

Local Patterns of Trade in Wine and the Chronological Implications of Amphora Stamps

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Besides fish and fish products, both of which have been the subject of a previous conference organized by the Danish Centre for Black Sea Studies,¹ wine and olive oil are obviously the most distinctive commodities characterizing the Mediterranean civilization. These products are closely associated with amphorae, for exactly this type of pottery was commonly used for their storage and transportation. The significant progress in the recent amphora research has made it a key source for studying ancient trade, in particular the trade in wine. There is no need to argue that the informative potential of amphorae reaches far beyond the geographical and chronological definition of imports and exports. The amphora evidence becomes even more revealing when supplemented by the marks scratched or painted on the jar's body. Unfortunately, unlike graffiti, painted inscriptions, or dipinti, are often neglected in publications mostly due to their extremely abbreviated form. Hundreds of such marks were left out of Mabel Lang's outstanding publication of the evidence from the Athenian Agora excavations. As she states in the introduction, "the brevity of these texts allows so great a variety of interpretations that publication would serve no useful purpose".² This is also the case with Mark Lawall's recent account of the Agora finds.³ As to the northern Black Sea material, we can refer to a number of works on the painted inscriptions (mostly from late Antiquity),⁴ while the number of published graffiti amounts roughly to over three thousand.⁵

This disregard for the Hellenistic dipinti is astonishing, for they have proved to be informative about the local patterns of wine trade, especially when coming from closed deposits and seen in conjunction with incised marks. This paper aims at studying a case involving these sources of information, namely, pottery inscriptions from the early Hellenistic site of Panskoe I in western Crimea on the outskirts of the distant *chora* of Chersonesos.⁶

The epigraphic collection from this site consists of more than 200 inscriptions, of various kinds, that are either scratched or painted, eighty of which come from the closed context of the monumental building U6, excavated between 1969 and 1974.⁷ The high degree of preservation and quite narrow chronological range of the latter, which does not exceed the span of two gen-

erations, offers a unique possibility to compare the material inside individual living units.

Besides dedications and ownership marks, the majority of notations, which are executed in two different techniques, graffiti or dipinti, could reliably be identified as numerical and commercial ones. An examination of the latter kind, i.e. commercial marks, leads to the conclusion that they belong to one of the following three groups: (a) *Indications of Capacity*, (b) *Price Marks* and (c) *Customers' Names*. While all the other categories are fairly traditional, that of *customers' names*, amounting to thirty specimens, does not match any of the existing classifications of the Greek pottery inscriptions. However, a number of data, which emerge from a comparison of various items in our collection, substantiates the proposed interpretation of this particular group of material.

All marks in this group are dipinti on amphorae, most of which (Figs. 1.1-7, 9-11, 13-14) are Chersonesean jars. Two of the inscriptions, however, were found on amphorae from Sinope, one on each of the amphora from Thasos and that of the Solocho-I type, and three on vessels of unidentified origin (Figs. 1.8, 12). The texts are mostly extremely abbreviated, presumably because they were intended for persons who were perfectly familiar with their purpose. As in owners' marks, the letters often form ligatures. The heights of the letters as well as the width of the brush strokes also vary from inscription to inscription. These objective criteria combined with the style of writing make it possible to distinguish the work of at least three or four different scribes.

The fragmentary state or simple brevity of the texts, often shortened just to one letter, is the factor that makes their interpretation difficult and requires a certain degree of caution. The challenging task of developing a broader classification of these inscriptions was attempted recently by Böttger and Šelov.⁸ Working from a large body of late antique material from Tanais, they suggest a long list of items of information, which these inscriptions could possibly have provided. In fact, the scheme proposed by Böttger and Šelov distinguishes between two main classes: (a) notations related to transportation and sale and (b) notations related to the storage of goods.⁹

Regarding *transportation and sale*, the items of information proposed are as follows: (1) the nature of the amphora contents; (2) the quality and/or origin of the contents; (3) the volume and/or weight of the contents; (4) capacity and/or weight of the empty amphora; (5) name of the owner or seller of the goods. The items regarding *storage* are said to be: (1) the owner's name; (2) the volume and/or weight of the contents; (3) enumeration of the stored goods; (4) designation of contents substituted for original contents of the amphora.

