were moving southward. Cyprus, no doubt, played an important role as a copper supplier, and the Levantine merchant city states, such as Ugarit, were prominent traders. Ugarit itself was a favorite point in which sea and land trading routes met.[93] The favorable position of Ugarit was no secret to the ancients, and the possibilities of transshipment of goods from land to sea routes and vice versa could well have been translated into small anchorages at strategic points. Akko, and eventually Tell Abu Hawam, no doubt fulfilled this role during the Bronze Age. While Akko had a considerable hinterland, Tell Abu Hawam must have been maintained, at least during a good part of its Late Bronze Age existence, as a cross between land and sea routes.[94] Tell Abu Hawam is usually used as the point at which routes meet.[95]

If we compare the material goods of Nami during the last quarter of the 13th century B.C.E. to other sites in the area, we find that the closest parallels are found in Megiddo. Beth Shan has a good number of similar material finds, as does Tell es-Sa'idiyeh in Transjordan. It should be of no surprise therefore to find that Megiddo, Beth Shan, and Tell es-Sa'idiyeh are the sites most often mentioned by L. Gershuny in her work on the bronzes from the period.[96] In Negbi's study, the tables of bronzes found in the area are again similar.[97] We have previously mentioned the map (see n. 95) on which A. Leonard shows a suggested route through which Mycenaean and Cypriote wares were carried to Transjordan. The sites mentioned in Leonard's study are almost the same as those in which material comparable to Nami's is found. There is one difference and that is the port of entry which he attributes to Tell Abu Hawam.[98] Leonard has stated that the Mycenaean imports were not restricted to the coastal sites and could be used to suggest local land routes. He pointed to the relative wealth of the inhabitants of LB Transjordan who had the economic ability to acquire commodities that had traveled from afar by land and sea. In the last few years, the number of Aegean and Cypriote wares appearing in Transjordan has been noticeably augmented, because of greater interest and excavations in that area.[99] When ceramic and other material from 13th century contexts, especially its last quarter, are described, they bear a great similarity to the material finds from Nami.[100] Although the small site of Nami compares quite unfavorably in its size to the major sites of Tell Abu Hawam and Akko (see n. 94), its unusual wealth, especially in the form of precious metals during the last days of the Bronze Age, cannot be overlooked.

It is plausible that Nami served as a port of entry during a limited time in the 13th century, a time in which the Egyptians were interested in the area, if nothing else for the taxes that they could levy on the goods passing through this route. After the peace of Kadesh, the northerners had their interests as well. Goods may have been shipped from Nami to the inland and exited from Nami to points beyond the sea. The ceramics, besides their special aesthetic value, also contained goods,[101] and we can assume that bronze, whether in form of finished goods or slag, was shipped to Transjordan. Rarely do we hear of what came from Transjordan in return, or to state it more succinctly, what brought about the interest of the Egyptians and especially the comparative wealth traveling to the sites in that area. The answer, at least partially, would be in the incense trade.

Most of the incense had to be imported into Egypt. There were two major supply routes, one from the land of Punt, probably Somalia, and the other from Retenu, in the Levant. There are also two types of incense mentioned in the Egyptian texts: *'ntyw* and *sntr*. The first is identified as frankincense (*Boswellia* sp.) or myrrh (*Commiphora myrrh*). It is possible that the two were interchanged since both were brought from the Punt.[102] From the time of Thutmose III

we hear of imports of incense from Retenu to Egypt.[103] Most of the imports are identified as *sntr*. Among the amounts of *sntr* shipped to Egypt already during the reign of Thutmose III, we hear of some which was harvested in Retenu.[104] Since neither myrrh nor frankincense grows in this region, we should look at yet another possible resinous product. *Pistacia terebinthus* is a likely candidate[105] since it flourished in the area, especially northeast of the Jordan River. Moreover, it is *P. terebinthus* resin which was found and analyzed as such in many Canaanite storage jars excavated from the shipwreck at Ulu Burun,[106] although we feel that other substances could well have been members of what the Egyptians called "*sntr*." *Sntr* is not the only tribute of incense that the Egyptians mentioned. There is at least one case in which *'ntyw* is reported as arriving in Egypt as tribute from Retenu.[107] Since this plant grows only in Somalia and South Arabia, it is likely that it was imported to Retenu from South Arabia via a caravan route running along the mountain ridges in the western part of the Arabian peninsula (fig. 10).[108] Even Biblical sources speak of merchants who bring such goods to Egypt from the Gilead.[109] They are referred to as Ismaelites or Midianites. Indeed, archaeological data corroborate the fact that contacts between northwest Arabia and Jordan existed already in the Late Bronze Age.[110]

It is in the Biblical text mentioned above that we hear of the mode of travel, namely caravans incorporating the beast of the desert, the camel. The date for the domestication of the camel has usually been assigned to the 12th century B.C.E. Any earlier references to camels have been charged to anachronisms.[111] Later works challenge this notion and place the domesticated camel already in the mid-second millennium B.C.E. or even earlier.[112] There are depictions of camels, such as a dromedary (one-humped) being led by a man and held by a rope, dated to the third millennium B.C.E.[113] and, on a Syrian cylinder seal of the 18th century B.C.E. two figures riding on the humps of a Bactrian camel.[114] Even if the large increase in the number of domesticated camels came only in the 12th century B.C.E., there must have been earlier appearances since the domestication of the camel was long and gradual.[115] Camel bones have been found in Late Bronze contexts,[116] and we suspect that as more excavations have the animal bones analyzed, camel bones will surface, especially in Transjordan. The incorporation of the camel in the invisible trade of incense would help to explain the wealth we have unearthed in the areas mentioned. It has already been pointed out that were it not for the historical documentation, it would have been impossible to attribute the prosperity of the south during the much later Nabatean trade system.[117] Only the camel could have traversed the terrain of the desert, and we feel that by the time of Thutmose III it was doing just that.[118] We cannot but add yet another facet, that of the Collared Rim Jar which we have discussed above. When loaded, they reach a weight of 80 to 120 kg, a load that this beast of burden could easily handle. There are several types of saddles which could have been used for transporting these jars.[119]

Neutron activation analysis carried out on Collared Rim Jars from Dan shows that many of them were not of local clay.[120] We suspect that when the results of neutron activation analysis are in on the Nami Collared Rim Jars, they will echo the findings at Dan.[121] We have to bear in mind that the appearance of these jars at coastal Nami occurred slightly earlier than in the inner areas or in the hill country. Nami may have been a transshipment anchorage. Examples of collared jars from abroad include at least one of the Ulu Burun pithoi,[122] as well as jars at Paleokastro Maa, among others, in western Cyprus.[123] Other evidence comes to use from the pictorial representation of ships in the Theban tomb of Kenamon dated to the Late Kingdom. In the painting, a pithos can be seen at the front of one of the ships.[124] It is possible that this pithos has a collar, although from the photograph which was taken of the painting in the last century, it is hard to discern whether such is the case, and the more recent drawing of it was undertaken when the paintings were already in a sad state. Even if the jar did not have a collar, we have to keep in mind that the ships carried such large ceramic vessels as water containers and as some form of storage for breakable or important goods.[125]

Nami was already settled at the end of the 14th century B.C.E. and was a likely candidate for a trading spot which combined the maritime route and the land route from Nami to

ought to allow for regionalism. After all, we have to remember that most, if not all, of the coastal sites in Palestine in which these vessels appear did not exist during the Early Bronze Period. Amiran's family C (Dever's NC) are seen nowhere in the coastal region, while the Levantine Painted Ware seems to have a good hold in exactly that area, from modern Syria to Lebanon and Israel. The Levantine Painted Ware, at least that from Nami and probably that found in Ifshar (see Porat [supra n. 9] fig. 3), and Tell El-Dab'a (see Tine Bagh, "Bemalt MB IIA keramic og bemalt Tell el Yahudiyeh Ware fundet i Egypten," unpublished M.A. Thesis, Copenhagen University 1988 [in Danish]) was brought along the coast from the north.

21 The ancient seagoing boats plying the eastern Mediterranean reached a safe haven every one or two days. Thus they hugged the coast and used the maximum space aboard ship for the shipped goods and not for necessities such as water and food for the sailors. This would have been economically wise. This sort of travel and shipping would necessarily mean anchorages along the coast, namely the Palestinian coast, where these vessels could expect service. Now that coastal sites of the period have finally begun to be investigated, this hypothesis has been substantiated.

22 M. Heltzer, "The Trade of Crete and Cyprus with Syria and Mesopotamia and their Eastern Tin Sources in the XVIII-XVII Centuries B.C.," *Minos* 24 (1986) 7-27; see also J. Weingarten, "Three Upheavals in Minoan Sealing Administration: Evidence for Radical Change," in T.G. Palaima, ed., *Aegean Seals, Sealings and Administration. Aegeum V* (1990) 105-106. She feels that the outburst of administrative activity in Phaistos in MM IIB might reasonably be connected to contacts with Anatolia. See further M. Wiener, "Round Table Comments," in Palaima, ed., (supra) 236-239. A longer bibliography is found in W.-D. Niemeier (supra n. 11) 189-190, n. 1-7.

23 W.A. Ward, *Egypt and the Eastern Mediterranean World 2200-1900 B.C. Studies in Egyptian Foreign Relations during the First Intermediate Period* (Beirut 1971) 77-83; K. Branigan, "Byblite Daggers in Cyprus and Crete," *AJA* 71 (1966) 123-126.

24 G. Cadogan, "Early Minoan and Middle Minoan Chronology," *AJA* 87 (1983) 514. Kamares Ware, a Minoan style ceramic is attested at Ugarit and Byblos. There are questions as to their provenance, but no doubt that they are of Minoan style. See M. Astour, "Ugarit and the Aegean," in H.A. Hoffner, ed., *Alter Orient und Altes Testament* 22. Neukirchenvluyn (1973) n. 26. This controversy could be solved easily by means of neutron activation analysis of the ceramics involved from Byblos, Ugarit, Hazor, Egypt (see Malamat [infra. n. 25]) and possibly other sites.

25 A. Malamat, "Syro-Palestinian Destinations in Mari Inventory," *IEJ* 21 (1971) 31; Astour (supra n. 24) 17-18, 21. Astour mentions an interpreter who is paid kindly for his services in the transaction between the buyers of the tin from Kaphtor-Crete and the sellers from Mari. Astour maintains that there is no reason for speakers of the North-Western Semitic languages to need interpreters. It is those from Crete and Mari who needed one speaking the local language and the Minoan one, whatever it might have been.

