

SHIPS IN THRACE DURING THE BRONZE AGE

The Bronze Age in Thrace started at the end of the 4th millennium BC and ended at the end of the 2nd millennium BC¹. These two millennia in the history of Thrace have not been uniformly studied. This is particularly true of navigation and of the marine culture along the coasts of the Black Sea, the Sea of Marmara and the Aegean Sea, synthesized in the term Thracia Pontica. We have not excavated a ship from Thracia Pontica, but there exist other facts which may serve as a basis not only for the formulation of this problem, but also for its initial investigation.

Thus, for example, for the end of the 4th and throughout the entire 3rd millennium BC, i.e. during the Early Bronze Age, the Circumpontic cultural community² can be explained most logically in terms of the existence of active overseas contacts. The observed similarities of the archaeological cultures around the Black Sea cannot be due to mere coincidence, they must have resulted from contacts. It is quite another matter what the reasons for these assumed overseas voyages were. This problem will be discussed further below. These observations are even more valid for the cultures on both sides of the Sea of Marmara³. And if, nevertheless, the communications of Thrace by land were possible for part of the lands around the Black Sea, contacts with the northwestern part of Asia Minor were *par excellence* by sea. These two observations are supported by the predating of some of the stone anchors with holes found along the western Black Sea coast from the 2nd to the 3rd millennium BC, as proposed by Honor Frost⁴. These seem to have been the anchors of the ships that sailed at that time. However, these ships carrying many tons did not sail for the pleasure of their crews, as is the case with the yachtsmen of today. Navigation during the antiquity was for the needs of trade and was directly linked with production. In my opinion, one of the most

important reasons for navigation was the search for and the supply of copper ores or copper for the production of bronze. It should be pointed out that bronze was not used for making tools, because tools made of wood, bone, horn or stone were still effective, being at the same time much cheaper. Copper and its alloys were used for making weapons and cult objects (actually weapons were also objects). This can be accepted even after a cursory glance at the archaeological material. Then the search for copper as the basic product for the production of bronze becomes easily explainable. Whoever had copper could possess the modern weapons for that time, he could be victorious and he could rule over lands, wealth and people. Moreover, it is well known that the ancient Thracian lands were an extremely well developed metallurgical centre even from the Chalcolithic Age⁵. This suggests that copper was mined in the Thracian lands and was exported to lands where it was lacking. Ancient Thrace exported both to the Northern Black Sea coast and to the south.

In Bulgarian archaeology there is an attempt⁶ to see models of Early Bronze Age ships in some of the clay vessels found at Ezerovo II near the Varna Lake. In my opinion, these elongated plates are not sufficiently convincing evidence and we should wait patiently until a real model is discovered or - better still - an Early Bronze Age ship from Thracia Pontica. An indirect evidence about the use of navigation vessels - but for fishing - are the bones of dolphins and of belted bonito discovered during excavations of the Early Bronze Age settlement near Urdoviza⁷ because dolphins and belted bonito can be caught only by means of boats and ships.

Anyway, we still do not know what the ships of Thracia Pontica looked like in the 3rd millennium BC. However, on the basis of indirect evidence we may also assume the existence of ships both for fishing and for overseas contacts.

Data are considerably more abundant for the 2nd millennium BC, and especially for its second half. I shall start with the evidence found in the ancient authors concerning Thracian navigation. This evidence is the memory on which the archaeological data can be superimposed to come to life. Even Homer (II. XI, 220-230, Monro; Allen) told about the Thracian nobleman Iphidamas, son of Antenor, who sailed with a fleet of twelve ships during the Trojan War to fight on the side of Troy. According to (Pseudo-)Euripides (Rhesos I, 430-435, Ebener), it was again Homer who sang about the legendary Thracian king Rhesos who sailed with his ships in the aid of Troy. Another author to tell us again about the second half of the second millennium BC was Diodoros (VIII, frg. 11, Vogel), who reported

