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# Inhalt

**Titelmotiv**

*Thera fresco (West House, Room 5,*
*South wall): ships drawn up on shore.*

*Aus: David Blackman,*
*Minoan shipsheds, Abb. 5.*

# Which Way Forward?

## On the Directionality of Minoan/Cycladic Ships

Shelley Wachsmann

***Abstract*** *– The Minoans are rightly noted for their seafaring abilities. Their ships turned the Mediterranean Sea for them into a highway over which they interacted with far-flung contemporaneous cultures. To date, not a single Minoan/Cycladic hull has been found, however. Our knowledge of these vessels is based almost exclusively on contemporaneous ship iconography. For decades after Sir Arthur Evans resurrected the Minoan culture at Knossos, little was known about their watercraft. A large corpus of Minoan/Cycladic ship representations existed, but most of the information derived from engravings on tiny seals and sealings along with a few poorly-made ship models, which could only give a general understanding of the vessels. Then, in 1972 Spyridon Marinatos on Thera began uncovering the site of Akrotiri, an entire settlement buried by volcanic ash at the end of the 17th century BC. Thera supplies the most detailed, polychromatic depictions of Minoan/Cycladic ships available and also solves a long-standing riddle regarding Early Cycladic longships: Which end was the bow and which the stern? This paper is an overview of the evidence for the directionality of Early Cycladic longships from the specific concern of evaluating the iconographic evidence in its cultural continuum*

***Inhalt*** *– Die Minoer sind zu recht für ihre Seetüchtigkeit bekannt. Ihre Schiffe machten ihnen das Mittelmeer zu einem Hauptverkehrsweg für Kontakte mit fernen Kulturen der Zeit. Doch hat sich bis heute kein einziger minoischer oder kykladischer Schiffsrumpf gefunden. Unsere Kenntnis dieser Fahrzeuge beruht fast allein auf zeitgenössischen Schiffsbildern. Jahrzehnte nach Sir Arthur Evans' Wiedererweckung der minoischen Kultur in Knossos war wenig über ihren Schiffbau bekannt. Es gab ein umfängliches Corpus altägäischer Schiffsbilder, aber die meisten Informationen kamen von Gravierungen auf winzigen Siegeln und Abdrücken und wenigen Schiffsmodellen dürftiger Machart, die nur einen allgemeinen Begriff der Fahrzeuge geben konnten. Dann begann 1972 Spyridon Marinatos auf Thera den Fundort Akrotiri, eine ganze, Ende des 17. Jhs. v. Chr. von Vulkanasche bedeckte Siedlung, aufzudecken. Thera liefert die detailliertesten polychromen Darstellungen minoischer bzw. kykladischer Schiffe und löst ein altes Rätsel frühkykladischer Langschiffe: Welches Ende war der Bug und welches das Heck? Dieser Beitrag gibt einen Überblick über die Belege für die Fahrtrichtung frühkykladischer Langschiffe, indem er besonders die Hinweise der Ikonographie in ihrem kulturellen Kontinuum auswertet.*

Classical historians credit Minos with the first thalassocracy[1]. The Minoan culture evolved on Crete, reaching its apogee in the early second millennium B.C. Cretan seafaring merchants traded for tin at Mari on the upper Euphrates while their artisans decorated palaces along the eastern shores of the Mediterranean and in Egypt[2]. It is probable also that the Minoans first opened the direct blue-water route from Crete to Egypt[3].

