

„SINDIAN” COINS: SOME REMARKS

Vladimir D. KUZNETSOV*

Keywords: „Sindian” coins, Kimmerios Bosporos, Sindike, Phanagoria.

Abstract: So-called „Sindian” coins have long been a subject of vigorous debate among researchers interested in the history and numismatics of the Kimmerian Bosporos. These coins, stamped with various obverse and reverse designs, are essentially Greek in nature; yet a lot of specialists attribute them to the Sindian tribe that inhabited the Taman Peninsula and its vicinities. According to this line of thought, the appearance of coinage proves the existence of the Sindian state. Other scholars believe that the „Sindian” coins were struck by some Greek city of the Kimmerian Bosporos, for example – by Sindian Harbour.

The author of the present article insists that the coins with the legend „ΣΙΝΔΩΝ” can not be considered as evidence for the emergence of the Sindian state in the 5th century BC. One particular coin type with a griffin must have had close relation to Phanagoria, an apoikia of Teos. Since the other „Sindian” coin types hardly belonged to the same polis, it seems logical to assume that they were issued by the alliance of the Greek cities in the Asiatic Bosporos. The emission of the „Sindian” coins chronologically coincides with the war for Sindike waged by the rulers of Pantikapaion in the second half of the 5th century BC and is likely to have been connected with this event.

Speaking about the contacts between the Bosporan Greeks and the local population one can not evade the question about so-called „Sindian” coinage. As is well-known, there exist a fairly large number of silver coins with the legend ΣΙΝΔΩΝ which have long been the subject of vigorous debate in scholarly literature¹. The main disagreement centres on the issuer of the coins. Some scholars attribute them to the Sindian people and use this assertion as an

* V.D. KUZNETSOV: Institute of Archaeology, Russian Academy of Sciences, Moscow; e-mail: phanagor@mail.ru.

¹ FROLOVA 2002, p. 83; 2004, p. 63-69.

argument for the existence of the Sindian state². This logic seems circular, though: the fact that the Sindians struck coins implies a high level of political development, which, in turn, implies an advanced economy and coinage. Other researchers believe the coins in question were minted by one of the Greek cities on the Asiatic side of the Bosporos³. A.A. Zavoïkin and S.I. Boldyrev proposed to identify the artifacts as the alliance coinage of the Greek *poleis* located in Sindike⁴.

The view that it was the Sindians themselves who issued „Sindian” coins is now most actively supported by S.R. Tokhtas’ev and F.V. Shelov-Kovedyaev⁵. The scholars build their argument on the conviction that the legend ΣΙΝΔΩΝ can mean only one thing: „(the coin) of the Sindians”. Hence, it was struck „on behalf of the Sindian people”⁶. This conclusion rests on the presumed „emergence of some early type of state in the Sindian society no later than the middle of the 5th century BC”⁷. In other words, here we see a return to the old line of thought: the rise of the state is the ultimate proof of the appearance of coinage. Interestingly, the scholars assume the existence of the Sindian state from the references to the Sindian kings in ancient sources and insist this is grounds enough for all the opponents’ objections to be „rendered meaningless”⁸.

In her recently published work, Ch. Müller also speaks about „tribal coinage” – believing it to be a more plausible attribution of the „Sindian” coins rather than an attempt to ascribe them to the Greeks of the Asiatic Bosporos, who operated under the borrowed name of the „Sindians”⁹. In her opinion, the coins were struck at one of the Greek mints, presumably in Pantikapaion.

However, these conclusions have not won general acceptance in the academic community. A number of scholars altogether reject the attribution of the artifacts in question to the Sindians. Thus, S.Yu. Saprykin points out that coinage was usually struck in the name of a king, and the idea it could be issued on behalf of a tribe or a people is unthinkable¹⁰. He grants existence to the legend ΣΙΝΔΙΚΗΣ („the coin of Sindike”)¹¹ but has to admit that such cases are as yet unknown (see below). As a result, the scholar concludes that the so-called „Sindian” coins may in fact have been issued by one of the *poleis* in the Asiatic Bosporos, most likely – by Sindian Harbour¹². This opinion is shared by D. McDonald, joined by some other researchers who also hold that the coinage of

² See for example MOSHINSKAYA 1946, p. 203-208; SHELOV 1949, p. 111-118 (later D.B. Shelov adjusted his point of view: SHELOV 1981, p. 242-243); GORONCHAROVSKIĬ 2011, p. 129; GORONCHAROVSKIĬ & TERESHCHENKO 2014, p. 99-109.

³ See for example KALLISTOV 1949, p. 153; GRACH 1972, p. 133-141.

⁴ ZAVOÏKIN & BOLDYREV 1994, p. 43-47. A.A. Zavoïkin has recently abandoned this opinion (ZAVOÏKIN 2011, p. 118-124).

⁵ SHELOV-KOVEDYAEV 1985, p. 127-130; TOCHTAS’EV 2001; TOCHTAS’EV 2002; TOCHTAS’EV 2004.

⁶ TOCHTAS’EV 2001, p. 66.

⁷ *Ibid.*

⁸ *Ibid.*, p. 67.

⁹ MÜLLER 2010, p. 31.

¹⁰ SAPRYKIN 2003, p. 25-26; 2006, p. 175-176. The same opinion was previously expressed by N.L. Grach (GRACH 1972, p. 138).

¹¹ In this case, ΣΙΝΔΙΚΩΝ would be correct.

¹² See also SHELOV 1981, p. 241-243; ANOKHIN 1986, p. 14-15.

an agrarian tribe is beyond possibility¹³. An article by A.Z. Aptekarev provides an outline of the main problems which arise when identifying the artifacts as belonging to the Sindians¹⁴.

Prior to addressing the attribution of the „Sindian” coins, we need to clarify several important issues. The first one concerns Sindian statehood as proof that the coinage was possible. It should be noted, however, that the rise of the state is in itself no solid reason to presume the existence of coinage. Many Greek *poleis* with well-established state institutions are known to have issued no coins whatsoever¹⁵. Then, there is a question as to what evidence we have for the emergence of the Sindian state, and what kind of state it was. The answer can only be very vague, for it rests mainly on the fact that the Sindian rulers were referred to as „kings” in ancient written sources¹⁶. Here emerges something of a paradox: the alleged Sindian coinage is seen as an argument for the existence of the Sindian state, which, in turn, proves the presence of coinage. One more point to consider is the following: why would the Sindians be different from the neighbouring tribes? Indeed, judging from both written and archaeological data, the socio-economic development of the Sindians was similar to that of the Maeotians, whose statehood is out of question¹⁷.

Another thing worthy of attention lies in the sphere of economy. There is a tradition (at least, among Russian researchers) to link the adoption of coinage to a certain level of economic development achieved by a society¹⁸. This is in and of itself an ambiguous claim, for what is understood by „certain” is left to everybody to decide for themselves. Besides, correlation does not imply causation, and the actual reasons behind the introduction of coinage may be many and varied. The issue has become grounds for lengthy disputes in numismatic literature¹⁹, and no general agreement has been reached so far. Many scholars believe the level of economic development in a given society was not always the decisive factor. Coinage could be introduced to cover state expenditures (e.g. on salaries for *polis* magistrates), to meet fiscal needs, to reap profit from the difference between the metal value and the face value of a coin, to pay mercenaries for their services, etc.²⁰ In addition, a number of cities in northern Greece started minting their own coins in order to pay tribute to Persia²¹. As justly noticed by S. von Reden, the

¹³ McDONALD 2005, p. 24; HANSEN & NIELSEN 2004, p. 147.

