

PROBLEMS IN DATING A NEW CYPRIOT SHIP MODEL

The aim of this communication is to present a new clay ship model from Cyprus and discuss the difficulties that its dating and typology present.

This model is unpublished and is presented for the first time to scholars.

Although there is a large number of known ships' clay models of Cypriot origin with a wide variation of shapes, this model, has no parallel.

The model was acquired in London in 1990, from an established antique dealer. All what we know of its provenance is the dealer's declaration that it is Cypriot and comes from an "old collection".

This is to say, that as for several other Cypriot ship models, the provenance is uncertain and the dating problematic as it was found out of an archaeological context.

The model is now in Athens and is part of a private collection¹.

Its main dimensions are (Fig. 1 and Fig. 2):

Length overall: 22.5 cm

Beam amidship: 7 cm

Height of stempost: 11.5 cm

Height of sternpost: 10 cm.

As the uppermost part of both posts is missing one can estimate that the total height was about 13cm for each post. I also believe that the stempost upper part was completed in the shape of a reversed horn.

This is one of the largest known clay models of a ship from Cyprus (there are some seven known to be slightly larger).

The model is restored from three broken pieces and is complete. Except for the missing upper part of the posts, there is a minor chip on the top rail of the portside amidship.

The color of the clay is light yellow ochre and the fabric typically Cypriot. It is made of fine clay by a skilled modeler in a very distinctive style, well different from the rough and clumsy way other Cypriot models are shaped.

There are numerous traces of much faded dark-brown paint on several parts of the model. We can say with certitude that it was decorated mostly with dark-brown linear paint. The painting is noticeable on both stem and stern posts, on the body of the hull, the gunwale as well as the underbody. Also, scarce remains of dark paint survived on some parts of the interior.

A thin light brown painted line run all over the top tail and indicate that the bulwark was probably painted with a lighter color.

The authenticity of the model was ascertained by a thermoluminescence carried on at the National Centre for Scientific Research "Dimokritos" in Athens by Dr. Ch. Michail.

Also a chemical analysis of the clay was made at the Chemical Laboratory of the National Archaeological Museum of Athens by Dr. El. Mangou in order to compare the clay composition with samples of pottery sherds of Cypriot provenance.

The analysis² was positive as the composition of the clay is comparable to the clay from various Cypriot areas with, in particular, a high consistence in calcium (CaO).

I would like to take this opportunity to thank Dr. Olga Tsahou-Alexandri, director of National Archaeological Museum of Athens and Dr. E. Mangou for making both analyses possible.

And now let us come to the difficulty of the dating of this model which we can certainly call Cypriot.

Is it a Bronze Age model or should it be dated later, perhaps as late as the Geometric period?

As it was said earlier we cannot find a close parallel with the other known Cypriot ship models as none has this straight quasi-perpendicular stem and stern.

Another peculiarity of this ship is her flat bottom. Was the modeller representing a boat with a flat bottom or was the underbody flattened to make the model stand?

At this point it must be stressed that most ship models are not made to stand. This model stands without any support and actually I may say that it stands correctly with the prow slightly upwards.

One would be tempted to make a comparison with the well-known models of Mochlos³ (Fig. 3) and Palaikastro (Fig. 4), both from the Minoan Bronze Age but the resemblance is limited to their bottom flatness.

As the quest should not be limited to Cyprus and the Aegean area, I believe that there is a resemblance with the ship depicted on a scaraboid seal of Ugarit⁵ (Fig. 5) dated circa 1200 B.C. There too we have an absolute perpendicular stem and stern. Another ship that is in a certain way comparable is the ship of the sea-people from the Funerary Monument of Ramses III from Medinet Habu⁶ (Fig. 6). The shape of the bottom is not totally flat but the stem post is absolutely vertical, while the stern is slightly leaning backwards.

Obviously the vessels of the sea-people are totally different from the shape of the Pharaonic vessels and the carver of the relief differentiates these two very different types of ships.

I believe that one of the warships of Kynos (Fig. 7) presented by Dr. Phanouria Dakoronia yesterday has a stem very similar and a bottom comparable to our model. But what is left of the broken stem can also be compared as a possible parallel. Also the second ship presented by Dr. Dakoronia in a complete manner, after the happy discovery of a further sherd (Fig. 8), does also compare with our model. There is some resemblance. The Kynos ships are dated of the late Bronze age, Late Helladic (1300 B.C.).

To which period can we date our model?

Is this a ship of the early Bronze age or a ship of the Cyprus - Mycenaean period?