A remarkable series of XVIIIth Dynasty tombs belonging to Theban nobles contain scenes of Minoans bearing items of Cretan manufacture to the pharaoh (Fig. 1)[4]. The Egyptians identified these people as arriving from *Keftiu* and/or from the *Isles in the Midst of the Sea*[5]. The scenes date to the reigns of Hatshepsut (1479-1457 B.C.) and Thutmose III (1479-1425 B.C.)[6]. The latest tomb in the series, that of the vizier Rechmire (TT. 100), includes a scene of the ascension of Amenhotep II[7]. Following this last appearance, scenes of foreign tribute continue to refer to this people, but the related figures are either non-Aegean, or hybrids composed of elements derived from different foreign peoples[8]. This cessation of scenes depicting verifiable Minoans in the Theban tombs, thus, is synchronous with the fall of the Minoan culture at the end of the Late Minoan IB period, ca. 1425 B.C., which coincides with the latter part of the reign of Thutmose III or the early years of his son, Amenhotep II[9]. Evidently the Egyptians ceased portraying the Minoans in their tombs when contact ceased between the two cultures[10].

Excavations at Tell el-Dab'a, ancient Avaris, in the Nile delta have revealed numerous fresco fragments bearing Minoan motifs – including bull jumping – indicating that during the early XVIIIth Dynasty Minoans resided there[11]. The tomb of Ahhotep (I), the mother of Ahmose and Kamose, the founders of the XVIIIth Dynasty and the conquerors of Hyksos Avaris, contained a silver ship model, which appears to copy a Minoan ship type (Fig. 2)[12]. The model is best explained as booty from the Egyptian conquest of that city, suggesting that Minoans had

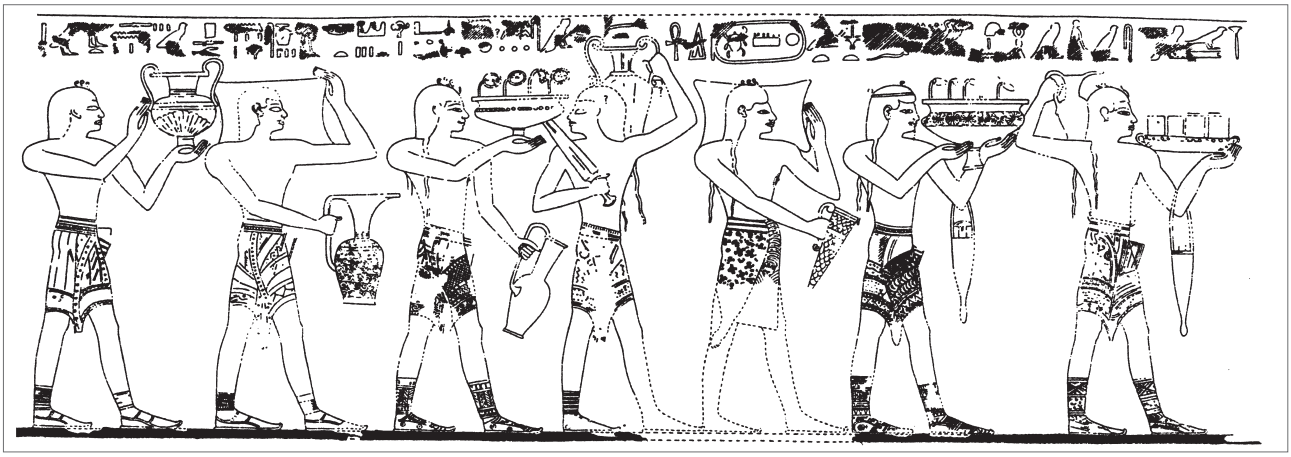


*Fig. 1: Minoans bringing trade items appear in the tomb of Rechmire (TT. 100; Thutmose III/early Amenhotep II). This is the latest Theban tomb in which representations of Minoans appear.*

been present at Avaris during Hyksos rule also[13].

Minoan ships and seafaring skills obviously played a predominant role in these international connections. To date, however, no Minoan shipwrecks have been found[14]. This, unfortunately, limits our understanding of Minoan vessels to what we are able to glean from representational art (iconography).