¹⁴ APTEKAREV 2004, p. 15-18.

¹⁵ OSBORNE 1996, p. 250-259; HOWGEGO 1995, p. 16. According to some estimations, more than half of the *poleis* never struck their own coins (MARTIN 1995, p. 270). Besides, a widely held view about the correlation between coinage and political sovereignty (FINLEY 1999, p. 166) has recently come under serious criticism (see MACKIL 2013, p. 248).

¹⁶ See BONDARENKO 2012, p. 23.

¹⁷ SHELOV 1981, p. 235, 238, 241.

¹⁸ See REDEN 1997, p. 156.

¹⁹ To name but a few related works: KRAAY 1964, p. 76-91; LE RIDER 1985; MARTIN 1995, p. 267-268; 1996; SHAPS 2007. See KOVALENKO & TOLSTIKOV 2010a, p. 41-42 (note 88).

²⁰ GARLAN 1989, p. 69; HOWGEGO 1995, p. 3; MARTIN 1996, p. 258-259; REDEN 2010, p. 64.

²¹ MARTIN 1985, p. 34.

rapid spread of coinage across the Greek world was linked in the first place to *polis* institutions and Hellenic culture²².

What could cause the tribe (or tribes), hardly different from the other indigenous peoples of the region, to start coining? One possible reason could be the developed political structure of the society: well-established institutions, similar to the *polis* ones, which required the introduction of coinage to provide for their functioning. However, we have no grounds to assume the Sindians were that politically advanced. The same is true for the level of their economic development (obviously very low, given the absence of, say, fiscal institutions). Moreover, unlike in northern Greece, no precious metal deposits that would spur coinage existed in the area.

Under the situation, it may seem reasonable to suggest that the coins were struck to facilitate trade between the local population and the Greek colonists. Let us look at this issue in more detail. As early as the 6th century BC – along with the first Hellenic settlements in the Bosporos – Greek imports appeared in the Kuban area. Over the years, they continued to grow in number, reaching a peak in the 4th century BC.²³ This evidence enables scholars to conclude that „barbarian“ commodities (grain, slaves, wool, leather) occupied an important place in the Bosporan economy. The local people, in their turn, avidly consumed imported goods (wine, olive oil, craft products) and, in the process, became increasingly Hellenized²⁴. Indeed, such trade links existed for a long time, yet their intensity and the exact role they played in the economies of the counteragents (i.e. the Bosporos and the local tribes) are not that easy to define. For example, a conviction shared by many scholars about the high demand for grain produced by the natives of the Kuban area rests mainly on the assumption that the Bosporan own agricultural output was insufficient to allow export to the Mediterranean²⁵. This may have been so; however, any actual proof, apart from logical speculations, is lacking. The point is that the volume of Bosporan grain export is unlikely to have remained stable: due to various factors (climatic in the first place) the crop yield would inevitably vary from year to year²⁶. In a similar way, we can not be sure that the export itself continued without interruption over a long period of time – which is presumed by some researchers based on the evidence from Demosthenes²⁷. Besides, the intensity of trade links between the Greeks and the natives can not be determined with certainty judging from the archaeological data alone. The map of ancient Greek imports in the Kuban river basin shows they are not that plentiful to warrant any definite conclusions²⁸. More than that, the archaeological record as such does not provide an adequate reflection of the contacts between trade counteragents since many goods simply

²² REDEN 2010, p. 25.

²³ KOSHELENKO, MALYSHEV & ULITIN 2010, p. 268-277.

²⁴ ANDREEV 1996, p. 3-17; MALYSHEV 2000, p. 107, 117-118.

²⁵ BLAVATSKIĬ 1953, p. 181; ANFIMOV 1967, p. 130; KOSHELENKO, MALYSHEV & ULITIN 2010, p. 264-265. Cf. GARBUZOV 2015, p. 77-86.

²⁶ For more information on the problem see GALLANT 1991.

²⁷ GAĬDUKEVICH 1949, p. 82; BRASHINSKIĬ 1984, p. 180.

²⁸ KOSHELENKO, MALYSHEV & ULITIN 2010, p. 270-272; 276, 279.

perish in the ground. Taking everything into account, I would like to stress that my goal here is neither to assess the volume of trade nor to estimate its role in the relations between the Greeks and the barbarians in the region. What I am saying is that in order to avoid ungrounded suppositions, however logical they may seem, one should strive to base arguments on established facts.

In this connection, the absence of numerous coin finds in the Kuban area deserves special attention, for it apparently suggests barter as the method of exchange between the Greeks and the barbarians²⁹. Hence, to believe the primary reason for the introduction of „Sindian” coins was the need for a medium in trade between the colonists and the local population would be imprudent, to say the least.

A similar point of view was expressed by D. Braund. In the article devoted to the Sindians, he rightly emphasized that researchers usually do not pay due attention to the reasons behind the „Sindian” coinage. Indeed, when linking it to economic factors, one should clarify what kind of factors they were and why the coinage vanished as suddenly as it appeared. Given that most of the coins were found within the Taman Peninsula, their association with trade seems unlikely. According to D. Braund, the Sindians urgently needed coinage to pay mercenaries employed in the notorious military campaign in Sindike (Hekataios, Türgatao)³⁰. This hypothesis, so temptingly probable, still leaves us with a couple of issues to be considered: the date of the „Sindian” coinage and the validity of an argument for its attribution to the Sindian people.

All in all, no strong reason exists to abandon the traditional date of the „Sindian” coins: within approximately the last quarter of the 5th century BC.³¹ If so, let us now return to D. Braund’s hypothesis that the birth of this coinage was driven by the need to pay mercenaries. According to the British scholar, the Sindians undertook striking coins in the moment of grave military danger. To clear things up, I shall now focus on the artifacts in question.

First, a few words about the coin legend. In the majority of cases it is the same – ΣΙΝΔΙΩΝ³². Many specialists agree it can have no other interpretation than:

²⁹ MALYSHEV 2000, p. 107 (some interesting parallels are provided on page 117). As a side note, A.E. Tereshchenko links the appearance of coinage in the Bosphoros to the demands of international trade (TERESHCHENKO 2012, p. 168-179). This hypothesis can not be proved with numismatic evidence and so far remains a supposition. In point of fact, international commerce required coins of large denominations. An idea proposed by S.A. Kovalenko and V.P. Tolstikov (KOVALENKO & TOLSTIKOV 2010b, p. 44) – who associate the introduction of coinage in Pantikapaion with major construction works in the *polis* – looks more promising, though it may also remain unprovable. As for the date of Pantikapaion’s this coinage and the reference to the example of Abdera made by A.E. Tereshchenko in support of his point of view, the author failed to take into consideration one of the latest works on the topic: K. Chryssanthaki-Nagle dated the beginning of coinage in Abdera to 520-515 BC (CHRYSSANTHAKI-NAGLE 2007, p. 97).

