

VRG_Folder_0586

A wreck of the late 4th or early 3rd century BC near Donuzlav

V. D. Blavatsky and B. G. Peters

Translated by D. J. Blackman from Blavatsky & Peters (1969). For a discussion of the significance of the results, see Blackman (1972). The figures have had to be reproduced direct from the figures in Blavatsky & Peters (1967, 1969); hence their uneven quality.

In 1964 and 1965 the Institute of Archaeology of the Soviet Academy of Sciences organized three expeditions which carried out research on the seabed in the Black Sea near Donuzlav and ancient Eupatoria^[1]. Work was carried out in the open sea at a depth of 4-5 m at distances of 140-180 m offshore. An area of over 7000 m² was searched. In addition, 41 areas were excavated to a depth of 2-4 m from the surface of the seabed; over 5000 m³ of the seabed was excavated.

As a result the remains of a wreck were found scattered over an area approximately 140 × 90 m (Fig. 1). A small portion of the cargo was raised, and also very modest remains of the ancient ship (Fig. 2). Of its timbers all that survived was a curved fragment of a frame (dimensions 0.34 × 0.06, 0.05 × 0.05 m) and a few pieces of the side planking. Of its metal parts there survived some bronze nails (Fig. 3) and some fragments of the sheet lead sheathing of the hull (Fig. 4); the sheets were approximately 0.001 m thick. Nine such sheets were found, all crumpled and with jagged outlines; the largest measured 0.6 × 0.5 m. Many of the sheets had been pierced by nails, the impressions of their heads (up to 0.016 m in diameter) surviving on the sheathing. The nail holes were 0.045-0.075 m apart; some of the holes were placed in rows. The longest nail found measured 0.285 m.

Shapeless lumps of concretion were also found, within which were remains of wooden or metal objects. Dissection of one revealed the axe of the ship's carpenter (Fig. 5A). Its wooden handle, 0.40 m long and 0.025 m thick, was well preserved, but the iron axe had been entirely destroyed by corrosion. However, the concretion acted as a kind of mould,

in which it was possible to obtain a plaster-cast of the vanished object (Fig. 5B-C). A notable parallel for this axe is the one found under water near Cannes in 1953, also surviving only as a 'stone mould' (Barnier, 1961: 310-14 & figs 9-15).

Such were the total surviving remains of the ship. More remained of its cargo: a large number of amphora sherds and 20 complete or nearly complete Heracleian amphoras (Figs 6 and 7). The stamps on the amphoras fall into five groups:

Group 1 from the workshop of Euopidas^[2] (Figs 6.4 and 7.1), with an incuse stamp on the neck:

E Y Ω Π

I Δ A

All seven amphoras of this group have the same shape, a capacity of c. 10.5 litres and a height of 0.63-0.66 m; colour orange-brown.

Group 2 from the workshop of Chion^[3] (the group is allocated by B. N. Grakov (1926) to Group II), also with an incuse stamp on the neck:

X I Ω

club

N O Σ

Two amphoras of this group were found, of the same shape and height (0.65 m); colour grey with yellowish-brown tinge (Figs 6.5 and 7.2).

Group 3 bearing a relief stamp on the neck MIKO' . . . Two examples were found, one with a capacity of 10.25 litres; colour grey with yellowish-brown spots. (It should be noted that all the stamps of each group were certainly made with the same die.)

Group 4 One amphora bearing the incuse round stamp:

XI

Q

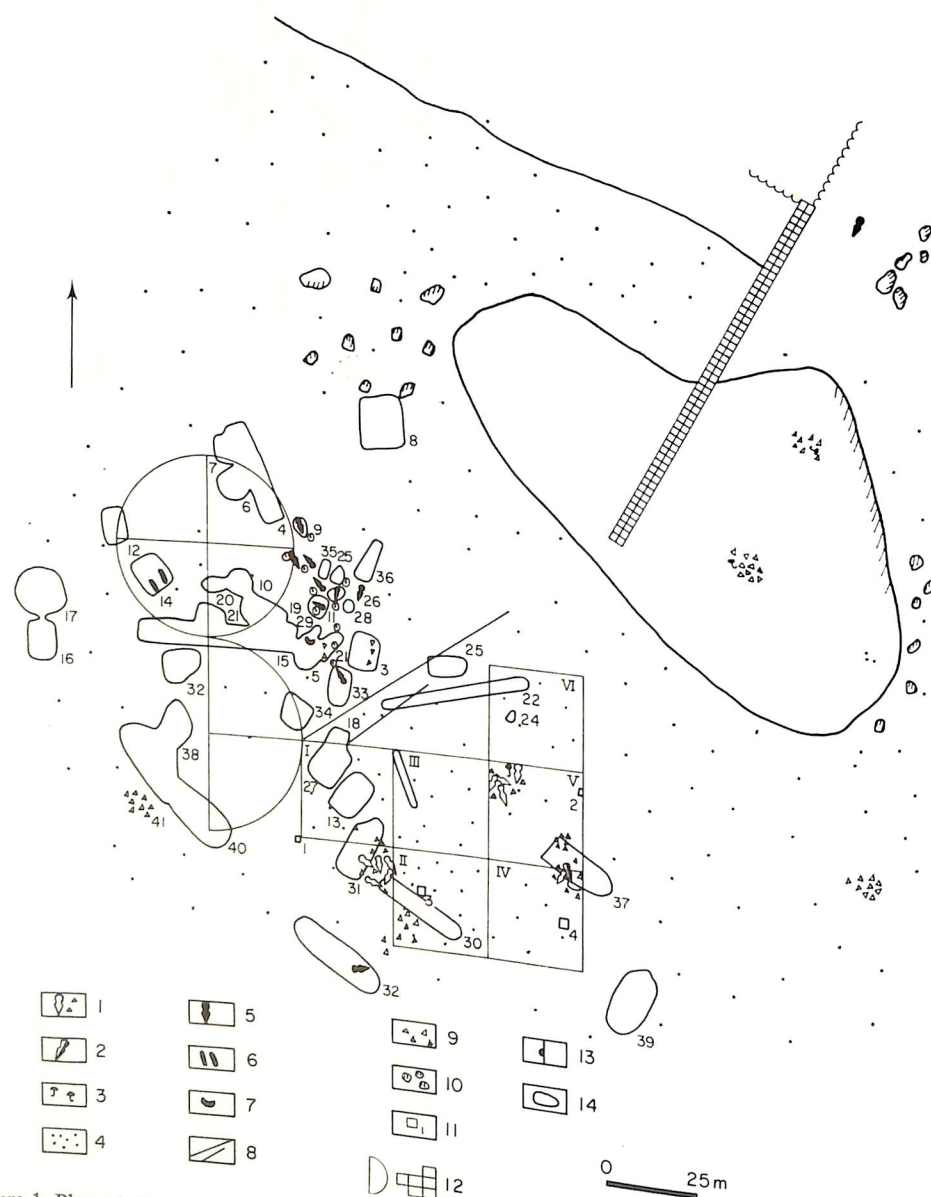


Figure 1. Plan of site. 1, Amphoras raised in 1963-64; 2, amphoras found in 1964; 3, bronze nails; 4, sand; 5, amphoras raised in 1965; 6, lead sheathing; 7, timbers of the ship; 8, bore runs; 9, accumulation of pottery; 10, accumulation of stones; 11, trial trenches; 12, areas investigated with a metal probe; 13, deep bores (by hand); 14, trenches excavated in 1965 with suction-dredger barges.

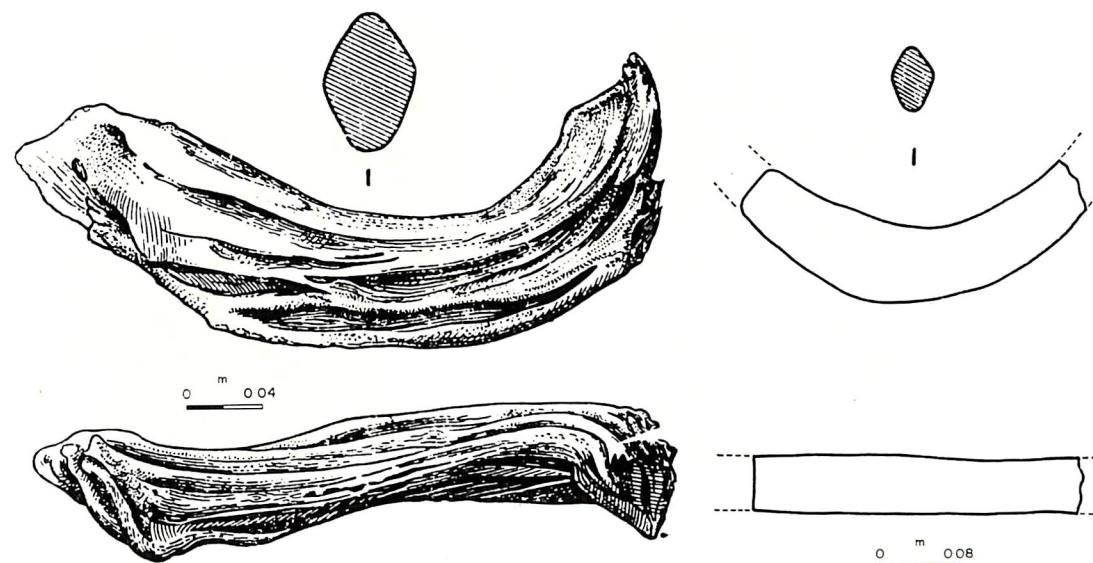


Figure 2. Fragments of the wooden hull, raised in 1965.



Figure 3. Bronze nails.

Group 5 One amphora bearing an incuse stamp which had been incompletely impressed and was not decipherable. Only the last letters of two lines were visible:

..IO
..IO

Capacity of this amphora: 10.3 litres.

Many of the amphoras had traces of resin inside.

On the basis of their shapes all the Heracleian amphoras can be dated to the late 4th-early 3rd century BC (Zeest, 1960: 134, 158, pl. XXII, 45). The other dating evidence is not inconsistent with such a date: the stamps on the amphoras and a fragment of a black-glazed kylix with impressed decoration found in the same sector (Fig. 7.3). The finds indicate not only the date of the wreck but also that it was sailing with a cargo out of Heraclea Pontica.