The Panskoe material, however, implies a much narrower range of possible readings than the one proposed by Böttger and Šelov. Given the fact that an overwhelming majority of the marked pottery originates from Chersonesos, the possibility of any connection between the marks and contents of the amphorae is to be eliminated. It seems highly unlikely that the range of goods

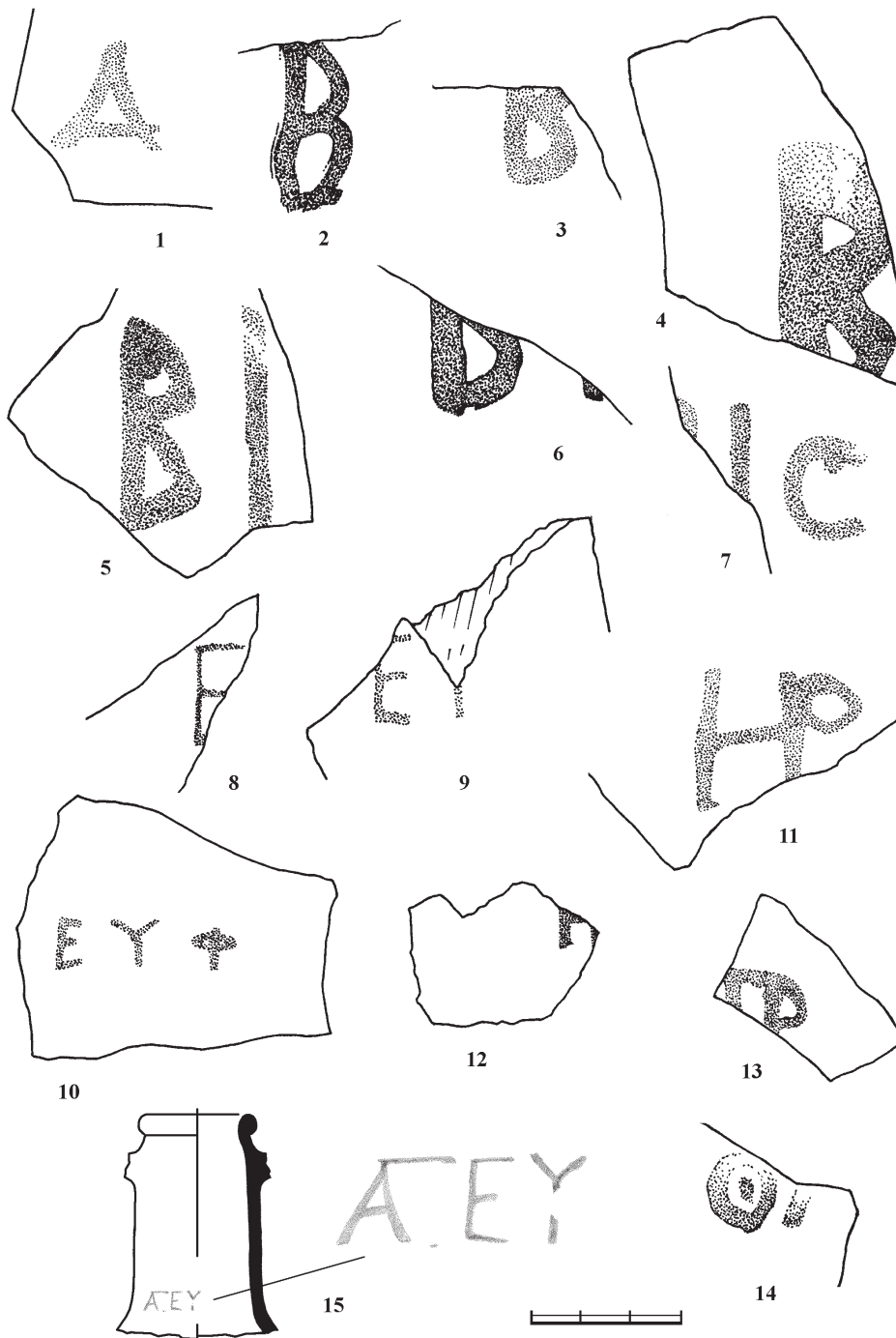


Fig. 1. Dipinti from the settlement of Panskoe I: 1-14) the monumental building U6 (Stolba 2002, H 43, H 45, H 48, H 47, H 54-55, H 52, H 62-65, H 67, H 71, H 68); 15) the central area U7, room 1 (tower), find list 19/25, 1979.

imported in this ware could have been so great as to explain the diversity of the inscriptions preserved. The easily recognizable shapes and rather strict standardisation of transport amphorae, which often bear the stamps of annually serving officials, would also make superfluous any additional record of the provenance, volume, or age of the goods. This claim is substantiated by the presence of identical marks on vessels of different capacity and contents, and by the absence of exact parallels to our dipinti at other settlements in the *chora* or in Chersonesos itself. Still less plausible would be to assume that the painted marks constitute some kind of numerical record.