³⁰ BRAUND 2007, p. 20.

³¹ See ANOKIIN 1986, p. 14-15; GORONCHAROVSKIĬ & TERESHCHENKO 2014, p. 108-109.

³² A.E. Tereshchenko writes about some specimens with a shortened variant of the legend (TERESHCHENKO 2004, p. 17); see GORONCHAROVSKIĬ & TERESHCHENKO 2014, p. 100.

„(the coin) of the Sindians“. Such unanimity is largely due to the influence from S.R. Tokhtas'ev, who once wrote: „This should be considered a starting point for any studies by numismatists and historians alike“³³. Thus, a conclusion based on the philological data solely is presented as the ultimate truth – to be accepted *a priori*, without a comprehensive analysis of the problem. A point to note: we happen to be dealing with coins, and to ignore numismatic methods here is a serious error. Therefore, I shall let myself pay no attention to the assertion abovementioned.

The first thing to be said concerning the legend on the „Sindian“ coins is that it was a widespread practice in Greek coinage to abbreviate the ethnonym to just a few letters. Also of note is the fact that the name of the issuer (*polis*, etc.) was not always written in the genitive plural but could have the nominative or accusative case forms³⁴. The same may apply to the legend on the „Sindian“ coins. One classic example will suffice: the abbreviation ΑΘΕ on Athenian coinage, which remained stable over a very long period of time. The consistency of the spelling ΣΙΝΔΩΝ can by no means disprove this supposition³⁵, which has now been confirmed by the first find of a „Sindian“ coin bearing only the initial letter (Σ)³⁶. So, the full version of the legend ΣΙΝΔΩΝ(ΙΚΟΝ/ΟΣ) is not that improbable, at least in theory³⁷.

The second moment with regard to the legend on the „Sindian“ coins is as follows. A number of scholars believe this coinage may have been issued by Sindian Harbour, the city also known by its shorter names (Sindike, Sindos)³⁸. Can the legend ΣΙΝΔΩΝ be derived from the name of the Greek *polis*? To altogether reject such a possibility (based primarily on the fact that the contraction εω>ω from Σινδέων to Σινδών, is unknown for the period under study)³⁹ would not be an ultimate solution to the problem. Whatever the case, it seems that without additional information philological investigations alone are not enough to offer a valid interpretation of the legend⁴⁰.

Researchers have repeatedly emphasized that the „Sindian“ coins are in many ways absolutely Greek⁴¹, be it the inscription written in Greek characters or

³³ TOKHTAS'EV 2001, p. 64.

³⁴ HEAD 1911, p. LXV.

³⁵ TOKHTAS'EV 2001, p. 70.

³⁶ YATSENKO & TITELAKIS 2005, p. 28-29.

³⁷ For more information on the shortening of legends see KRAAY 1976, p. 5-7.

³⁸ SHELOV 1981, p. 241; SHELOV-KOVEDYAEV 1985, p. 127; ALEKSEEVA 1997, p. 23-24.

³⁹ SHELOV-KOVEDYAEV 1985, p. 127; TOKHTAS'EV 2001, p. 64-65.

⁴⁰ S.R. Tokhtas'ev clearly applies double standards in his research. In one case, the absence of the abovementioned contraction is grounds enough for a negative conclusion. However, being confronted with the fact that no coins are known to have been struck on behalf of a people, the scholar readily dismisses the argument saying parallels „may pop up right tomorrow“ (TOKHTAS'EV 2001, p. 64-67). If other regions have yielded evidence for the existence of such contraction in the 5th century BC, why should we think the Bosphoros was an exception in this respect? The available epigraphic data seems just too scant to support such a claim.

⁴¹ MINNS 1913, p. 632; SHELOV 1956, p. 47; APTEKAREV 2004, p. 15; ZAVOÏKIN 2011, p. 121.

the typical Hellenic images. All the attempts to link the latter to different aspects of Sindian lifestyle look more or less conjectural and therefore totally unconvincing⁴².

The diversity of the „Sindian“ coin types is another thing that could not but attract attention⁴³. If we assume that these coins were issued by the Sindians, we may venture too far into fields of fantasy in search for an explanation as to why some indigenous tribe would for a short while strike coins of various types, and essentially Greek ones at that. In the absence of further evidence, all such efforts can only remain speculations⁴⁴. Indeed, there can exist different interpretations of the horse image on the reverse and Herakles on the obverse, but any claim regarding their connection to the Sindians, or even to some *polis* in Sindike, will be unfounded and far-fetched⁴⁵.

This applies to all types of the „Sindian“ coins. Except one.

The type with a griffin and a grain of corn in front of it has long been attributed to the mints of Teos and Abdera⁴⁶. On these grounds some researchers proposed to identify the „Sindian“ coins as being struck in Phanagoria, founded by the Teians⁴⁷. Other specialists, however, deny any connection between this coin type and Phanagoria⁴⁸. Recently there appeared an article whose authors tried to determine the place where the Sindian coins had been produced by comparing their diameter and thickness to those of coins from other Greek *poleis* in the Bosporos⁴⁹. As follows from the analysis, the technique employed is close to that used in the production of Pantikapaion coinage, thus the artifacts under study can not be ascribed to Phanagoria. At the same time, the authors do not dismiss the possibility that the coins were issued by Sindian Harbour. Unfortunately, only a

⁴² According to F.V. Shelov-Kovedyaev, the appearance of such images may have been due to the fact that the coins were struck in Greek *poleis* (SHELOV-KOVEDYAEV 1985, p. 126). However, the symbols placed on coins always express the identity of the issuer – which often reveals itself through religion and mythology – attesting to the issuer's very existence (HOWGEGO 1995, p. 62 ff; MARTIN 1995, p. 267; LACROIX 1975, p. 154).

⁴³ ZAVOĬKIN 2011, p. 119.

⁴⁴ Cf. SHELOV 1956, p. 48-49. Totally unsubstantiated and therefore unacceptable is an attempt to establish a connection between the series of the „Sindian“ coins and the rule of this or that Sindian dynasty (GORONCHAROVSKIĬ & TERESHCHENKO 2014, p. 106-107).

⁴⁵ For example, given some imagination, the images of Herakles and the horse can be associated with Abdera's foundation myth (for more information see XANTHOPOULOU 2004, p. 319-323; TIVERIOS 2008, p. 99), which may bear direct relation to Phanagoria.

⁴⁶ MINNS 1913, p. 632; ZOGRAF 1951, p. 169; SHELOV 1949, p. 113.

⁴⁷ ZOGRAF 1951, p. 169; KALLISTOV 1949, p. 153; SHELOV 1956, p. 49.

⁴⁸ GRACH 1972, p. 138; ANOKHIN 1986, p. 14; SAPRYKIN 2003, p. 25-26. According to N.A. Frolova, the artifacts can not have been issued by Phanagoria since its own coinage appeared at a later date (FROLOVA 2002, p. 80). This is indeed a peculiar piece of reasoning, for it may well have been that coins with the inscription ΦΑΝΑ(ΤΟΠΙΤΩΝ were not the first ones minted in this *polis* (cf. ZOGRAF 1951, p. 169). V.A. Anokhin, in his turn, makes big efforts to disprove a clear association of the griffin on the „Sindian“ coins and Phanagoria. Instead, the scholar comes up with a mere conjecture as to the origin of this griffin image: Teos paid in silver for the grain it bought from Sindian Harbour (ANOKHIN 2010, p. 126).

