HOMERIC TRADITION IN THE MEDITERRANEAN NAVIGATION OF THE PITHEKOUSSANS*

Pietro Monti

The earliest traces of Greek settlements on the coast of Ischia date back to the early 8th century B.C. The settlers preferred the coastal strip at the feet of the Monte di Vico promontory (Fig. 1: A) and surrounding hills for its temperate climate, fertile soil, harbour facilities (Fig. 1: C), sources of warm and cold water, and for the fishing-grounds within sight. Under these ideal conditions, they developed the earliest Greek settlement in the West: Pithekoussai.

At the foot of the hill, where the church of Santa Restituta is situated today, they soon built an industrial centre with ovens and workshops (Fig. 1: E). There, they imitated the pick of the vases imported from the East, Euboea and Corinth, using local clay. At the same time, on the hill of Arbusto (Mezzavia, Fig. 1: D), they built a metalworking centre.

These energetic events caused such wealth and prosperity as would attract ships from the various centres on the East-Mediterranean shores. The site attracted not only Phoenician and Greek sailors, but also farmers, fishermen, potters, artisans, painters, singers and narrators of Homeric saga's, who settled down contributing to the economic development. For not too long, this was the Golden Age of Pithekoussai.

The boats

From Homeric times to the end of the 7th century B.C., the ships sailing the Mediterranean Sea were built in a specific tradition.

On the bronze doors of Balawat, dating from the reign of Salmanassar

II (858-829 B.C.), small Phoenician boats are represented with roun-

^{*} This article is a largely reworked and shortened version of the author's "Tradizioni omeriche nella navigazione mediterranea dei Pithecusani" (Monti 1996), in which the Boötes krater fragment was published for the first time. The translation into English is by Mr. J.J.M. Schepers (Amsterdam); Mr. O.E. Borgers (Amsterdam) made new drawings. Meanwhile, the fragment has also been discussed by J.N. Coldstream and G.L. Huxley (1996).

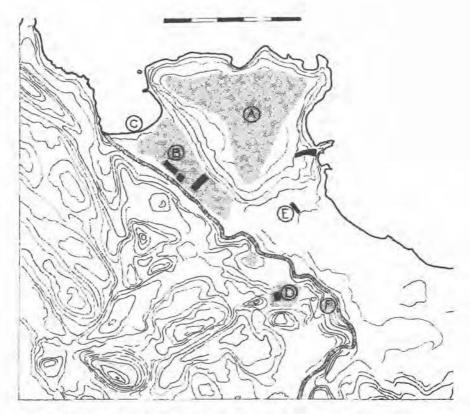


Fig. 1. Map of Pithekoussai showing sites mentioned in the text: A. Monte di Vico (acropolis); B. Necropolis Valle di San Montano; C. Harbour - beach; D. Mezzavia (metal workshop); E. Church of Santa Restituta (pottery workshops); F. Pastola (child-cremation grave).

ded hulls and prows decorated with animal-protomes, but without sails and decks, reflecting a tradition at least dating back to the 11th century B.C. temple complex of Medinet Habu (Moscati 1972, 112 with fig.). Other boats had symmetrical prows and sterns ending in bird-protomes, the symbols of the uranian deities widely worshipped in the Central-European and Central-Mediterranean countries during the Late Bronze Age.¹

^{&#}x27;Almost all boats of the sea peoples are characterized by bird-protomes, showing the solar symbol of the 'boat with birds', an iconographical motif of frequent occurrence, attested for the Late Bronze Age and the Iron Age in Central Europe, Italy and on Pithekoussai, cf. Wachsmann 1981, 210-211, figs. 25-26.

Minute details of boats and constructions, e.g. loose masts in the centres, can be inferred from Homer's epics: 2

ίστον δ' εἰλάτινον κοίλης ἔντοσθε μεσόδμης στῆσαν ἀείραντες, κατὰ δὲ προτόνοισιν ἔδησαν, ἕλκον δ' ἰστία λευκὰ ἐυστρέπτοισι βοεῦσιν.