A more likely explanation that can be suggested for this group is that they are abbreviations of the personal names of residents of house U6. A comparison of the painted marks with owners' names recorded in the graffiti (see Table 1) seems to support this assumption.

As can be seen from Table 1, the painted inscriptions refer to the same circle of individuals known from the owners' marks: Ἀρ() , Β() (Fig. 1.2-7), Εὐφ() (Fig. 1.8-10), Ἡρ() (Fig. 1.11-12), Θα() (Fig. 1.14), Πρ() (Fig. 1.13), etc. Identical marks made by different means are found sometimes in the same room or household unit (such as Εὐ() – Εὐφ() in room 13; and Θα() – Θ() in room 3). Furthermore, as in the case of the incised marks, it can hardly be fortuitous that Β() , Εὐφ() , and Ἡρ() are represented in the majority of the inscriptions. Given the number of recorded names they are likely to belong to at least two different generations of the residents of the house. The BAP and BIC marks, especially when opposed to those with AP and IC, entail the same interpretation. Further proof of this is the dipinto ΑΠΕΥ (Fig. 1.15) written in one line on the Sinopean wine jar found just outside building U6 and referring to the already known individual Ἀπ() / Ἀπι(), who was perhaps the son of Εὐφ() .

It seems tenable to assume that similar marks applied in a different technique must have had a different functional meaning. Unlike graffiti, painted inscriptions, which were easily removed, would not have been sufficiently effective and durable as owners' marks; and it is probably for this reason that dipinti were not being used in this or any other way on the table and household ware from U6. Moreover, as stressed above, the same painted marks are represented sometimes by two or three different hands. This fact implies their execution at some point before the jars reached the house.

The question arises therefore of what can explain the same repertory of names in inscriptions of both groups. The only interpretation consistent with the facts seems to be to consider the dipinti as commercial records, and the abbreviations appearing on wine jars as a means of labelling the goods according to the customers' names. A preliminary impression gained from as yet unpublished late 4th-early 3rd century BC dipinti from the site of Grotty¹⁰ encourages the assumption that we are dealing with a pattern characteristic of a large part of the Chersonesean territory rather than an individual case. Apparently, a comparable type of labelling was employed in the late 4th century AD on the amphorae from the Don-delta sites and some other locali-

Owners' marks (graffiti)			Customers' names (dipinti)					
Name	Number of inscriptions	Inscribed object	Name	Number of inscriptions	Inscribed object			
A()	4	Fish-plate, Cup, Amphorae	A()	2	Amphorae			
Ἄπ()/Ἄπη()	3	Amphorae						
Ἄρ()	1	Kantharos	Ἄρ()	1	Amphora			
B() Ἄρ()	1	Amphora	B()	2	Amphorae			
B()	1	Amphora						
E()/Εὐ()	8	Fish-plate, Plate, Kantharos, Louterion, Amphorae	B() Ἴσ()	13	Amphorae			
			E()/Εὐ()/Εὐφ()	4	Amphorae			
Ἡρ()	1	Bowl	Ἡρ()	3	Amphorae			
Ἡρα()/Ἡρακ()	2	Amphorae						
Ἡρο()	1	Kantharos						
Θα()	1	Amphora	Θα()	1	Amphora			
Θεοκ()	1	Kantharos						
Θευ()	1	Salt-cellar						
			Ἴσ()	1	Amphora			
Κρα()	1	Amphora						
Λ()	1	Astragalus						
			M()	1	Amphora			
Νε()	1	Amphora						
			Ὀν() Σι()	1	Amphora			
Π()	1	Astragalus	Πρω()	1	Amphora			
						Πρ()	1	Bowl
						Πρω()	1	Fish-plate
			Φ()	1	Amphora			

Table 1. Correlation between the incised and painted inscriptions from House U6 at Panskoe I.

ties.¹¹ Their formula, however, is more elaborate, containing both the name of a sender and that of a recipient.¹²