Memnon's reference (8.5-6) to the ships sent by the Heracleots to help Lysimachus against Antigonos, the son of Demetrius, shows that in the early 3rd century BC the Heracleian fleet was of as fine a quality as any of the fleets of the Hellenistic powers of the Mediterranean. There is no ground, of course, for us to assert without reservation that the ship wrecked near Donuzlav was Heracleian, but it is quite possible. In any case, the remains of the ship, however slight, show the high quality of merchant-shipbuilding at the city where she was built, perhaps Heraclea.

The basis for this assertion is the fact that the ship's hull was sheathed with lead sheets;

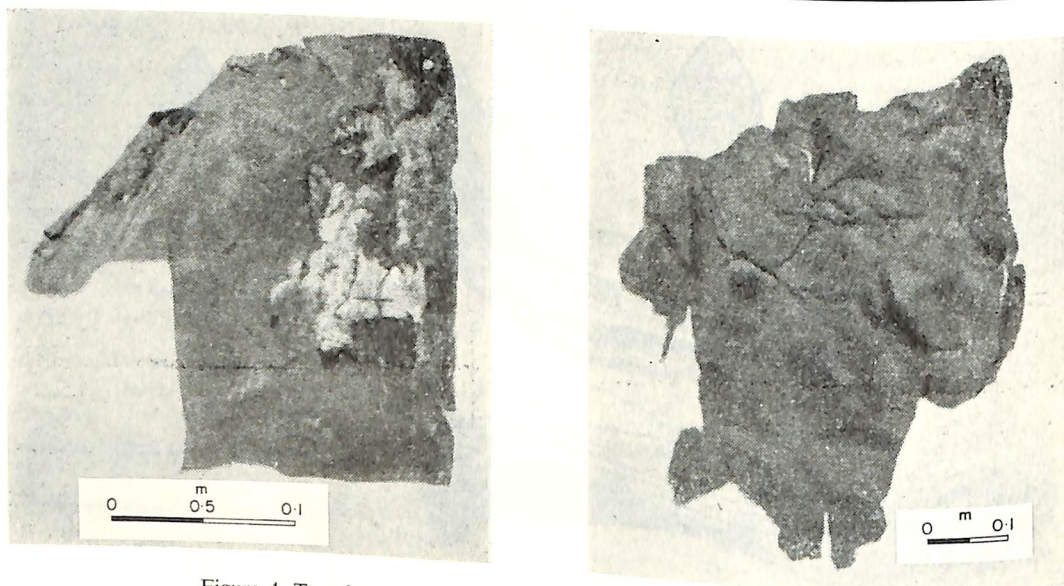
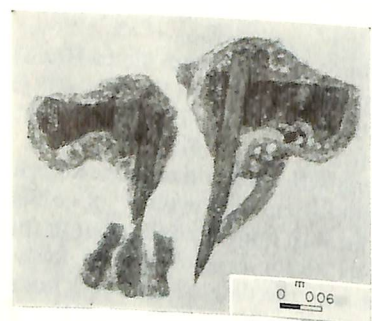


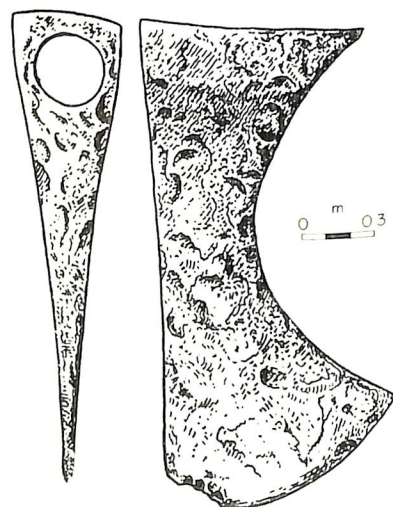
Figure 4. Two fragments of lead sheet from the sheathing of the hull.



A



C



B

Figure 5. A. Piece of concretion containing remains of the ship's carpenter's axe. B. Reconstruction of blade. C. Reconstruction with handle.



Figure 6.4. An amphora from Euopidas' workshop.
6.5. An amphora from Chion's workshop.

this involved considerable expenditure of money and labour^[4]. Athenaeus' description of the construction of a grandiose *eikosoros* by Hieron of Syracuse (*Deipnosophistae*, V 207 a-b) refers to the use of lead sheathing, added to the ship's hull as it was being built. Ancient merchant ships of large cargo-carrying capacity with a lead-sheathed hull have been found by divers on the seabed in the Mediterranean: for example, the ship which sank at the island of Grand Congloué in the second half of the 3rd century BC (Benoit, 1961a: 169, fig. 84,

pl. XXIX), and the ships wrecked near Albenga (Lamboglia, 1953: 209, fig. 62) and Mahdia (Benoit, 1961b: 347).

Thus the presence of the lead sheathing confirms the large size of the Donuzlav ship; its cargo capacity was probably 3000 amphoras. We may thus assume that its builders took account of the developments in shipbuilding in the Mediterranean in the Hellenistic period.