The mast of fir they raised and set in the hollow socket, and made it fast with forestays, and hauled up the white sail with twisted thongs of oxhide (*Od.* ii, 424-426)

The sails could be shortened by means of tie-rods, which was imperative when the hardly controllable, highly dangerous, square sails were used with only moderate wind-force from behind. Under more difficult circumstances, they had to be struck. If they weren't and the wind turned or became too powerful, then the boats would loose balance and,

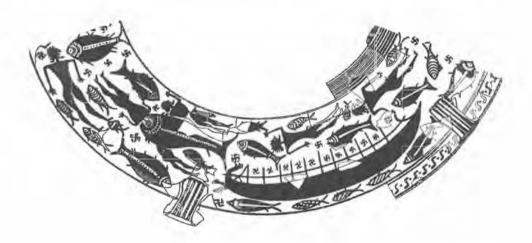


Fig. 2. Painting of shipwreck on Late-Geometric krater from necropolis of Valle di San Montano S.1 (after Buchner/Ridgway 1993, pl. 231).

² Translations of the *Iliad* and the *Odyssey* are by A.T. Murray (Loeb edition, Cambridge, Mass./London 1985 and Loeb edition, revised by G.E. Dimock, Cambridge, Mass./London, 1995, respectively).



Fig. 3. Detail of Fig. 2, showing retrorse stern (after Buchner/Ridgway 1993, pl. 231).

having no decks, were liable to take water (Guglielmi 1971, 422-423). Under such unfavourable circumstances, the sails were shortened and the movable masts were taken out to serve as life-preservers. Finally, the course was controlled by no more than one rudder, as described in the *Odyssey*:

πηδάλιον μετά χεροί θεούσης νηὸς ἔχοντα.

(... Phoebus Apollo ... slew the helmsman of Menelaus) as he held in his hands the steering oar of the speeding ship (Od. iii, 281)

and shown by vase paintings of the Late Bronze Age which have come to light during the excavations at Phaistos on Crete (Laviosa 1969/1970, 9-13).

The Greek ships that sailed the Gulf of Naples provided even clearer and more precise details, as will appear from the ship in the painting of a shipwreck on a locally manufactured krater, found in the Valle di San Montano necropolis of Pithekoussai and belonging to the Late-Geometric (LG II) Period (Fig. 2; cf. Fig. 1: B).³ The shape of the upturned ship is curved or beaked. "Beaked" (cf. Lenz 1998) and "hollow" are adjectives frequently occurring in Homer's descriptions of Greek ships:

' Ιφιδάμας Άντηνορίδης, ἴκετο ... σὺν δυοκαίδεκα νηυσὶ κορωνίσιν, αἴ οἱ ἔποντο.

³ Buchner/Ridgway 1993, 696, pls. CCIV, CCV, 231 (Sp. 1/1).

It was Iphidamas, son of Antenor (...) with twelve beaked ships that followed him (Il. XI, 221-228)

ές δίφρον δ' ἀνόρουσε, καὶ ἡνιόχῷ ἐπέτελλε 'νηυσὶν ἔπι γλαφυρῆσιν ἐλαυνέμεν'

(Agamemnon ...) leapt upon his chariot and bade his charioteer drive to the hollow ships (II. XI, 273-274)

For reasons of commerce, there is a railing with openings on either broadside of this Pithekoussan ship, all along its length. The ship has a solid, angular prow with a protrusion at its bottom, which might be a ram making it the true and proper rostrum characteristic of the ships of the Geometric Period.⁴

The stern of the ship, painted in Pithekoussai, has a retrorse rostrum with two short, parallel or convergent spikes. Underneath it, the blade-shaped rudder (not the oar) appears, which is handled from above (Ridgway 1984, 74; here Figs. 2-3).

The ship's mast, sail and oars are missing, while around it the helmsman and five crewmen are fighting off the fishes. Things are even worse on the other side of the vase, where a monstrous fish is about to devour one of the shipwrecked sailors, whose head has already disappeared into the monster's mouth, and where 22 taller and smaller fishes besiege the upturned ship which goes down under the frightened eyes of the shipwrecked crewmen, who desperately try to reach the shore (Fig. 3). No doubt, this dramatic painting is based on the following passage from Homer:

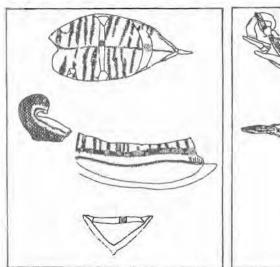
σταθμῷ ἐν οἱοπόλῳ· τοὺσ δ' οὐκ ἐθέλοντας ἄελλαι πόντον ἐπ' ἰχθυόεντα φίλων ἀπάνευθε φέρουσιν·

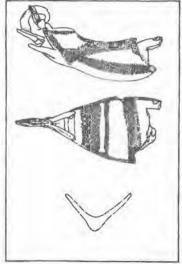
(...) but sore against their will the storm-winds bear them over the teeming deep afar from their friends (Il. XIX, 377-378)

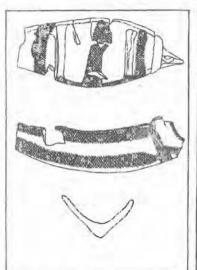
Apart from the ancient ship representations, the scheme of this ship 'wrecked' at Pithekoussai, showing detailed features (high, rounded hull, very high stern and prow with keel, railing for commercial purposes), so far constitutes one of the best interpretable models of boats from between the Early Bronze Age and historical times.⁵

⁴ Casson 1971, 71-74 and bibliography.