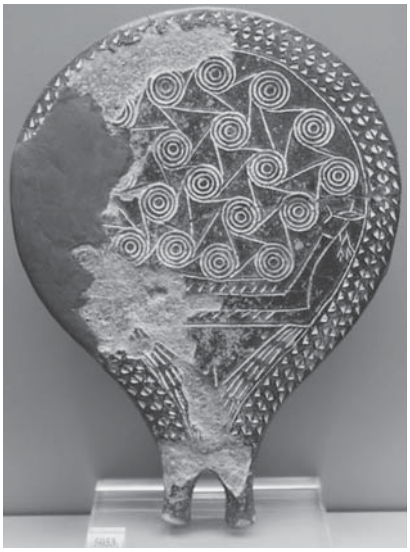
In approaching this type of evidence, however, it is important to keep in mind that representational art comes with its own, often severe, limitations[15]. At the danger of stating the obvious, these „ships" are not ships, but rather *representations* of ships, which may be, and which usually are, altered, sometimes considerably, from the prototype vessels as a result of their creators' attitudes, aptitudes, culture, schooling and familiarity, or lack thereof, with their subject matter[16]. Other considerations in evaluating this type of evidence include, but are not limited to, the space available to the artist to portray the vessel in a two-dimensional representation, the material from which a three-dimensional model is made, whether some details appeared originally only in paint and/or plaster that has subsequently been lost, or whether the artists due to their own considerations introduced intentional changes[17]. Models and graffiti of ships may be so crudely made, or ships depicted on seals so small, that to consider them detached from their richer context of more detailed representations within their cultural continuum is to invite confusion and misinterpretation[18]. At times this may lead to errors in something as basic as which extremity of an image represents the ship's bow, and which the stern[19].

There are, thus, numerous possibilities for mistake in the interpretation of the iconography of ancient ships, particularly for anyone who evaluates them without careful consideration of the issues discussed here[20]. It is imperative, therefore, to always study first the most detailed representations of the craft under consideration, which may then assist in interpreting more ambiguous images.

Recent research at Plakias on Crete raises the fascinating possibility that seafaring may have existed around the island as early as the Lower Paleolithic period[21]. The earliest known pictorial representations of Aegean seagoing craft, however, date much later, to the Early Cycladic period. The best known of these depictions appear on a series of strange-looking artifacts commonly termed „frying pans" (Fig. 3)[22]. While these

*Fig. 2: Ahhotep's silver model.*

*Fig. 3: A typical Cycladic frying pan decorated with a longship. Athens Archaeological Museum.*



