

Monetary crises in the early Hellenistic poleis of Olbia, Chersonesos and Pantikapaion. A re-assessment

The fourth century BC is known as a period of maximum prosperity in the economic life of most of the Greek centres around the Black Sea. This was a time when the local *poleis* saw the greatest expansion of both their urban and rural territories, their most extensive building activities and an introduction of the local gold currencies. One can state, with considerable certainty that behind all this wealth stood the Pontic grain, which became the main focus of the overseas trade, and which caught the attention not only of the merchants bringing in return huge amounts of the imported fine ware, wine and olive oil to the Black Sea markets, but also of the Athenian public speakers, thus, making this period of the local history the most accessible in terms of written evidence.

By contrast, the beginning of the following 3rd century BC was a period, when the majority of the northern Black Sea centres experienced a conspicuous economic decline, which was accompanied by an abrupt reduction of the territories of the *poleis* and an acute monetary crisis¹. This manifested itself first in a rapid reduction of coin weight, which was supplemented by an increasing proportion of base metal in the alloy. Very soon the striking of gold and silver coins came to a halt everywhere in the region. The specimens which stayed in circulation were subjected to overstriking with new types and counter-marking, often more than once. Despite the continued issues of bronze, its quality deteriorates noticeably as regards the alloy composition, metrology and style². These changes were accompanied by the appearance of hoards, often consisting exclusively of bronze specimens.

Hellenistic coinages of Olbia and Pantikapaion –the two largest dots on the numismatic map of the northern Black Sea– are perhaps the most elucidative as regards the study of this process in detail.

The first Olbian coin type to be mentioned in connection with the crisis phenomena are the so-called “Borysthenoi” (Fig. 1.1-4), i.e. bronze specimens representing a head of the River God Borysthenes on the obverse and a bow in a case on the reverse. Following A.L. Bertier de la Garde³ and A.N. Zograph⁴, P.O. Karyškovskij considered them as “*chalkoi*” mentioned in the well-known decree of Ptolemy (IOSPE I², 32) of the second half of the 3rd century BC, and assigned the type to the period of 85 to 90 years starting from the last quarter of the 4th century BC⁵. In the final stage of its circulation the type was countermarked with representations of a dolphin and an 8-rayed star, which were applied with a linked punch (Fig. 1.4). The alloy composition, as shown recently by T.N. Smekalova, did not stay constant over time either, revealing an increase in the lead content from c. 2% in the initial issues up to an average of c. 5% in the closing ones where more than one tenth of the coins contain from 10 to 27% of lead⁶. What is even more striking is the alloy composition of the following series of Olbian bronze with the Herakles head on the obverse and a bow in a case on the reverse (Fig. 1.5) where the average content of lead has already risen to 34%⁷.

1. Zograph 1977, 210, 284; Šelov 1954, 58; 1981, 31-42; Shelov 1978, 89-94; Brabič 1956, 65-68; Karyškovskij 1957, 145-146; 1960a, 112-122; 1960b, 139-141; 1961, 114-119; 1988, 86-96; 2003, 239-247; Frolova 1989, 121-123; Kulikov 2001, 219-232.
2. Zograph 1977, 173, 210, 284-287. On deterioration of the alloy in the period of the crisis, see Smekalova 2001a, 13 (Bosporos), 30 (Olbia), 36-7 (Chersonesos); Smekalova and Djukov 2001, 49, 129, 140.
3. Bertier de la Garde 1911, 86-93.
4. Zograph 1977, 201-204.
5. Karyškovskij 1968, 75-76; 1988, 82.
6. Smekalova 2001b, 574.
7. Smekalova 2001b, 576; Smekalova and Djukov 2001, 30.