⁴⁹ HOURMOUZIADIS & WEISSER 2007, p. 1-8.

limited number of the artifacts were subjected to the analysis⁵⁰, which undermines the credibility of the conclusions. For example, the authors of the article do themselves admit that one of the ten Phanagorian coins they have studied demonstrates the same technology as was used for manufacturing the „Sindian“ specimens⁵¹.

Let us take a closer look at the abovementioned griffin type. The beast is shown seated right, a grain of corn in front of it. As has already been stated, Teos and Abdera began minting their own coins almost at the same time, which some researchers view as a coordinated policy⁵². The contacts between the *apoikia* and its metropolis were so close that not only did this allow scholars to speak about a *sympoliteia*, but even made some of them doubt the independent political existence of Teos and Abdera⁵³. The coin types issued by both *poleis* were nearly identical: a griffin facing right (Teos) or left (Abdera)⁵⁴. Hence the question: if Phanagoria was a Teian *apoikia* (regardless of whether it was settled directly from Teos or via Abdera) and a coin type similar to those of its metropolis and sister-colony is known to have been minted in the area, what conclusion does it point to? The answer is obvious: the „Sindian“ coins with a griffin and a corn on the obverse have a direct connection to Phanagoria⁵⁵. This coin type must have been produced in the *apoikia* founded by the Teians.

Even if we leave aside the other images on the „Sindian“ coins (a horse, Herakles, a bull, an owl, etc.)⁵⁶, the presence of the griffin type alone is enough to challenge the attribution of the artifacts to the Sindians.

Now, the next question is: does this mean the coins with the griffin were struck in Phanagoria? If we give a positive answer, then what about the other types of the „Sindian“ coins? To link them all to Phanagoria would most likely be a mistake, for there seem to be no reasons why one *polis* would issue such diverse coin types within a short period of time.⁵⁷ The same can be said regarding the

⁵⁰ 48 coins from Pantikapaion, 10 – from Phanagoria, and 19 „Sindian“ specimens. Coins from Gorgippia were not examined.

⁵¹ HOURMOUZIADIS & WEISSER 2007, p. 6.

⁵² GRAHAM 1991, p. 177; CHRYSSANTHAKI-NAGLE 2007, p. 100.

⁵³ GRAHAM 1992, p. 68; see HERRMANN 1981, p. 26 ff.

⁵⁴ The griffin image on the coins of Abdera and Teos is associated with the cult of Dionysos, who was the patron god of both cities (CHRYSSANTHAKI-NAGLE 2007, p. 95–96; DELPLACE 1980, p. 365 et suiv., p. 384 in particular). A griffin was also depicted on Abdera amphora stamps (PERISTERI-OTATZI 1986, p. 491–496).

⁵⁵ A corn is also present on coins struck in Phanagoria at a later date (ZOGRAF 1951, p. 170). For a griffin and a grain of corn on coins from Teos see BALCER 1968, pl. XVI no. 84, 85, 91; 1970, p. 29, pl. 8, 84. J. Balcer believed the corn image appeared on the coins due to the shortage of grain in the second quarter of the 5th century BC (BALCER 1970, p. 29). R. Meiggs and D. Lewis in their commentary on the so-called „public imprecations“ at Teos prefer to speak not about famine because of the insufficient grain supply, but rather about the Teian constant dependency on imported grain – which, supposedly, caused the city to send out an *apoikia*, Phanagoria (MEIGGS & LEWIS 1980, p. 65). This hypothesis can by no means be accepted, since the reasons behind the foundation of Phanagoria were completely different.

⁵⁶ An owl, not unknown on Teian coinage as well, is usually ascribed to the influence from Athens, the metropolis of Teos (BALCER 1968, p. 22, pl. XVII no. 100; 1970, p. 29–30).

⁵⁷ For changes of types and the underlying reasons see KRAAY 1976, p. 2–5.

attempt to identify the coinage as being struck by Sindian Harbour. So, the only remaining solution is to suppose the „Sindian” coins were minted in several cities⁵⁸. How probable is this?

In antiquity, coinage could be issued jointly by two or more *poleis* upon the formation of special monetary or territorial unions. Monetary alliances were not uncommon, one example being a well-known treaty between Phokaia and Mytilene (late 5th – early 4th centuries BC) which stipulated the conditions of their allied coinage⁵⁹. The coins were minted on the same weight standard and had the identical reverse designs. According to E. Mackil and P. Alfen, the adoption of such „cooperative coinages” was the reflection of political, religious and social bonds that existed between the *poleis*, and – to a lesser degree – of economic contacts⁶⁰. Teos and Abdera give us a fairly good example of monetary cooperation between a metropolis and its *apoikia*.

As concerns territorial unions, these were what the Greeks themselves generally referred to as κοινόν and ἔθνος – to describe „a federal state” and „a tribal state”, respectively⁶¹. It should be noted, however, that in antiquity both terms were not clearly defined. Thus, the word κοινόν could be the name for almost any gathering, assembly, union or community⁶². According to J. Larsen, although the difference between the terms may seem a mere nuance, it was κοινόν that designated a state, as opposed to ἔθνος (meaning „the tribe”, „the people”, or „the nation”)⁶³. Let us not forget that „the tribe” here applies to the Greeks and their tribal divisions (the Boeotians, the Achaeans, the Lokrians, etc.). A. Giovannini argues that, unlike κοινόν, the word ἔθνος was used to denote two or more territorial states⁶⁴. Starting from the end of the 5th century BC, both types of political associations issued coins on behalf of a federal state. With regard to earlier coinages, however, the presence of an *ethnikon* associated with a state, rather than a *polis*, is not at all times indicative of federalism. Thus, coins with the legend XAAK struck by the Chalkideans in Thrace (the middle of the 5th century BC) belong to a period earlier than the formation of the Chalkidean League (late 430s BC)⁶⁵.

Federal states viewed cooperative coinage⁶⁶ as an economic instrument for the facilitation of trade and the payment of financial obligations⁶⁷. Such coins

⁵⁸ As we remember, it was A.A. Zavoïkin and S.I. Boldyrev who suggested the artifacts might actually be alliance coinage (ZAVOÏKIN & BOLDYREV 1994, p. 46). Unfortunately, the authors failed to provide any grounds for their hypothesis.

⁵⁹ In particular, the composition of the coin alloy (electrum), the people responsible for its production, the methods of supervision, the punishment for the deliberate or inadvertent dilution of the alloy, the order of issues by each city, etc. (IG XII 2,1). For more information, see BODENSTEDT 1981, p. 29-36; HEISSERER 1984, p. 115-132.

⁶⁰ MACKIL & ALFEN 2006, p. 201-204.

⁶¹ BECK 2003, p. 181; RZEPKA 2002, p. 226. For more information, see BECK 1997.

⁶² LARSEN 1968, p. XIV.

⁶³ *Ibid.*, p. XV.

⁶⁴ GIOVANNINI 2007, p. 120 et siuv.