26 Artzy and Marcus 1991 (supra n. 4).

27 B.J. Kemp and R.S. Merrillees with a chapter by E. Edel, *Minoan Pottery in Second Millennium Egypt* (Mainz am Rhein 1980) 200-204, 215-219. The Kamares Ware piece in question comes from a modern stratified excavation, namely a tomb in Qubbet el Hawa near Aswan. Unfortunately, the tomb which was used in the Early Kingdom was reused in the 12th Dynasty, when the piece was deposited. Tests done by Prof. Noll on the white pigment seem to show it to be of local manufacture. Kemp and Merrillees feel that the type is similar to other MM IIB pieces from Phaistos. This piece warrants a test by means of NAA (supra n. 24) to establish its provenience. Whatever the outcome, those who produced the piece, whether in Crete or in Egypt, were aware of the style in this early period. M. Wiener has dealt comprehensively with the contacts from the Minoan side in "The Nature and Control of Minoan Foreign Trade," in N. Gale ed., *Bronze Age Trade in the Mediterranean* (*SIMA* 90, Jonsered 91) 327-334. He mentions the trade in tin *vis a vis* the tin trade and Kanesh Karum in Kültepe, Cappadocia, where Old Assyrian written sources attest to the extensive trade in tin. The trade of the Old Assyrians was not limited to tin but other goods are mentioned as having been exchanged. On the Assyrian trade see P. Garelli, *Les Assyriens en Cappadoce* (Paris 1963); M.T. Larsen, *The Old Assyrian City State and its Colonies* (Copenhagen 1976) and L.L. Orlin, *Assyrian Colonies in Cappadocia* (Hague 1970). One should consider the possibility that Minoans involved on the receiving end might have tried to use their maritime capabilities to trade with coastal sites some distance from the area of contact, somewhere on the southwestern side of Anatolia.

28 M. Kislev, M. Artzy, and E. Marcus, "Import of Aegean Food Plant to a Middle Bronze IIA Coastal Site in Israel," *Levant* 26 (1993) 145-154.

29 The natural tendency would be to assign the contact of the coast to Crete since Byblite daggers were found on Crete and Minoan pottery was found in Byblos and Ugarit. Other contacts, whether the possible Kamares Ware in Hazor or the palace in Area D at Tel Kabri with its decorated Minoan style floor, have thus been dated to the MB IIB period, although the excavators feel that there might be an earlier stage to it. We should not forget the Egyptian evidence at Tell el-Dab'a and others, see Niemeier (supra n. 11) 193-196.

30 A. Sarpaki and G. Jones, "Ancient and Modern Cultivation of *Lathyrus clymenum* in the Greek Islands," *BSA* 85 (1990) 363-368.

31 S. Manning, "The Bronze Age Eruption of Thera; Absolute Dating, Aegean Chronology and Mediterranean Cultural Interrelations," *JMA* 1 (1988) 17-82; S. Manning, "The Thera Eruption, The Third Congress and the Problem of the Date," *Archaeometry* 32 (1990) 91-100; M.G. Baillie in D.A. Hardy and A.C. Renfrew, eds., "Irish Tree Rings and an Event in 1628 B.C.," *Thera and the Aegean World III 3. Chronology* (London 1990) 160-166. Not all scholars accept the new high dates. Foremost among them is M. Bietak who has been excavating the Delta site of Tell el-Dab'a. His latest article "Minoan Wall Paintings Unearthed at Ancient Avaris," *Egyptian Archaeology* 2 (1992) 28, expounds his views, although in this case in a popular manner.

32 The well contained a good number of bones, including fish bones which may indicate that it became a garbage pit. The ceramics found in it could easily be dated to the period comparable to the palace at Aphek, or possibly earlier. The ceramics include some which have the net decoration thought to be of the Aphek pre-Palace Period. Given the burial assemblage discussed above, the well may have indeed been constructed at an early phase at Tel Nami. Some of the ceramics and other finds might indicate that the well was closed purposely.

33 The well was discussed in E.S. Marcus, M.A. thesis (supra n. 4). Further discussion will be in an article by Marcus, Artzy, and Nir which is in preparation. On algae stain and groundwater level see Y. Nir and I. Eldar, "Ancient Wells and their Geoarchaeological Significance in Detecting Tectonics of the Israel Mediterranean Coastline Region," *Geology* 15 (1987) 3-6.

34 J. Veracoutter, "Egypt in the Middle Kingdom," in J. Bottéro, E. Cassin and J. Veracoutter, eds., *The Near East: The Early Civilizations* (London 1965) 353. These dimensions are significant since the Egyptian had a good approximation of "Π".

35 C. Doumas, *Thera: Pompeii of the Ancient Aegean, Excavations at Akrotiri 1967-1979* (London 1983) 75.

36 V. Karageorghis and Martha Demas, *Excavations at Maa-Palevkastro 1975-1986* (Nicosia 1988); V. Karageorghis, *The End of the Late Bronze Age in Cyprus* (Nicosia 1990) 21-26.

37 For more data, see supra n. 4.

38 The area has not been excavated extensively yet. So far we have only touched on the work areas and may have only part of some sort of furnace. There are, however, other signs of metal working such as crucibles and parts of ovens on which remains of bronze was found.

39 In the precinct courtyard, four flat stones placed as if on corners of a square are reminiscent of ones in the sanctuary at Tel Mevorakh from the Late Bronze. E. Stern, *Tel Mevorakh Qedem 18* (Jerusalem 1984) p. 5/1-2 and 6/4. A well defined area west of these four stones is a floor paved exclusively with pebbles and sherds of ceramic incense burners. South of it is a pile of stones and under it was found a bronze lamp. There is a basalt basin on a large column base.

40 Stern (supra n. 39).

41 The Nami sanctuary and its environs need more study, but at this juncture, we feel that there may be some similarities between the structure in the Amman airport and that from Nami. For the Amman Temple see J.B. Hennessy, "13th Century B.C. Temple of Human Sacrifice at Amman," *Studia Phoenicia* 3 (1985) 85-104, and L.G. Herr, *The Amman Airport Excavations AASOR* 48 (1983).

Hennessy ties the ashes to Minoan practice published by Y. Sakellarakis and E. Sapouna-Sakellaraki, "Drama of Death in a Minoan Temple," *National Geographic Magazine* (February 1981) 219. Herr, however, in "The Amman Airport Structure and the Geopolitics of Ancient Transportation," *BiblArch* 46 (1983) 223-229, feels that it may have been used as a cremation center. He proceeds to argue for a possible Indo-European presence, possibly Hittites, involved in the structure. We would like to add that we do not have any proven data on human sacrifice at Nami.

42 P.E. McGovern, *Late Bronze Age Palestinian Pendants* (*JSOT/ASOR Monograph 1*, Sheffield 1985).

43 E. Porada, "Die Siegelzylinder-Abrollung auf der Amarna Tafel BM 29841 in Britischen Museum," *AfO* 25 (1974/77) 132-142; B. Buchanan, "A Snake Goddess and her Companions," *Iraq* 33 (1971) 1-18. I would like to thank Prof. P. Beck for pointing out these publications to me.

44 M. Artzy 1991 (supra n. 4) 203-205, pls. LII-LIII.

45 M. Wiener, "Crete and the Cyclades in LM I: The Tale of the Conical Cups," in R. Hagg and N. Marinatos, eds., *Minoan Thalassocracy: Myth and Realities, Proceedings of the Third International Symposium at the Swedish Institute in Athens 31 May - 3 June, 1982* (Stockholm 1984) 17-25; C. Gillis, "Production and Society," in J. Christiansen and T. Melander, eds., *Third International Symposium on Ancient Greek and Related Pottery* (Copenhagen 1988) 186-194; C. Gillis, "Statistical Analysis and Conical Cups," *Op Ath* 18.5 (1990) 63-93; C. Gillis, "Akrotiri and its Neighbors to the South: Conical Cups Again," in D.A. Hardy, C.G. Doumas, J.A. Sakellarakis, and P.M. Warren, eds., *Thera and the Aegean World III.1: Archaeology* (London 1990) 98-117.

46 Gillis, 1988 (supra n. 45) 186.

47 Wiener (supra n. 45) n. 40.

48 See, for instance, A. Lebessi and P. Muhly, "Aspects of Minoan Cult: Sacred Enclosures, The Evidence from the Syme Sanctuary (Crete)," *AA* (1990) 315-336, esp. fig. 7.

49 N. Platon, *Zakros, The Discovery of a Lost Palace of Ancient Crete* (New York 1971) 196.

50 S. Hiller, "Minoan Qe-Ra-Si-Ja. The Religious Impact of the Thera Volcano on Minoan Crete," *Acts of the First International Scientific Congress on the Volcano of Thera* (Athens 1971) 675-679.

51 Hiller (supra n. 50) 678.

52 For more information on the cult, see Artzy 1991 (supra n. 4).

53 Hennessy (supra n. 41).

54 S. Iakovides, "The Mycenaean Bronze Industry," in J.D. Muhly, R. Madden and V. Karageorghis, eds., *Early Metallurgy in Cyprus, 4000-500 B.C.* (Nicosia 1982) fig. 8; H. Catling, *Cypriote Bronzework in the Mycenaean World* (Oxford 1964) 132-133, fig. 16, pl. 16, where one can see similar arrowheads which Catling feels are of Aegean influence. Yet another one was found in Palaeokastro Maa, a promontory on the southwestern coast of Cyprus; see Karageorghis and Demas (supra n. 36) pl. CLXXXV: 180.

55 V. Karageorghis and Martha Demas, *Excavations at Kition V* (Nicosia 1985) 253-254.

56 T. Dothan and A. Ben Tor, *Excavations at Athienou, Cyprus 1971-1972, Qedem 16* (Jerusalem 1983).

57 G.F. Bass, *Cape Gelidonya: A Bronze Age Shipwreck* (*TAPS* 57.8 Philadelphia 1967) 78-82.

58 Bass (supra n. 57) 82.

59 M. Artzy, "Merchandise and Merchantmen: On Ships and Shipping in the Late Bronze Age Levant," in T. Papadopoullos and S. Chatzestylle, eds., *Proceedings of the Second International Congress on Cypriote Studies* (Nicosia 1985) 135-140, and "Supply and Demand: A Study of Second Millennium Cypriote Pottery in the Levant," in A.B. Knapp and T. Stech, eds., *Prehistoric Production and Exchange in Aegean and Mediterranean Prehistory* (Los Angeles 1985) 93-99.

60 Bass (supra n. 57) fig. 116.

61 Artzy in I. Singer, ed. (supra n. 4) in press.

62 J.N. Tubb, "Tell es-Sa'idiyeh: Preliminary Report on the First Three Seasons of Renewed Excavations," *Levant* 20 (1988) 60-61, fig.42; A. Druks, "A 'Hittite' Burial near Kefar Yehoshua," *Yediot* 30 (1966) 213-220 (Hebrew).

63 The most often quoted burials in Tel Zeror seem to be those of children. K. Ohata, *Tel Zeror III* (Tokyo 1977) 70-71. A clear double burial was investigated in Kefar Yehoshua in Israel; see A. Druks (supra n. 62) 213-220.