Even though we may infer that the farmer or merchant sending the wine to Panskoe or Grotzy knew in advance the amount and the exact person to whom it should be delivered, it is difficult to determine the type of transaction involved. It is very alluring, however, to see here so-called sales on future delivery, the type known to the Greek law of sale from the early Hellenistic period and best illustrated by the contracts surviving from Ptolemaic, Roman and especially Byzantine Egypt.¹³ Some scholars regard them as loans in money to be repaid in kind,¹⁴ but in our case this is not important. What matters is that the money was paid in advance while the goods were delivered later. If the farmer or merchant supplied a large consignment of wine intended for a number of persons from the same site, they certainly must have labelled the jars according to the names of customers.

This kind of transaction has indeed an economic motivation, as it enables both sides to profit from it. Advance payment, which might well have taken place when the wine was still fermenting or even before that, secured cash at the very time the farmer needed it most, whereas the buyer was able to achieve lower prices. For the same reason, advance ordering of wine with payment at the moment of delivery seems less likely. Advance ordering of wine jars seems a very likely form of transaction between potters and farmers as soon as the latter were able to estimate the harvest. That sizable sums in cash essential for such transactions were available at the wine producing sites of the Chersonesean *chora* is clearly evidenced by several large coin hoards found on the Herakleian Peninsula.¹⁵

Regardless of the sort of transaction involved between potter and farmer (or merchant) the question remains whether all wine jars stamped with the name of annually serving officials had to be vended the year they were produced or some of them could eventually be put on the market at some later point. How long could the entire procedure of manufacturing an amphora, bottling, shipping and at last consuming its content take? These general questions inevitably bring us to yet another issue which is worthy of closer attention, namely, that of employing the amphora stamps for establishing chronologies of sites, deposits or closed contexts. Again, the amphora assemblage of Panskoe I/U6 can serve as a point of departure in this discussion.

Among 142 amphora stamps recorded from building U6, those from Chersonesos, amounting to 100 specimens (70.4 %), occupy a dominant place.¹⁶ The earliest of them with the names of Bathyllos, Eua(), Eukleidas, Kraton and Sopolis belong to Group 1A, according to Kac's ordering of the magistrates, and date to the period of 325-315 BC.¹⁷ Yet, as I have tried to show elsewhere, there are good reasons to place this group about five years earlier.¹⁸ As evidenced by a number of the stamps, Eua() and Bathyllos represent large consignments rather than retail items.¹⁹ Given the monogram type of the former stamps as well as the absence of a title, Kac places Eua() at the

very beginning of the Chersonesean stamping.²⁰ Regardless of whether one accepts this or not, the five Group-1A magistrates recorded at U6 will make the earliest of them date to not later than 320 or 325, depending on which chronology is employed.

This fact clashes, however, with the chronology of the three Chersonesean coins (I 5, I 7-8) found below the floor of rooms 22 and 24,²¹ which ended up there during the construction of building U6 and thus antedate it.²² All three specimens belong to the same issue of bronze with the deer-killing Parthenos on the obverse,²³ which Anokhin dates to 300-290.²⁴ In 1989, I suggested moving this type to the late 4th century for various reasons,²⁵ and now would even attempt to place it somewhere between 320-310 BC. However, this adjustment will not be sufficient to make them antedate the earliest Chersonesean stamps from the storerooms of building U6. It is evident, therefore, that in this particular case making one chronology fit the other will not settle the issue.

The same problem emerges, for instance, in connection with the finds of Thasian stamps in Alexandria. Along with the numerous amphora handles of the later Thasian groups occur the stamps of Aristophon I and Herakleitos, which are among the earliest new-style eponyms, and which, according to M. Debidour, date to 345-335 BC, i.e. to the period preceding the foundation of the city in 331.²⁶ Similarly, the assemblage from Demetrias in Thessaly, a city founded in 294, reveals the stamps of the Group-4 magistrate Skymnos I, whom Debidour assigns to 310-300 BC.²⁷

At first glance, it might seem that the most obvious way to resolve this contradiction is to admit that Debidour's chronology is a bit too high and needs further adjustments. In 1990, his system was challenged by Y. Garlan, who proposed lowering it by about ten or fifteen years.²⁸ This has entailed the alterations in the start of Thasian stamping, and in the date of transition from the old to the new-style stamps established by Virginia Grace to be ca. 400 and 340 BC, respectively.²⁹ This standpoint is shared by Alexandru Avram,³⁰ who also argues for the lower chronology.