From all the above considerations we may conclude that at the end of the 4th century or early in the 3rd century BC a merchant ship with a cargo of Heracleian wine was driven ashore in a storm near Donuzlav and sank in shallow water. The circumstances of the actual wreck caused very great damage to the actual ship, made worse by the storms which followed.

There is evidence that more than one ship was wrecked near Donuzlav in antiquity: on the seabed have been found fragments of amphoras of the 6th century BC with striped decoration in brown glaze and also of amphoras of the Roman period.

Recent investigations of ancient merchant ships sunk in the Mediterranean have greatly increased our knowledge of the size and character of cargoes of wine, which was one of the staple items of maritime trade (Lamboglia, 1953: 153 ff.; Benoit, 1961a: 162 ff.). The new data not only are important in themselves, but also indirectly shed light on a substantial problem in land archaeology: the archaeologist who has excavated an ancient town and has found a large number of various amphora stamps is usually not able to say how large



Figure 7.1. The stamp of Euopidas. 7.2. The stamp of Chion. 7.3. Sherd of a black-glazed kylix with impressed decoration.

were the batches of wine (or oil). The collation of stamps on amphora handles and necks would, perhaps, help to some extent, for probably each batch of amphoras was at least basically stamped with the same die. But, of course, even by this method it is quite impossible to make even the most approximate calculations.

It is unnecessary to emphasize how important it is for the study of ancient economic history to establish even approximately the scale of the import of, for example, wine into the North Pontic coastal area. In the meantime it would, of course, be risky to apply the information recently obtained about the cargoes of ancient merchant ships sailing in the Mediterranean, to trade with the Black Sea, and even more so to trade within the Black Sea. For this reason the remains of the cargo of the Donuzlav ship, however little of it survives, are for the present a fairly substantial piece of archaeological evidence. We may note, if only approximately, how large a batch of amphoras with the same stamp could be on a ship sailing from Heraclea to the northern Pontus in the 4th-3rd century BC. We have already mentioned that the probable cargo capacity of the Donuzlav ship was 3000 amphoras (the written sources agree with this: Demosthenes, 35. 18). If on the Donuzlav ship all the amphoras had one of the five stamps found by us, and none other, then the size of the individual batch could not exceed 600. However, it is much more likely that the number of different amphora stamps represented on board was considerably larger, for we have really only pitiful remains of the cargo. In other words, the size of batches of similarly stamped Heracleian amphoras was comparatively small^[5]. This evidence is, of course, for the time being isolated, and obscure on many points. If in the future it is confirmed and made more precise in the study of other sunken Heracleian ships, then the finds of incuse stamps in settlement sites will also become much more significant as historical evidence.

The conclusions outlined concerning Heracleian amphoras must not, of course, be extended to amphoras from other centres, e.g. Rhodes.

Let us turn again to the problem of the size

of a merchant ship's cargo. The figure of 3000 amphoras roughly corresponds to the annual production of wine of an average early Hellenistic vineyard. According to Cato (11. 1) a vineyard 100 iugera in area should produce 160 skins of wine per annum, i.e. about 84,000 litres, or 3200 amphoras. One of the *kleroi* (allotments of land) in the Heraclea peninsula must have produced a somewhat larger amount of wine (about 90,000 litres), according to the convincing calculations of S. F. Strzheletsky (1961: 152). Thus, if we allow for the annual wine consumption of the vineyard owner, his family and his workmen, then about 3000 amphoras would go for sale from the piece of land, i.e. an amount roughly corresponding to the cargo of a merchant ship.

In view of this the presence on board the Donuzlav ship of amphoras with stamps of different potter's workshops was evidently not due to the fact that the production of several vineyards had to be combined in order to give the ship a full cargo of wine. Another explanation is more likely. We do not have data concerning the productive capacity of potters' kilns in Heraclea in the Hellenistic period, but with some degree of plausibility we may use the information about the potters' kilns of Chersonesos, especially since Chersonesos was a colony of Heraclea. The two largest kilns known to us from 3rd-2nd century BC Chersonesos are: one cleared in 1900 (Kostsyushko-Valyuzhinich, 1902: 22-3, 39, pl. 1), with a floor area of c. 5.5 m²; the second, from a workshop discovered in 1955-57 (Borisova, 1958), with an area of c. 7.3 m². It is unlikely that such heavy vessels as amphoras were stood in more than one layer for firing; in view of this we may calculate that in one firing these kilns produced comparatively few pots—approximately 60 and 75 amphoras. Such modest separate batches of amphoras, issued by the owners of the workshops after each firing, could not, of course, satisfy the annual requirement for containers for the wine produced from an 'average' vineyard, even if several batches came on the market simultaneously. In view of this the vineyard owner evidently used amphoras produced in different potters' workshops.