Can we dismiss the possibility of a later dating: Cyprus - Archaic circa 700 - 600 B.C.

Perhaps, further comparable discoveries in the future may give an answer.

However, this model raises another question: Is this a flat-bottomed construction deprived of a keel or did the ship that inspired the modeler had a keel and a sail? Was the underbody flattened, slightly, purposely to make it stand? How can we explain this angular shape of the bottom amidship?

In my opinion the ship represented was not a flat bottom but probably had a keel.

The way the stem and the stern are built high above the water offers a good protection against high waves, so I believe that this is an open sea craft and although I have not found such an indication this could possibly be a sailing ship.

Harry E. Tzalas
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NOTES

1. H. E. Tzalas' Collection catalogue no. 163.
2. See the detailed analysis at the end of this paper in *appendix*.
3. S. Marinatos *BCH57* (1933) p. 215, R. W. Hutchinson, *Prehistoric Crete* (1962), 91 ff. C. Renfrew, *The emergence of Civilization* (1972) 356 ff.
4. S. Marinatos *BCH57* (1933) p. 173. C. Renfrew, *The emergence of Civilization* (1972) 356 ff. P. Johnston, *The Sea-Craft of Prehistory* (1980) 61 ff.
5. L. Basch, *MIMA* (1987) p. 70.
6. M. Artzy, On boats and sea peoples, *BASOR* 266.

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ILLUSTRATIONS

- 1 and 2. The Cypriot model (Photo. Christos Diamandis).
3. The boat from Mochlos, Crete (Circa 2600-2000/1900 BC). See L. Basch, *MIMA* (1987) p. 133 Fig. 276.
4. The boat from Palaikastro, Crete (Circa 2600-2200 BC). See L. Basch, *MIMA* (1987) p. 83 Figs 170, 171.
5. Ship from a scaraboid seal. Ugariti (Circa 1200 BC). From Schaeffer, *Ugaritica* IV p. 134, Fig. 114 in L. Basch, *MIMA* (1987) p. 70, Fig. 131.
6. Ship of the Sea People, Ramses III Temple at Medinet Habu. L. Basch, *MIMA* (1987) pp. 68, 69 Figs. 123-130 (Circa 1185 BC).
7. Kynos ship as per Fig. 1 *TROPIS III*, p. 147.
8. Kynos ship as per Fig. 2 *TROPIS III*, p. 148.