A reconsideration of the dating of the fill of Pnyx III and some other contexts pertinent to the Thasian amphora stamp chronology attempted by S. Rotroff, J. Camp,³¹ and most recently by M. Lawall³² and myself,³³ proves that, even if Grace's chronology was a bit too high, it is highly unlikely that her dates should differ from new ones by ten years or more; more probably, they differ just four to five years. However, lowering the Debidour's chronology by even 10-15 years will not resolve the problem. The stamps of the old-style eponyms Mes() and Kleophon found in Alexandria³⁴ would at any rate date earlier than the foundation of the city.

Obviously, there should be some other reason for the appearance of the early amphora material at all these sites. In my view, to understand this phenomenon one has to abandon the conventional notion that the goods stored and transported in amphorae reached their final destination almost immediately after being produced. Thus, according to Brašinskij's estimate,

the entire procedure of manufacturing an amphora, bottling and shipping wine and finally consuming the wine took a very short time, most likely just one or two years.³⁵ More recently, this view on the lifetime of amphorae is represented in works of Garlan, who, opposing them to coins, highlights the extreme precision they can provide as a means of dating.³⁶

This standpoint implies that all stamped jars must have been sold in the year they were potted, and that Greek amphorae contained mostly new wines which were bottled shortly after the fermentation and had to be drunk within a year or two. Taking into account high sanitary requirements for the fermentation and storage and thus a risk of oxidation and spoilage this is indeed not unlikely. Still, ancient references give a definitive hint that some wines were capable of ageing. Starting with Homer (*Od.* 2.340, 3.391; cf. Athen. 1.26a-b), Greek poetry extols old wine. Praise “old wine, but the flowers of new songs”, says Pindar (*Ol.* 9.48). The 4th century comic poets Euboulos and Alexis note that gay ladies favoured old wine but young men (*CAF* 2.209, 400; Athen. 1.25f). The latter, opposing a man to wine, says that “man is not at all like wine in his nature, for when he has grown old he loses his flavour, while the oldest wine is what we strive to get” (*CAF* 2.399; Athen. 2.36f). Old, costly wines with a fine bouquet are also mentioned by Xenophon among supplies of the Ten Thousand (*An.* 4.4.9). Finally, many prescriptions of Hippokrates (*Reg.* 2.52; *Morb.* 3.12) reveal a clear distinction between new (*νέος*) and old (*παλαιός*) wines. His mention of *Θάσιον οἶνος παλαιός* (*Hippoc. Morb.* 3.17) suggests that Thasian wine – like that of Chios, Lesbos and Mende – was capable of ageing.³⁷ Athenaios (1.26a), who tells us a lot about wine, adduces five different reasons why old wine is better not only in taste but also for the health.

Although the discussion of particular vintages is nearly absent from the written sources, one should think that Greek wines matured faster than Roman ones.³⁸ In the 3rd century BC, Theokritos refers to four-year-old wine (7.147: *τετράετες δὲ πίθων ἀπελύετο κρατὸς ἄλειφαρ*), while Plutarch in his life story of Sulla speaks of drinking wines aged forty years and more (*Plut. Sull.* 35.1: *πίνεσθαι δὲ οἶνον ἑτῶν τεσσαράκοντα καὶ παλαιότερον*). Martial (8.45) and Pliny (*HN.* 14.6.55) mention wines which lasted one and two hundred years, respectively, though their records are exceptional.

Some helpful information pertinent to the ageing of wine can also be drawn from the Greek papyri of Hellenistic Egypt. So, alongside *οἶνος ἐτοιμότερος*, newer wine, the texts record *οἶνος καιριμώτερος*, older wine, as well as *οἶνος πρεσβύτερος*, *οἶνος παλαιός*, and in the Byzantine period even *οἶνος προπαλαιός*. In those cases where particular vintages are concerned they are specified by the term *ῥύσις*, such as, for instance, in *P. Oxy.* XIV 1735, 1: *ῥύσεως ιε ἔτους*.³⁹ To this list may also be added the 4th century AD dipinto on the shoulder of an amphora from the Athenian Agora, which reads: *Αἰλιανός | Δρύμου | παλαιός*.⁴⁰

It seems more likely that the final maturation of such choice wines took place in the amphorae rather than in *pithoi* intended usually for fermenta-

tion.⁴¹ To the arguments adduced already by Gow and Koehler one may add a further one. Taking into account that each new vintage requires empty containers for fermentation, it would certainly be more practical to move wine from the larger containers to amphorae for further ageing rather than to purchase new *pithoi*.