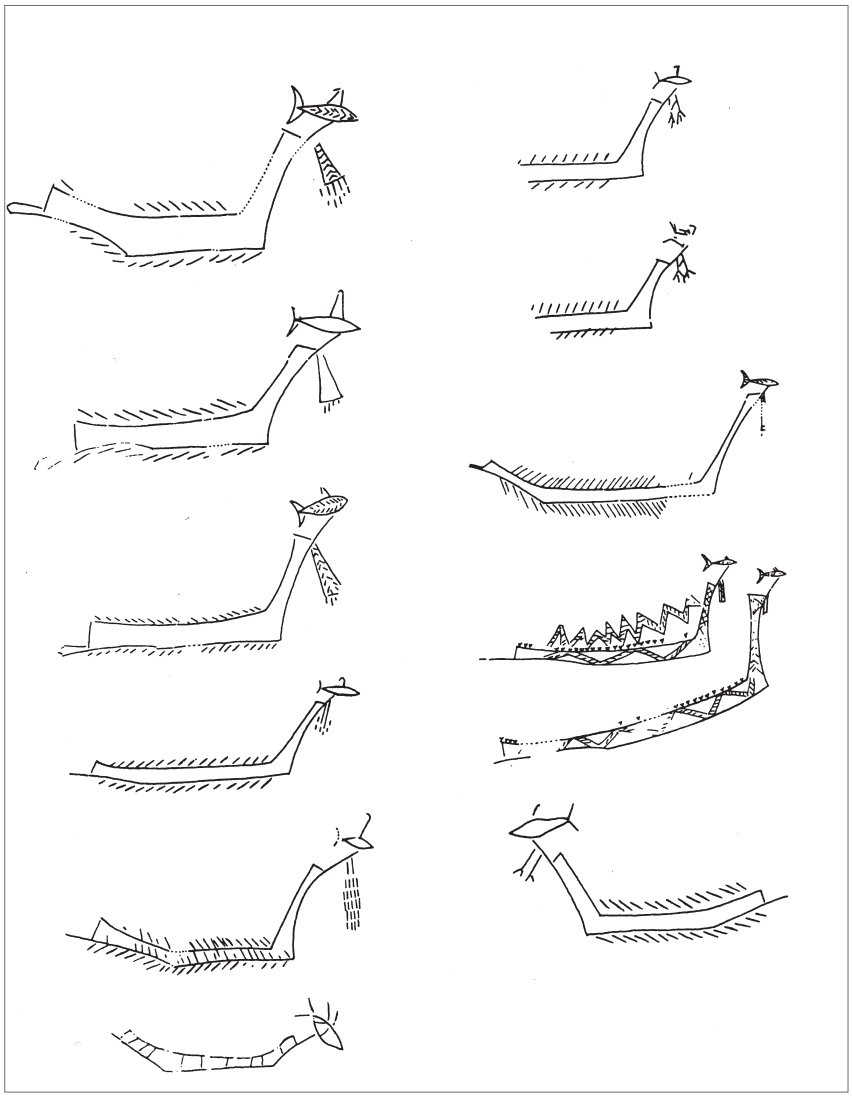


*Fig. 4: Longships incised on Cycladic frying pans.*

objects have been uncovered across mainland Greece, the Aegean and even Anatolia, only one series, from Syros in the Cyclades, bear ship motifs[23]. These depict vessels that appear, in two dimensions at least, to be long and narrow with one extremity high and the other low (Fig. 4)[24]. The high end is decorated with a fish-shaped totem facing outboard. At the low end each vessel has a horizontal extension extending from the line of the keel, assuming that these ships indeed had keels. On either side of each hull run rows of parallel diagonal lines.

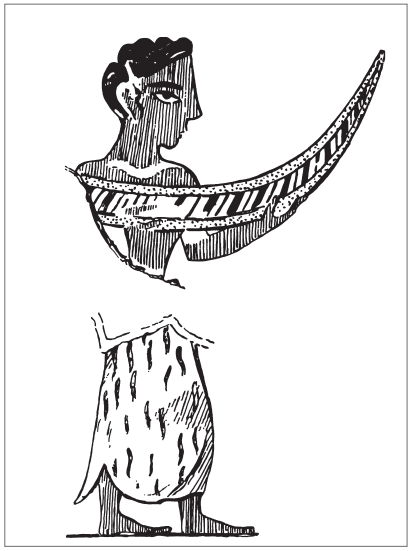
Since their discovery the question of which end of these Cycladic longships represents the bow, and which the stern, has been vigorously debated[25]. Most recently, T. Guttandin, in collaboration with D. Panagiotopoulos, H. Pflug and G. Plath, has argued with an impressive exhibition and in publications, that these Early Cycladic ships had a low bow and a high stern[26].

For over a half century after Sir Arthur Evans' discovery of the Minoan culture at Knossos at the beginning of the twentieth century, there remained very little new information on which to base a determination of the directionality of the Early Cycladic longships. The evidence consisted of tiny ship representations on seals and sealings, most no bigger that a thumbnail, and a few poorly-made models[27]. The Hagia Triada Sarcophagus bears an image of a mourner carrying a ship model, that is, a painting...of a model...of a ship (Fig. 5)[28]. This database of images is thin gruel indeed from which to make any meaningful determinations regarding the evolution of ships in the southwestern Aegean during the third and second millennia B.C.