64 R. Gonen, *Introduction to the Archaeology of Eretz Israel in the Biblical Period. Parts 6-7* (Tel Aviv 1989) 143; M.J. Mellink, "Archaeology in Anatolia," *AJA* 62 (1988) 102.

65 J.B. Pritchard, *The Cemetery at Tell es-Sa'idiyeh, Jordan* (Philadelphia 1980) 109.

66 J.N. Tubb, "The Role of the Sea Peoples in the Bronze Industry of Palestine-Transjordan in the Late Bronze-Early Iron Age Transition," in J.E. Curtis, ed., *Bronze Working Centers of Western Asia* (London 1988) 99-112.

67 O. Negbi, "Metalworking in the Central Jordan Valley at the Transition from the Bronze Age to the Iron Age," *Erlsr 21. Ruth Amiran Volume* (1990) 220-221 (in Hebrew). Negbi disputes Tubb's contention that the Sea Peoples played a major role in the skill of the metal, bronze industry in central Jordan which is thought to have eventually cast the bronze for the Solomonic Temple in Jerusalem. Negbi is certainly right in pointing out that the Levant, especially the coastal area, showed clear signs of metal working from a very early time in the second millennium. If we approach it from the Egyptian side, Redford (supra n. 7) 213, states, "...one class of manufactured goods native to the Levant was highly prized by the Egyptians. That was ornamental metalwork ... In fact, in schematized scenes of tribute-bringing, Syrian ornamental vases often stand symbolically, *pars pro toto*, for the totality of the taxes brought."

68 Since the discovery of the burials at Nami, work has been done on the records of some areas at Megiddo where more such burials were noted. See D.L. Esse, "The Collared Pithos at Megiddo: Ceramic Distribution and Ethnicity," *JNES* 51 (1992) 88, where three possible Collared Rim Jar Burials are mentioned. Although Esse mentioned the appearance of this particular jar/pithos at Nami, he does not incorporate it into his interesting discussion.

69 For distribution maps of bronze objects of the period in this area, see L. Gershuny, *Bronze Vessels from Israel and Jordan, Prähistorische Bronzefunde II.4* (München 1980) pl. 14, 15. There are tables showing the later additions of bronze vessels in Negbi (supra n. 67) tables 1-3.

70 H. Matthäus, "Die zyprische Metallindustrie in der ausgehenden Bronzezeit: Einheimische, ägäische und nahöstliche Elemente," in Muhly et al., eds. (supra n. 54) 185-199.

71 Five bronze lamps have been found in Nami so far: four were found in graves and one on the summit of the tell, in the 'sanctuary' courtyard. This number significantly increases the number of bronze lamps found and published thus far.

72 For more on the pomegranate, see N. Avigad, "The Inscribed Pomegranate from the 'House of the Lord'," *IMJ* 8 (1980) 7-16.

73 Catling (supra n. 54) 201-202, pl. 32.

74 R.S. Merrillees, "Opium Trade in the Bronze Age Levant," *Antiquity* 36 (1962) 287-292; "Opium Again in Antiquity," *Levant* 11 (1969) 167-171; "Highs and Lows in the Holy Land: Opium in Biblical Times," *Erlsr 20 Yigael Yadin Memorial Volume* (Jerusalem 1989) 148*-154*.

75 J.D. Muhly, "The Nature of Trade in the LBA Eastern Mediterranean," in Muhly et al., eds., (supra n. 54) 253.

76 J. Evans, "Report," *Erlsr* 20 (supra n. 74) 153-154.

77 For further compilation of the data on the controversy, see A.B. Knapp, "Spice, Drugs, Grain and Grog: Organic Goods in Bronze Age East Mediterranean Trade," In N.H. Gale, ed., *Bronze Age Trade in the Mediterranean* (*SIMA* 90, Jonsered 1991) 25-26.

78 O. Tuffnel et al., *Lachish II The Fosse Temple* (Oxford 1940) pl. XX:25,26.

79 L. Åström, *The Late Cypriote Bronze Age. The Swedish Cyprus Expedition. IV:D* (Lund 1972) fig. 74:14. Åström discusses a number of places in Cyprus in which these objects which she calls "pins" were found as well as their use (see p. 610). She suggests that they were used as kohl-sticks for the decoration of the eyes. We feel that these objects are too thick for this use and suggest that they were used as scepters. See also H.-G Buchholz and V. Karageorghis, *Prehistoric Greece and Cyprus*, translated by F. Gorvie (New York 1973) 479: 1746.

80 Catling (supra n. 54) 212-213; Matthäus (supra n. 70) 194, fig. 7.

81 S. Ben Arieh and G. Edelstein, "Akko Tombs near the Persian Gardens," *Atiqot XII* (Jerusalem 1977) fig. 16.5.

82 C.F.A. Schaeffer, *Enkomi-Alasia* (Paris 1952) 65, fig. 18. He dates the stand to the 13th century B.C.E. Notice the coiled volutes for the attachment to the ring base. This is the method used on the Kouklia sample, one of the Megiddo samples and the three Nami pieces, although the workmanship is noticeably different. In this way, it is similar to a caryatid. The stand is now in the Louvre Museum. I wish to thank Annie Caubet for showing it to me.

83 See Artzy 1990 (supra n. 4) 48-51; 1991b (supra n. 4) 33 and 1992 (supra n. 5) 45.

84 On Emar, see D. Beyer, "Les Empreintes de Sceaux," in D. Arnaud, *Meskéné-Émar: Dix Ans de Travaux 1972-1982* (Paris 1982) 61-68, as well as G. Beckman, "Three Tablets from the Vicinity of Emar," *JCS* (1988) 67-68. A recent publication on the material is by D. Arnaud, *Textes Syriennes de l'âge du Bronze Recent, Aula Orientalis Suppl. 1* (Barcelona 1991). The reading of the inscription on the ring is presently being carried out by I. Singer.

85 D.A. Kennedy, "The Inscribed Hittite Seals in the Ashmolean Museum," *RHA* 63 (1958) 161. I would like to thank Dr. A. Sherratt of the Asmolean Museum for supplying me with a good photograph of the piece.

86 R.M. Böhmer, "Glyptic von der alt bis zur spätbabylonischen Zeit," in W. Orthman, *Der Alte Orient* (Berlin 1974) 442. I would like to thank Stevan Beverly for calling my attention to these rings. More work has already been carried out on the deciphering of the hieroglyphs as well as on their distribution.

87 Catling (supra n. 54) 103-104, Fig. 10, pl. 11; Iacovides (supra n. 54) 215, fig. 10.

88 Neutron activation analysis should be carried out in the near future on the imported and possible local imitations. We suspect that some of the pieces were not produced in Nami, but not in the mainland either. There are others which may have been produced at Nami. Time will tell.

89 Artzy and Marcus 1991 (supra n. 4) 9.

90 The site is being studied by M. Shnurman, a student at the Department of Maritime Civilizations under the direction of the author.

91 Tubb (supra n. 66).

92 Redford (supra n. 7) 227, n. 54, 55.

93 For an overview, see A. and S. Sherratt, "From Luxuries to Commodities: The Nature of Mediterranean Bronze Age Trading Systems," in Gale, ed., (supra n. 77) 354-357.

94 It seems that Tell Abu Hawam was founded around the reign of Thutmose III, possibly to accommodate large naval forces he used to transport his troops to punitive raids in the Levant. It is in this period that we hear of the use of the *mns* ships as troop and cavalry carriers. Tell Abu Hawam may have replaced the port of Akko or complemented it. Both are situated in the same bay, but on two different sides. Thus boats could enter in different wind directions which was of great importance during months of sailing when larger merchantmen, especially those bearing troops, were plying the seas and could not wait for favorable winds for anchorage. For the latest bibliography on Tell Abu Hawam, see J. Balensi, M.D. Herrera and M. Artzy, "Tell Abu-Hawam," in E. Stern, ed., *Archaeological Excavations in the Holy Land* (New York 1993) 7-14.

95 See for instance a map drawn by A. Leonard, Jr., "The Significance of the Mycenaean Pottery Found East of the Jordan River," in A. Hadidi, ed., *Studies in the History and Archaeology of Jordan III* (London 1987) 265.

96 Gershuny (supra n. 69) pls. 14, 15.

97 Negbi (supra n. 67).

98 Leonard (supra n. 95) 265.

99 For more details, see Leonard (supra n. 95) n. 3; P.E. McGovern, "Central Transjordan in the Late Bronze and Early Iron Ages: An Alternative Hypothesis of Socio-Economic Transformation and Collapse," in Hadidi, ed., (supra n. 95) 267-274.

100 Tubb (supra n. 66); see also M. Ibrahim, "Sahab and its Foreign Relations," in Hadidi, ed. (supra n. 95) 73-82. The excavations at Sahab have provided the archaeologists with a number of Collared Rim Jars of a similar type to those found at Nami. They are dated to Iron Age I which was the usual dating at the time of excavation. In view of the finds from Nami, it might be worthwhile to reanalyze, if possible, the results from the excavation and see if there may be some occurrences of the Collared Rim Jars already in the last part of the Late Bronze.

101 A. Leonard, Jr.,"Consideration of Morphological Variation in the Mycenaean Pottery from the Southwestern Mediterranean," *BASOR* 241 (1981) 87-101.

102 J.H. Breasted, *Ancient Records of Egypt II* (Chicago 1906) 491.

103 K. Nielsen, *Incense in Ancient Israel* (Leiden 1986) 7.

104 Breasted (supra n. 102) 447, 473, 491, 509, and 518.

105 N. Groom, *Frankincense and Myrrh* (London 1981) 29, where he quotes others who have dealt with the issue. Knapp (supra n. 77) 35 collected the bibliography.

106 G.F. Bass, D.A. Frey, and C. Pulak, "A Late Bronze Age Shipwreck at Kas, Turkey," *IJNA* 13 (1984) 273; C.W. Haldane, "Shipwrecked Plant Remains," *BiblArch* 53 (1990) 55-60.

107 Breasted (supra n. 102) 206.

108 Nielsen (supra n. 103) 6. We would like to add that the incense from southern Arabia could well have traveled first via the Red Sea and from there have been transshipped to caravans to be brought to the area of central Transjordan and from there across the Jordan River toward the Mediterranean Sea. It is possible that during the months in which little or no navigation in the Mediterranean was attempted, the trade route from Beth Shan followed another pattern and continued possibly via Megiddo and via Lachish, where material goods especially from the Fosse Temple bear similarities to those of Nami. The Fosse material has been discussed and re-dated by Ussushkin; see D. Ussishkin, "Level VII and VI at Tel Lachish and the End of the Late Bronze Age in Canaan," in J.N. Tubb, ed., *Palestine in the Bronze and Iron Ages, Papers Dedicated to Olga Tufnell* (London 1985) 219. From Lachish it then continued to the coast where Rameside fortresses were located and by land routes on toward Egypt. The same might be true for the route from the eastern side of Jordan which might have continued north and from Damascus, possibly Emar and on to the north, namely the Hittite Empire. During the months in which maritime navigation was possible, the goods were loaded on ships plying the coast to Egypt, Cyprus, and Ras Shamra whence it could further be distributed.