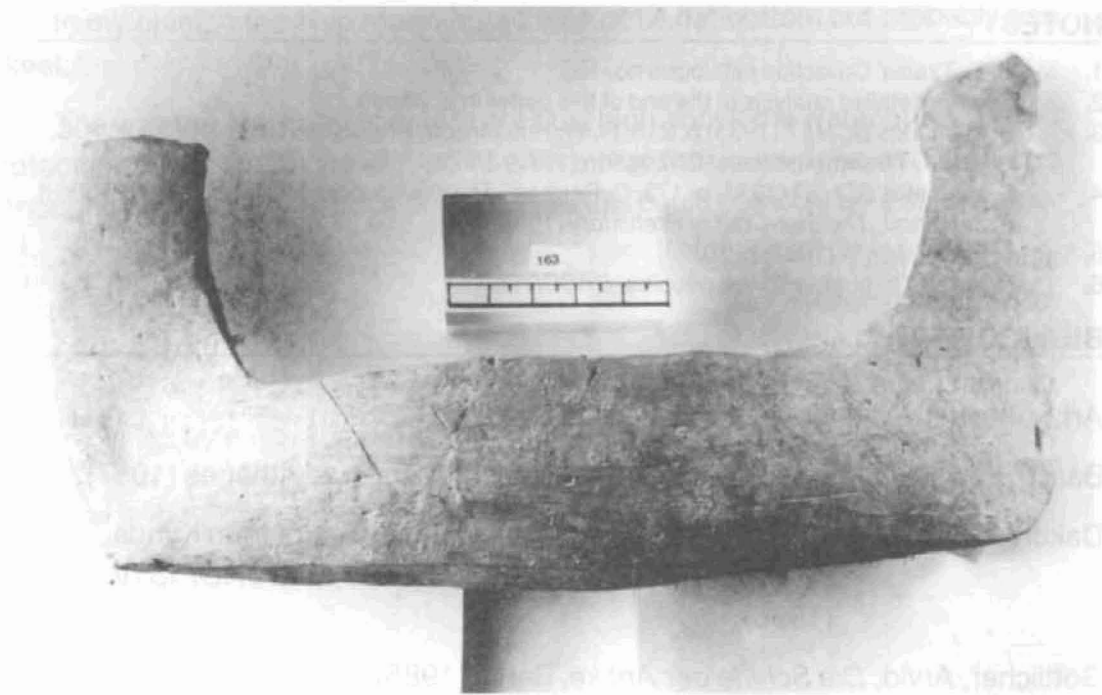


FIG. 1

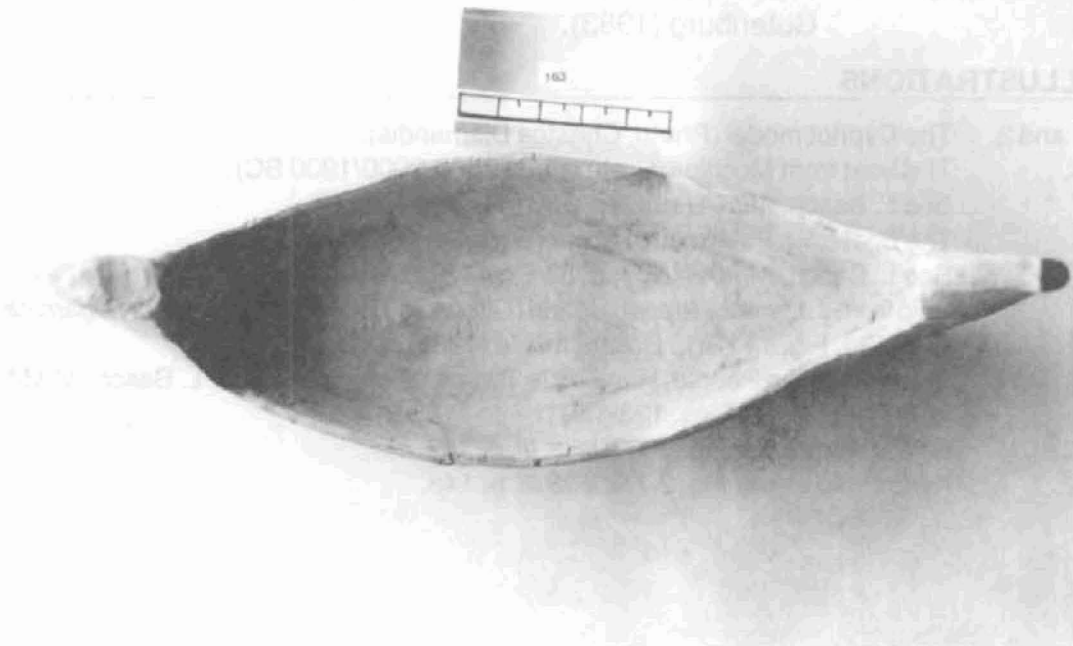


FIG. 2

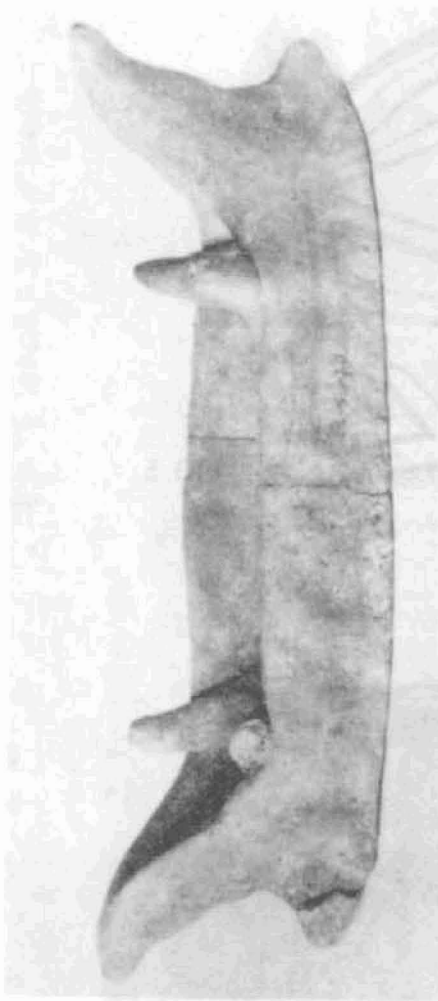


FIG. 3

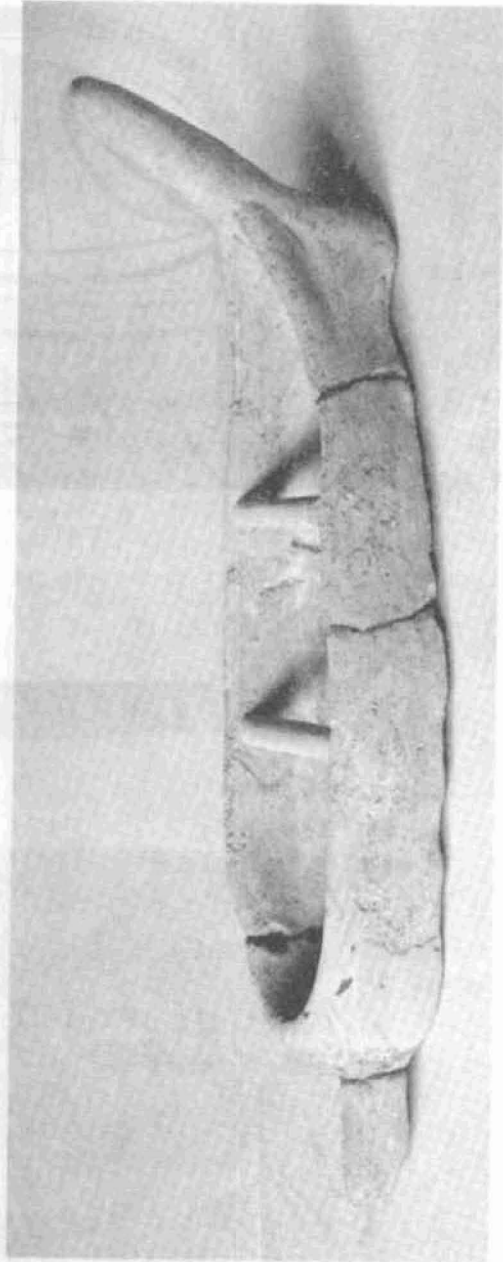


FIG. 4



FIG. 5

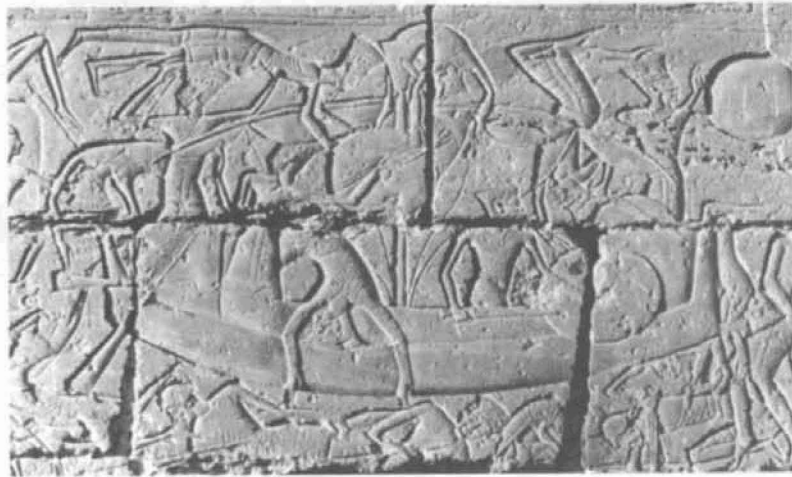


FIG. 6



FIG. 7

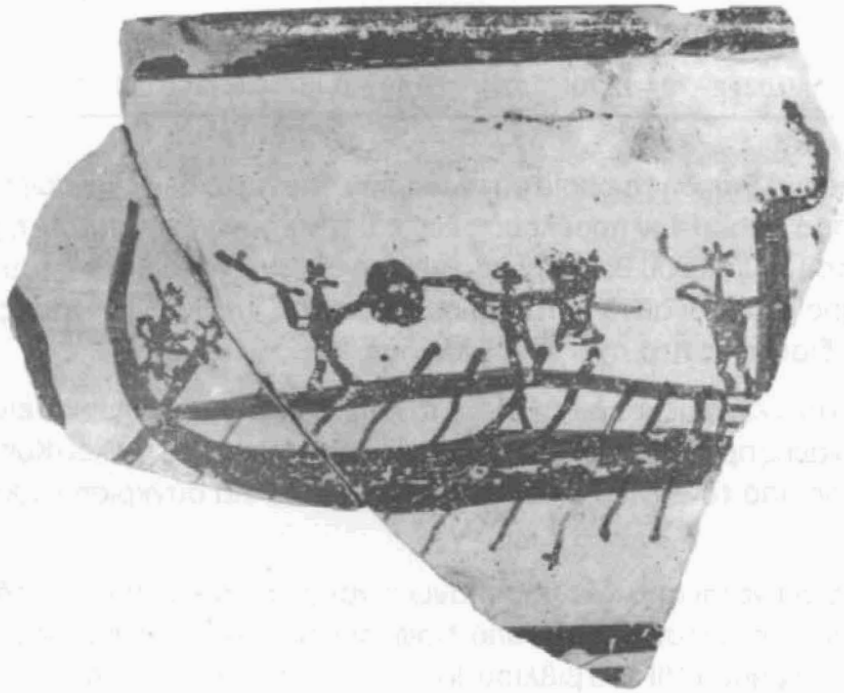


FIG. 8

APPENDIX

ΧΗΜΙΚΗ ΕΞΕΤΑΣΗ ΠΗΛΙΝΟΥ ΟΜΟΙΩΜΑΤΟΣ ΠΛΟΙΟΥ

Το δείγμα για τη χημική ανάλυση του πηλού του ομοιώματος πλοίου ελήφθη με τρυπάνι καρβιδίου του βολφραμίου σε μορφή κόνης. Η διαλυτοποίηση του δείγματος έγινε με σύντηξη με μεταβορικό λίθιο. Η χημική ανάλυση του δείγματος έγινε με τη μέθοδο της ατομικής απορρόφησης στο Χημικό Εργαστήριο του Εθνικού Μουσείου.

Τα αποτελέσματα της χημικής ανάλυσης επί τοις εκατό σε οξειδία των στοιχείων δίνονται στον παρακάτω πίνακα:

% ΧΗΜΙΚΗ ΣΥΣΤΑΣΗ ΣΕ ΟΞΕΙΔΙΑ

Είδος	αντικειμένου	Fe ₂ O ₃	CaO	Al ₂ O ₃	Ka ₂ O	Na ₂ O	MnO	MgO	Gr ₂ O ₃	NiO	TiO ₂