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Notes

- [1] On the finds by divers which led to the expedition, and on the organization and techniques employed during the initial work, see Blavatsky & Peters (1967).
 [2] Shelov (1956: 150). Besides the stamp from Phanagoria, stamps of Euopidas have also been found at Olbia (2), Kerkinitis (1) and Chersonesos (1) (Pridik & Grakov, *IOSPE*, III).
 [3] One analogous stamp of Chion, most probably of Bosporan origin, was published in *Orchot Arkheologicheskoi Komissii*, 1869: 216, no. 223, Pridik (1917: 126, no. 167); a second, found at Olbia, was published by Grakov (1926: 191, 205, no. 63), a third, from Chersonesos, is included in Pridik & Grakov (*IOSPE*, III).
 [4] Admittedly lead was comparatively cheap in antiquity. For example, in 259 BC a talent of lead (c. 25.9 kg) cost 2 drachmas and 4 obols (Besnier, 1904: 513): that is, a ton cost about 103 drachmas. But one must bear in mind that lead has a high specific gravity (11.3-11.5), and a great deal of lead would be needed to sheath the large surface area of a ship's hull. For example, the sheathing of the hull of the Grand Congloué wreck weighed 20 tons (Cousteau, 1954: 16). Thus, for a similar sheathing the material alone must have cost about 2000 drachmas, or $\frac{1}{3}$ talent. Besides this one must take into account the cost of turning the lead into large thin sheets for attachment to the hull and deck (if the Donuzlav ship was similar in this respect to the Grand Congloué ship).
 [5] It is worthy of note that, according to Pridik & Grakov (*IOSPE*, III), finds of identical Heracleian stamps in any of the cities of the North Coast of the Black Sea are usually fairly scanty. Thus, in only four cases have more than seven identical stamps been found: at Olbia (16 of Archelaos, 11 of Dionysios and 9 of Eurydamos) and Pantikapaion (8 of Archelaos); only three cases of finds of 4-7 identical stamps have been noted: at Olbia, Chersonesos and Pantikapaion. The overwhelming majority of homonymous stamps have been found in groups of one to three in each of the cities and find-spots (calculations of Yu. Vinogradov). However relative the attempt at statistical calculations on the basis of the overall number of objects found on habitation sites, we can in this case certainly say that the number of Heracleian stamps, found in the North Pontic cities, does at least not contradict our assumptions made on the basis of the study of the cargo of the Donuzlav ship.

8 December 1984

Miss V.R. Grace,
American School of
Classical Studies,
54 Swedias Street,
Athens 106 76
Greece.

Dear Miss Grace:

I was delighted to be able to pass on a photocopy of your letter of 26 October to the Museum in Odessa. So far I have had no reaction whatsoever and I hope you will forgive me for acknowledging your intriguing pointers so belatedly. To satisfy my own curiosity I will now try to get hold of Mme Szetyllo's book here at Basle and I must of course still get in touch with Dr Cahn and the local archaeologists (whom I had bothered with my queries).

Should I hear from Odessa after all I shall be glad to inform you.

With seasonal greetings,

Yours sincerely,

V. L. Hefti

Victor L. Hefti

American School of Classical Studies
54 Swedias Street, Athens 106 76, Greece

October 26, 1984

Dr. Victor L. Hefti
Grenzacherweg 26
CH-4125 Riehen (nr. Basle)
Switzerland

Dear Dr. Hefti:

On your letter of Sept. 24, the fragment you report from the Odessa museum does seem to be from an amphora from Herakleia Pontica, as you were told by the staff. The incuse letters are characteristic. Few pieces with these stamps have been found away from the Black Sea area; I think we have none from the Agora excavations. We therefore do not have much of an archive for this class, which would have made it possible to restore the names in yours. As you see, the stamp reads from right to left, so we lack the beginnings of the two lines.

A new catalogue which includes some Herakleian stamps is that of Zophia Sztetyllo, Les Timbres Ceramiques dans les Collections du Musee National de Varsovie, Warsaw 1983. We are lucky it is in French. See pp. 21 and 58 for comment on Herakleian, and pp. 181-183 for a catalogue of the 9 stamps they have. The dust cover of the book, when it comes from the shop, has a nice color photo of two amphoras from Herakleia Pontica, with their incuse stamps on their necks. But in libraries they will have taken this off.

Mme. Sztetyllo does not give much bibliography - ah, I have found it, on her p.34. Good work was done by Brachinski, but he unfortunately has died, a great loss to amphora studies.

Yours sincerely,

Virginia R. Grace

Victor L. Hefti, Dr. phil.
Grenzacherweg 26
CH-4125 RIEHEN

205

26, Grenzacherweg,
CH-4125 Riehen (nr. Basle)
Switzerland

24 September 1984

Dear Miss Grace,

I have your address from Professor Herbert Cahn who kindly suggested that I might ^{*}my enquiry to you. ^{*}address

Last July, at the Odessa (USSR) Archaeological Museum I was shown a stamped fragment of a rough ware amphora allegedly deriving from Herakleia Pontica (Bithynia) but no other details available. The museum staff confessed puzzlement as to letters of the stamp (see enclos to try and find out for them.

Perhaps I should classical archaeology is purely that of a quondam teacher of clas

Thank you very much may be able to give.

Yours sincerely,



2.03



ЖЛЕНМО НА ГОРЛЕ 2.04

АМФОРЫ

ГЕРАКЛЕЯ ПОНТИЙСКАЯ

Stempel am Hals einer
Amphore (Heraklea Pontica)

(Archäolog. Museum von Odessa)

Victor L. Hefti, Dr. phil.
Grenzacherweg 26
CH-4125 RIEHEN

205

26, Grenzacherweg,
CH-4125 Riehen (nr. Basle)
Switzerland

24 September 1984

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Last July, at the Odessa (USSR) Archaeological Museum I was shown a stamped fragment of a rough ware amphora allegedly deriving from Herakleia Pontica (Bithynia) but no other details available. The museum staff confessed puzzlement as to the meaning of the five letters of the stamp (see enclosed photocopy). I promised to try and find out for them.