that after the Trojan War (13th century BC) the sea (i. e. the Aegean Sea - K.P.) was ruled over by Lydians and Maionians for 92 years, by Pelasgians for 85 years, by Thracians for 79 years, etc. Although Diodorus was a later author, he was known to have copied conscientiously earlier evidence that has been lost to us. This is why, the maritime supremacy of the Pelasgians and Thracians can be dated with much greater probability to the 12th and 11th century BC. Apollonius Rhodius (*Argonautica* I, 580-930, Merkel), who also adhered faithfully to the most ancient variants of the narratives, mentioned that the women on the island of Lemnos recognised the Argo ship as Thracian and were afraid of a piratic invasion. It is known that the myth about the “golden fleece” and the “voyage of the Argonauts” connected with it are dated approximately to the end of the 2nd and the beginning of the 1st millennium BC. Here I shall not dwell on the problem of the “golden fleece”, but nevertheless I shall mention in passing that such a “golden fleece” was discovered in the waters near the present-day cape of Kaliakra (the ancient Tirizis) along the present-day Bulgarian Black Sea coast. This was a metal ingot resembling a taut sheepskin or even oxhide, weighing nearly 1.5 kg and containing 32% gold, 18% silver, 43% copper, etc. The ingot is dated to the second half of the 2nd millennium BC, more specifically around the 14th century BC⁸.

Thus, according to the brief information of the written sources, it can be seen that the notion of Thracian navigation existed even in the most ancient myths. Consequently, we are faced with a fact: the Hellenic historical memory reflected the ancient maritime culture of the Thracians. Therefore, we are to expect some material confirmation.

The stone anchors with holes are among the most reliable arguments in this respect. They are from the Western Black Sea coast and the majority of them are dated to the 2nd millennium BC and especially to its second half⁹, another part - as I said earlier - is dated even to the 3rd millennium BC. Stone anchors number a total of 150. Petrographic studies have shown¹⁰ that 90% of them were locally produced, 10% came with foreign ships, for the time being it is not known where from. According to Honour Frost, their size and weight suggest beyond any doubt that they were used on ships of 200-300 tons, i.e. ships like the ones in the fleet of the Thracians from the Western Black Sea region. There are no grounds for ruling out the hypothesis that similar ships, made by the indigenous Thracian population, sailed in the Sea of Marmara and in the Aegean Sea. Quite on the contrary, the evidence of Diodorus and Apollonius Rhodius, cited above, concerns precisely the Thracians in the Aegean region.

Stone anchors from the Bulgarian Black Sea coast can give us yet another important notion about the Thracian ships from the 2nd millennium BC. Very important in this respect is the place where they have been found¹¹. Almost all of them have been discovered near anchorages which are usually localized in very calm bays, close to the land, unlike the stone and lead stocks which are usually found in the waters around the capes. In my opinion, this fact suggests indisputably that stone anchors were used for ships that navigated with oars or with sails, whereas stone and lead stocks were used on sailships. The ships with oars and sails with stone anchors could come in and go out of any bay using their oars only, approaching the shore and even reaching it. The sail was probably rather simple and was used only with suitable winds. According to the information available so far, such were the ships in Thrace during the Bronze Age. Sailing-craft began to be used later, during the Early Iron Age. It is the sail-craft that used wooden anchors with stone or lead stocks that anchored near the capes and did not enter deep into the bays. This was a common practice so that they could manoeuvre with their sails both in good and in bad weather. But this is quite a different topic.

In support of my conclusion I shall cite two more facts from the Late Bronze Age. These are the clay models of navigation vessels (boats) discovered in Northwestern Bulgaria in necropolises close to the Danube river¹² and the image of a ship on a stone plate from Southwestern Bulgaria (in the present-day town of Razlog), dated to the 14th-13th century and originating from a cult place¹³. In both regions this is indisputably an image of the "solar bark" which is associated with the religion of the ancient people. However, it is important for us that the navigation vessels were either boats or ships with oars. Although idealized, the notion of the "solar bark" apparently reflected to a great extent the actual navigation vessels used at that time.

In conclusion, the ships in Thracia Pontica were with oars, or rather with oars and sails, similar to the Late Bronze Age vessels found near Cape Gelydonia and Cape Kas on the western coast of Asia Minor. It seems that for two millennia they sailed in the waters of the Black Sea, the Sea of Marmara and the Aegean Sea. It is through these forms of navigation that Thracia Pontica performed the role of a contact zone for the Thracian civilization with the peoples in the rest of the Mediterranean world.