109 *Genesis* xxxvii: 25-28.

110 P. Parr, "Contacts between Northwest Arabia and Jordan in the Late Bronze and Iron Age," in A. Hadidi, ed., *Studies in the History and Archaeology of Jordan I* (Amman 1982) 127-130.

111 W.F. Albright, *The Archaeology of Palestine* (Baltimore 1960) 206-207.

112 M. Ripinski, "Camel Ancestry and Domestication in Egypt and the Sahara," *Archaeology* 36 (1983) 21-27, and "The Camel in Ancient Arabia," *Antiquity* 49 (1975) 295-298; R.D. Barnett, "Lachish, Ashkelon and the Camel: A Discussion of its Use in Southern Palestine," in Tubb, ed. (supra n. 108) 17-18. According to Ripinski, in Egypt the camel was already domesticated in the Old Kingdom. He quotes interesting evidence from Rifeh of a camel statuette carrying two water jars and dated by Petrie to the Late Kingdom; see Ripinski, 1983, op. cit. p. 27; B. Midant-Reynes et F. Braunstein-Silvestre, "Le Chameau en Égypt," *Orientalia* 40 (1977) 350-351; Nielsen (supra n. 103) 22-23. For further bibliography on the camel, see I. Finkelstein, "Arabian Trade and Socio-Political Conditions in the Negev in the Twelfth-Eleventh Centuries B.C.E.," *JNES* 47 (1988) 246-247.

113 Ripinski 1983 (supra n. 112) 27.

114 E. Porada, "Cylinder Seal with a Camel in the Walters Art Gallery," *JWalt* 36 (1977) 4-6.

115 H.W. Bulliet, *The Camel and the Wheel* (Cambridge 1975) 57-84.

116 P. Wapnish, "Camel Caravans and Camel Pastoralists at Tell Jemmeh," *Journal of the Near Eastern Society of Columbia University* 13 (1981) 120.

117 Finkelstein (supra n. 112) 247.

118 The camel will not give us all the answers we seek. Although we feel that we have to incorporate it into the system of trade when considering

Transjordanian contacts with the Mediterranean which are dated to the LBII period, it may have taken time to become an established route.

119 Bulliet (supra n. 115) 247.

120 J. Yellin and J. Gunneweg, "Instrumental Neutron Activation Analysis and the Origin of Iron I Collared Rim Jars and Pithoi from Tel Dan," in S. Gitin and W.G. Dever, eds., *Recent Excavations in Israel: Studies in Iron Age Archaeology, AASOR 49* (Winona 1989) 140.

121 The samples are being analyzed by means of neutron activation analysis at the Archaeometry Laboratory at the Hebrew University under the direction of Prof. J. Yellin.

122 I wish to thank Prof. G. Bass for allowing me to see it and to Netia Piercy for showing it to me in the yard of the Bodrum Castle Museum in Turkey.

123 Karageorghis and Demas (supra n. 36) pls. LXXXII: 563 and possibly CCVII:140.

124 N.de G. Davies and R.O. Faulkner, "A Syrian Trading Venture to Egypt," *JEA* 33 (1947) 43, pl. VIII; G. Daressy, "Une flottille Phénicienne," *RA* 27 (1985) 286-292, pls. XIV-XV.

125 Since this article was written, another one dealing mainly with camel, Collared Rim Jars, incense, etc. has been written. See M. Artzy, "Incense, Camels and Collared Rim Jars: Desert Trade Routes and Maritime Outlets in the 2d Millennium B.C.," *OJA* (to be published).

126 Kirbet Shalale, a large site situated near an arable valley and a source of water, and with Late Bronze II remains, has been located on this possible route. I would like to thank S. Yankelevich for discussing it with me. S. Yankelevich and E. Yanai are preparing an article on its possible ancient identification.

3

'Tel Miqne-Ekron: The Aegean Affinities of the Sea Peoples' (Philistines') Settlement in Canaan in Iron Age I

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Hebrew University

Introduction

At the beginning of the Iron Age, the ethnic makeup and the material culture of Canaan was undergoing significant change. The Israelite tribes were settling in the hill country, and the Philistines and the related Sea Peoples were settling the coastal areas. The Egyptian presence, still evidenced by some of their strongholds and bolstered by the power of Ramesses III, was nevertheless in its last stages. Finally, the once-mighty Canaanite city-states were definitely on the wane. This period of the coexistence in Canaan of diverse cultures—Canaanite, Israelite, Egyptian, and Philistine—is in itself an element in an even larger panorama of far-reaching social change, population movements, and cultural transformation.

Such factors characterized the transition from the Bronze to the Iron Age, from Canaan to Cyprus and the Aegean, as well as to the western regions of the Mediterranean world. This period marked the end of maritime trade throughout the Mediterranean and with it, the end of Cypriote and Mycenaean/Aegean imports into Canaan. The changing economic conditions of the period are highlighted by the sudden cessation of trade and importation, on the one hand, and, on the other, by the appearance of new settlements incorporating Aegean traditions. This paper will focus on the Aegean elements in the material culture of the new settlers in Philistia. By that I mean features which were an echo of Aegean culture rather than its actual products, that is, elements which were stylistically Aegean rather than the material transference of objects or the result of trade per se.

We shall try to isolate the picture arising from the cities of the Philistine Pentapolis to show that with the end of the Canaanite city-states, new cities arose, giving a picture of cessation, change, and renewal. These cities did not establish themselves in a vacuum. Canaanite cultural traits were not totally wiped out. Some can be distinguished in these new cities, built on the remains of Canaanite settlements. But we witness the end of one period with its specific economic, social, political, and cultural traits, and the beginning of another characterized by aspects of a highly sophisticated urban civilization.

It is not one element alone on which we build the picture of these new, flourishing urban centers, but on a combination of elements which enables us to see a new entity emerge, whose substratum was rooted in Aegean traditions and adapted to the new environment in Canaan. Alongside the Philistines there still existed certain facets of Canaanite culture, and both an Egyptian and an Israelite presence. In their close interaction with the other three, the Philistines and other Sea Peoples played a central role in this transitional era, serving as catalysts for the eventual cultural amalgamation that took place later in the Iron Age.

The situation in the Philistine cities excavated so far reveals similar development in settlement, urbanization, industry, cult, ceramic repertoire, metallurgy, and glyptics, all of which can be called Philistine/Sea Peoples culture.

Tel Miqne-Ekron: The Excavations

The excavations of Tel Miqne-Ekron, together with the findings from Ashdod and Ashkelon, two other Philistine capitals, as well as those from Tell Qasile, a more northern settlement, have made it possible to make a regional assessment of the initial appearance and settlement in Canaan of the Sea Peoples/Philistines (pl. I).[1] Tel Miqne-Ekron is the northernmost and farthest inland city of the Philistine Pentapolis, lying on the border between Judah and Philistia. The excavations are a joint American-Israeli project headed by the author from the Institute of Archaeology at the Hebrew University, and Seymour Gitin, Director of the Albright Institute of Archaeological Research, Jerusalem.[2]

Tel Miqne-Ekron is 50 acres in size, although during its history there were periods of expansion and contraction (pl. II). The tell apparently assumed its square shape from the original outline of the Middle Bronze Age Canaanite fortifications (pl. III). The tell shows stratigraphic and ceramic evidence of settlement in most periods from the Chalcolithic period in the fourth millennium B.C.E. through the 7th century B.C.E., when it was destroyed by Nebuchadnezzar's campaign to conquer Philistia, and then afterward was only partially occupied for a short time (pls. III and IV).

The earliest excavated stratum, which may have occupied a 50 acre area, was the Middle Bronze II level, 1750-1550 B.C.E. Child burials in storage jars below floors are a hallmark of this period. The Middle Bronze II city may have been destroyed and abandoned in the mid-16th century B.C.E., after which it was resettled on a smaller scale of about 10 acres on the upper tell. The presence of the Late Bronze Age settlement in this contracted area alone was first recognized by Barry Gittlin.[3] This was the period immediately preceding the arrival of the Philistines and the emergence of the Israelite tribes in Canaan. The final phase of Late Bronze culture produced abundant examples of imported Cypriote and Mycenaean fragments as well as New Kingdom objects, all of which testified to the fact that Ekron, like Ashdod and Ashkelon, was engaged in extensive trading and had a cosmopolitan flavor.

At about 1200 B.C.E. the character of the city changed dramatically. The imports from Cyprus and the Mycenaean pottery from the Aegean suddenly ended. The unmistakable initial pottery style of the Sea Peoples/Philistines, locally made Mycenaean IIIC:1b, appeared and in overwhelming quantities.[4] The fortifications of Ekron, encompassing an area of 50 acres, were built of massive mudbrick walls and adjoining tower rooms. Thus, at Ekron, relatively far from the Mediterranean, the early Philistines had established a large and well-fortified city, covering both the upper 10-acre tell and the larger lower city which had been abandoned for more than four hunded years (pls. III, IV). This Iron Age I city lasted throughout the 11th century B.C.E. and was destroyed during the first quarter of the 10th century B.C.E.

The expansion of Ekron was carried out according to a well-conceived master plan, based to some extent on an awareness of ecological factors. The inhabitants very early on conceived of the city as divided into different zones: an industrial area adjacent to the fortifications, a central area with monumental public buildings and shrines, and domestic areas—although of the last there is only an inkling.

The initial Philistine settlers of Ekron set to work creating their city based on traditions familiar to them. These included a unique architectural feature, the hearth room of the monumental public building which was located in the central, or elite, zone of the city (fig. 3.1), as well as their own pottery making technology and special cultic practices.

The concept and central function of the hearth was closely related to the large hearths of the Aegean palaces.[5] More than an architectural element, it represented a tradition that reflected the social structure and habits of everyday life in the Aegean (and Cypriote) palaces and shrines, as seen at the Mycenaean palaces at Pylos,[6] Mycenae,[7] and Tiryns.[8] The hearths in these palaces and megara, though larger in diameter (ranging from 3.7 to 4 m) are very similar to the Ekron hearth (2.5 m) in a number of features (fig. 3.2). These include the modeled edge with a broad flat rim which encircles the center where the fire was kept burning, the white plaster-coated floor lipping up to it, and the stucco coating of the hearth.