⁵ van Doorninck 1982, 281-283, fig. 6A; Brock 1957, 12, pl. 4,45 (II); Morrison/Williams 1968, 12, pl. Id. The profile of the Pithekoussan ship appears to be close to that of a ship painted on a Late-Geometric krater found in a chamber-tomb near Dirmil on the Peninsula of Halicarnassus.







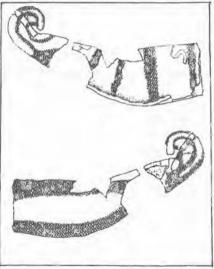


Fig. 4. Small votive boats from a child-cremation grave, found in the vicinity of Pastola (Lacco Ameno).

This evidence is of prime importance with regard to the extensive and complex Pithekoussan trade and, of course, this other manifestation of navigation, piracy: "an honourable activity", as Thucydides (VI.4-5) would later call it, smoothly intertwining with commerce, an everyday reality, a phenomenon of frequent occurrence in coastal regions and around Pithekoussai.

Privateers also assisted merchant-men: hardly had Odysseus landed on Ithaca, when he introduced himself to Eumaeus as a Cretan pirate, relating a raid in detail (*Od.* xiv, 244-272). Unlike the merchant-man, the privateer required streamline, manoeuvrability, and the capacity to develop high speed by means of sails and oars.

In Pithekoussai, piracy must have been a reality. To support this, there is ample evidence. If Chalcidian trade in the West was attended by piracy, then how much more must Pithekoussan trade (export of precious Euboean, Corinthian and Levantine ceramics and of orientalizing jewellery with characteristics of the Homeric prexis) have been closely linked up with it, especially in its earliest stages (Mele 1979, 59)? Thucydides ascribed the first settlement in Zancle to the pirates of Cumae. From this, he erroneously inferred Cumae and its Chalcidian homeland to have played a leading part in founding the second Zancle. G. Buchner observes that, Zancle being older than Cumae, these pirates must have been Pithekoussans rather than Cumaeans. Thus, Chalcidian and Pithekoussan emporia and piracy are linked up with each other once again.⁶

Finally, the boats can be divided into groups according to tonnage, according to the flatness of bottom or to section. Ships of the first type, of more archaic build, were used in the coastal waters of the Gulf of Partenope to maintain the relations between the centre of Pithekoussai and the eight settlements along the coast of the island. These small boats, suitable for coastal navigation and fishing, are faithfully rendered in four clay models once used as votives and found in Pastola (Fig. 4; cf. Fig. 1; F; Buchner/Gialanella 1994, 75).

Navigation and orientation

Let us now turn to navigation and orientation, imagining we follow one of the many routes from the East to the West. We will sail from Eretrea on the island of Euboea, have a stop in Corinth and then sail on to the island of Pithekoussai. We are on board a protohistorical ship, tied to coastal routes as it has no decks for the crew to sleep on. Thus, the helmsman has to make daily stops to secure the night's rest, preferring islands to the purpose. The passage in the *Odyssey* in which Eurylochus urges his fellow crewmen to follow their custom and get ashore is highly illustrative of the dangers of sailing at night:

έκ νυκτών δ' ἄνεμοι χαλεποί, δηλήματα νηών, γίγνονται πῆ κέν τις ὑπεκφύγοι αἰπὺν ὅλεθρον,

⁶ Coldstream 1968, 326; Buchner 1977, 142, 144. cf. Vallet 1958, 54-56.

ην πωσ έξαπίνης ἔλθη ἀνέμοιο θύελλα, η Νότου η Ζεφύροιο δυσαέος, οἴ τε μάλιστα νῆα διαρραίουσι θεῶν ἀέκητι ἀνάκτων!