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THE SEA PEOPLES AND THERA SHIPS

The naval battle scene from Medinet Habu depicted on the north wall of the mortuary temple of Rameses III, is considered to be the earliest illustration of such an event of a true historical context (Nelson and Hoelscher 1929; Nelson et al 1930; Nelson 1943; Casson 1971: 36-8); Wachsmann 1981). Yet, one might reconsider this definition when carefully studying both the illustration, the text next to it, and the other historical source from Papyrus Harris I (c.f. ANET²:262a) one must come to the conclusion that in reality (or at least as the Ramesside historiographers would like it to be recorded) no real naval battle had ever been the case. The fact of the matter is that the "Sea Battle" of Rameses III 8th regnal year, against those people who were coming from the north, is to be matched with the Land Battle against the same invaders in the same year. As the illustration clearly depicted, on land the Egyptian army was fighting against a travelling mass of people, men, women and children, wandering with oxen carried heavy wagons and followed by their armed males (c.f. T. Dotlan 1982: 5-7). The Naval Battle is the other half of the same Egyptian attempt to stop the advancing invaders, in that case by ambushing and trapping their fleet of coaster vessels which were sailing down along the Levantine shore, toward Egypt (?), following the group which was travelling on land. The text from the mortuary temple which refers to these events claims:

"I organized my frontier in the Levant (Djahi), prepared before them, princes, commanders of garrisons and maryanu. I have the river mouths prepared like a strong wall, with warships, galleys (mḥ's) and coasters (br), fully equipped, for they were manned completely from bow to stern with valient warriors carrying their weapons". (Nelson et al.1930: Pl. 46; ANET²: 262b, translated by J.A. Wilson).

Further on in the same text:

“... Those who came together on the sea, the full flame was in front of them at the river-mouths, while a stockade of lances surrounded them on the shore. They were dragged in enclosed, and prostrated on the beach, killed and made into heaps from tail to head. Their ships and their goods were as if fallen into the water”.

In another text from this temple, the claim is phrased:

“Those who entered the river mouths were like birds ensnated in the net...” (ANET²:263a).

The text next to the scene of the Naval Battle reads:

“... They are capsized and overwhelmed when they are... Their weapons are scattered upon (His (Rameses) arrow pierced whom of them he may have wished and the fugitive is become one fallen into the water” (ANET²:263b).

The scene (Fig. 1) verifies the general claim of the text. The overall picture is of an idle fleet of five vessels surrounded, attacked and capsized by four Egyptian ones, while being under bowmen raid from the nearby shore. The defeated Sea Peoples are picked by the Egyptian soldiers and captured either into their vessels, or being gathered on the shore. There is no naval battle as such, but rather a closing-in fleet coupled by garrisons on land, blocking a group of shipborne warriors, which are moored within a river mouth to be captured “like a bird in a net”.

As for the Sea Peoples and their vessels much has been written about (Casson 1971:37; Wachsmann 1981; Basch 1987:66-9) and we do believe their boats were not of a type suited for naval battle. The tiny appendences at the base of their stemposts cannot be used as ramming device in any possible way (and see other opinions, Nelson and Hoelscher 1929; Fig. 24; Nelson 1943; Wachsmann 1981; Basch 1987: 68) and one might consider them to be mere coasters, similar to the oxen wagons on the matching Land Battle scene (Raban 1988: 264-272; 1989). In such a particular encounter, in which there were also other type of non-military vessels, involved on the Egyptian side, the one type which was chosen by the master artist was not operating in a regular naval manner. In fact, any kind of floating vessel with an ample room on deck for archers in as great a number as possible, “manned completely from bow to stern”, would fit nicely for the Egyptian military tactics. At the right handside Rameses and his archers are raiding the helpless people on the enemy’s vessels and so are doing the Egyptian seaborne

archers (c.f. Fig. 2: E.2, E.3). After causing maximum killing in that initial stage, the Egyptian oared vessels are closing in within a distance from the moored enemy suitable for throwing lances, slinged stones from the masts' topping crow nest and grapnels for tearing off enemy sails (in order to avoid escape), or in an attempt to capsize the enemy's vessel by pulling hard). The first aim is described on N.1 (Fig. 3), while the other is illustrated by the tumbling masts of N.4 and N.5 (partial success) and more clearly at the fully capsized Sea Peoples' vessel N.3. Only at the third stage of the battle, when most of the enemy's soldiers have been hurt, or forced into the water, the Egyptian vessels would come close enough for close range, face to face combat. This practise is most logical when one recalls the fact that by the time of Rameses III, the Sea People were known to the Egyptians for a century as superior close range warriors and to be equipped with better suited weapons for this type of fighting, furnishing with long straight iron swords (c.f. Sandars 1978: 49-50, 106-7). The Egyptians, on the other hand, were known as master archers and their composite bows were brought to a perfection already during their imperial wars of the 15th century BCE (Yadin 1963). With that in mind one would wonder whether the type of vessels depicted as representing Egypt in this Naval battle scene had been developed for such an occasion, or even for the general purpose of fighting the Egyptian maritime enemies of the period, namely - the Sea Peoples and their allies?