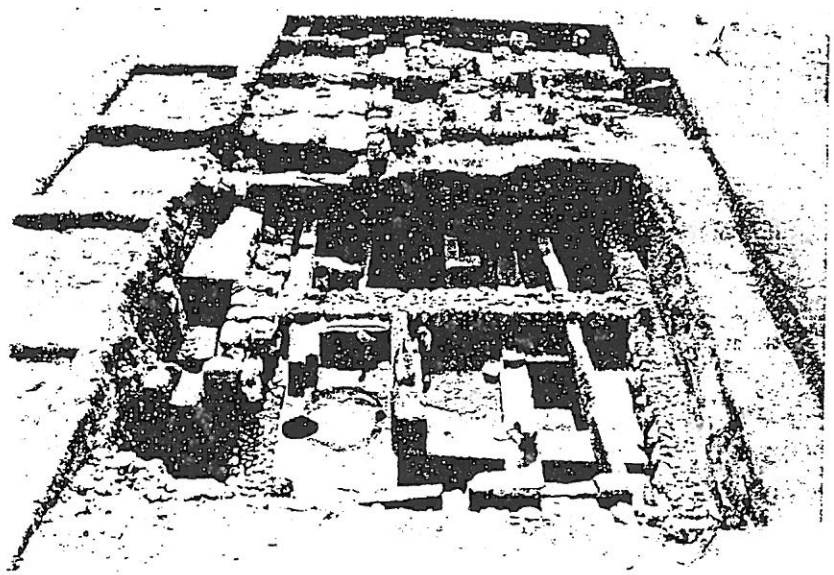


Figure 3.1 General view of Field IV (elite zone) looking east. In the foreground, stone foundations of the monumental Building 350 of the 12th and 11th centuries B.C.E. cutting the mudbrick walls of the 12th century Building 351; at the lower left, stratum VII-VIB, 12th century hearth sanctuary; above, stratum IB, 7th century buildings.

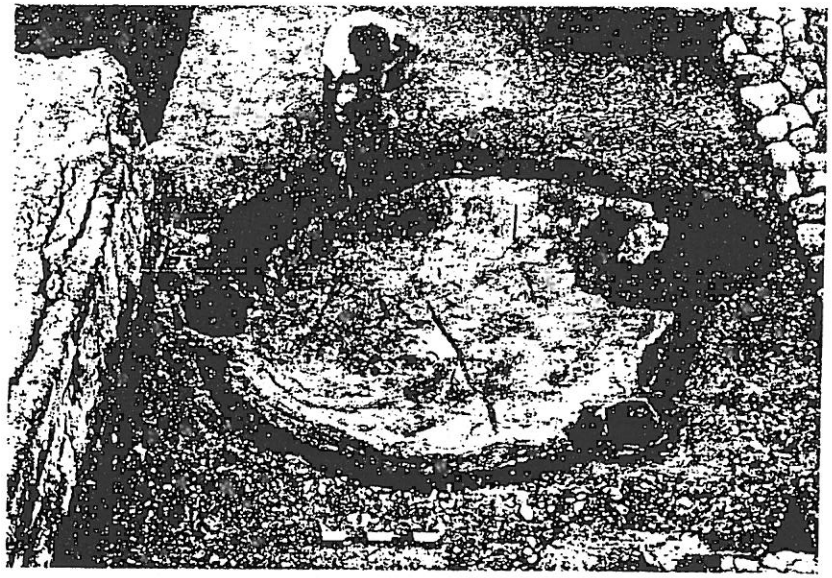


Figure 3.2 Hearth with modeled edge and a broad flat rim, stratum VII, 12th century, Field IV (elite zone). See fig. 1.

The hearth was not common in Canaan. Only one other example was found at the Philistine temple at Tell Qasile,[9] a small, free-standing keyhole-shaped hearth, interpreted as having cultic connotations. The importance of this hearth is that it was in a Philistine temple. It dates to the earliest stratum of this small Philistine harbor town, built on virgin soil. The Tell Quasile hearth had a central circular depression with a platform paved with storage jar fragments, for which parallels are known especially from Enkomi, Cyprus.[10]

The hearth room at Ekron was the central feature of the monumental public building (fig. 3.3). There are two indications of this: first, the way the building was constructed, and second, the fact that it continues to appear through several phases of the shrine—from the earliest Iron Age phase of the settlement, together with the Mycenaean IIIC:1b ware, and later, with Philistine bichrome pottery.

This monumental edifice in the heart of the city was the earliest Philistine public building. It had heavily white-plastered, rounded corners and plastered floors with a pebbled bedding. It was apparently a one-story building since its walls were only one brick thick, but it had an impressive entrance from the northwest corner into the hearth room which contained two superimposed well-built hearths. The hearth room was massively built, with double brick walls that may have supported a second story in order to protect the hearths, indicating the special character and importance of this room.

In the following strata there is a dramatic change in the character of the superimposed monumental buildings, no doubt the outcome of the consolidation of the Philistine city. It is

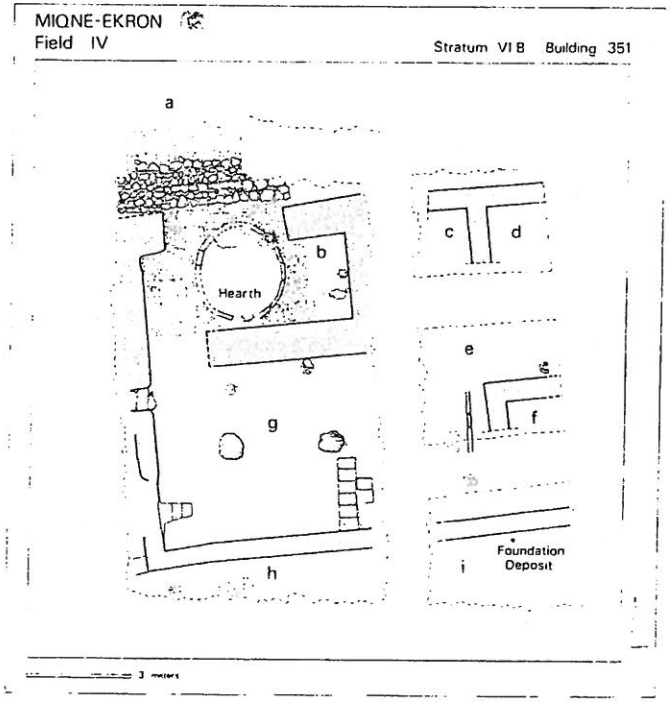


FIGURE 3.3 Hearth sanctuary. 12th century.

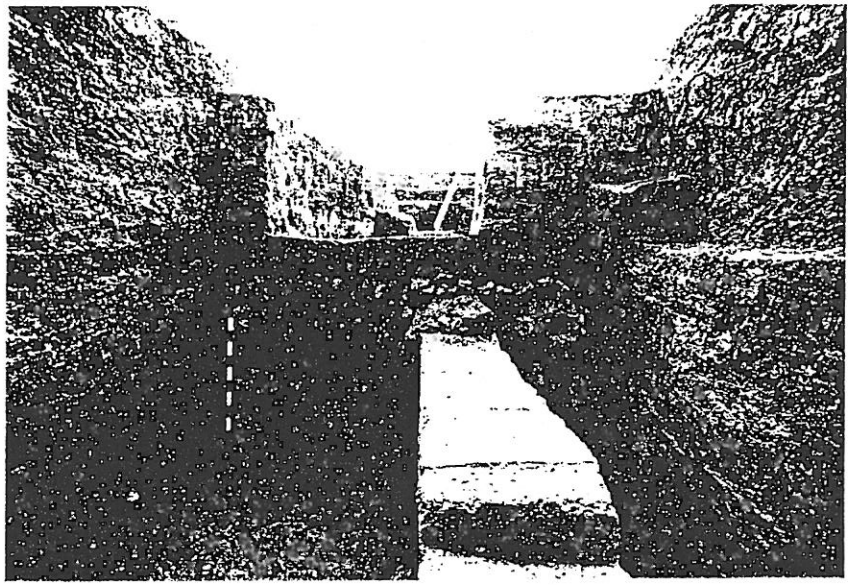


FIGURE 3.4 Stone foundations of stratum V-IV Building 350, 12th-11th centuries, built over the mudbrick wall of stratum VI 12th century Building 351. Field IV (elite zone), looking west.

a peaceful development, displaying the continuation of the same cultural traits, which was made possible by economic stability and prosperity. The earlier building was leveled by huge fills that prepared the area for the next building whose massive stone foundations cut into the walls and enveloped the previous building (fig. 3.4). The overall plan, however, was continued: that of a large hall with smaller adjacent rooms. The heavy walls and stone foundations indicate an upper story.

In this building there were two superimposed hearths, somewhat smaller than the previous ones (1 to 1.2 m in diameter), but well constructed with pebbled surfaces and plastered edges (fig. 3.5). Large amounts of burnt ashes and bones were on and around the hearth. There is, however, a striking discrepancy between this massive building and the smaller hearths, as if their continuation is only an echo of the large original hearths of the earlier building. This probably indicates the remoteness of the later settlers from the original architectural concepts of their predecessors. Symptomatically, by the second half of the 11th century B.C.E., with their Aegean heritage fading into the past, the people of Ekron no longer used the hearth and in the last phase of the building the hearth itself was no longer in evidence.[11]

While the monumental edifice with its traditional Aegean-type hearth was the first public building erected by the new Philistine settlers in Ekron, it was not the very first thing they did. They had to have roofs over their heads and food to put in their mouths. Although the residential area of Ekron has not yet been uncovered, there is a good deal of evidence that in their day-to-day lives the memory of their Aegean homes and kitchens was vivid.