It is from the night that fierce winds are born, wreckers of ships. How could one escape utter destruction, if per chance there should suddenly come a blast of the South Wind or the blustering West Wind, which oftenest wreck ships in despite of the sovereign gods? (Od. xii, 286-290)

Another passage in the *Odyssey* describes how ships could be smoothly brought ashore for the night. The sailors preferred places near the mouths of rivers and coastal marshes, the inconsiderable draughts of which would greatly facilitate landing and putting out to sea (*Od.* xii, 316-318). From the very foundation of the settlement onwards, the Greeks have been aware that Pithekoussai offered safe landing places: they knew its shores and that, when breakers pounded the South, the North would be peaceful and vice versa.

Using sails, the sailors would take advantage of the wind, especially when it blew from behind. When the useful effect of propulsion by wind diminished, especially during long crossings, the crewmen would wield the oars and try to reach land, it being too much of an exertion to row the rests of these journeys. Also, they would exploit superficial sea currents. Furthermore, it should be remembered that, in the Iron Age, journeys across the Aegean Sea were clasped between early spring and the end of October (Mele 1979).

Having lost sight of coastline and other landmarks on mainland and/or islands, the sailors would use various other systems of orientation.

In the day-time, when landmarks were invisible owing to fog, sailors would establish their ship's position measuring the sun's height above the horizon (Giardino 1995, 278). In utterly unfavourable circumstances, when after a storm the ship was in unknown waters, they watched the flight of the birds, which indicated where there was land and how far away. They also watched the behaviour of the birds kept onboard ship (Fig. 5). This ancient method of orientation is already found in the biblical story of the Flood, in which Noah first lets fly out a raven and then a pigeon in order to find land.⁷ The sharp-eyed bird will perceive

Old Testament, Genesis VIII: 6-12: "After another forty days, Noah opened a porthole and released a raven that flew back and forth until the earth was dry. Meanwhile he sent out a dove to see if it could find dry ground, but the dove found no place to light, and returned to Noah, for the water was still too high. So Noah held out his hand and drew the dove back into the boat. Seven days later Noah released the dove again and this time, towards evening, the bird returned to him with an olive leaf in her

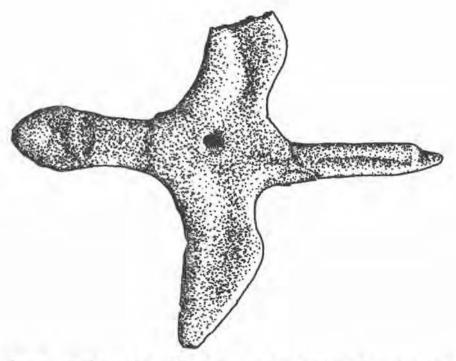


Fig. 5. Bird in flight, originally attached to the stern of a votive boat. Local manufacture. Museum and archaeological excavations of Santa Restituta (Lacco Ameno).

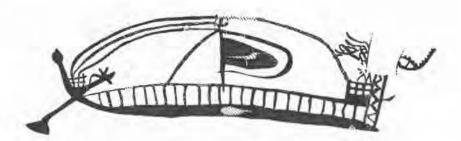


Fig. 6. Detail from the bowl of Phaistos, found in the tholos tomb of Tragana near Pylos, in a LH III context (Athens, National Museum). The representation shows the rudder consisting in a blade-shaped helm and the bird in flight (after Basch 1987, 142, fig. 298c, with new fragments integrated).

beak. So Noah knew that the water was almost gone. A week later he released the dove again, and this time she didn't come back." The first two attempts to find land being unsuccessful, raven and pigeon flew back to Noah's ark. The journey came to an end when the pigeon spied land and flew towards it, not returning to the arc.

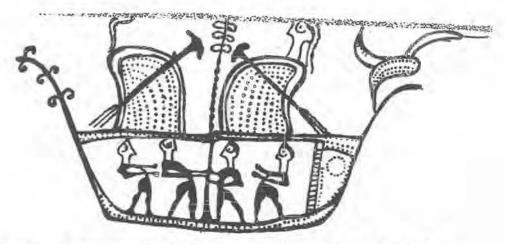


Fig. 7. Cypriot-Levantine ship. On stern: Bird in flight. Painting on a Cypro-Mycenaean krater from Skyros, dating to the LH IIIB Period.

land from high and afar and fly towards it. This method was in use in the Mediterranean waters as early as the Late Bronze Age, as will appear from representations of ships with birds, painted on vases and incised in bronze objects (Figs. 6, 7). The pictures of small boats of the Nuraghi, showing on the maintops a dove on the lookout, are particularly significant.