Unfortunately, there is very little evidence as to how long Greek wines could keep. As suggested by R. Brock, only few Greek wines may have lasted more than ten years.⁴² The question of whether the archaeological data may serve any useful purpose here is still a matter of discussion. Yet some recent observations indicate that it would be unwise to discard it completely. A recent reconsideration by Lawall of the El Sec wreck of the 4th century BC showed that the isolated Mendeian amphora constituting part of the cargo was approximately 20-40 years old when the ship sank.⁴³ A number of similar examples are to be found in a recent work by Sergey Monachov, who makes reference to the various Black Sea deposits, in which the dated jars from the one and the same burial differ by twenty to thirty years – the reason for which Monachov has left unexplained.⁴⁴

The question remains whether these inconsistent amphorae contained old wines. In my opinion, at least some of them did. Even though the well-known practice of re-using wine jars⁴⁵ or putting older or damaged containers into graves⁴⁶ leaves room for uncertainty, one should not automatically exclude the possible existence of archaeological parallels to the instances from the literary sources cited above. All points of this discussion should, to my mind, be taken into consideration when employing amphorae and amphora stamps to establish the site chronologies and *vice versa*.

Notes

- 1 Bekker-Nielsen (ed.) 2005.
- 2 Lang 1976, 1.
- 3 Lawall 2000, 3-90. But see Oikonomides 1988, 39-53.
- 4 Beljaev 1967, 127-143; Maslennikov 1987, 45-53; Emec & Peters 1993, 77-83; Emec & Zubarev 2000; Solomonik 1993, 102-116; Il'jašenko 1996, 54-67; Böttger & Šelov 1998; Gudimenko & Il'jašenko 2001, 481-504. For the earlier publications of the Tanais material, see Šelov 1978, 47-55; Šelov 1989, 97-125.
- 5 See, e.g., Stern 1897, 163-199; Tolstoj 1953; Solomonik 1978; Solomonik 1984; Jajlenko 1980, 72-99; Golencov 1983, 56-62; Latyševa 1983, 101-110; Emec & Peters 1994, 164-178; Vinogradov & Tochtas'ev 1998, 22-47; Nawotka 1998, 85-98; Stolba 2002, 228-244; Saprykin 2002, 284-291; Molev 2003, 217-238.
- 6 For further details on this settlement, see Ščeglov 1978, 80-82; 1985, 3-7; 1987, 239-273; Chtcheglov 1992, 167-181, 238-244; Stolba 1991, 78-84.
- 7 For the complete publication of this particular complex, see Hannestad, Stolba & Ščeglov (eds.) 2002.
- 8 Böttger & Šelov 1998. Even though the dipinti were evaluated according to archaeological contexts, their relation to the local graffiti was not considered; this, to my mind, reduces the possibility of a full and accurate interpretation.
- 9 Böttger and Šelov 1998, 52-53.