One of the very first things that the newcomers built were square and horseshoe-shaped kilns near the fortifications in the upper city so that they could produce the Aegean-style cooking and eating wares to which they were accustomed (fig. 3.6).[12] Among the large quantities of locally made Mycenaean IIIC:1b pottery

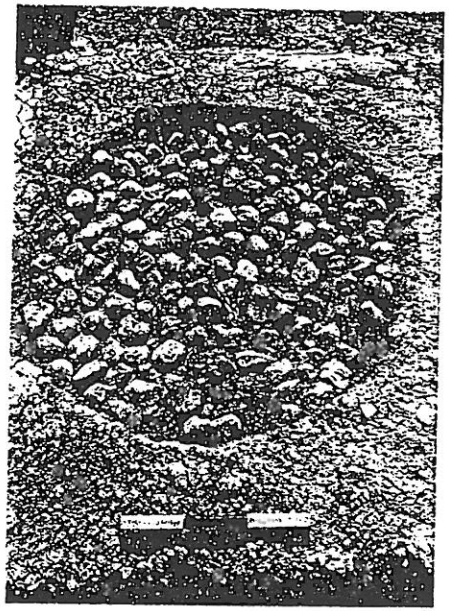


FIGURE 3.5 Hearth with pebbled surface and plastered edge in the courtyard of the 11th century, stratum V Building 350, Field IV.

were bell-shaped bowls with horizontal handles, jugs with strainer spouts, and stirrup jars (fig. 3.7: 1-8; note the bowls derived from Canaanite type 9-11). They were all decorated in monochrome with a repertoire of Aegean motifs, prominent among which were variations of the spiral motif, suspended half-circles, and the pictorial repertoire of birds and fish (figs. 3.8, 3.9). In addition to this elegant tableware, there was also kitchen ware: craters, cooking pots, and large undecorated *lekane* (figs. 3.7:10, 15-17). There were examples of Canaanite ceramics, as well, in the form of storage jars, juglets, bowls, lamps, and cooking pots. But the Aegean style accounted for more than half of all the pottery.[13] In addition to their tableware, they also introduced dietary changes. According to Brian Hesse, the excavation's zooarchaeologist, the faunal remains indicate that the Philistines introduced pork and beef in place of goat meat and mutton which were, until the arrival of the Philistines, Canaanite fare.[14]

Other new material cultural elements were lumps of unbaked clay, biconical or rounded in shape, used as loomweights in weaving. Loomweights of this type are also known from

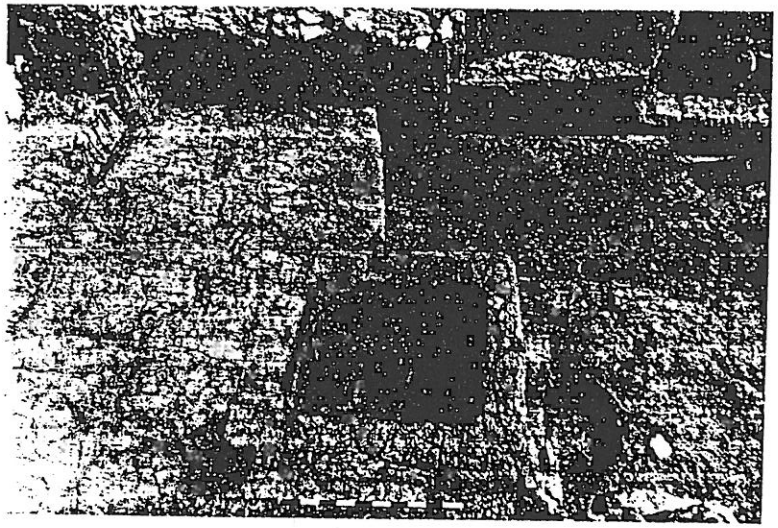


FIGURE 3.6 Square-shaped kiln, stratum VII, 12th century, Field INE, looking south.

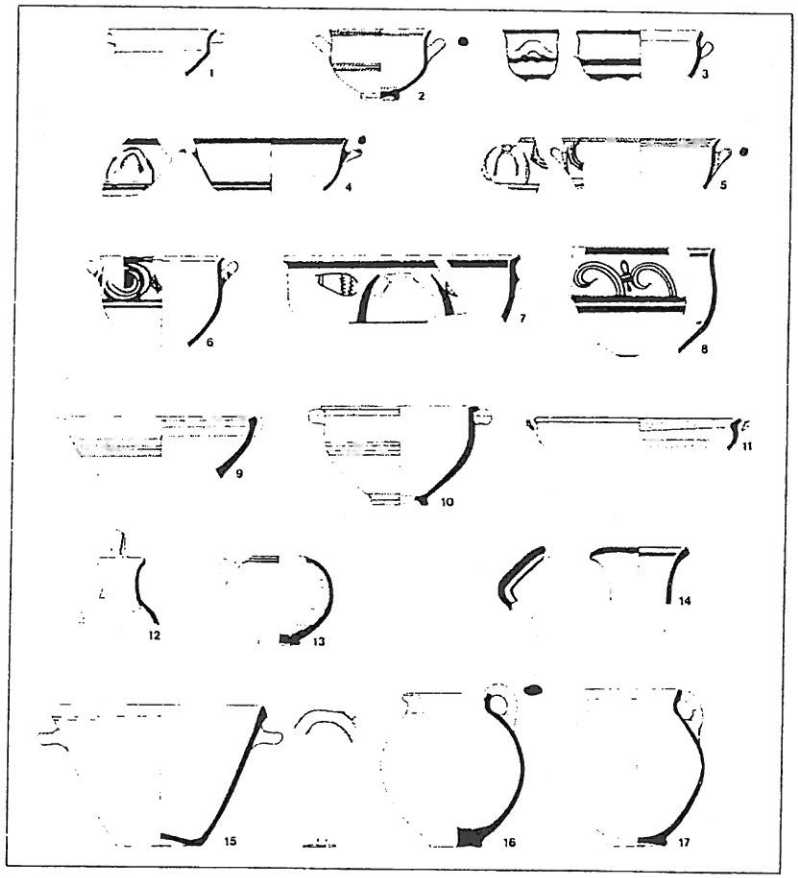


FIGURE 3.7 Assemblage of Mycenaean III C:1b (monochrome) pottery: 1. carinated bowl strap handle; 2-4. bell-shaped bowls with painted stripes; 5. bell-shaped bowl with concentric circles and painted stripes; 6. bell-shaped bowl with spiral rhombus and painted line decoration; 7. large bowl with painted bands and decorated loops; 8. bell-shaped bowl with painted stripes and stem decoration; 9. deep bowl with strap handles and linear decoration; 10. deep bowl with strap handles and linear decoration; 11. carinated bowl with strap handles and linear decoration; 12. feeding bottle with basket handle; 13. feeding bottle with spout; 14. large jug with pinched rim and linear decoration; 15. lekane; 16-17. cooking jugs.

Ashdod and Ashkelon in 12th and 11th century contexts and can be traced to Cyprus and the Mycenaean world.[15]

Another important feature of everyday life in the ancient world was cult practice, a seismographic indicator of cultural and ethnic change and/or continuity. On the periphery of the industrial belt and perhaps in what was part of a residential area, a series of superimposed Iron Age I shrines was uncovered, each built on the remains of the previous shrine. This of course relates to the tradition of sanctified areas, which is known from the temple area at Tell Qasile. The latest shrine had a white plastered floor, benches, and a platform. Adjacent was a disposal area with a massive amount of

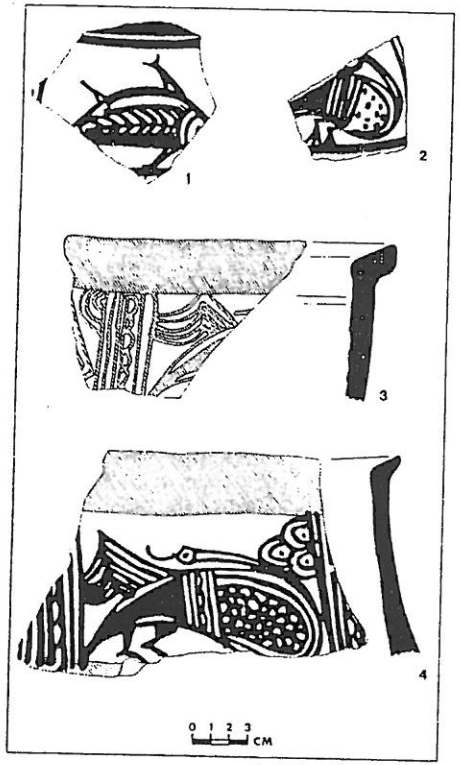


FIGURE 3.8 Assemblage of Mycenaean IIIC:1b (monochrome) pottery with pictorial representations: 1. fish motif; 2. bird motif; 3. krater with bird and panel motif painted; 4. transitional, Mycenaean IIIC:1b, bichrome krater. Note the thick painted band in red and below it the bird in black.

bichrome pottery and a number of animal and human figurines. Among them was the fragment of a lion-headed vessel similar to one found at the Philistine temple at Tell Qasile (fig. 3.10).[16]

In one of the earlier phases there was a miniature votive vessel identical to thousands found at the cult center at Atheniou on Cyprus.[17] Another connection with Cyprus is represented by the four bovine shoulder blades or scapulae with incisions along their edges (fig. 3.11). The function of these enigmatic objects was, apparently, either for oracular purposes or, as most scholars agree, as musical instruments. Large quantities of these were found on the benches in the temples of Enkomi and Kition.[18] There were also crude figurines in the Mycenaean tradition at one of the earlier levels (fig. 3.12). Their spreading headdresses and birdlike faces prefigured the "Ashdoda"-type figurine found in large quantities at Ashdod, a conceptual and stylistic continuation of the seated Aegean female goddess.[19]

Our knowledge of Philistine cult practices was further enhanced by the large shrine or temple in the center of the lower city, the monumental edifice discussed before in relation to the hearth (fig. 3.13). On the north-south axis of the main hall of the massive building, there were two pillar bases, and possibly a third, 2.5 m apart, one located exactly in the center. This configuration resembled the one in the Philistine temple at Tell Qasile where support pillars stood about 2 m apart.[20]

This building had three rooms on the eastern side opening onto the main hall (fig. 3.14). In the middle room, the focal point of cultic practice was a plastered mudbrick *bamah* or offering platform, preserved to a height of three feet. The *bamah* was part of the local Canaanite tradition, but was also well known from Cyprus and the Aegean (fig. 3.15).[21] In general, the architectural features—most strikingly the hearth—and the furniture of the shrines, both large and small, were Aegean inspired.

The high technological and artistic level of bronze and iron metallurgy (a crucible with traces of metal was found in a huge installation lined with *hamra*, in the industrial area) was evident in a number of the cult artifacts. Among the bronze finds were the three wheels with eight spokes each, a frame fragment of a stand with a loop for the insertion of an axle, and a small pendant in the shape of a bud, all made of cast bronze (figs. 3.13, 3.16).[22] These finds were undoubtedly part of a square stand which provided a supporting frame.[23] These stands were lavishly decorated with pictorial scenes deriving from Aegean art. This is the first example of a wheeled cult stand found in Israel. The cult stand is reminiscent in shape, workmanship, and decoration to that of the biblical *mechanot* or laver stands made for Solomon's Temple in Jerusalem by Hiram, King of Tyre (*Kings* 7:27-33).