New evidence, however, slowly began to emerge. In 1967, Colin Renfrew brought to the attention of the scholarly community three lead models from Naxos and now in the Ashmolean Museum (Fig. 6)[29]. These represent in three dimensions, the same type of Early Cycladic longships depicted on the Cycladic frying pans. The lead models confirm that these vessels were indeed long and narrow as suggested by the frying pan representations. The best preserved of the models has a beam-to-keel ratio of 1:14. These relative proportions indicate that the rows of parallel lines along the sides of the ships on the Cycladic frying pans must indicate paddles, and not oars[30]. These models bear no evidence for the horizontal projection depicted at the low end of the frying pan ship depictions. Instead, the models' low ends terminate in a small rectangular transom-like sheet of lead folded upwards from the hull.

The fact that the horizontal extension is absent on all three lead models indicates that this horizontal item, whatever its purpose, was removable and not an integral part of the ship. This conclusion is further confirmed by the stern – clearly indicated by a helmsman and a steer-

*Fig. 5: A mourner depicted on the Hagia Triada sarcophagus carries a ship model.*



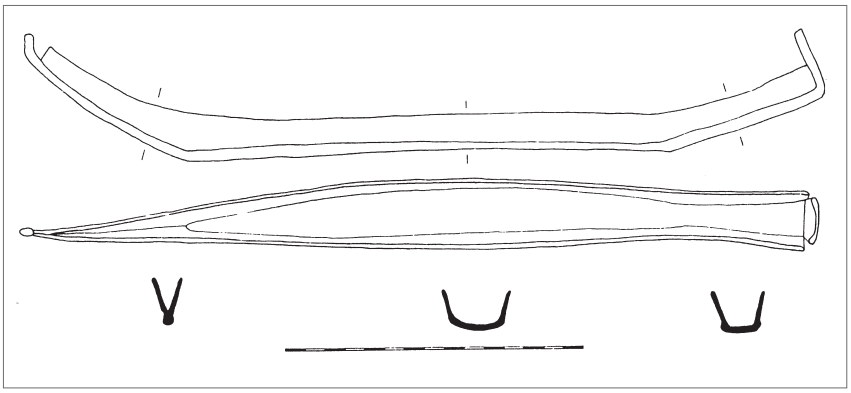


*Fig. 6: The best preserved of the lead Early Cycladic ship models from Naxos.*

ing oar – of a similar Early Cycladic vessel portrayed on a sherd from Phylakopi on Melos (Fig. 7). Thus, during this period the horizontal extension was clearly optional. This raises two possibilities: A) this device was not an integral part of the vessels' structure, but was rather only attached to the ship when necessary to carry out its function, or B) some ships were constructed with this projection and others were not, as is the case with bow extensions on later Mycenaean galleys[31].

Then, in 1972 S. Marinatos began excavating on Akrotiri, on the southern coast of Thera (Santorini). There, in a structure he termed the West House, Marinatos discovered a series of colorful frescoes portraying nautical motifs[32]. The site had been buried by Thera's volcanic eruption, ca. 1628 B.C. Although the frescoes were found in an indigenous Cycladic milieu, the culture appears to have been highly influenced by the Minoan culture.

Indeed, the ships appearing in these frescoes are so similar and akin to what we can glean from the evidence of Minoan ships from Crete that it is best to term all these vessels inclusively as of Minoan/ Cycladic origin[33]. There may have been differences between contemporaneous Minoan ships and those depicted on the walls of the West House, but at this remove and with the evidence presently available it is unwise to try to differentiate between them.

The Miniature Frieze on the southern wall of Room 5 of the West House depicts the scene of a flotilla of ships taking part in what appears to be a regatta or a procession. The processional ships are accompanied by a rowed ship and a ship under sail. A second scene in the Miniature Frieze depicts what appear to be vessels of the same shape, but lacking decorations, beached along a rocky shore and with oars adrift in the water. Several dead bodies float in the surf nearby and soldiers march inland[34].