With nocturnal navigation, orientation depended on an analysis of the relative positions of the stars, which were arranged in constellations and thought of in terms of a Homeric, Hesiodic, mythical universe, meant to interpret and unravel human, natural, and divine phenomena. Homer refers to this in two passages of the *Odyssey* and *Iliad*.8

The constellation of Boötes

The Pleiades and Boötes permitted Odysseus to establish his geographic position at night:

αὐτὰρ ὁ πηδαλίῳ ἰθύνετο τεχνηέντως, ἥμενος, οὐδέ οἱ ὕπνος ἐπὶ βλεφάροισιν ἔπιπτεν Πληιάδας τ' ἐσορῶντι καὶ ὀψὲ δύοντα Βοώτην,

⁸ Hom., II. XVIII, 483-489, Od. v, 270-275. When, at night, the sky was entirely overcast, the helmsman would rely on his knowledge of local winds and superficial sea-currents.

"Αρκτον θ', ἣν καὶ "Αμαξαν ἐπίκλησιν καλέουσιν, ἤ τ' αὐτοῦ στρέφεται καὶ τ' `Ωρίωνα δοκεύει, οἴη δ' ἄμμορός ἐστι λοετρῶν `Ωκεανοῖο'

And he sat and guided his raft skilfully with the steering oar, nor did sleep fall upon his eyelids, as he watched the Pleiades, and late-setting Boötes, and the Bear, which men also call the Wain, which ever circles where it is and watches Orion, and alone has no part in the baths of Ocean (Od. v, 270-275)

This line repeats one from the *Iliad*, describing the making of Achilles' shield by Hephaistos:

έν μὲν γαῖαν ἔτευξ', ἐν δ' οὐρανόν, ἐν δὲ θάλασσαν, ἠέλιόν τ' ἀκάμαντα, σελήνην τε πλήθουσαν, έν δὲ τὰ τείρεα πάντα, τά τ' οὐρανὸς ἐστεφάνωται, Πληἰάδας θ', 'Υάδας τε τό τε σθένος 'Ωρίωνος, 'Αρκτον θ', ἢν καὶ ''Αμαξαν ἐπίκλησιν καλέουσιν, ἤ τ' αὐτοῦ στρέφεται καὶ τ' 'Ωρίωνα δοκεύει οἵη δ' ἄμμορός ἐστι λοετρῶν 'Ωκεανοῖο.

Therein he wrought the earth, therein the heavens therein the sea, and the unwearied sun, and the moon at the full, and therein all the constellations wherewith heaven is crowned - the Pleiades, and the Hyades and the mighty Orion, and the Bear, that men call also the Wain, that circles ever in her place, and watches Orion, and alone has no part in the baths of Ocean (Il. XVIII, 483-489)

From this nocturnal navigation, we can infer the following constellations to have been known since Homeric times: The Pleiades, the Hyades (actually star clusters in the constellation of Taurus), Orion, Arctos (the Plough or Great Bear), Boötes with its extremely bright star Arcturus. Sirius, the most luminous of stars, was also well known (Fig. 8).

As regards Arctos, which consists of the seven brightest stars of the Great Bear, it was said to be the only cluster never to sink into the ocean. This is the earliest Greek reference to the circumpolar constellations, which, not joining in with the apparent rotation of the celestial sphere around its axis, neither rise from nor set in any particular point, but are always in sight (Giardino 1995, 269).

During the first millennium B.C., the northern point of orientation was

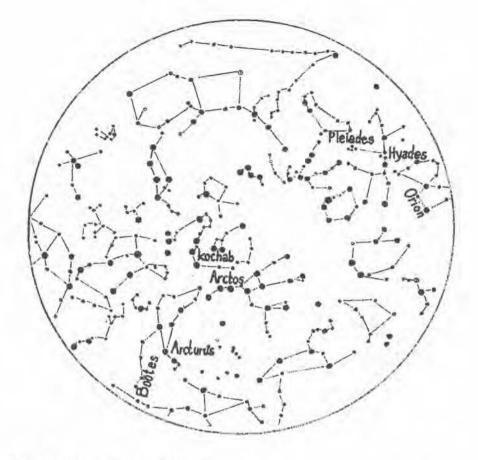


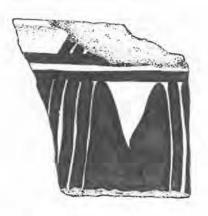
Fig. 8. Northern hemisphere.