Πήλινο ομοίωμα πλοιαρίου		5,76	27,80	12,98	1,43	0,18	0,13	5,45	0,043	0,031	0,81
Κυπριακό όστρακο											
EAM 15414		10,02	29,70	12,78	1,84	0,19	0,13	8,62	0,051	0,031	0,82

Παρατηρήσεις: Επειδή το ομοίωμα πλοιαρίου από πηλό δεν έχει σαφή προσδιορισμό όσο αφορά την προέλευσή του και την χρονολόγησή του, η χημική ανάλυση του πηλού του θα ήταν παρακινδυνευμένα καθοριστική του τόπου προέλευσής του. Και αυτό γιατί πηλοί παρόμοιας χημικής σύστασης χαρακτηρίζουν διάφορες περιοχές π.χ. Ελλάδα, Κύπρου κ.λ.π.

Για τη συγκεκριμένη ερώτηση, αν το πήλινο ομοίωμα πλοιαρίου είναι από πηλό Κυπριακής προέλευσης, έγινε χημική ανάλυση ενός οστράκου Κυπριακής προέλευσης από το Εθνικό Μουσείο με αρ. 15414 για σύγκριση καθαρά ενδεικτική.

Όπως φαίνεται από τον παραπάνω πίνακα, αλλά και από τα δεδομένα χημικών αναλύσεων σε πηλούς από διάφορες περιοχές της Κύπρου που δίνονται στο Appendix VII του βιβλίου Jones 1986 υπάρχουν κάποιες ενδείξεις για συσχετισμό του πηλού ως Κυπριακού, χωρίς αυτό να είναι απόλυτα κα-

θοριστικό. Συγκεκριμένα παρατηρείται ένα υψηλό ποσοστό ασβεστίου (CaO) που χαρακτηρίζει πηλούς από διάφορες περιοχές της Κύπρου.

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ABRIDGED TRANSLATION OF Dr. EL. MANGOU (CHEMICAL LABORATORY OF THE NATIONAL ARCHAEOLOGICAL MUSEUM) REPORT ON THE CHEMICAL ANALYSIS OF THE SHIP-MODEL CLAY

The sample of clay taken from the model was analysed and the results compared with the analysis of the clay from a pottery sherd of Cypriot provenance no. 15414 of the National Archaeological Museum of Athens.

% CHEMICAL COMPOSITION

Nature of the object	Fe ₂ O ₃	CaO	Al ₂ O ₃	Ka ₂ O	Na ₂ O	MnO	MgO	Gr ₂ O ₃	NiO	TiO ₂
Ship model	5,76	27,80	12,98	1,43	0,18	0,13	5,45	0,043	0,031	0,81
Cypriot sherd EAM 15414	10,02	29,70	12,78	1,84	0,19	0,13	8,62	0,051	0,031	0,82

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