The six ships taking part in the procession have several unusual characteristics (Fig. 8):
A) the vessels are highly decorated, including the addition of long „bowsprits" attached to their prows to which are fastened figureheads in the shape of stylized swallows, butterflies, etc. These bowsprits are missing on the functional ships;
B) although the vessels have a mast and rig, all of them move under lowered sails, and some have even unstepped their masts;
C) perhaps most surprisingly, the ships are propelled by paddlers. The manner in which the paddlers are forced to lean over the sides of the ship to reach the water with their paddles indicates that this could not have been the normative manner to propel these vessels (Fig. 9);
D) a horizontal device extends beneath the stern of each of the processional ships (Figs. 8, 10)[35]. This extension – shown here multiple times in the most detailed representations available to us – is clearly detachable, being lashed beneath the sterns of the vessels by means of two lines. This attachment appears only on the ships taking part in the procession.

What is the meaning of these peculiarities? L. Casson[36] proposes that either these are old ships, or contemporaneous ships used in an archaic manner:
„Now, at Athens in Classical times it was the practice to send the embassy to the annual spring festival of Apollo at Delos in a vessel so old fashioned that people were able to

*Fig. 7: A ship's stern depicted on a sherd from Phylakopi, on Melos.*

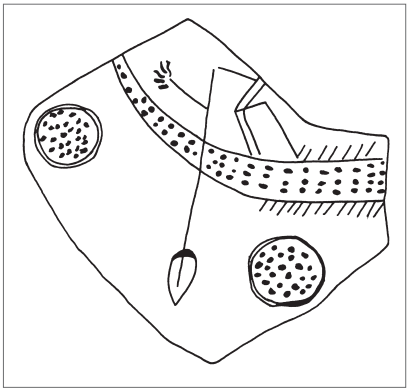
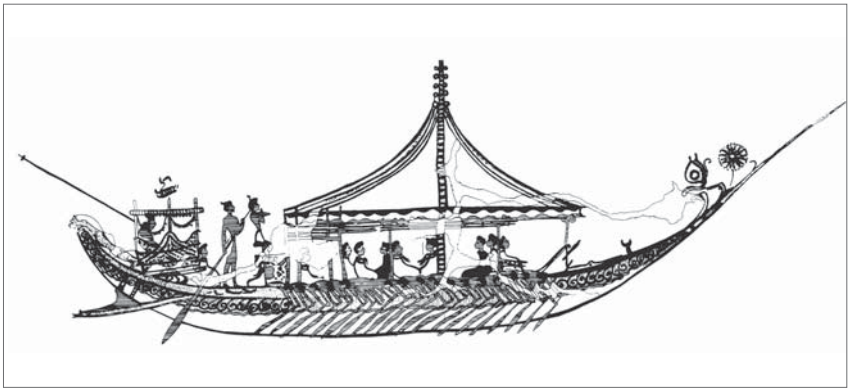


*Fig. 8: The best preserved of the processional ships from the Miniature Frieze in the West House on Thera.*



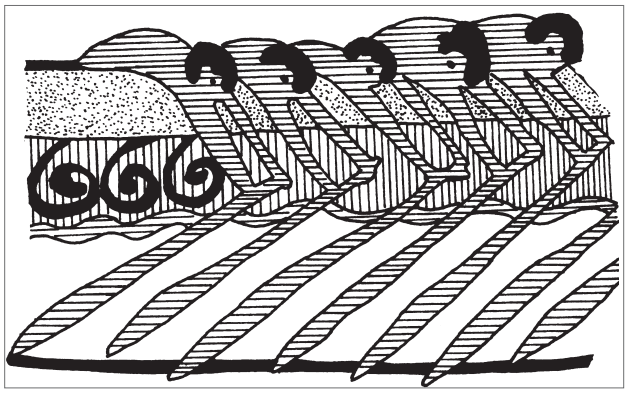


*Fig. 9: Paddlers bending over their stoke on a processional ship indicate that these ships were not meant to be propelled in this manner.*