Taking into account the deterioration and countermarking of the closing issues of the “Borysthenoi” and working from his own chronology for the cessation of the local gold and silver mintage Karyškovskij dated the outbreak of the monetary crisis in Olbia to the middle of the 3rd century BC⁸. This date has won now general acceptance⁹. However, as shown by V.A. Anochin in the publication of a hoard found in Olbia in 1978, the entire “Borysthenoi” series was struck over a period hardly longer than twenty-thirty years¹⁰. Anochin’s conclusion based on a die linkage study finds further support in a hoard from Kamenka Dneprovskaja¹¹. The Bosporan type with a beardless satyr on the obverse and a lion head on the reverse countermarked with a twelve-rayed star and a bow in a case (Fig. 1.15), which was found in the hoard together with the closing issues of the “Borysthenoi”, implies for the latter the terminal date within the 1st quarter of the 3rd century BC. Consequently, it involves pushing up the other 3rd-century Olbian series as well as a starting date of the crisis, which is more likely to be closer to the beginning rather than to the middle of the 3rd century BC. The epigraphic evidence available proves that the city was in financial trouble well before the formerly proposed date of the crisis. A mid-3rd-century BC decree found in the Olbian Agora excavations of the 1950s (NO 28 + 29 + 123 + IOSPE I², 240) honouring the sons of the Chersonesean citizen Apollonios, who lent the city 3000 gold pieces, is most elucidating here. The inscription clearly denotes that the polis was still unable to pay back under the original conditions what had been borrowed from Apollonios some time in the second quarter of the 3rd century BC.

The situation regarding the coinage of Bosporos was fairly similar. From the 280s BC or even earlier when the mintage of the local gold and silver coins ceased abruptly, the bronze coins became the only currency struck by the state. The Bosporan hoards of this period are completely devoid of coins of precious metals. The first coin type closely associated with the monetary crisis represents the head of a beardless satyr on the obverse and a lion’s head with a starry sturgeon beneath on the reverse (Fig. 1.14). Being one of the most widespread variants of the Bosporan coins it served as a basis for a number of countermarkings and overstriking. Countermarking of the type with a ‘12-rayed star’ and a ‘gorytos’ applied, as in case of Olbia, with the linked punches evidently ran parallel with its continued striking, but henceforth with the countermarks already carved in the dies (Fig. 1.16).

Due to lack of metal and financial difficulties the introduction of a new type with the head of a satyr on the obverse and a bow with an arrow underneath on the reverse meant both overstriking the old countermarked coins and striking on the new flans (Fig. 1.18-19). The rapid weight reduction and deterioration of style and fabric are the most characteristic features of this particular type (Fig. 1.20), the value of which seemingly had to be confirmed soon after its issue by means of the countermarks. Like the contemporary Olbian specimens its alloy composition shows a growing proportion of lead, which now makes up from 8 to 20%, and in some individual cases even 27% of the alloy¹².

Traditionally, it has been thought that in contrast to Bosporos and Olbia the coinage of Chersonesos was not affected by these phenomena¹³. However, as I have already shown elsewhere¹⁴, Chersonesos was no exception to these tendencies (Fig. 1.6-13).

Despite certain differences of opinion as to the initial dates of the monetary crises in the northern Pontic *polis*, the question of the background of the crisis phenomena remains the most striking point deserving the highest scholarly attention. Since the question was first put forward by V.F. Gajdukevič it has aroused all kinds of speculation. Based on the obsolete notion of the trade rivalries between Bosporos and Egypt he took it for granted that the augmented supplies of Egyptian grain to the Greek markets and the progressive decay of Athens—the main consumer of Bosporan grain—were the factors which undermined the Bosporan economy¹⁵. Being among those who considered the recession in overseas trade the prime cause thereof¹⁶ V.M. Brabič also pointed out the role of the shift to the non-monetary character of the economic exchange between the Bosporan cities and the tribal world¹⁷.

8. For his chronology of the “Borysthenoi” series, see Karyškovskij 1957, 141-144; 1968, 73-76; 1988, 82.

9. Vinogradov 1984, 67; 1989, 177-217; Ruban 1985, 43; Kryžickij et al. 1999, 221; Smekalova and Djukov 2001, 129.

10. Anochin 1984, 26; 1989, 40.

11. Volčkova 1956, 55-56; *IGCH* 1075.

12. Smekalova and Djukov 1998, 231-232; 2001, 49; Djukov and Smekalova 2000, 268.

13. Zograph 1977: 232-9; Anokhin 1980: 45-6.

14. Stolba 1990, 40-41. This view has found acceptance in the later literature, see Gilevič 1992, 19-20; 1999, 358; Turovskij 1997, 27; Alexeenko 1998, 134; Smekalova 2001, 36-37; Kulikov 2001, 226.