- 10 Excavations by V.A. Latyševa, the Kharkov State University. For useful information on this Chersonesean site, see Latyševa 1985, 306.
- 11 See Ebert 1913, 92, Abb. 102 (Nikolaevka, Cherson region); Vejrnar 1963, 23, fig. 16.2 (Inkerman necropolis); Solomonik 1993, 105-106, fig. 2.15 (Krasnyj Mak necropolis, Crimea); Kuziščĭn & Ivančĭk 1998, 212-213, figs. 4-6 (Chersonesos); Emec & Čevelev 1995, 12-13, no. 9 (Pantikapaion); Gudimenko & Il'jašenko 2001, 481-504 (Rogožkino XIII), only the last of which provides a plausible interpretation of the markings.
- 12 Gudimenko & Il'jašenko 2001, 486-487.
- 13 See Montevecchi 1944, 131-158; Pringsheim 1950, 268-286; Bagnall 1977, 85-96; Kruit 1992a, 265-276; 1992b, 167-184.
- 14 Bagnall 1977, 85.
- 15 *IGCH* 1088, 1119, 1130-1135; Gilevič 1999, 365-369, II.3-4, III.1-4, IV.1-3; Šonov 2003, 342-354; 2005, 430-436.
- 16 Kac, Monachov, Stolba & Ščeglov 2002, 113.
- 17 Kac 1994, 76; Kac, Monachov, Stolba & Ščeglov 2002, 114.
- 18 Stolba 2005, 153-177.
- 19 Kac, Monachov, Stolba & Ščeglov 2002, 114.
- 20 Kac 1994, 37.
- 21 Ščeglov 2002, 59-61; Gilevič 2002, 246-247.
- 22 On the erection date of building U6, see Hannestad, Stolba & Ščeglov 2002, 280-281, and most recently Hannestad 2005, 179-192.
- 23 Zograph 1977, XXXV 23-25.
- 24 Anokhin 1980, 20, 134.
- 25 Stolba 1989, 67. This dating was accepted recently by A.M. Gilevič (2002, 248).
- 26 Debidour 1986, 313, n. 15, 330.
- 27 Milojčić & Theocharis 1976, 129, no. 170; Debidour 1986, 331. It is worth noting that among the finds that antedate the foundation of Demetrias are also three bronze coins of Larissa (datable to ca. 400-340/325 BC) and one specimen of the Macedonian origin (ca. 336-306?). See Milojčić & Theocharis 1976, 73, nos. 50-52, 140, no. 225.
- 28 Garlan 1990, 481.
- 29 Grace 1956, 123.
- 30 Avram 1996, 24-32.
- 31 Rotroff & Camp 1996, 263-294; Camp II 1996, 45. Cf., however, Rotroff 1996, 35-40.
- 32 Lawall 2005b, 37-53.
- 33 Stolba 2005, 157-161.
- 34 Garlan 1990, 481.
- 35 Brašinskij 1984, 128.
- 36 Garlan 1993, 149: "leur destruction ou leur mise au rebut devaient suivre de peu, de quelques années seulement, le moment de leur fabrication". Some scholars, however, remain more cautious: e.g. Vinogradov 1972, 8; Debidour 1986, 313.
- 37 Cf. Athen. 1.28f, 1.29b-c; Hermipp. *Fr. Phot.* 2.1-5. For the epigraphic evidence, see Derow & Forrest 1982, 79-92. These sources are consistent with accounts from the Zenon archive, which show that Thasian and Chian wines were valuable gifts. See Kruit & Worp 2000, 76. Cf. also Grace 1961, 24; Salviat 1986, 178-179.
- 38 Brock 1994, 467.

- 39 Schnebel 1925, 291-292. Thus the fermented wine was generally moved from the large fermentation containers into smaller jars within one year. See White 1975, 115; Rossiter 1981, 347, n. 8.
- 40 Lang 1976, 50, F 316. Even though it was catalogued among the owner's marks, it seems that, as in the case of Panskoe, Grotty and late Roman amphorae from the Don-delta (see note 12), this is once again a commercial mark specifying the name of a recipient. Cf. also Lang 1976, 51, F 332.
- 41 Gow (ed.) 1952, 176, comm. on 7.147; Koehler 1996, 330.
- 42 Brock 1994, 467.
- 43 Lawall 2005b, 53-54. This wreck has also troubled Monachov (1999, 372-379), who viewed the cargo as more or less chronologically consistent. However, in an earlier work (Monachov 1997, 203), Monachov, relying on the presence of "many finds datable to the late 5th-early 4th century BC", viewed it as remains from several wrecks.
- 44 E.g., tumulus 26/1911 and tumulus 5 of the "Five brothers' group" in the Elizavetovskoe necropolis; Grave 2 in kurgan 1 near the village of Pribugskoe; kurgan 3X near the village of Petuchovka and many others. See Monachov 1999, 251, 271-272, 338-340. Many other examples of this sort are discussed in Monachov 1997, 202-212. Cf. also Grandjean 1992, 580-581 with n. 45.
- 45 The practise is, for instance, documented by Herodotos (3.5-7) and by papyri from the Zenon archive (*P. Cair. Zen.* IV 59741; *PSI* VII 859). See Grace 1961, 6-7; Kruit & Worp 2000, 71. In late 5th century BC Athens, 21 empty, apparently second-hand - cf. Amyx 1958, 174-175 - amphorae were sold at a total price of 3 obols. For evidence of the re-use of amphorae in the Black Sea, see Stolba 2002, 235.
- 46 Rogov & Stolba (forthcoming).