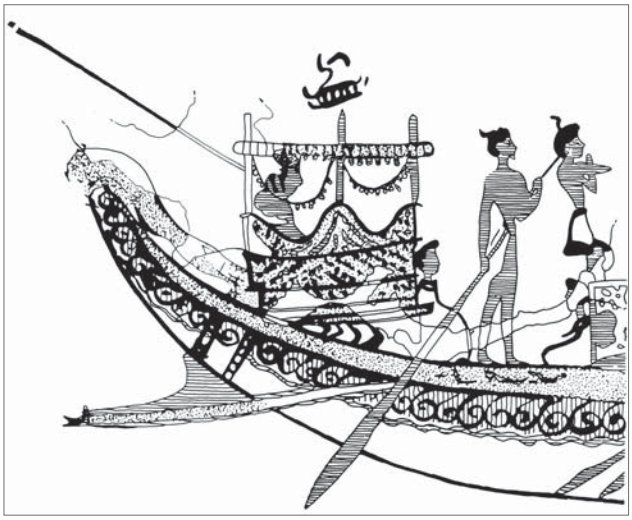


*Fig. 10: The stern of a processional ship with a horizontal stern attachment lashed to it with two lines.*

say it was the one in which Theseus had sailed to Crete[37]. Why not a similar situation here? That the six ships are an archaic style of craft called into use for a special religious ceremony? Either that or they are current models which are deliberately being handled in archaic fashion as demanded by the ceremony in which they take part?"

If contemporaneous ships at Thera indeed are emulating older indigenous vessel types, which culturally-related earlier craft are they using as a prototype?[38]

The evidence is clear. The archaic attributes of the Theran ships fit exactly what we know of the Cycladic longships: They, too, were A) decorated, B) did not employ sail, C) were propelled by paddlers, and D) had a (detachable) horizontal projection.

Thus, it is possible to document an unbroken tradition, within a limited region (the Cyclades and Crete) and a cultural continuum, which must instruct us regarding the directionality of the Early Cycladic longships: *The horizontal projection located at the low end of the longships portrayed on the frying pans must have been attached to their sterns.* Simply put, on Cycladic longships the high end represents the vessel's bow and the low end its stern. Indeed, Casson[39] rightly considers resolution of this issue to be the single most important contribution of the Theran frescoes:
„Now we come to the most significant feature of the ships in the frieze, one that settles a controversy which has raged for decades. On many vessels portrayed on seals and ceramics, one end terminates in a lofty post on Minoan seals often decorated with hook-like adornments near the tip, while the other is lower and has a distinctive projection at the waterline. Which is prow and which stern? Some have taken the higher end as prow and the lower as stern, offering various guesses, none very convincing, to explain the projection there. Some have argued that it was the other way round, that the projection points forward from the prow, and explained it either as a constructional feature or as the earliest appearance of the ram. The six big boats settle the question of bow vs. stern once and for all: each has a massive projection at the waterline, and in each we see the helmsman standing with his steering oar at the end that has the projection, which juts out behind him; he faces the other end, which is higher and bears hook-like adornments similar to those on the higher end in many of the representations on seals. No question about it, the lower end with the projection is the stern and the other the prow…

To sum up. The prime value of the new evidence is that it closes the long debate about the hull shape of Bronze Age craft."

## Notes

[1] Herodotus, Histories 1.171, 3.122; Thucydides, The Peloponnesian War 1.4, 8.

[2] Malamat 1971; Niemeier 1991; Niemeier – Niemeier 2000.

[3] Wachsmann 1998, 296-299. A. Evans (1925) proposes Predynastic contacts between Egypt and Crete based on early artifacts found at Knossos. L. Pomerance (1975; 1984), however, demonstrates that these artifacts appear in much later levels, and therefore, apparently represent a contemporaneous trade in antiquities, perhaps resulting from tomb robberies in Egypt.

[4] Vercoutter 1956; Wachsmann 1987; Duhoux 2003.

[5] Vercoutter 1956, 33-158; Wachsmann 1987, 93-102; Duhoux 2003, 31-144. Keftiu is identified with biblical Caphtor (Genesis 10, 14; Deuteronomy 2, 23; I Chronicles 1, 12).

[6] Wachsmann 1987, 26-37 and there additional references. Note, however, that I use here K. Kitchen's (1987) chronology.