15. Gajdukevič 1949, 76-77.

16. Blavatskij 1959, 24; Golenko 1955, 138; Kulikov 2001, 226.

By contrast, Bertier de la Garde and Karyškovskij sought to find the cause of the crisis in an unsuccessful monetary policy of the state and an increasing quantity of Macedonian gold, which drove the gold staters of Pantikapaion out of circulation¹⁸. According to N.A. Frolova, one cannot dismiss here the destructive effect of an unsuccessful switch to the new weight standard¹⁹. However, as justly stressed by D.B. Šelov, these processes alone might certainly contribute to the general picture, but could hardly be the main reason. The case of Chersonesos, the coinage of which despite being based on the monometallic system could not escape the crisis either, supplies further evidence of it. In turn, while accepting the whole complex of reasons, Šelov also drew attention to the resource-consuming internecine wars between the sons of the Bosporan ruler Pairisades I²⁰.

It is worthy of note that until recently the problem of the monetary crises in the northern Pontic *poleis* and their background has not been scrutinized as a general phenomenon. Thus, taking into account similar processes in the finances of Chersonesos and Olbia we cannot limit ourselves to the episodes in the history of one particular region. Finally, in the 1980s A.N. Ščeglov proposed a more general explanation²¹, arguing that the crisis might be one of the consequences of the abrupt change in the military and political situation in the whole northern Black Sea area, which in turn was the result of the Sarmatian invasion of Scythia.

Indeed, the attacks of nomads devastated the rural areas of the Greek cities in the Crimea and beyond²², thus undermining the basis of their economies. Archaeological evidence of this destruction that can be dated to the 270s BC is so eloquent as to leave little room for doubt of the scale of the disaster that befell the Greek cities. Yet, the question as to whether we are dealing with a new wave of the barbarians, be it Sarmatians, Celts or both of them²³, or the hordes of the Scythians, who withdrawing from the Southern Russian steppes no longer cared about maintaining peaceful relationships with their former neighbours, is still a matter of speculation. Whilst investigating this issue, it has to be born in mind that, archaeologically speaking, the notion of the Sarmatian invasion clearly clashes with a virtual absence of their remains in the area west of the Volga River during almost the entire third century BC²⁴.

Careful examination of the coin hoards as well as single finds of the 3rd century BC found in the rural settlements of Bosporos and Chersonesos, and buried just before their destruction²⁵, proves, however, that the general picture here was more complex. Thus, the aforementioned Bosporan types closely associated with the crisis (Fig. 1.15-20) are reported from a series of rural settlements in the Kerch peninsula such as Andreevka Južnaja²⁶, Ak-Taš²⁷, General'skoe West, Cape Zjuk, Baklan'ja Skala, Krutoj Bereg, Košara, Salačik, Zolotoe East and others (Fig. 2)²⁸, all of which according to the amphora stamps ceased to exist not later than the 260s BC²⁹. The material available from the settlements situated on the Taman peninsula including the hoard of 1941/1945 from Staro-Nižne-Steblievskaja³⁰ and a large pot hoard from the village of Primorskij³¹ is equally revealing.

The coin hoards from the rural territory of Chersonesos provide a picture similar to the above. The silver specimens known in a number of Chersonesean finds³² are represented solely by samples having two or three successive countermarks (Fig. 1.6-10), which clearly indicates that the issue had already ceased at the time when the hoard was buried. Their alloy, where the copper admixture reaches up to 10-15%³³, noticeably decreases in quality when compared to the previous series.

17. Brabič 1956, 65-67.

18. Bertier de la Garde 1911, 53; Karyškovskij 1960, 119-121.

19. Frolova 1970, 39-40.

20. Šelov 1954, 64; 1978, 120-121. Anochin (1986, 54-55) also leans towards this hypothesis.

21. Ščeglov 1985, 194; 1989a: 56-7. This hypothesis has recently become widely accepted, see Turovskij 1997, 45; Gilevič 1999, 358.