The constellations rendered by Hephaistos on Achilles' shield,
Boötes and the stars Acturus and Kochab, called Stella
Phoenicia in ancient times, are indicated.

the star Kochab in the constellation of Ursa Minor, which was then called Stella Phoenicia and rotated around the North Pole at a distance of seven degrees, thus appearing to be fixed.⁹

Returning to Pithekoussan seamanship, we will consider one of the important indications of nocturnal orientation, a fragment of a locally manufactured, Euboeanizing geometric krater from the late 8th centu-

⁹ Thus, in antiquity, the 'stella polare' was not the present one, Polaris in Ursa Minor (= α Ursae Minoris), but Kochab (= β Ursae Minoris), a star in the same constellation, the name of which means Star of the North.



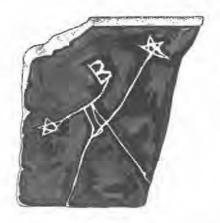


Fig. 9. Fragment of a locally produced Euboeanizing krater. On its exterior (a): Butterfly between metopes. On its interior (b): Incision representing the constellation of Boötes. From excavations below the church of Santa Restituta (Lacco Ameno).

ry B.C., found in the excavations below the church of Santa Restituta (Figs. 9, 12; cf. Fig. 1: E).

The fragment has the pentagonal representation of the constellation of Boötes incised in its interior (Fig. 9b). 10 Undoubtedly, the engraver will also have incised the other four constellations in the entire interior of the krater, in neat order, just as Hephaestus had done on the "great and sturdy" shield of Achilles, emphasizing the link with Homer (Fig. 10). 11

The Boötes krater provides important information on the use of and trade in 'nautical' vases, the products of astro-mythological experts in and around the Mediterranean emporia, in particular in Pithekoussai.

II. XVIII, 483-489, Here, Boötes is absent, but it is present in one other passage: Od. v. 270-275.

¹⁰ Lacco Ameno, Santuario Santa Restituta, inv. vol. IV, p. 130, n. 1579: Locally produced Euboeanizing krater. Late Geometric (LG I). Rose-coloured clay, slightly compact, with vacuoles - black grains - silver mica; cream slip on the exterior, blackish slip on the interior. Preservation: One fragment of rim, shoulder and part of the body with decoration and incision. Flat lip with motif of three small vertical strokes and horizontal lines. Low, widening shoulder with butterfly motif between two metopes. On the interior, incised representation of constellation of Boötes. Four extremities of the representation end in small pentagons, one in the symbol Beta. Measures: Height 5.3 cm, width 4 cm. Classification and dating Dr. C. W. Neeft, October 22, 1995.

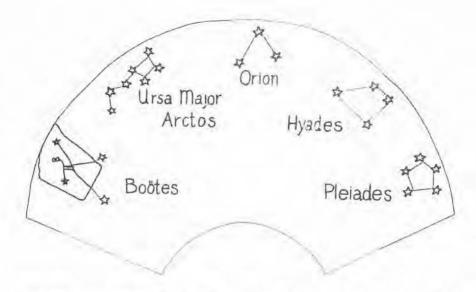


Fig. 10. Drawing of what may have been the interior decoration of the Boötes krater. The constellation of Boötes occurs at the left extremity.

Concerning a rite on board ship, Homer only mentions the use of such common vases as were carried together with the food-supply on the "well-benched ship" of Telemachus:

δησάμενοι δ' ἄρα ὅπλα θοὴν ἀνὰ νῆα μέλαιναν στήσαντο κρητῆρας ἐπιστεφέασ οἴνοιο· λεῖβον δ' ἀθανάτοισι θεοῖς αἰειγενέτησιν, ἐκ πάντων δὲ μάλιστα Διὸς γλαυκώπιδι κούρη.

Then, when they had made the tackling fast in the swift black ship, they set forth bowls brimful of wine, and poured libations to the immortal gods that are forever, and chiefest of all to the flashing-eyed daughter of Zeus (*Od.* ii, 430-433)

To merely present a clinical, detailed picture of our 'nautical' krater, conjured up by means of technical drawing and descriptions as in Fig. 10, does not yield the picture. It is also imperative to dwell on a few details painted on and scratched in the vase by two artists at different times, however much the pictorial decoration on its exterior and the astral composition on its interior may have been in unison.