[7] Davies 1973, 63.

[8] Wachsmann 1987, 37-40 and there additional bibliography.

[9] Wachsmann 1987, 127-129.

[10] Wachsmann 1987, 103-105, 121-125.

[11] Bietak 1995; 1996, 73-81, pl. 33, color pls. III-VIII; Bietak – Marinatos – Palyvou 2000; Bietak – Marinatos – Palivou et al. 2007; Morgan 1995.

[12] von Bissing 1900 19, Taf. IX: 2a, X; Wachsmann 2010.

[13] Wachsmann 2010, 36-37.

[14] Not every group of artifacts found on the seabed indicates a shipwreck. I remain highly skeptical that the group of ceramics found off Pseira and identified as a „Minoan shipwreck" are to be interpreted in this manner (Hadjidaki – Betancourt 2005-2006; 2006; Bonn-Muller 2010).

[15] Davies 1930, 29.

[16] Wachsmann 1998, 4-5.

[17] See, for example, Tzalas 1990; Wachsmann 1998, 42-45, 141 fig. 7.28, 142-143, 166-175; Wachsmann 2012: 243. On color and its loss over time from ancient monuments and artifacts, see Nelson 1929, 22; Neils 2001, 88-93; Brinkmann 2008; Brinkmann – Wünsche – Koch-Brinkmann et al. 2007; Østergaard 2008.

[18] Consider, for example, the problems encountered by L. Basch (1987, 114-115) when he attempts to reconstruct ships solely from Minoan seals without take into consideration the evidence form Thera (Wachsmann 1998, 103).

[19] Wachsmann 1998, 139 fig. 7.22, 140, 142 fig. 7.29, 143-144, 147 fig. 7.36, 148.

[20] Wachsmann 1998, 4-5; 2012A: XVIII fig. P.1, XIX.

[21] Strasser – Panagopoulou – Runnels et al. 2010. See also SKYLLIS 9, 2009, 187 (after: Akoue –Newsletter of the ASCSA, spring 2010 No. 62 p. 18).

[22] Coleman 1985. On the possible use of frying pans as mirrors, see Papathanassoglou – Georgouli 2009, and there additional bibliography.

[23] Coleman 1985, 198.

[24] Marinatos 1933, pl. XIII: 1-8; Basch 1987, 77-82; Wachsmann 1998, 72 fig. 5.4.

[25] Johnstone 1973; Casson 1975; Wachsmann 1980; 1998, 73-74; Johnston 1982; Basch 1987, 84-85.

[26] Guttandin 2009; Guttandin – Panagiotopoulos – Plath 2010; Guttandin – Panagiotopoulos – Pflug et al. 2011.

[27] Marinatos 1933; Casson 1995, 30-35, figs. 22-26, 34-54; Basch 1987, 76-117; Wachsmann 1998, 71-81, 98-105.

[28] Long 1974.

[29] Renfrew 1967, 5 pl. 3: 12-14; Basch 1987, 78-79; Wachsmann 1998, 69-70.

[30] Basch 1987, 84; Wachsmann 1995: 10, 13-14.

[31] Wachsmann 1998, 157-158; 2013: 66-72.

[32] Marinatos 1974, 19-31, color pl. 2; Basch 1987, 117-132; Morgan 1988, 121-145, 150-154; Doumas 1992, 45-97; Wachsmann 1998, 86-122.

[33] Wachsmann 1998, 83-122.

[34] Basch 1987, 131-132; Morgan 1988, 150-154; Doumas 1992, 58-63; Wachsmann 1998, 88-91, 113-117.

[35] Doumas 1992, 72-77.

[36] Casson 1975, 7.

[37] On the sacred ships of Athens, see Jordan 1972, 153-181.

[38] Wachsmann 1980; 1998 105-122.

[39] Casson 1975, 7-9.

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Abbreviations:

*AJA* = American Journal of Archaeology

*IJNA* = International Journal of Nautical Archaeology


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