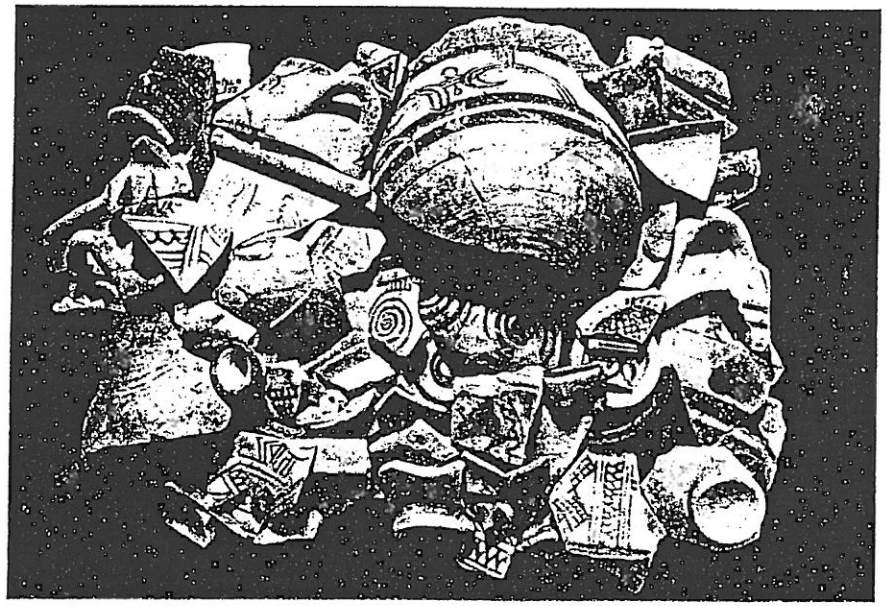


FIGURE 3.9 Assemblage of Mycenaean IIIC:1b (monochrome) pottery.

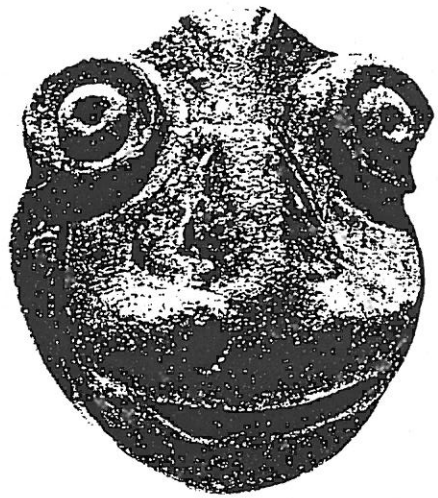


FIGURE 3.10 Lion-headed rhyton, a ritual drinking vessel, stratum VI, 12th century. Field INE.

Another unique find was a double-headed bronze linchpin, the size of which may indicate that it was originally part of a wheel from a full-sized chariot (figs. 3.13, 3.17).[24] The upper part of the linchpin consisted of two faces looking out in opposite directions, closed above a flat cap covering both heads. Stylistically, the double heads and flat cap strongly resemble the sphinxes that decorate wheeled ceremonial stands from Cyprus and are clearly Aegean in origin.[25]

The elaborate bronze objects are certainly the outgrowth of the bronze industry which flourished during this period in Cyprus and which, in combining strong Aegean and obvious oriental influences, was an example of the reciprocity between East and West.

Among the iron objects was a complete iron knife affixed by bronze rivets to an ivory handle made from elephant tusk, with a ring-shaped pommel (figs. 3.18, 3.19).[26] Its cultic or ceremonial significance is indicated by its elegant craftsmanship and the context in which it was found: on the floor of one of the rooms with a *bamah* dating to the first half of the 11th

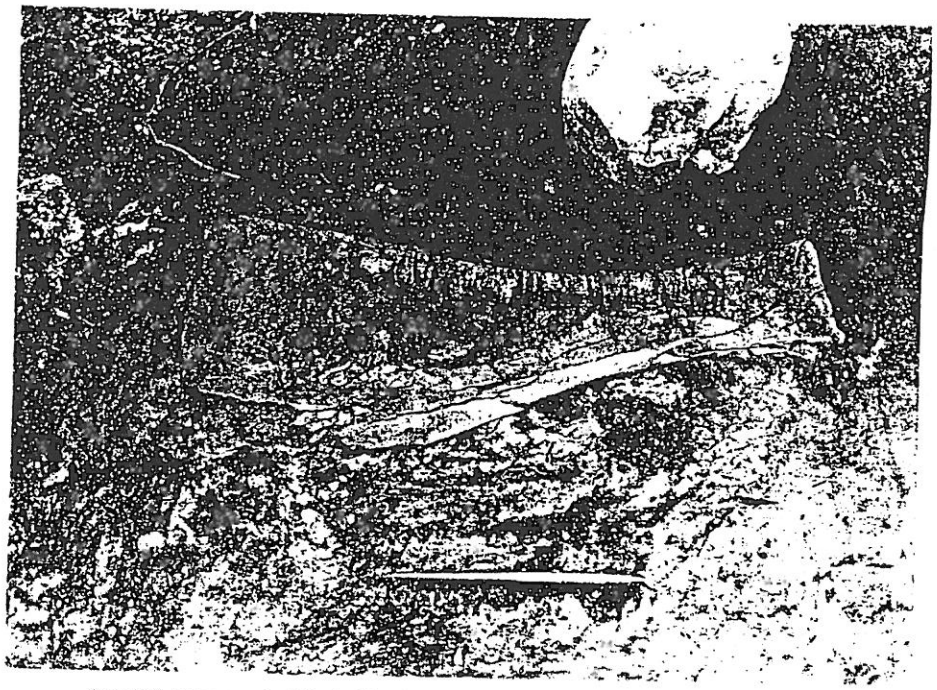


FIGURE 3.11 Bovine scapula with incised lines from stratum VII, 12th century, Field INE. (Photo: D. Guthrie).



FIGURE 3.12 Figurines in the Mycenaean tradition, stratum VII, 12th century. Field INE.

century B.C.E. (fig. 3.13). Three additional ivory knife handles of the same type were found at Ekron, one of whose insertion slot still bore traces of its iron blade. This last example can be dated to the first half of the 12th century B.C.E. which links it to the initial settlement of the Philistines at Ekron.

The most pertinent parallel for this type of knife handle from excavations in Israel was found in the northeast part of the courtyard relating to the earliest Philistine temple at Tell Qasile.[27] All of these knives add to the number of iron objects appearing in Philistine sites and raise anew the question of the role of the Philistines in the introduction of iron-working technology. From the finds so far, it is apparent that iron smelting was beginning to develop in Philistia, focusing not on items of daily use, but on the production of more precious and elaborate objects, predominantly relating to cult. Similar knives with ring-shaped handles have been found in Cyprus and the Aegean.[28]

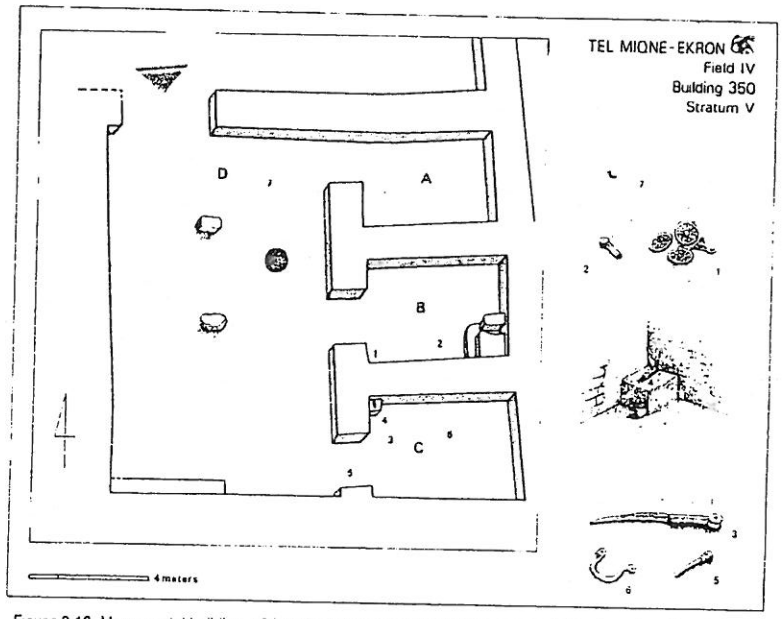


FIGURE 3.13 Monumental building, 12th century, note the hearth in the courtyard. the *bamah* and location of metal objects in room B.



FIGURE 3.14 Building 350, stratum V, 11th century. In the foreground, a hearth in the courtyard: in the middle room, in the right back corner, a mudbrick *bamah*. Field IV, looking east.

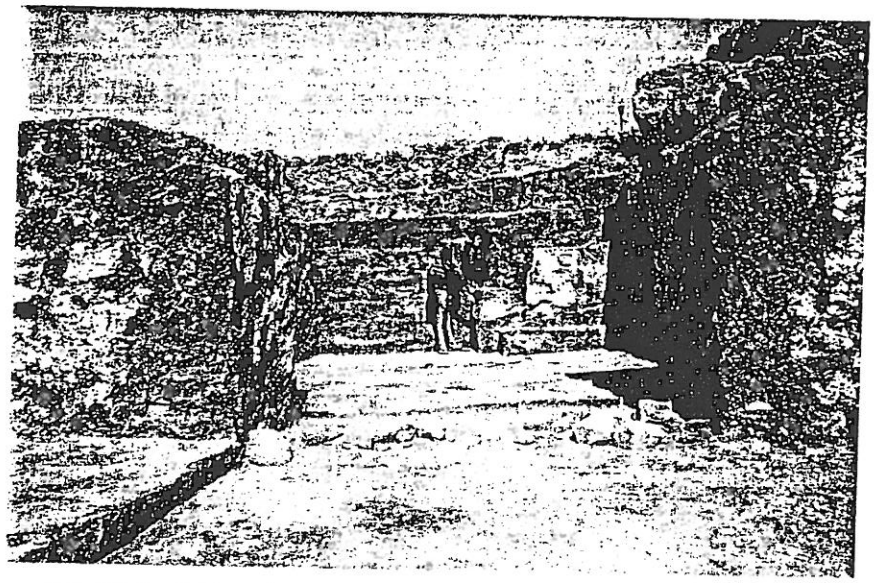


FIGURE 3.15 *Bamah* of plastered mudbrick in the right back corner of the middle room of Building 350, stratum v, 11th century. Field IV, looking east.

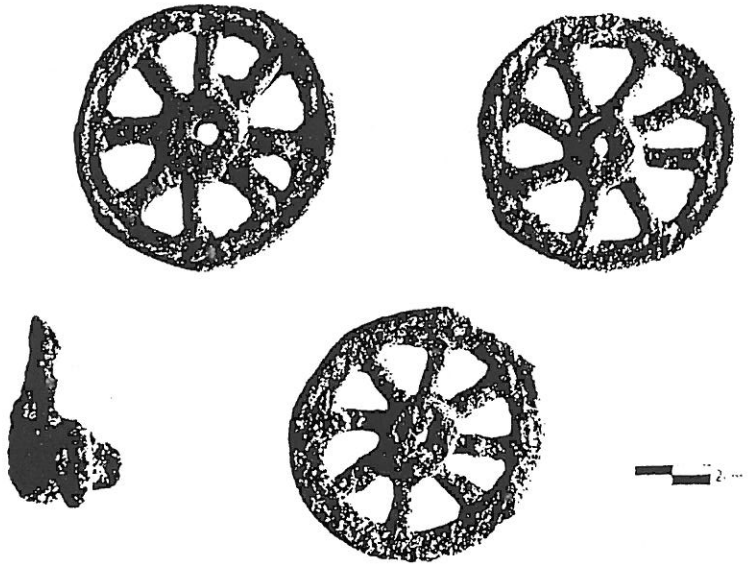


FIGURE 3.16 Bronze objects that were part of a stand: three eight-spoked wheels and a frame fragment with a loop for the insertion of the axle. 11th century; for find spots see fig. 13.