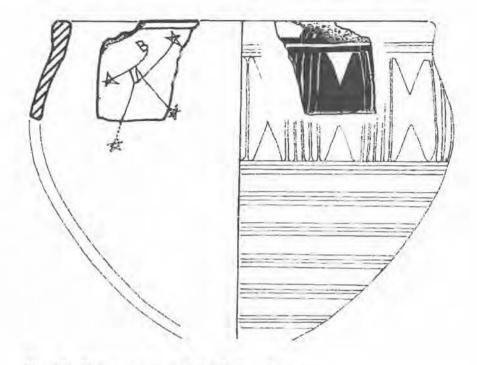


Fig. 11. Reconstruction of the Boötes krater.

Let us first examine the 'butterfly' motif originally painted by the Pithekoussan potter-painter on the exterior. The butterfly is an insect with four wings believed to be linked up with fortune (Figs. 9a, 11-12). It was most probably imported from the East, probably Corinth or Euboea, and became a steady source of inspiration for potters-painters in Pithekoussai, where another fragment of a kantharos from the Late Geometric (LG I) Period was found, almost certainly imported from Eretrea and showing the 'butterfly' motif in brown paint on cream slip on its exterior. The motif appealed to the Pithekoussan vase-painters, who at once included it in their repertoire of motifs. From the last quarter of the 8th century B.C. onwards, it always occurred between two sets of vertical lines. The supplementary of the state o

¹² Lacco Ameno, Santuario Santa Restituta, inv. vol. IV, n. 1520. Proto-Corinthian kantharos.

¹³ Lacco Ameno, Santuario Santa Restituta, inv. vol. IV, n. 1498, kotyle; 1307/E, oinochoe; 1307/D, krater; 1342, local krater; 1502, krater; 1505, neck of krater with two 'butterfly' metopes. Here, three stages can be distinguished: A. chevron skyphoi of Euboean manufacture, 775-760 B.C.; B. skyphoi imported in Pithekoussai from Euboea and Corinth, 750-725 B.C.; C. a stage characterized by imitations and local manufacture, improvement exclusively being attributable to the Euboeans, 730 - early 7th century B.C.





Fig. 12. Photo of the Boötes krater fragment: a. exterior, b. interior (photo author).

Let us now turn to the figure representing the constellation of Boötes, which calls for literary, astronomical and mythological comment. The constellation of Boötes is situated in the northern sky, west of the Coma Berenices and Virgo. Its main stars make up a pentagon north of Arcturus. Its double and most important star is "Epsilon Boötes", referred to as "pulcherrima" by the Russian astronomer Friedrich Wilken Struve.

Now, returning to the Pithekoussan fragment, the figure of the astral pentagon and the symbol Beta, both unequivocally known in the Homeric world, are respectively indicated and incised on the interior of our krater: The lines of the pentagonal figure stretch towards the four minor pentagons incised at the positions of the stars and towards the symbol Beta, initial of Boötes, placed at the upper extremity of the central line.¹⁴

The astronomical Beta, meaning ploughman or ox driver, is directly

¹⁴ Genealogically speaking, the Beta on the Pithekoussan fragment derives from the closed variant used in the Chalcidian alphabet. Originally, the Beta was different, but it soon developed into many variants: The Hebraico-sinaitic 'Bet' (represented by a rectangle, the symbol of 'house'), the Phoenician variant looking like an enlarged nine, the many open and angular variants (e.g. those in Thera, Argos and Corinth) and the Greek capital (in the shape of a vertical rectangle missing its left side). Finally, this rectangular Beta became closed and internally bisected. It has remained so from the second half of the 8th century B.C. onwards, Guarducci 1995, 89.

linked up with Homeric mythology, and recurs with Hesiod.¹⁵ Little wonder a tradition arose in which the constellations were given astronomical names, and in which they were equated with absurd, superhuman feats, so as to link up human life with the stars.

A few conclusions on the Boötes krater fragment may stimulate the discussion on traditions and nautical skills of Pithekoussan, Greek and Phoenician sailors:

- 1. The Boötes krater was produced on Ischia and is of a Euboean shape from the Late-Geometric (LG I) Period.
- 2. The symbol Beta descends from the Chalcidian alphabet (Guarducci 1995, 217).
- 3. The figure of the constellation of Boötes derives immediately from descriptions in Homer's epics.
- 4. The interior of the Pithekoussan Boötes krater was incised on Ischia.
- 5. The representation of the Boötes krater is best explained as a visualization of a 'nautical' experience, viz. of crossing the seas at night. As such, it is a unique and early document of West Mediterranean navigation.