Perhaps I should add that my interest in classical archaeology is purely amateur, that is to say that of a quondam teacher of classics.

Thank you very much indeed for any help you may be able to give.

Yours sincerely,

Victor L. Hefti

Herakleian (of Pontus)

This class is taken up in Brashinsky's article in Soviet Archaeology No. 3, 1961, and amplifies in the Elizavetskaya mound excavations in 1959. See transl. by Alison Hilton, in Brashinsky folder in BLACK SEA AREA - USSR section.

In the same folder is a much longer article by same author on "Pottery Stamps of Herakleian Pontion" for Nimisnides - Epigraphica, Tom. 8, ^{moscow} 1965, pp. 10 ff. This has not yet been translated. 21. IV. 80 Half of this article has now been translated by P.M.W. Matheson. The translation is with the text in the Brashinsky folder.

22.VII.72

Dating in Black. 1965 above is taken up by Vinogradov in his long 1972 article, which is basically about Thasos (they are found together in some burials).

3.II.82 The rest of the Brashinsky article started by PMWM has been done (with Friends) by Mrs. Gordon. See Brashinsky 1965 folder. Has photos, 9 stamps, and 2 drawings of unusual Herakleian items. Early ^{stamps for} ones dated by no-discard stamps on Thasos jars.

V. Canarache, section on Heraclea, pp.189-203

2.08

The Pontic Her. was a Doric city colonized by the Megarians in the 1st half of the 6th cent. B.C.

Soon after the beginning of its life, Heracl. managed to attain a high level of economic development. The advantageous position of the city as well as the fact that from the beginning the Heracleans, after they had imposed themselves on the natives, were able to take advantage of the wealth of some large surrounding territories, (and) made possible the construction of 2 harbors and of strong commercial fleet.

JEAN-YVES EMPEREUR

avec tous ses renseignements

ΕΛΛΗΝΙΚΗ ΑΡΧΑΙΟΛΟΓΙΚΗ ΣΧΟΛΗ
ΔΙΔΟΤΟΥ 6
ΑΘΗΝΑ 144
ΤΗΛ. 36 12 518

ECOLE FRANÇAISE D'ATHENES
6 RUE DIDOTOU
ATHENES 144
TEL. 36 12 518

4/11/80
2.07
Her ally herself to the Persians at the time of
friendship with Asiatics brought her surely great
After the victory of Athens the city continued to
Delian League.

Her. decided to send colonies to the NW shores of
Chersonesos and Callatis.

B.C. (the year 364), as a result of strong fight

between the aristocrats and democrats, a tyranny managed to impose itself at Her.
Some of the tyrants became related to Asiatic kings, as a result of this, the city
acquired more rural territories, and reached a maximum of prosperity, becoming the
most important colony of the whole of the Black Sea. But at the time of the Mace-
donian supremacy, Lysimachos occupied the city, making here his base of operations
in Asia Minor. After his death, the city quickly regained its strength and allied it-
itself to Ptolemy against Antigonos Gonatas. In the year 280, the Heracleans/
squadron was the strongest of the Ptolemy's fleet. [Memnon, 13, Justin XXIV,1,8]
The vessels were constructed with superior means not known before in the ancient
world; according to
after Memnon, the principal vessel of the Heracleans had 2 bridges, 1600
oars, and 1200 soldiers. [Memnon, 18 and 23]

How strong Her. was from a military pt of view can also be seen from the fact
that in the fights that followed among the Seleucids and the Ptolemies, alone or

4/11/80

2.07

JEAN-YVES EMPEREUR

avec tous les remerciements

ΓΑΛΛΙΚΗ ΑΡΧΑΙΟΛΟΓΙΚΗ ΣΧΟΛΗ
ΔΙΔΟΤΟΥ 6
ΑΘΗΝΑ 144
ΤΗΛ. 36 12 518

ECOLE FRANÇAISE D'ATHENES
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The Pontic Her. was a Doric city colonized by the Megarians in the 1st half of the 6th cent. B.C.

Soon after the beginning of its life, Heracl. managed to attain a high level of economic development. The advantageous position of the city as well as the fact that from the beginning the Heracleans, after they had imposed themselves on the natives, were able to take advantage of the wealth of some large surrounding territories, (and) made possible the construction of 2 harbors and of strong commercial fleet.

The politics of Heraclea made her ally herself to the Persians at the time of their war with the Greeks. The friendship with Asiatics brought her surely great economic advantages, that is why after the victory of Athens the city continued to resist, refusing to enter into the Delian League.

In its period of prosperity, Her. decided to send colonies to the NW shores of the Black Sea, forming the cities of Chersonesos and Callatis.