⁶⁵ PSOMA & TSANGARI 2003, p. 112, 114.

⁶⁶ The term suggested by E. Mackil and P. Alfen (MACKIL & ALFEN 2006). S. Psoma and D. Tsangari refer to it as *monnaie commune* (PSOMA & TSANGARI 2003).

⁶⁷ MACKIL 2013, p. 247.

were often minted on a common weight standard and were identical in the obverse and (not always) reverse types⁶⁸.

In our case, a monetary alliance of the Greek *poleis* in Sindike is unlikely. The point is that the „Sindian“ coins all bear the same legend, whilst it was standard practice to inscribe allied coinage with the *ethnikon* of each issuer. Then, would it be incorrect to identify the artifacts in question as the cooperative coinage of the *poleis* united in a federation of the κοινόν type?

Several factors could bring about the emergence of such a union. These may have been economic considerations (the facilitation of contact, including commercial links) or military and political motives (particularly, the need to deal with external threats). The *poleis* in Sindike were located within a small geographical area, fairly close to each other, so their economies and foreign policies must have been tightly linked. Regionalism in the economic sphere – the interconnections among neighbouring *poleis* – promoted cooperation and further integration⁶⁹.

This brings to mind a passage in Herodotos (I. 170) about the advice given to the Ionians by Thales of Miletos: that they should establish a common βουλευτήριον, which in fact would mean the creation of a unified Ionian state and the loss of political independence for the individual *poleis*⁷⁰. Interestingly, it was suggested that the capital of this entity be in Teos, whose citizens later founded Phanagoria. In another place (I. 148; see also I. 141–143, 170; VI. 7) Herodotos writes that the Ionians used to assemble at the Panionion, a common sacred ground of the Ionian *Dodekapolis*, for the festival to which they gave the name of Panionia⁷¹. Bearing in mind that many of the Ionians at home were quite familiar with such form of association as the Ionian League of the 6th century was, it seems reasonable to presume something of the kind could appear on the Asiatic side of the Bosporos, in Sindike. The Ionians are well-known for their tendency to unite on the basis of their collective identity⁷². A key role in the formation of this alliance may have belonged to the celebration of Apatouria, a feast kept by the majority of Ionians (Her. I. 147), with Apatouros – the sanctuary of Aphrodite at Phanagoria – being the focus of the common identity⁷³. Indeed, it was the largest

⁶⁸ PSOMA & TSANGARI 2003, p. 113 ff.

⁶⁹ On this topic see REGER 1994; ELTON & REGER (eds.) 2007.

⁷⁰ ASHERI, LLOYD & CORCELLA 2007, p. 191.

⁷¹ *Ibid.*, p. 178.

⁷² GRIELAARD 2009, p. 59.

⁷³ KUZNETSOV 2013, p. 327. With regard to the localization of Apatouros, a recent article authored by N.F. Fedoseev invites serious criticism (FEDOSEEV 2013, p. 132–140). Judging from the presence of the temple of Aphrodite and the finds of tiles stamped with the name of the deity, the scholar suggests that the sanctuary was situated at the site of what is generally believed to have been Kepoi, which, in its turn, he identifies with the settlement at „the 7th kilometer“ („Taman 3“, between Phanagoria and Hermonassa). Moreover, without adducing sufficient evidence N.F. Fedoseev denies Milesian origin of this *apoikia*, attested by ancient authors. However, neither the remains of the temple nor the stamps bearing the name of Aphrodite (without an *epiklesis*) can offer positive proof that the site in question was that of the sanctuary dedicated to Aphrodite Apatouros. Also, it seems an arbitrary choice to associate the city of Kepoi with some obscure settlement, and a totally unexamined one at that (its foundation date – a key piece of evidence – remains

and the most influential cult centre in the Asiatic Bosporos, and may well have functioned as a place of inter-*polis* communication⁷⁴.

Thus, it could be that the obverse of the „Sindian” coins represented a certain *polis* that was part of the κοινόν, while the reverse featured a common symbol of the union (this emblem did not have to be stable). The citizens of the *poleis* may have called themselves by the name derived from the word “Sindike” – just as the Greeks living in Sicily referred to themselves as *Sikeliotai*, the inhabitants of the Peloponnesos – as *Peloponnesioi*, those of the Italian Peninsula – as *Italiotai*, etc.⁷⁵ Yet another example: after the *synoikism* of Ialysos, Kamiros, and Lindos – three *poleis* on the island of Rhodos – their citizens adopted a regional *ethnikon* Πόδιοι, though all three communities kept functioning as *poleis*, with their individual *ethnika* still in use. A regional term would be applied when the cities of a given area undertook cooperative action, even if they did not constitute any formal association⁷⁶.

Judging from what we know about the circumstances surrounding the adoption of coinage by this or that *polis* or state, there seems no reason why the tribe of the Sindians would strike their own coins. Their political structure was underdeveloped, not even remotely resembling Hellenic *polis* institutions, and no precious metal deposits occurred in the area. The only economic reason behind such coinage could be the need for a medium in trade with the neighbouring Greek colonies. However, the archaeological data does not indicate that this exchange was highly monetized. Perhaps, only the grain trade between the Sindians and the Greeks gives us some grounds to speak about the use of coinage, but this remains mostly a theoretical possibility: there may well have been direct exchange of goods (barter). As is known, the well-attested grain trade of the Bosporos with Athens in the 4th century BC did not leave numismatic evidence, such as Athenian coins. Even Carthage, one of the leading commercial centres of antiquity, started minting its own coinage only at the beginning of the 4th century BC.⁷⁷ The bottom line is that economic factors are not always directly responsible for the emergence of coined money.

Before the annexation of the Taman Peninsula by the Bosporan rulers, the local Hellenic *poleis* may have formed a union of the κοινόν type centered on the sanctuary of Aphrodite Ourania, the Mistress of Apatouros, at Phanagoria. Apart from the common Ionian descent and the celebration of Apatouria, there were many other factors – economic, political, and military ones – that cemented the alliance. Therefore, it is only logical to assume that for this or that reason such

unknown). All in all, the author’s flawed reasoning, combined with the failure to provide any analysis of written sources on the location of Apatouros, renders the whole argumentation weak and unconvincing.

⁷⁴ See GRIELAARD 2009, p. 65.

⁷⁵ C. Antonaccio writes that „territory serves as a criterion of ethnicity, providing a homeland, (...) and suggests an ethnic dimension to this identity” (ANTONACCIO 2001, p. 120).

⁷⁶ GABRIELSEN 2000, p. 180-183. For example, when Thukydides (I. 58) uses the term „Chalkideans”, he implies „the state” rather than „the tribe” (WESTERMARK 1988, p. 92).

⁷⁷ JENKINS & LEWIS 1963, p. 18. The same is true for many other large economies of the Mediterranean, most notably the Phoenician cities and Egypt (REDEN 2010, p. 71).

union needed cooperative coinage. The obverse of these coins bore the symbol of a certain *polis*, while the reverse featured the common emblem (the protome of a horse, or some other images).