BIBLIOGRAPHY

Basch, L. 1987, Le musée imaginaire de la marine antique, Athènes. Brock, J.K. 1957, Fortetsa. Early Greek Tombs near Knossos, Cambridge. Buchner, G. 1977, Cuma nell'VIII secolo, osservata dalla prospettiva di Pitecusa, in: I

¹⁵ The mythological, Homeric Beta refers to Philomelos, main character in the constellation of Boötes, one of the fifty sons of Lycaoon, son of Priam. One version of this legend has it that Philomelos, thrown out by his younger brother Pluto, applied himself to agriculture for his survival, inventing the plough. Seeing him thrown upon himself, his mother, Demeter, transformed by Jove into Ursa Major, had him received in heaven, where he was transformed into the constellation of Bootes as 'guardian' of his stars. The legend of Boötes is even more imaginative and fascinating in the version recounted by Hesiod. First and foremost, 'Arcas', son of Callisto, takes the place of Philomelos. This version has it that Callisto, daughter of Lycaoon and in the suite of Artimedes, was repudiated by the latter for having had intercouse with Zeus and transformed into a she-bear in punishment. Young Arcade was left in the care of Maia, in the region called Arcadia after him. Later, he was adopted by Lycaoon, his grandfather. But then, one day, ruthless Lycaoon dismembered the child's body, roasted parts of it, boiled the other parts and invited Zeus for dinner in order to test his clairvoyance. But Zeus would not be deceived. He struck Lycaoon's house with lightning, transformed him into a wolf, restored Arcade's body and gave it life again. One day, hunting in the woods of Arcadia, the youth stood eye to eye with the she-bear into which his mother Callisto had been transformed. Then, fearing the son would kill the mother, Zeus transformed Callisto into Ursa Major and Arcade into the constellation of Boötes, the guardian of seven oxen. (Rosso/d'Alesio 1988, 50).

Campi Flegrei nell' archeologia e nella storia (Atti dei Convegni Lincei 33), Roma, 131-148.

Buchner, G. /C. Gialanella 1994, Museo Archeologico di Pithecusae, isola d'Ischia, Roma.

Buchner, G./D. Ridgway 1993, Pithekoussai I. Le necropoli: tombe 1-723 scavate dal 1952-1961 (Monumenti Antichi serie monografica 4), Roma.

Casson, L. 1971, Ships and Seamanship in the Ancient World, Baltimore/London.

Coldstream, J.N. 1968, Greek Geometric Pottery. A survey of ten regional styles, London.

Coldstream, J.N./G.L. Huxley 1996, An Astronomical Graffito from Pithekoussai, Parole del Passato 288, 221-224.

van Doorninck, F.H. 1982, Protogeometric longships and the introduction of the ram, International Journal of Nautical Archaeology 11, 277-286.

Giardino, C. 1995, Il Mediterraneo occidentale fra XIV ed VIII secolo a.C. Cerchie minerarie e metalurgiche (BAR International Series 612), Oxford.

Guarducci, M. 1995, Epigrafia greca I, Roma [orig. 1967].

Guglielmi, M. 1971, Sulla navigazione in età Micenea, Parole del Passato 26, 418-435.
Laviosa, C. 1969/1970, La marina micenea, Annuario delle Scuole Archeologiche di Atene e delle Missioni Italiani Archeologiche in Oriente NS 31/32 [1972], 7-40.

Lenz, J.R. 1998, Homer's νυησὶ κορωνίσιν, in: S. Wachsmann (ed.), Seagoing Ships & Seamanship in the Bronze Age Levant, Austin, 199-200.

Mele, A. 1979, Il comercio greco arcaico - prexis ed emporie, Napoli.

Monti, P. 1996, "Tradizioni omeriche nella navigazione mediterranea dei Pithecusani", Rassegna d'Ischia 1 Supplemento.

Moscati, S. 1972. I Fenici in Cartagine, Torino.

Morrison, J.S./R.T. Williams 1968, Greek Oared Ships, 900-323 B.C., Cambridge.

Ridgway, D. 1984, L'alba della Magna Grecia, Milano.

Rosso, A./G. d'Alesio 1988, Mondo mitologico, Città di Castello.

Vallet, G. 1958, Rhégion et Zancle. Histoire, commerce et civilization des cités chalcidiennes du Détroit de Messine, Paris.

Wachsmann, S. 1981, The Ships of the Sea Peoples, International Journal of Nautical Archaeology 10, 187-220.

P. Monti, Museo Diocesano e Scavi Arqueologici "Santa Restituta",
 I-80076 Lacco Ameno, Ischia, Napoli, Italia