In the 1st half of the 4th c. B.C. (the year 364), as a result of strong fight between the aristocrats and democrats, a tyranny managed to impose itself at Her. Some of the tyrants became related to Asiatic kings, as a result of this, the city acquired more rural territories, and reached a maximum of prosperity, becoming the most important colony of the whole of the Black Sea. But at the time of the Macedonian supremacy, Lysimachos occupied the city, making here his base of operations in Asia Minor. After his death, the city quickly regained its strength and allied itself to Ptolemy against Antigonos Gonatas. In the year 280, the Heracleans' squadron was the strongest of ~~the~~ Ptolemy's fleet. [Memnon, 13, Justin XXIV, i, 8] The vessels were constructed with superior means not known before in the ancient world; ~~after~~ according to Memnon, the principal vessel of the Heracleans had 2 bridges, 1600 oars, and 1200 soldiers. [Memnon, 13 and 23]

How strong Her. was from a military pt of view can also be seen from the fact that in the fights that followed among the Seleucids and the Ptolemies, alone or

allied to the small kings of Pontos and of Bithynia, she could ~~also~~ still send to the help of Nikomedes I another squadron of triremes, then in the war between Antioch and Byzantion, she allied herself to the latter with 40 triremes. [Ibid.]

p.190 The economic strength of Her. was not less than its military strength. This is ill. also by the fact that at the time when the Galatians appeared ^{on} the Asia Minor scene, Her. was able to send to Byzantion 4000 gold staters as contribution to the war expenses.

When the Galatians invaded the Pontos, in the year ~~255~~ 255, Her. sent a land army to Mithridates III, and large quantities of wheat to Amisos, which was starving; in the same way, it could pay 5000 staters to the Galatians, who just the same invaded the territory later. [Rostovtzeff,]

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Despite all the vicissitudes through wh. Her. passed, and all the loss of its liberty, ~~the~~ commercial importance continued to exist in the 1st half of the 2nd c. B.C. The city is mentioned in the treaty ^{contracted} ~~closed~~ in the year 179 B.C. between Pharnaces and Eumenes, Prusias and Ariarathes, near Cyzicos, Mesembria and the Tauric Chersonesos. [Polybios, XXVI,6 and 2.]

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[Captions: Fig.31. An amphora from Pontic Heraclea with an incuse stamp on the neck (the middle of the 4th cent. B.C.), found near Callatis. In the Bucharest City Museum, inv.no.1667. Fig. 32. Another amph. from Pontic Heraclea, nearly identical to the preceding (but it has a different stamp); The same collection, inv. no. 1658.]

p.193

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He divides it into only 2 chronological groups, the 1st limited to the years 350-300 B.C. [~~Staerman, Tiritaki~~XXXXXX] and the second from 300-250 B.C. [Staerman, Mir and Tiritaki]. Four amph.s with englyphic st. on neck, and 2 frags. found by Gaidukevich [Tiritaki] in the excavations of Tiritaki, confirm, acc. to the other material of the respective archaeological complexes, the end of the ^{4th} ~~1st~~ cent. and the beginning of the 3rd c. B.C.

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p.195

Type 1. The perfectly oval shape; from the neck over the shoulder, ~~xxxx~~
smooth down to the foot, a single line with varied curves. The neck, cylindrical in the upper part, widened lower down, joining without a break the body of the amph. The diameter of the rim, 10 cm. the handles, curved, come together below: the ht. 21 cm. The diameter at the middle of the jar, 26 cm. The foot is rounded below and hollow inside, it has a ht of 6 cm. The total ht of the amph. is 70 cm. The good quality of the clay mix, the proportions, the general elegance, shows that this type can be considered as the repres. shape of the amph.s from Herac.

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V. Canarache, section on Heraclea, pp.189-203

The Pontic Her. was a Doric city colonized by the Megarians in the 1st half of the 6th cent. B.C.

Soon after the beginning of its life, Heracl. managed to attain a high level of economic development. The advantageous position of the city as well as the fact that from the beginning the Heracleans, after they had imposed themselves on the natives, were able to take advantage of the wealth of some large surrounding territories, and made possible the construction of 2 harbors and of strong commercial fleet.

The politics of Heraclea made her ally herself to the Persians at the time of their war with the Greeks. The friendship with Asiatics brought her surely great economic advantages, that is why after the victory of Athens the city continued to resist, refusing to enter into the Delian League.

In its period of prosperity, Her. decided to send colonies to the NW shores of the Black Sea, forming the cities of Chersonesos and Callatis.

In the 1st half of the 4th c. B.C. (the year 364), as a result of strong fight between the aristocrats and democrats, a tyranny managed to impose itself at Her. Some of the tyrants became related to Asiatic kings, as a result of this, the city acquired more rural territories, and reached a maximum of prosperity, becoming the most important colony of the whole of the Black Sea. But at the time of the Macedonian supremacy, Lysimachos occupied the city, making here his base of operations in Asia Minor. After his death, the city quickly regained its strength and allied itself to Ptolemy against Antigonus Gonatas. In the year 280, the Heracleans' squadron was the strongest of the Ptolemy's fleet. [Memnon, 18, Justin XXIV,1,8] The vessels were constructed with superior means not known before in the ancient world; according to Memnon, the principal vessel of the Heracleans had 2 bridges, 1600 oars, and 1200 soldiers. [Memnon, 18 and 23]

How strong Her. was from military pt of view can also be seen from the fact that in the fights that followed among the Seleucids and the Ptolemies, alone or

allied to the small kings of Pontos and of Bithynia, she could ~~also~~ ^{still} send to the help of Nikomedes I another squadron of triremes, then in the war between Antioch and Byzantion, she allied herself to the latter with 40 triremes. [Ibid.]