To ascertain the reasons behind the „Sindian” coinage, one must pay close attention to the date of its issue. As has been repeatedly pointed out, it was fairly short-lived. What is even more important, this emission coincides with the active phase of the war for Sindike. This suggests a connection. Let us recall D. Braund’s opinion that the „Sindian” coins were struck to pay mercenaries. Indeed, there are plenty of cases when coinages were intended specifically for this purpose⁷⁸. Mercenaries were the most obviously monetized factor in war⁷⁹. However, this applies to the Greeks, not local tribes. Hence, unlike D. Braund, I find it more logical to believe that the coins in question were issued by the alliance of the Greek *poleis* in the Asiatic Bosporos. I do not absolutely insist, though, that they were intended to be used as payment for mercenaries and not anything else.

BIBLIOGRAPHY

Abbreviations

BI – Bosporskie Issledovaniya

BS – Bosporskii Sbornik

CIRB – Corpus Inscriptionum Regni Bosporani

DB – Drevnosti Bospora

IG – Inscriptiones Graecae

IIMK RAN – Institut Istorii Material’noi Kul’tury Rossiiskoi Akademii Nauk

KSIIMK – Kratkie Soobshcheniya Instituta Istorii Material’noi Kul’tury

NC – Numismatic Chronicle

NE – Numizmatika i Epigrafika

PIFK – Problemy Istorii, Filologii i Kul’tury

SNR – Schweizerische Numismatische Rundschau / RevueSuisse de Numismatique

VDI – Vestnik Drevnei Istorii

ZPE – Zeitschrift für Papyrologie und Epigrafik

ALEKSEEVA 1997 – E.M. Alekseeva, *Drevnii gorod Gorpippia*, Moscow, 1997.

ALEKSEEVA 1999 – E.M. Alekseeva, *Mestnaya sreda rannei Gorgippii*, PIFK 8 (1999), p. 160-169.

ANDREEV 1996 – Yu.V. Andreev, *Greki i varvary v Severnom Prichernomor’e (Osnovnye metodologicheskie i teoreticheskie aspekti problemy mezhétnicheskikh kontaktov)*, VDI 1 (1996), p. 3-17.

ANOKHIN 1986 – V.A. Anokhin, *Monetnoe delo Bospora*, Kiev, 1986.

ANOKHIN 2010 – V.A. Anokhin: *Materialy, issledovaniya i zametki po arkheologii i numizmatike*, Kiev, 2010.

ANFIMOV 1967 – N.V. Anfimov, *Meoty i ikh vzaimootnosheniya s Bosporom v epokhu Spartokidov*, in: *Antichnoe obshchestvo*, Moscow, 1967, p. 127-131.

⁷⁸ SHAPS 2007, p. 147.

⁷⁹ See MARINOVICH 1975, p. 245; GARLAN 1989, p. 67 et suiv.; TRUNDLE 2004, p. 82-83.

ANTONACCIO 2001 – C.M. Antonaccio, *Ethnicity and Colonization*, in: I. Malkin (ed.), *Ancient Perceptions of Greek Ethnicity*, London, 2001, p. 113-157.

APTEKAREV 2004 – A.Z. Aptekarev, «Sindskie» monety – problema ostaetsya, in: *Bospor Kimmeriiskii i varvarskii mir v period antichnosti i srednevekov'ya. Etnicheskie protsessy* (5 Bosporskie chteniya), Kerch, 2004, p. 15-18.

ASHERI, LLOYD & CORCELLA 2007 – D. Asheri, A. Lloyd & A. Corcella, *A Commentary on Herodotus. Books I-IV*, Oxford, 2007.

BALCER 1968 – J.M. Balcer, *The Early Silver Coinage of Teos*, SNR 47 (1968), p. 5-50.

BALCER 1970 – J.M. Balcer, *Phokaia and Teos: A Monetary Alliance*, SNR 49 (1970), p. 25-34.

BECK 1997 – H. Beck, *Polis und Koinon. Untersuchungen zur Geschichte und Struktur der griechischen Bundesstaaten im 4. Jhdt. v. Chr.*, Stuttgart, 1997.

BECK 2003 – H. Beck, *New Approaches to Federalism in Ancient Greece*, in: K. Buraselis & K. Zouboulakis (eds.), *The Idea of European Community in History*, vol. II. *Aspects of Connecting Poleis and Ethne in Ancient Greece*, Athens, 2003, p. 177-190.

BLAVATSKIĬ 1953 – V.D. Blavatskiĭ, *Zemledelie v antichnykh gosudarstvakh Severnogo Prichernomor'ya*, Moscow, 1953.

BODENSTEDT 1981 – F. Bodenstedt, *Die Elektronmünzen von Phokaia und Mytilene*, Tübingen, 1981.

BONDARENKO 2012 – M.E. Bondarenko, *Sindy. Etnicheskaya kharakteristika drevnikh plemen Aziatskogo Bospora*, Moscow, 2012.

BRASHINSKIĬ 1984 – I.B. Brashinskiĭ, *Torgovlya*, in: G.A. Koshelenko, I.T. Kruglikova & V.S. Dolgorukov (eds.), *Antichnye gosudarstva Severnogo Prichernomor'ya* (Archeologiya SSSR), Moscow, 1984, p. 174-186.

BRAUND 2007 – D. Braund, *The Sindians of the Taman Peninsula ca. 400 BC: Polyaeus' Targatao, Numismatics and Demosthenes' Grandfather*, in: S.L. Solov'ev (ed.), *Greeks and Natives in the Cimmerian Bosphorus 7th – 1st Centuries BC* (BAR Int. Series 1729), Oxford, 2007, p. 17-21.

CHRYSSANTHAKI-NAGLE 2007 – K. Chryssanthaki-Nagle, *L'histoire monétaire d'Abdère en Thrace (VI^e s. avant J.-C. – II^e s. après J.-C.)*, Athènes, 2007.

DELPLACE 1980 – Chr. Delplace, *Le griffon de l'archaïsme à l'époque imperial. Étude iconographique et essai d'interprétation symbolique*, Bruxelles/Rome, 1980.

ELTON & REGER 2007 – H. Elton & G. Reger (eds.), *Regionalism in Hellenistic and Roman Asia Minor*, Bordeaux, 2007.

FEDOSEEV 2013 – N.F. Fedoseev, *K voprosu o lokalizatsii Apatura, Kep i Stratoklei*, PIFK 4 (2013), p. 132-140.

FINLEY 1999 – M.I. Finley, *Ancient Economy*, Berkeley/Los Angeles/London, 1999.

FROLOVA 2002 – N.A. Frolova, *Korpus monet sindov* (pervaya polovina – konets 5 v. do n. e., VDI 3 (2002), p. 71-83.

FROLOVA 2004 – N.A. Frolova, *Die frühe Münzprägung vom Kimmerischen Bosporos* (Mitte 6. bis Anfang 4. Jh. v. Chr.). *Die Münzen der Städte Pantikapaion, Theodosia, Nymphaion und Phanagoria sowie der Sinder*, Berlin, 2004.

GABRIELSEN 2000 – V. Gabrielsen, *The Synoikized Polis of Rhodos*, in: P. Flensted-Jensen, Th.H. Nielsen & L. Rubinstein (eds.), *Polis and Politics. Studies in Ancient Greek History*, Copenhagen, 2000, p. 177-205.