Studying the layout of the ships depicted at the Naval Battle scene, the most prominent fact is that the two types are furnished with the very same rig: A bulky mast crowned by a cup-like crow-nest and a loose-footed sail, bent upper yard and brails. Such a rig is unknown from either earlier or later Egyptian depictions and was undoubtedly a revolutionary innovation introduced from elsewhere (Casson 1971: 37f; Wachsmann 1981: 214-6; Raban 1989). The only parallels for that type of rig of somewhat earlier date are probably the Syrian (Canaanite) merchantmen depicted at the tomb of Nebamun at Thebes, Egypt, which dates to the 14th century BCE and a century younger depiction on a scaraboid seal from Ugarit (Wachsmann 1981: 214, Fig. 28). Another similarity between the two types of vessels is the high bulwark that protects the rowers, which is confined for and aft by castles or high platforms. The protecting bulwark is known of earlier depictions of Canaanite merchant galleys (c.f. Basch 1987: 64-5) and maybe also from much earlier (mid 3rd millennium BCE) depiction from the Aegean, such as Dorak knife and the Middle Helladic sherd from Tessaly (Basch 1987: 90-3, Figs 189-191). Yet they were unknown in Egypt (c.f. the depiction of Hatshapsuth's fleet on its Punt voyage, Casson 1971: Fig. 18). The fore and after castles, on the other hand,

can be traced back on Egyptian vessels to the Old Kingdom (Landstrom 1970) and also in the Aegean, during the late Minoan period (and see below). The differing part of the two types is the hull. While the angular shape of the ship's hull representing the Sea People have been studied and discussed in length by scholars, the one represents the Egyptians was less-thoroughly surveyed. Casson (1971: 37) writes:

"They are true fighting craft, apparently undecked... some sort of inner structure; indeed the whole general appearance gives the impression of a far sturdier hull than any attested from Egypt hitherto."

The sturdiness of the Egyptian hull may be compared with other 13th-12th centuries BCE depictions and models of ships and boats from both the Aegean (c.f. Basch 1987: figs. 273, 276, 299, 303, 308, 309) and the Levant (ibid., figs. 122, 131).

It has been suggested that such additional strengthening was a necessity when ramming became a common naval practice (Wachsmann 1981:217). The period in which this practice had been introduced is argued to be no earlier than the "Dark Ages" of Greek history, in the 9th-8th centuries BCE (Kirk 1949: 126f; Van Doorninck 1982:283-5) or even as late as the 7th century BCE (Casson 1971: 42, n.4; Wachsmann 1981: 216-7). As for the low, massive prow of the Egyptian hull from the depiction of Medinet Habu, earlier scholars considered it as a true ramming device (Landstrom 1969: 23; Yadin 1963: 253,342), but Casson has brought as argument *ex silencio* "...it was a weapon like a naval gun - once one fleet had it, all had to have it." (op. cit.)

It seems that Casson has missed "Reading the Battle" when suggesting that:

"The relief conforms that the only specifically naval weapon known was the grappling iron; the ram is conspicuously absent. A sea fight was still but a vesion of a land fight..." (Casson 1971:38)

As shown above this is the case for the particular encounter depicted at Medinet Habu, but far from being characteristic to what must be understood as true naval battle on high seas in which ships were destroyed, or plundered by acts of piracy (c.f. Linder 1973; Sandars 1978: 107, 184-6). The general shape of the hull and its upper structures fit a close range true naval combat. It seems as if a real deck was connecting the fore and after platforms almost to the entire width of the ships, enabling warriors to move freely back and forth port to starboard sides. This is clearly demonstrated by the Egyptian soldier who stabs a swimming