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2.20

7.11.73

PONTIC
- HERAKL,

See letter of 25.11.73 from Brashinsky, filed under USSR - Brashinsky, f
formation and/or comments on the following subjects - not all as yet proces
to our files:

DANIAN

CHIAN

capacities taken

CHRONOUSIAN

Early HMOPIAN (foundation of Tonalis, early 3rd)

PONTIC (capacities)

LESTIAN

Herakl

For a group of ca 20 Herakleian amphoras found in a wreck, see WRECKS: BLAVATSKY (now - ^{WR.} MISCELLANEOUS). This is a Russian article which has been transl. by D. Blackman, for publication. The jars are stamped, mostly with incuse stamps.

p. 3 of the transl.:

"On the basis of their shapes all the Herakleian amphoras can be dated to the late 4th - early 3rd century B.C. (Zeeb, 1960, pp. 134, 15-8, pl. XXII, 45). The other dating which is not in accordance with such a date: the stamps on the amphoras and a frag. of a bl. glazed kylix w. impressed decoration found in the same sector."

Heraklean amphora

See those found in a ^{WRECK} wreck in the Black Sea
 by Blavatsky, etc.: V. D. Blavatsky and
 B. G. Peter, "A vessel of the late 4th or early 3rd
 cent. B.C. near Douglas," Int. Journal of Naut.
 Archaeol. and Underwater Exploration 1973, pp. 25-
 31.

E. Buzor: "The amphorae deposit of Islam Geaferca" in
Dacia, 1962, 475-487

"Description avec photographies d'un dépôt d'amphores
trouvé en 1955 dans le nord de la Dobroudja après
des pluies (26 amphores dont 20 ont été récupérées); B. signa-
le trois amphores analogues trouvées en Dobroudja à
Meidanchioi et Galeşu. Timbres sur le col: ΔΙΟΥ(ΔΙΟΥ)
ΔΙ, Δ, ΜΙ, [Δ]ΟΥΔΟΥ, ΜΙ, une feuille de lierre; B. distingue
au moins 7 ateliers et pense que ces amphores provien-
nent d'un centre pontique important, peut-être Héraclée
du Pont; il les date de la fin de l'époque hellénisti-
que. Le dépôt était peut-être la cave d'un marchand.

from Bulletin épigraphique p. 131, 24/par. L. Robert,
in Revue des Études Grecques, LXXVII, 1964.

PONTIC HERAKLEIA

Dacia 1958

W
C
T
H
A
D
N
↓

2:24

p. 133
183

Found in Mouriglier (Roman) cemetery.



Found
Herakleia,
Thrace
to 9
3rd cent.
B.C.
by the
author

Рис. 6. — Эллинистическая керамика.

See some translation
of this last article,
found under Roman A.



with letter of 13. IX. 59
from Mr. Shroobson,
see U.S.R.

Context (at Nymphsion)
let 5th BC

19. VI. 59

HERAKLEIAN

2.26

See V. M. Skoshnikov, "Finds from the Shrine of the Kabiri at Nymphraia," Brief Communications of the Inst. of the Hist. of Med. Culture no. 63, 1956 pp. 128-138, where 3 jars of Herakleian type, ^{having early context} are published with photo. of jar and stamp, and one is mentioned but not ill. ^{see under Herakleian} (importantly to one with earliest context, and said to be intact). See offprint and translation, in USSR folder. Span here attached here. Jars are on file.

клеймом найдена в кургане № 10 у Аджигола¹, в котором ни одна вещь комплекса — чернолаковый килик, чашечка на ножке, краснофигурный ле-



(p. 136, with note 5)

Note also refers to E. B. Zeeb, "The Types of Amphorae of Herakleia" (XXII, 1948, of the Brief Communications series apply - КСИИМК.)

B. N. Grakov, "Incised stamps on the necks of some Hellenistic jars" *Studies of the State Historical Museum*, i/1926/p. 165 ff. (in Russian). He regards them as imported from Callatis or Herakleia.

T. N. Knirovich, "Tentative characterization of the settlement near Elizavetovskaya Staniza on the basis of the discoveries made in 1928 by the expedition of the State Academy of the History of Material Civilization" in Bull. of the State Acad. of Hist. of Mat. Civ. CIV (1935) pp. 154 ff. He is inclined to regard these jars not as imported from Callatis or Heraclea (Grakov) but as Chersonesian products.

Chersonesus as a wine-producing country see: Rostovtzeff in *Enciclopedia Italiana* under "Chersoneso".

Notes taken from Rostovtzeff p. 1331 note 43.

2.28

a Pontic Heraclea

[on S. coast, west of Su
(Chersonese)]

jar is illustrated in a Russian periodical

Quartus, "Pavel'sk - St. Petersburg", p.

178, note 6, refers to

Треков в "Трудах Гос. Ист. музея",

вып. I, [page] 170, [plate] I, фот. 1 и 7.