GAÏDUKEVICH 1949 – V.F. Gaïdukevich, *Bosporskoe tsarstvo*, Moscow/Leningrad, 1949 (= *Das Bosporanische Reich*, Amsterdam, 1971).

GALLANT 1991 – Th.W. Gallant, *Risk and Survival in Ancient Greece. Reconstructing the Rural Domestic Economy*, Stanford, 1991.

GARBUZOV 2015 – G.P. Garbuzov, *Zemel'nye resursy Bospora*, in: *Bospor Kimmeriiskii i varvarskii mir v period antichnosti i srednevekov'ya. Geograficheskaya sreda i sotsium* (16 Bosporskie chteniya), Kerch, 2015, p. 77-87.

- GARLAN 1989 – Y. Garlan, *Guerre et économie en Grèce ancienne*, Paris, 1989.
- GIOVANNINI 2007 – A. Giovannini, *Les relations entre États dans la Grèce antique du temps d'Homère à l'intervention romaine (ca. 700-200 av. J.-C.)*, Stuttgart, 2007.
- GORONCHAROVSKIĬ 2011 – V.A. Goroncharovskii, *Sindika v period vozvedeniya Semibratnikh kurganov*, *Mnemon* 10 (2011), p. 115-140.
- GORONCHAROVSKIĬ & TERESHCHENKO 2014 – V.A. Goroncharovskii & A.E. Tereshchenko, *Tipologiya i khronologiya sindskoï chekanki*, in: *Bospor Kimmeriiskii i varvarskii mir v period antichnosti i srednevekov'ya. Aktual'nye problemiy khronologii* 15 Bosporskie chteniya, Kerch, 2014, p. 99-114.
- GRACH 1972 – N.L. Grach, *K nakhodke sindskoï monety v Mirmekii*, *VDI* 3 (1972), p. 133-141.
- GRAHAM 1991 – A.J. Graham, *Adopted Teians: a Passage in the New Inscription of Public Imprecations from Teos*, *JHS* 111 (1991), p. 176-178 (= A.J. Graham, *Collected Papers on Colonization*, Leiden/Boston/Köln, 2001, p. 263-268).
- GRAHAM 1992 – A.J. Graham, *Abdera and Teos*, *JHS* 112 (1992), p. 44-73 (= A.J. Graham, *Collected Papers on Colonization*, Leiden/Boston/Köln, 1992, p. 269-314).
- GRIELAARD 2009 – J.P. Grielaard, *The Ionians in the Archaic Period. Shifting Identities in a Changing World*, in: T. Derks & N. Roymans (eds.), *Ethnic Constructs in Antiquity. The Role of Power and Tradition*, Amsterdam, 2009, p. 37-79.
- HEISSERER 1984 – A.J. Heisserer, *IG XII, 2, 1 (The Monetary Pact between Mytilene and Phokaia)*, *ZPE* 55 (1984), p. 115-132.
- HEAD 1911 – B.V. Head, *Historia numorum*, Oxford, 1911.
- HERRMANN 1971 – P. Herrmann, *Zum Beschluss von Abdera aus Teos Syll. 656*, *ZPE* 7 (1971), p. 72-77.
- HERRMANN 1981 – P. Herrmann, *Teos und Abdera im 5. Jahrhundert v. Chr. Ein neues Fragment der Teiorum Dirae*, *Chiron* 11 (1981), p. 1-30.
- HOORMOUZIADIS & WEISSER 2007 – J. Hourmouziadis & B. Weisser, *Bosporan Silver Coins, 437-375 BC*, *NC* 167 (2007), p. 1-8.
- HOWGEGO 1995 – Ch. Howgego, *Ancient History from Coins*, London/New York, 1995.
- JENKINS & LEWIS 1963 – G.K. Jenkins & R.B. Lewis, *Carthaginian Gold and Electrum Coins*, London, 1963.
- KALLISTOV 1949 – D.P. Kallistov, *Ocherki po istorii Severnogo Prichernomor'ya antichnoï epokhi*, Leningrad, 1949.
- KOSHELENKO, MALYSHEV & ULITIN 2010 – G.A. Koshelenko, A.A. Malyshev & V.V. Ulitin, *Torgovlya*, in: G.M. Bongard-Levin & V.D. Kuznetsov (eds.), *Antichnoe nasledie Kubani I*, Moscow, 2010, p. 257-289.
- KOVALENKO & TOLSTIKOV 2010a – S.A. Kovalenko & V.P. Tolstikov, *O nachale monetnoï chekanki na Bospore I*, *VDI* 3 (2010), p. 31-59.
- KOVALENKO & TOLSTIKOV 2010b – S.A. Kovalenko & V.P. Tolstikov, *O nachale monetnoï chekanki na Bospore II*, *VDI* 4 (2010), p. 23-50.
- KRAAY 1964 – C.M. Kraay, *Hoards, Small Change and the Origin of Coinage*, *JHS* 84 (1964), p. 76-91.
- KRAAY 1976 – C.M. Kraay, *Archaic and Classical Greek Coins*, Berkeley/Los Angeles, 1976.
- KUZNETSOV 2013 – V.D. Kuznetsov, *Apatour*, in: V.D. Kuznetsov (ed.), *Materialy po arkheologii i istorii Fanagorii 1 (Fanagoria 1)*, Moscow, 2013, p. 314-329 (= V.D. KUZNETSOV, *Apatouros*, in: N. Povalachev (Hrsg.), *Phanagoreia und darüber hinaus...* (Altertümer Phanagoreias 3), Göttingen, 2014, p. 111-129).
- LACROIX 1975 – L. Lacroix, *Les types des monnaies grecques*, in: J.-M. Dentzer, Ph. Gauthier & T. Hackens (eds.), *Numismatique antique. Problèmes et méthodes*, Nancy/Louvain, 1975, p. 153-163.

LARSEN 1968 – J.A.O. Larsen, *Greek Federal States. Their Institutions and History*, Oxford, 1968.

LE RIDER 2001 – G. Le Rider, *La naissance de la monnaie: pratique monétaire de l'Orient ancien*, Paris, 2001.

MACKIL 2013 – E. Mackil, *Creating a Common Polity. Religion, Economy, and Politics in the Making of the Greek Koinon*, Berkeley/Los Angeles/London, 2003.

MACKIL & ALFEN 2006 – E. Mackil & P.G. van Alfen, *Cooperative Coinage*, in: P.G. van Alfen (ed.), *Agoranomia: Studies in Money and Exchange Presented to J.H. Kroll*, New York, 2006, p. 201-246.

MALYSHEV 2000 – A.A. Malyshev, *Bospor i Prikuban'e vo vtoroi polovine 5 - seredine 3 v. do n. e.*, DB 3 (2000), p. 104-130.

MARINOVICH 1975 – L.P. Marinovich, *Grecheskoe naemnichestvo 4 v. do n. e. i krizis polisa*, Moscow, 1975.

MARTIN 1985 – Th.R. Martin, *Sovereignty and Coinage in Classical Greece*, Princeton, 1985.

MARTIN 1995 – Th.R. Martin, *Coins, Mints, and the Polis*, in: M.H. Hansen (ed.), *Sources for the Ancient Greek City-State* (Acts of the Copenhagen Polis Centre 2), Copenhagen, 1995, p. 257-291.