opponent at the starboard side of E.1 (Fig. 2). The absence of stempost would enable an easy boarding for the warriors, from the fighting deck and through the fore platform, to the opponent vessel. This practice would be typical for an act of piracy after the attacked vessel had been rammed. As for the claim that the ramming head is too high above the water level, there are plenty of parallels from later depictions of non-argued rams (Raban 1984: 17-18). An effective ramming must be above the waterline and a must in case of piracy, when the very goal is not to destroy the opponent vessel but to plunder her when still afloat (and see Steffy 1984: 240-3). So, there is a discrepancy between the characteristics of the Egyptian ship that was designed specially for fighting on high seas (Basch 1987: 68) and the manner with which it was used in the particular encounter depicted at Medinet Habu. Such a discrepancy, doubled by the non-Egyptian character of the ship, the rigging, the bulwark and the study hull, may lead to the conclusion that this type of vessel, though clearly part of the Egyptian fleet at the time, is an alien one to the traditional Pharaonic navy and most probably a recent addition, or a recent adaptation of a foreign type of vessel.

The best parallel to such addition to the Egyptian military units is undoubtedly to be found amongst the mercenaries of both Canaanite *taher* and *maryanu* and the Sea Peoples units of *Sherdanu* and *Philistines(?)* (Nelson et al 1930: Pl. 19). It seems as if the Egyptians had realized the military advantages of the long, straight iron swords of Sea People for close-range combat on land and of their swift ramming vessels on the sea.

The various new characteristics and technical innovations of what might be considered as the earliest true fighting ship, were undoubtedly the outcome of a century or more of naval encounters along the Levantine coast, or more precisely - the geographical sphere of southern Turkey, Cyprus and North Syria. There, since the El Amarna era of the 14th century, through events the Hittite archives referred to the acts of piracy and naval encounters which are mentioned in the texts of the Royal correspondence in Ugarit, an intensive sea-borne trade was to cope with ever intensified piracy and seaborne raid on coastal centers for almost 200 years. It seems as if a fleet of 150 ships the vassal king of Ugarit had, were not sufficient for the scope of these affecting activities (Linder 1973; Wachsmann 1981: 187-190). As far as the available scanty historical sources permit us to judge from, the intensity of naval encounters and piracy in that area, during the 13th century BCE exceeded by far the late one at the Dark Ages in the Aegean, or that of the earlier(?) piracy which Minos allegedly subdued (Thucydides I.4). Following the logical assumption that technical innovations might gain considerable

momentum when there is a time of crisis and urgent demand, this time period at that seaboard are the best candidates for the technical developments depicted on the type of the Egyptian fighting vessels from Medinet Habu.

Having that in mind, one might wonder from where each of the characters' prototypes had come? More so, one might search for an earlier, less specialized and technically inferior type of vessel which were fashioned for piracy or for fighting against it, as Minos did.

There are three possible sources to be considered: Egypt, Syria (the Canaanite coastal cities) and the Aegean (either Minoan, Mycenaean, or Western Anatolian = *Lukka*, or *Ahiyawa*). Of the types of earlier Egyptian sea going vessels we know much from written text, but somewhat less when it comes to iconographic depictions. The absence of good illustrations of Mediterranean sea going vessels of Egyptian character and of types other than the traditional Nilotic boats have caused scholars to come to all kinds of contradicting conclusions. One is that there was a Mediterranean fleet that was built in Egypt from Syrian timbers, but on Egyptian style all through the 18th dynasty's era (Säve Söderbergh 1946: 39-60), or even to the time of Ramesses III (Landström 1970). Others would argue in favor of types such as the *kbnt*, *keftiu* and *mḥs*, known from Egyptian texts of the New Kingdom, to be of foreign origin, even if they were constructed in Egyptian shipyards (Favier 1935; Basch 1987: 62-66), some consider them to be true Syrian (=Canaanite) merchantmen (Davies and Faulkner 1947); and some would claim that the Egyptians never actually built any kind of sea-going vessels (Lloyd 1975: 51-3; Nibbi 1975).

Facing this difficulty one must look for possible Egyptian elements in the layout of the Egyptian fighting galleys from Medinet Habu among the iconographic repertory of the riverine vessels of the Nile. There, only two relevant components might be traced: the fore and after platforms and the through going thwarts. Yet, even these two might be found outside Egypt. It has been mentioned above that the platforms or "castles" on both ends of the hull are common to the ships of both sides - the Egyptians and the Sea Peoples. Yet the Egyptian version differs from its counterpart by having them in asymmetric order: the fore one is depicted as a fighting platform at about deck-level and relatively low protecting bulk, while the one at the stern has two storeys, with the helmsman sitting on the flat top of the upper one (probably for gaining higher viewpoint for navigation). This concept was well in use in the Nile valley since the Old Kingdom period (c.f. Landstrom 1970: Figs. 137, 143, 146). Outside Egypt such an after cabin can be seen on