22. E.g., Ščeglov 1985, 192.

23. For a helpful discussion of the problem, see Brujako 1999a, 76-91; 1999b, 325-332.

24. See Polin 1992, 80-81.

25. Chersonesos: *IGCH* 1087-9, 1119, 1130-1, 1135; Gilevič 1999, 363-368, nos. II, 1-8, III, 1-4; Bosporos: *IGCH* 1064-74; Anfimov 1949, 64-6; Brabič 1964, 193-5; Anfimov 1991, 70-6; Aptekarev 1993, 77-84;

26. Kruglikova 1975, 83, fig. 38.3.

27. Bessonova, Bunjatjan and Gavriljuk 1988, 92, pl. 1.4.

28. Maslennikov 1998, 207-208. See also Appendix 1.

29. Kruglikova 1975, 98; Maslennikov 1993, 15, 36; 1998, 208; Zin'ko 2000, 52.

30. *IGCH* 1071-1072; Anfimov 1949, 64-66.

31. Aptekarev 1993, 77-84.

32. E.g., *IGCH* 1119, 1130-1131; Gilevič 1999, 366-368, nos. III.1-4.

Paleoethnobotanical, archaeological and limnological data available at the moment seemingly suggest that the monetary crises, like a general economic decline of the 3rd century BC clearly traceable in all major centres of the northern Black Sea area, were rooted in substantial environmental changes. The evidence is scattered but particularly elucidative when viewed in its entirety. Thus, the excavations in Panskoye I and Masliny – two rural settlements of the Chersonesean distant *chora* – have revealed the deposits of charred grain, which are of key importance for understanding the processes occurring in the agriculture of Chersonesos in the early 3rd century BC. Two accumulations from Panskoye I proved to contain 73.2% and 81.9% of rye, the rest being mainly wheat³⁴. The share of rye in two other deposits from the settlement of Masliny is even higher making up over 90%³⁵. The otherwise inexplicable transition from such a tried crop as wheat to rye, which is less capricious and more stable in conditions of a severe winter and a droughty summer is likely to have been the farmers' response to the deterioration of the climate. By the same token the oppressed state of seeds both of wheat and rye resulted probably from their being exposed to the less favourable climatic conditions³⁶.

As the example of Panskoye shows, apparently not less than a decade before the site ceased to exist about the 270s BC evidence starts to appear of the population abandoning the *chora*³⁷. According to Th.M. Gallant this was one of the basic survival strategies in time of food crisis. A clear drop in the trade activities on the *chora* well before its destruction complements the picture. According to the amphora stamps obtained from the monumental building U6 at Panskoye I over 95% of the Chersonesean wine was supplied between 325 and 295 BC while only three stamps or 4.5% of the total cover the remaining c. 25-year-long period until the building perished in fire³⁸. The same is true for the black-glazed ware and other groups of imported pottery. V.I. Kac points to a similar pattern at many other Chersonesean settlements, concluding that the delivery of Chersonesean wine, if it had not stopped entirely, had been reduced considerably long before their destruction. "The only logical explanation of this paradoxical phenomenon" – he outlines – "will be to assume the drop in the amphora production in Chersonesos some 10-15 years before the devastation of the farms on the Herakleian peninsula"³⁹.

The study of the deposits of the Crimean salt lakes provides another piece of evidence. Thus the investigations of the bottom sediments of the Saki Lake situated south of Eupatoria revealed a massive lens of common salt, which with certainty corresponds to a droughty and hot period when the salt sediment could develop as solid accumulation⁴⁰. Due to annual silt deposits covering it the salt lens is well stratified. Therefore, it provides a date about the middle or the first half of the 3rd century BC as a starting point for the 175-200 year-long period when the climate became more hot and droughty. However, the re-colonization of the Chersonesean, Bosporan and Olbian *chorai* about 230 BC implies the possibility of milder phases within this time span which correspond to the oscillations of the warm and cold periods with an average duration of 35 years recorded by A.A. Borisov for the Crimea on the basis of modern meteorological data⁴¹.