MARTIN 1996 – Th.R. Martin, *Why Did the Greek Polis Originally Need Coins?*, *Historia* 45 (1996), p. 257-283.

MOSHINSKAYA 1946 – V.I. Moshinskaya, *O gosudarstve sindov*, VDI 5 (1946), p. 203-208.

MCDONALD 2005 – D. McDonald, *An Introduction to the History and Coinage of the Kingdom of Bosphorus* (Classical Numismatic Studies 5), Lancaster/London, 2005.

MEIGGS & LEWIS 1980 – R. Meiggs & D. Lewis, *A Selection of Greek Historical Inscriptions to the End of the Fifth Century B.C.*, Oxford, 1980.

MINNS 1913 – E.H. Minns, *Scythians and Greeks*, Cambridge, 1913.

MÜLLER 2010 – Ch. Müller, *D'Olbia à Tanaïs. Territoires et réseaux d'échanges dans la mer Noire septentrionale aux époques classique et hellénistique*, Bordeaux, 2010.

OSBORNE 1996 – R. Osborne, *Greece in the Making, 1200-479 BC*, London/New York, 1996.

PERISTERI-OTATZI 1986 – C. Peristeri-Otatz, *Amphores et timbres amphoriques d'Abdère*, in: J.-Y. Empereur & Y. Garlan (eds.), *Recherches sur les amphores grecques*, BCH Suppl. 13 (1986), p. 491-496.

PSOMA & TSANGARI 2003 – S. Psoma & D. Tsangari, *Monnaie commune et états fédéraux. La circulation des monnayages frappés par les états fédéraux du monde grec*, in: K. Buraselis & K. Zoumboulakis (eds.), *The Idea of European Community in History*, vol. II. *Aspects of Connecting Poleis and Ethne in Ancient Greece*, Athens, 2003, p. 111-141.

REDEN 1996 – S. von Reden, *Money, Law and Exchange: Coinage in the Greek Polis*, JHS 116 (1996), p. 154-176.

REDEN 2010 – S. von Reden, *Money in Classical Antiquity*, Cambridge, 2010.

REGER 1994 – G. Reger, *Regionalism and Change in the Economy of Independent Delos, 314-167 B.C.*, Berkeley/Los Angeles/Oxford, 1994.

RZEPKA 2002 – J. Rzepka, *Ethnos, Koinon, Sympoliteia, and Greek Federal States*, in: T. Derda, J. Urbanik & M. Węcowski (eds.), *ΕΥΕΠΙΣΤΑΣΙΣ Studies Presented to B. Bravo and E. Wipszycka*, Warsaw, 2002, p. 225-247.

SAPRYKIN 2003 – S.Yu. Saprykin, *Bosporskoe tsarstvo: ot tiranii k éllinisticheskoi monarkhii*, VDI 1 (2003), p. 11-35.

SAPRYKIN 2006 – S.Yu. Saprykin, *Etyudy po sotsial'noi i ekonomicheskoi istorii Bosporskogo tsarstva*, in: *Antichnaya tsivilizatsiya i varvary*, Moscow, 2006, p. 171-242.

SCHAPS 2007 – D.M. Schaps, *The Invention of Coinage and the Monetization of Ancient Greece*, Ann Arbor, 2007.

SHELOV 1949 – D.B. Shelov, *Monety sindov*, KSIIMK 30 (1949), p. 111-118.

SHELOV 1956 – D.B. Shelov, *Monetnoe delo Bospora 6–2 vv. do n. e.*, Moscow, 1956.

SHELOV 1981 – D.B. Shelov, *Sindy i Sindika v épokhu grecheskoï kolonizatsii*, in: *Demograficheskaya situatsiya v Prichernomor'e v period Velikoï grecheskoï kolonizatsii*, Tbilisi, 1981, p. 232-247.

SHELOV-KOVEDYAEV 1985 – F.V. Shelov-Kovedyaev, *Istoriya Bospora v 6-4 vv. do n. é.*, in: A.P. Novosel'tsev (ed.), *Drevneïshie gosudarstva na territorii SSSR 1984 g.*, Moscow, 1985.

TERESHCHENKO 2012 – A.E. Tereshchenko, *Eshche raz k voprosu o vozniknovenii pantikapeïskoï chekanki*, BI 26 (2012), p. 168-180.

TIVERIOS 2008 – M. Tiverios, *Greek Colonisation of the Northern Aegean*, in: G.R. Tsetschladze (ed.), *Greek Colonisation. an Account of Greek Colonies and Other Settlements Overseas*, vol. II, Leiden/Boston, 2008, p. 1-154.

TOKHTAS'EV 2001 – S.R. Tokhtas'ev, *Eshche raz o sindskikh monetakh i Sindskom tsarstve*, in: *Bosporskii fenomen: kolonizatsiya regionov, formirovanie polisov, obrazovanie gosudarstva*, Ch. 2, St. Petersburg, 2001, p. 63-79.

TOKHTAS'EV 2002 – S.R. Tokhtas'ev, *ΣΙΝΔΙΚΑ*, Tamanskaya starina 4 (2002), p. 11-32.

TOKHTAS'EV 2004 – S.R. Tokhtas'ev, *Bospor i Sindika v epokhu Levkona I (obzor novykh epigraficheskikh publikatsii)*, VDI 3 (2004), p. 144-180.

TRUNDLE 2004 – M. Trundle, *Greek Mercenaries from the Late Archaic Period to Alexander*, London/New York, 2004.

WESTERMARK 1988 – U. Westermark, *The Coinage of the Chalcidian League Reconsidered*, in: *Studies in Ancient History and Numismatics Presented to R. Thomsen*, Aarhus, 1988, p. 91-103.

XANTOPOULOU 2004 – K. Xanthopoulou, *Abdera: the Heroes and the Horses. An Attempt to Interpret a Founding Myth*, in: A. Moustaka, E. Skarlatidou, M.-C. Tzannes & Y. Ersoy (eds.), *Klazomenai, Teos and Abdera: Metropoleis and Colony*, Thessaloniki, 2004, p. 319-326.

ZAVOÏKIN 2011 – A.A. Zavoïkin, *Moneta sindov kak istochnik po istorii vzaimootnoshenii grekov i varvarov*, in: *Bospor Kimmeriïskii i varvarkii mir v period antichnosti i srednevekov'ya. Vzaimovliyanie kul'tur (12 Bosporskie chteniya)*, Kerch, 2011, p. 118-124.

ZAVOÏKIN & BOLDYREV 1994 – A.A. Zavoïkin & S.I. Boldyrev, *Tret'ya tochka zreniya na monetij s legendoi «ΣΙΝΔΙΟΝ»*, BS 4 (1994), p. 43-47.

ZOGRAF 1951 – A.N. Zograf, *Antichnye monety*, Moscow/Leningrad, 1951.

YATSENKO & TITELAKIS 2005 – V.V. Yatsenko & A.V. Titelakis, *O neizvestnom variante sindskikh gemitetartemoriev*, in: *Trinadtsataya Vserossiiskaya numizmaticheskaya konferentsiya*, Moscow, 2005, p. 28-29.



Fig. 1. «Sindian» coin with griffin
(<https://bosporan-kingdom.com/059-2023/1.html>).