the dubious silver knife from Dorak in western Anatolia, which is also of an alleged Old Kingdom date (Basch 1987: Fig. 189) and on a Middle Minoan seal from Crete (Casson 1971: Fig. 39). Of about the same period as the depiction from Medinet Habu there is the Late Helladic III boat painted on a clay vessel from Tanagra in Greece (Basch 1987: Fig. 298) and the graffiti from near Dramesi, or Hyria, also in Greece, which was dated to the 13th century BCE (*ibid.*, Fig. 301), or to c. 15000 BCE (Cason 1971: Fig. 25). Similar cabins, or platforms, or castles are not to be found among the few iconographic depictions from the Levant, except maybe for the clay model from Byblos, which is tentatively dated to the 13th century BCE (Basch 1987: Fig. 122). This last parallel is a typically symmetric vessel with some resemblance to the Sea Peoples type of boats at the Sea Battle scene (and for the probable meaning of the symmetry of the hull on both see Raban 1984: 14-16; 1989: 165-7). The Byblos model is also the only non-Egyptian (?) parallel for cross planking thwarts, unless we consider the ships of Kenamun's tomb at Thebes to be a truly realistic depiction of a 14th century BCE. Canaanite merchantman (c.f. Basch 1987: Fig. 114). So, one might take these two elements as of genuine Egyptian origin. Yet, if we consider the ship to be a foreign product of a long amalgamating process that took place in the Levantine area, these elements could have been picked there as well (for the thwarts) or to be of a farther origin, both in time and geographical distance, such as the Aegean, or Crete (for the fore and after cabins).

A unique feature of the Egyptian ship is the low, almost horizontal prow with its metal(?) termination fashioned in a form of lioness head with an open mouth from which the head of a bearded enemy (Asiatic?) protrudes. Such a lioness head is known from other Egyptian depictions and it is almost a copy of a decoration on the Royal bow's case on Rameses II war chariot at the famous great battle against the Hittites at Qadesh, in Syria (Fig. 4). This parallel depicts a male lion, probably the Egyptian war God Montu, of which Rameses III refers to as "my father" (ANET²: 256a), while on the Egyptian ship of Rameses II it is clearly a lioness which might represent the Egyptian war goddess, Sechmet. Yet, the leaping gesture in the first and the feminine sex of the other are to be found coupled decorating the ends of the ships from the miniature fresco at Thera (c.f. Marinatos 1974: 54-5; Raban 1984: 17; Basch 1987: 121-3). There is no direct connection between the two, yet one might suggest some traditional and cultural continuation between the earlier Theran decorating image and the later Egyptian ones. It is also possible that the peoples who had designed the Egyptian boats were an ethnic and cultural offspring of the people of Thera and the selection of a lioness

head at the tip of the ramming(?) prow was for them as valid emblem as it was for their Egyptian patrons. Ramming is another probable connection between the earlier Thera boats and the later Egyptian ones. The arguments for considering the later as a true ram (although unlike the types that were developed later, in the first millennium BCE, both by the Phoenicians and by the Greeks) were presented above; the possibility that ramming was practised during the Bronze Age in the Aegean was advocated for (Cohen 1938, Marinatos 1933) and against (Casson 1971: 42; Basch 1987, chapt. IV and many others) with most of the scholars refuting the very existence of such a device in that early era. Whether being true ram or just a proto-ram (Wachsmann 1981: 216), ramming as a naval practice of an effective piracy is logically almost a necessity when a small swift, oared galley attempts to stop and take over a merchantman under sail. At least when no other effective means are at hand (such as canons, naval bridges, etc.). The fact that piracy was an hampering factor for both the Minoan seaborne trade and for their contemporary counterparts in the Levant and in Egypt was known to Thukydides as well as it has been attested by the students of the El-Amarna letters and the maritime texts from Ugarit (Linder 1970). The recent archaeological discoveries under the water at Kash and at Cape Galidonya gives us some idea about the size of the trading ships of the time and the value of the prey on board. With these in mind one might wonder why scholars are making their best in order to explain alternative functions for the various types of horizontal projections depicted so lavishly at the iconographic corpus from the Minoan world. If one puts aside the problem of defining prow from stern in most of these depictions (and see M. Wedde's paper in this volume) and will exclude these projections which are clearly depicted as a horizontal continuation of the Keel (considering them as cutwaters) there are still many that ask for reasoning (c.f. Basch 1987: B.1, 4, 5, 6, 7, 11. D.1, 2, 4, 6, 7, 8. F.7, 18). Basch's attempt to include them all under the cutwater category of function (1987: 127-130) is far from being a convincing one. In some cases, as it is in the case of the horizontal projecting device which is shown attached to the ships end, below the image of the leaping lioness, at Thera, the protruding element is clearly *above* the water line (c.f. Basch 1987: Fig.244). If on a depiction engraved on a small seal one can argue that the oval frame and the schematic depiction might have caused non-realistic distortion, for the scene from Thera such an argument is non valid. Could such a device be used for ramming? Very probably yes. Much more suitable for proper ramming of a merchantman than any more solid cutwater which is necessarily under the water and for that would undesirably ram the opponent too low for the purpose of seizing its goodies. For that reason Basch's comparative illustrations (1987: 129) are irrelevant. As for