Going over the main points, we may state that even before Chersonesos, Olbia and the cities of Bosphoros lost their *chorai* their financial situation already showed indications of decline. All this entails, therefore, the conclusion that the nomad invasion though having exacerbated the general economic crisis to a large extent was hardly the factor that caused it. Whatever the actual reasons may have been for the destabilization in the coinage and monetary circulation of the Greek *poleis* on the northern shores of Pontos, it is quite obvious that they were of a general character. However, taking into account the data scrutinized above, the repeated crop failures and deterioration of the climate, which denied the cities their incomes from grain and wine export, might together constitute one of the major reasons for the crisis that struck the economies and consequently the coinages of the cities in question in the 3rd century BC as well as involving larger migrations of the nomadic tribes north of the Black Sea.

33. Smekalova 2001a, 36.

34. Janušević 1976, 135-136; Janušević and Ščeglov 2002, 327.

35. Janušević 1976, 134.

36. For more detailed discussion, see Stolba (forthcoming).

37. Stolba (forthcoming).

38. Kac, Monachov, Stolba and Ščeglov 2002, 114, table 2; Stolba (forthcoming).

39. Kac 1994, 60.

40. Dzens-Litovskij 1936, 42-57.

41. Borisov 1956, 540.

Appendix 1

Finds of the overstruck and countermarked coins of the first half of the 3rd century BC from the rural territories of Bosporos and Theodosia (Eastern Crimea).

CHORA OF THE BOSPOROS:

1. *Andreevka-Južnaja*, Sh 63 (1 ex.); Kruglikova 1975, 221.
2. *Karantinnaja slobodka*, AE, 300-250 BC (2 ex.), beginning of the 3rd c. BC (1 ex.); Gajdukevič 1981, 64-65.
3. *Cape Zjuk*, Sh 62 (1 ex.), 63-65 (9 ex.); Maslennikov 1998, 207-208.
4. *Krutoj bereg*, Sh 62 (1 ex.), 63-65 (2 ex.); Maslennikov 1998, 207-208.
5. *Baklan'ja skala*, Sh 62 (3 ex.), 63-65 (2 ex.); Maslennikov 1998, 207-208.
6. *Košara*, Sh 62 (1 ex.), 63-65 (3 ex.); Maslennikov 1998, 207-208.
7. *Salatik*, Sh 62 (1 ex.), 63-65 (3 ex.); Maslennikov 1998, 207-208.
8. *General'skoe-Zapadnoe*, Sh 62-64 (single finds), Sh 65-67 (368 ex.; a pot hoard); Maslennikov 1998, 207-208; Zin'ko and Kulikov 2002, 399-428.
9. *Starožilovo I* (necropolis), Sh 63-65 (1 ex.); Maslennikov 1998, 207.
10. *Zolotoe-Vostočnoe*, Sh 63-65 (1 ex.); Maslennikov 1998, 207.
11. *Kazantip-Zapadnyj*, Sh 63-65 (1 ex.); Maslennikov 1998, 207.
12. *Ak-Taš*, Sh 63 (1 ex.); Bessonova, Bunjatjan and Gavriljuk 1988, 67, 92.

CHORA OF THEODOSIA:

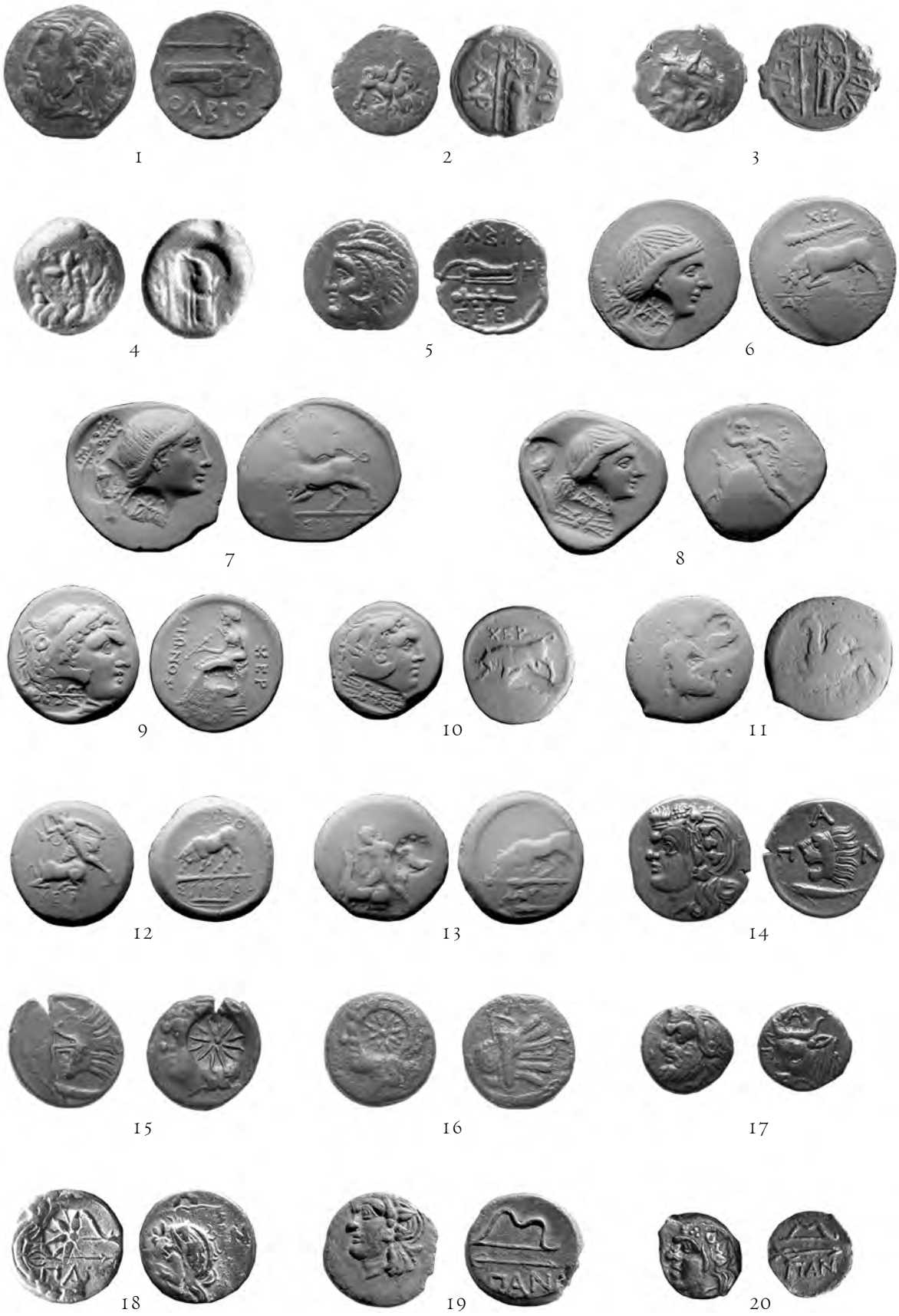
13. *Kuru Baš* (Vinogradnoe), Sh 65 (2 ex.) and Sh 66 (15 ex.), Gavrilov 2002, 172, no. 6.
14. *Nasyjnoe*, Sh 62 (1 ex.); Gavrilov 2001, 200, no. 26.
15. *Uzun Syrt*, Sh 62 (7 ex.), Sh 63 (4 ex.), Sh 67 (1 ex.); Gavrilov 2002, 175, nos. 38-39, 41.
16. *Sary Kaja* (citadel), Sh 62 (1 ex.); Gavrilov 2001, 202, no. 43; Gavrilov 2002, 172, no. 1.
17. *Tambovka VI*, Sh 62 (1 ex.); Gavrilov 2001, 201, no. 35.
18. *Staryj Krym* (west shore of a storage pond), Sh 65 (1 ex.); Gavrilov 2001, 202, no. 52.
19. *Krinički I*, Sh 62 (3 ex.), Sh 65 (1 ex.); Gavrilov 2001, 200, nos. 23-24.
20. *Ajvazovskoe*, Sh 62 (1 ex.); Gavrilov 2001, 199, no. 16.
21. *Krivcovo*, (0,6 km S from the village), Sh 62 (1 ex.); Gavrilov 2001, 206, no. 70.
22. *Georgievka* (2 km SE from the village), Sh 62 (1 ex.); Gavrilov 2001, 205, no. 69.
23. *Sofievka*, Sh 62 (24 ex., a hoard); Gavrilov 2001, 198, no. 6.