FIGURE 3.17 Double-headed bronze linchpin, 11th century; for find spots see fig. 13. Length ca. 10 cm.

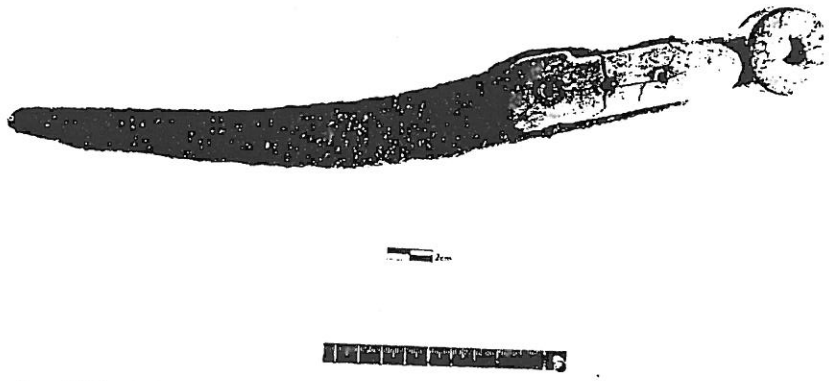


FIGURE 3.18 Iron knife attached by bronze rivets to an ivory handle with a ring-shaped pommel, 11th century. For find spot see figs. 13, 19. Length ca. 74.4 cm.

One of the most important examples of Aegean-style craftsmanship at Ekron in a 12th century context is an elaborately incised ivory lid of a pyxis depicting animal combat among a griffin, a lion, and two bulls (fig. 3.20). The Aegean style is evident in the type of vessel and in the style of decoration.

In conclusion, the ability to build this large new city shows a well-organized society with a firm economic structure which fits the assumption of the Sea Peoples' military prowess and technological skill. The archaeological evidence shows that the material culture of Ekron was based on elements new to Canaan, elements which reflected the Aegean background of the newcomers. This is seen in architectural features, cult installations, ceramic repertoire, metallurgy, all executed on a high artistic level. It is clear that at Ekron and in Philistia in general a new age had begun.

Philistine material culture lost its uniqueness when the Philistines reached the peak of their prosperity and their political and military power at the end of the 11th century B.C.E. This period was one in which older Aegean traditions were abandoned, not only at Ekron but in the rest of Philistia and new cultural influences, primarily Egyptian and Phoenician, took their place.

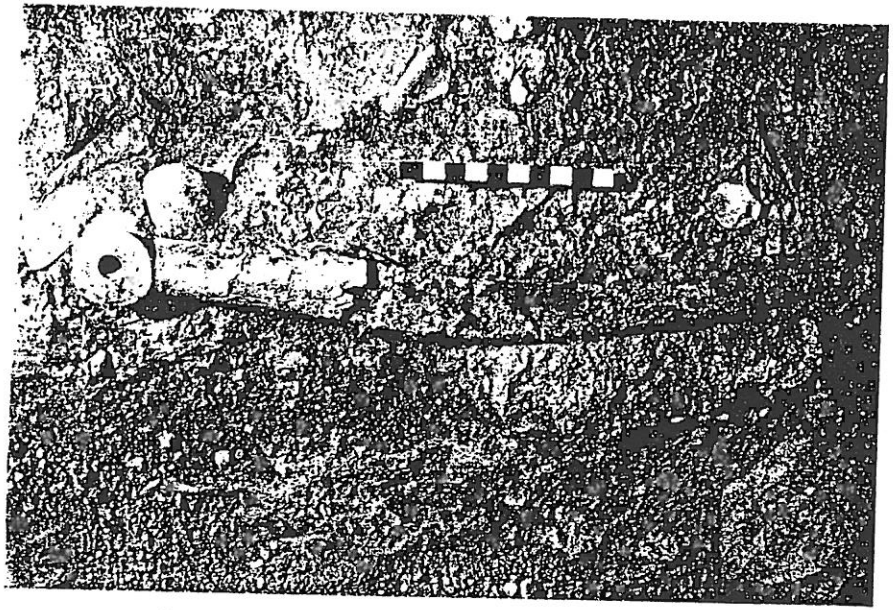


FIGURE 3.19 Iron knife (see fig. 18). 11th century, *in situ*, for find spot see fig. 13.

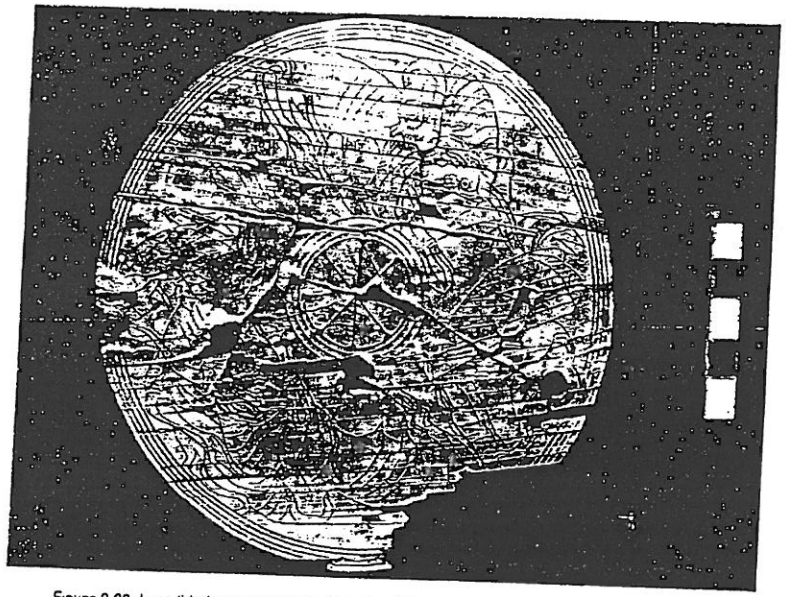


FIGURE 3.20 Ivory lid of a pyxis incised with animals in combat, stratum VI, 12th century. Field IV. Diameter ca. 10.35 cm.

NOTES

1 As for the other two cities of the Pentapolis, the exact location of Gath has yet to be determined, while ancient Gaza lies beneath modern Gaza, a densely populated city.

2 T. Dothan and S. Gitin, "Ekron of the Philistines," *BAR* 16 (1990) 22-25; T. Dothan, "Ekron of the Philistines Part I: Where They Came From, How They Settled Down, and the Place they Worshipped in," *BAR* 16 (1990) 25-36; S. Gitin and T. Dothan, "The Rise and Fall of Ekron of the Philistines," *BA* 50 (1987) 197-222. The Tel Miqne-Ekron excavations' field archaeologists are: A. Killebrew, Field I (Hebrew University); B.A. Gorem, Field I (Israel Antiquities Authority); B. Gittlin, Field III (Baltimore Hebrew University); Y. Garfinkle, Field IV (Hebrew University). Graphics for this article: Plans by D. Hully; pottery plates by J. Rosenberg; drawings of artifacts by S. Halbrecht; photographs by I. Sztulman. Plates I-IV are shared by, hence located between, the papers on Miqne-Ekron.

3 B.M. Gittlin, "The Late Bronze Age 'City' at Tel Miqne/Ekron," *Erlsr* 23 (1992) (Biran Volume) 50-53.

4 T. Dothan, "The Arrival of the Sea Peoples: Cultural Diversity in Early Iron Age Canaan," in S. Gitin and W.G. Dever, eds., *Recent Excavations in Israel: Studies in Iron Age Archaeology AASOR* 49 (1989) 1-14.

5 T. Dothan, "Social Dislocation and Cultural Change in the 12th Century B.C.E.," in W.A. Ward and M. Joukowsky, eds., *The Crisis Years: The 12th Century B.C.* (Iowa 1992) 93-98. Other than implications to the Aegean world, one must keep in mind that isolated examples are also known from the Levant, such as the Late Bronze Age temples at Kamid el-Loz; see W. Knies and M. Hammond, *Frühe Phoniker im Lebanon* (Mainz am Rhein 1983) 67.

6 C.W. Blegen and M. Rawson, *Pylos I. Pt. 1: The Palace of Nestor at Pylos in Western Messenia* (Princeton 1966) 86-87.

7 G.E. Mylonas, *Mycenae and the Mycenaean Age* (Princeton 1966) 55-56, 60.

8 K. Kilian, "Zum Ende der mykenischen Epoche in der Argolis," *JRGZM* 27 (1980) 166-195.

9 A. Mazar, "Excavations at Tell Qasile 1982-1984," *ERJ* 36 (1986) 3-4.

10 P. Dikaios, *Enkomi Excavations, 1948-1958 II* (Mainz am Rhein 1971) 527; *1948-1959 III* (Mainz am Rhein 1969) 175-206.

11 The last season of excavations (in 1992) in the upper city produced numerous small hearths from the 11th century B.C.E.

12 T. Dothan (supra n. 4) 3-6; see also A. Killebrew, forthcoming article in the Festschrift for Gus Van Beek, *AASOR*.

13 A study of this pottery and its functions is currently being done by Ann Killebrew.

14 B. Hesse, "Animal Use at Tel-Miqne-Ekron in the Bronze Age and Iron Age," *BASOR* 264 (1986) 17-27.

15 L. Stager, "When Canaanites and Philistines Ruled Ashkelon," *BAR* 17 (1991) 37.

16 A. Mazar, "Excavations at Tell Qasile, Part One," *QEDEM* 12 (Jerusalem 1980) 101-102.

17 T. Dothan and A. Ben-Tor, "Excavations at Athienou," *QEDEM* 16 (Jerusalem 1983) 73-89.

18 J.M. Webb, "The Incised Scapulae," in V. Karageorghis, ed., *Excavations at Kition V: The Pre-Phoenician Levels, Part II* (Nicosia 1985) 317-328.

19 T. Dothan, *The Philistines and Their Material Culture* (Jerusalem 1982) 234.

20 It also corresponds with the scene in the *Bible* in which the blind Samson brings down the Philistine temple on himself and his enemies by pushing the pillars apart (*Judges* 16:29-30).

21 See T. Dothan (supra n. 19) 251.

22 T. Dothan, "Bronze Wheels from Tel Miqne-Ekron," *Erlsr* 23 (Biran Volume) (1992) 149-150 (Hebrew).

23 H.W. Catling, *Cypriot Bronzework in the Mycenaean World* (Oxford 1966) 207-210 and "Workshop and Heirloom: Prehistoric Bronze Stands in the East Mediterranean," *RDAC* (1984) 69-91;