the cabins at Thera frescos, there are two types shown: a simple one, with low bulk, toward the "Peaceful" end of the boat (Basch 1987: Fig. 271), depicted in a violent context, and a decorated one, a seat for the captain, next to the other "warlike" end, in a peaceful context of a ceremonial procession (for the context see Polinger-Foster 1988 who suggests a strong Egyptian cultural influence on Thera frescos). These cabins, as far as they are from those depicted on the Egyptian crafts from Medinet Habu, may not be excluded as their prototype. Considering Thera ships (Fig. 5) as a double intended, sternfirst sailing vessels (Raban 1984) and stripping them of the occasional decoration for the festival, all other depicted elements on board would make perfect sense for assaulting purposes. It would take only a simple alternation of the helmsman's position - to move to the other end with his steering oar and to fix it at the tholepine depicted there, and the ship would sail stern first. Sailing that direction, the warriors can either man the cabin as a fighting platform, picking their long lancers and rectangular cowhide shields on the way, or board the rammed opponent, as the case demands. The Egyptian vessel from Medinet Habu is better fashioned for such a practice and illustrates the technological progress of 300 years of additional naval warfare.

The shape of the hull of the two comparative vessels is almost identical, though the latter, the Egyptian one, was probably sturdier, due to the demand from a specialized fighting craft - suited for repetitive destructive ramming.

Such slightly curved hull-shape has no parallel among the few depictions from the Levant. The strange diagonal pole (*protoaphlaston*?) at the stern of the Egyptian type from Medinet Habu is also unprecedented either in the Levant, or in the Nile Valley. Yet, it is not far from the "Peaceful" end of Thera ships and has other potential prototypes among the iconographic corpus of the Minoan realm (c.f. Basch 1987: B. 4, 10. D.6 and many others with additional trisected decoration).

With so many different characteristics the type depicting as serving the Egyptian navy can not be considered as being a product of the Egyptian maritime heritage. As it has been suggested that the Great Pharaon, Rameses II has chosen a form of non-Egyptian probably a Canaanite type of vessel as a determinative sign for "ship" in his famous Ode of Victory over the Hittites (Basch 1987: 65), why not assuming that his inferior successor, a century later, Rameses III had done the same? During that century foreign mercenaries, mainly of the Sea Peoples, were more and more a regular part of the Egyptian army, so why not assume that their better sea-going vessels, which had gained some additional perfection during a long period of naval encounters with the Canaanites, were

added to Egyptian military forces as well? Is it correct to call this type "A Sea Peoples Fighting Ship"? We think that it is so, as far as the prototype of this final product can be reconstructed. Yet, through the period of continuous naval encounters various technical innovations were shared by both the Canaanites and the Sea People. So the outcoming type might have incorporated some Canaanite characteristics and some which were new for both sides, such as the loose-fotted brailed rig. Being built very probably in Egypt (though of Lebanese timbers), these ships contained some local characteristics. Yet, the only traceable source for the functional concept, hull shape and some "accessories" (such as the *Proto Aphlaston*) is the Minoan world of the Aegean. In that respect, it is interesting to note that the Bible, in reference to the origin of the Philistines, (which is the only ethnic group of the Sea Peoples to be mentioned) place it in Crete (biblical *Kaphtor*) in many instances (Jer. 47:4; Amos 9:7), and associates Crete with Philistines (Ezk. 25:16, Zeph. 2:5).

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