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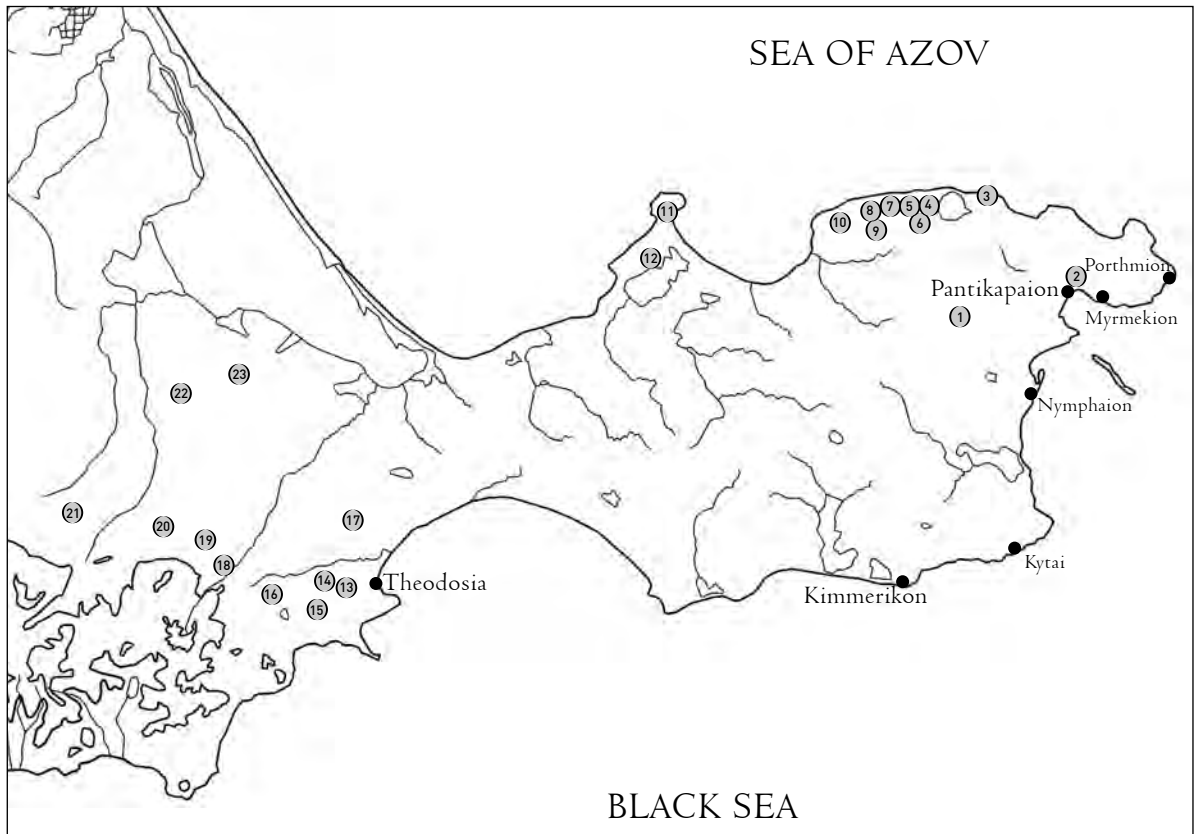


Fig. 2. Eastern Crimea: a distribution map of the finds of the overstruck and countermarked coins of the 1st half of the 3rd century BC from the rural territories of Bosporos and Theodosia. The numbering of the sites corresponds to that in the Appendix I.

- ◀ Fig. 1. Coins of Olbia, Chersonesos and Pantikapaion of the late 4th – first half of the 3rd century BC.
- 1-5 Olbia
 - 6-13 Chersonesos
 - 14-20 Pantikapaion